

Lakeland Industry & Community Association

Cold Lake Monitoring Site

Ambient Air Monitoring

Data Report

For

June 2009

<Revised>

Prepared By:



Driven by Service and Science

August 27, 2009

Lakeland Industry & Community Association Ambient Air Monitoring

| Table of Contents | Page | | Page |
|---|-------------|---|-------------|
| Introduction | 3 | Non-Continuous Monitoring | 96 |
| Calibration Procedure | 4 | Volatile Organics | 101 |
| Monthly Continuous Summary – Cold Lake | 5 | Calibration Reports | 104 |
| Monthly Non Continuous Summary | 6 | • Cold Lake | 105 |
| Volatile Organics Data Summary | 7 | • Sulphur Dioxide | 106 |
| General Monthly Summary – Cold Lake | 8 | • Total Reduced Sulphur | 109 |
| Continuous Monitoring | 12 | • Total Hydrocarbons | 112 |
| • Cold Lake | 13 | • Particulate Matter 2.5 | 115 |
| • Monthly Summaries, Graphs & Wind Roses | 14 | • Nitrogen Dioxide | 117 |
| ○ Air Quality Index | 15 | • Ozone | 121 |
| ○ Sulphur Dioxide | 17 | Passive Bubble Maps | 124 |
| ○ Total Reduced Sulphur | 25 | Passive Monitoring Laboratory Analysis | 129 |
| ○ Total Hydrocarbons | 33 | Passive Field Data | 137 |
| ○ Particulate Matter 2.5 | 41 | • Field Notes | 138 |
| ○ Nitrogen Dioxide | 46 | Volatile Organics Laboratory Analysis | 140 |
| ○ Nitric Oxide | 54 | | |
| ○ Oxides of Nitrogen | 61 | | |
| ○ Ozone | 69 | | |
| ○ Ambient Temperature | 77 | | |
| ○ Relative Humidity | 80 | | |
| ○ Vector Wind Speed | 83 | | |
| ○ Vector Wind Direction | 90 | | |
| ○ Standard Deviation Wind Direction | 93 | | |

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: June 2009

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

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 – June 2009

| 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 | 57 | 0 | 0 | 0.01 | 1 | VAR | VAR | VAR | VAR | 0.1 | 3, 11 | 99.7 |
| TRS (PPB) | - | - | - | - | 0.00 | 0 | ALL | ALL | VAR | VAR | 0.0 | ALL | 99.7 |
| NO ₂ (PPB) | 212 | 106 | 0 | 0 | 1.67 | 13 | 16 | 19 | 3.4 | 318(NW) | 3.3 | 15 | 99.7 |
| NO (PPB) | - | - | - | - | 0.17 | 10 | 9 | 6 | 1.8 | 292(WNW) | 1.0 | 9 | 99.7 |
| NO _x (PPB) | - | - | - | - | 2.03 | 17 | 16 | 19 | 3.4 | 318(WNW) | 3.8 | 2 | 99.7 |
| O ₃ (PPB) | 82 | - | 0 | - | 30.89 | 62 | 16 | 17 | 10.2 | 319(NW) | 41.9 | 13 | 99.7 |
| THC (PPM) | - | - | - | - | 2.03 | 3.0 | 15 | 6 | 3.9 | 247(WSW) | 2.2 | VAR | 99.3 |
| PM 2.5 (UG/M ³) | - | 30 | - | 0 | 7.76 | 54.6 | 10 | 16 | 6.7 | 186(S) | 17.6 | 14 | 99.4 |
| TEMPERATURE (DEG C) | - | - | - | - | 14.07 | 28.9 | 14 | 13 | 5.2 | 263(W) | 20.9 | 14 | 99.7 |
| RELATIVE HUMIDITY (%) | - | - | - | - | 62.09 | 98.0 | 22 | VAR | VAR | VAR | 89.7 | 21 | 99.7 |
| VECTOR WS (KPH) | - | - | - | - | 5.53 | 21.1 | 22 | 18 | - | 299(WNW) | 12.5 | 23 | 99.7 |
| VECTOR WD (DEGREES) | - | - | - | - | 298(WNW) | - | - | - | - | - | - | - | 99.7 |

VAR-VARIOUS

Monthly Non-Continuous Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Passive Ambient Monitoring Network – June 2009

| LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK | | | |
|---|---------|---------------|-----------------|
| NETWORK MAXIMUM | | | NETWORK AVERAGE |
| PARAMETER | STATION | READING (PPB) | READING (PPB) |
| SO ₂ | #14 | 0.6 | 0.3 |
| H ₂ S | #5 | 0.61 | 0.18 |
| NO ₂ | #6 | 2.5 | 1.2 |
| O ₃ | #29 | 29.8 | 26.2 |

Note: Sample #22 was decommissioned. The network averages include samples and duplicates.

Volatile Organics Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Xontech Model 910A – April 28, 2009

| Maximum reading (ppb) | Volatile Organic |
|-----------------------|------------------|
| 5.27 | 2-Propanone |

Xontech Model 910A – May 1, 2009

| Maximum reading (ppb) | Volatile Organic |
|-----------------------|------------------|
| 14.1 | 2-Propanone |

Xontech Model 910A – May 7, 2009

| Maximum reading (ppb) | Volatile Organic |
|-----------------------|------------------|
| 3.11 | 2-Propanone |

Xontech Model 910A – May 13, 2009

| Maximum reading (ppb) | Volatile Organic |
|-----------------------|------------------|
| 4.76 | 2-Propanone |

Xontech Model 910A – May 19, 2009

| Maximum reading (ppb) | Volatile Organic |
|-----------------------|------------------|
| 7.42 | 2-Propanone |

General Monthly Summary - Cold Lake

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

Sulphur Dioxide (PPB)

- Analyzer make / model – Thermo 43i

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on June 4th. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure event. Data was corrected using daily zero information.

Total Reduced Sulphur (PPB)

- Analyzer make / model –TEI 450i
- Converter - CD NOVA CDN 101

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on June 4th. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure event. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

- Analyzer make / model - TECO 42C

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on June 4th. Calibration gas flow was accidentally stopped during the final dilution point. The problem was corrected and the point was restarted. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure. Data was corrected using daily zero information.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

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

- System make / model – Met One 50.5

No operational issues observed during the month. The wind system is reported as vector wind speed and vector wind direction. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure.

Relative Humidity (PERCENT)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure.

Ambient Temperature (DEGC)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure.

Trailer Temperature (DEGC)

- System make / model - R&R 61

No operational issues observed during the month. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Total HydroCarbon (PPM)

- Analyzer make / model -TECO 51C-LT

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on June 4th. The O-ring in filter holder was replaced and leak checks on fittings on filter holder were performed as well. The expected span value was changed after the multi-points calibration on June 4th, and it was adjusted again on June 8th. The gas cylinder was replaced on June 22nd. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure. After the power failure, the analyzer flamed-out, it was re-lit manually after 3 hours of the event. Data was corrected using daily zero information.

Ozone (PPB)

- Analyzer make / model - TECO 49I

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on June 4th. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure.

Particulate Matter 2.5 (ug/m³)

- Analyzer make / model –TEOM1405F

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on June 4th. A hardware modification and software upgrade were performed on June 17th, which caused one hour data invalidated. An hour of data on June 3rd was also invalidated due to a power failure. Two hours of data were invalidated as it was below -3.0 ug/m^3 .

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Datalogger

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

The ESC 8832 is connected to a modem with DSL for continuous connection with the base computer. A hardware modification and software upgrade were performed on June 17th.

Trailer

No issue was observed during this month.

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly and daily calibrations, maintenance, and downtime. 37 hours of fair AQI values recorded in June 2009, and 35 hours of fair AQI were due to Ozone, and 2 hours of fair AQI were due to PM2.5. The highest hourly concentration of PM2.5 was 62 UG/M3 and an AQI value of 38 on June 10th, hour 16. The highest hourly concentration of Ozone was 62 ppb and an AQI value of 35 on June 16th, hour 17.

Passive Network

The original Cold Lake South Site (CASA#22) was decommissioned at clients request.

Volatile Organics

The volatile organics was sampled on April 28, May 1st, May 7th, May 13th, and May 19th.

Continuous Monitoring

Cold Lake

Monthly Summaries, Graphs & Wind Roses

Air Quality Index

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

SULPHUR DIOXIDE (SO₂) hourly averages 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 | 24:00 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 1 | 0 | 0 | 0 | 1 | 0.0 | 24 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 3 | 0 | 0 | P | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 23 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.1 | 24 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 17 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 |
| 18 | 0 | 0 | 0 | IZS | 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 | 0 | 0 | 0 | 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 |
| 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 | 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 | 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 |
| 29 | 0 | 0 | 0 | 0 | 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 |
| 30 | 0 | 0 | 0 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | NA | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | |
| HOURLY AVG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | NA | 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 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

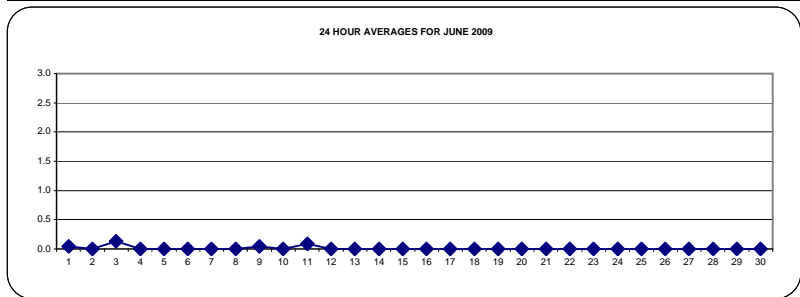
OBJECTIVE LIMIT:

| | | | | | | |
|----------------------|------|-----|-----|-------|----|-----|
| ALBERTA ENVIRONMENT: | 1-HR | 172 | PPB | 24-HR | 57 | PPB |
|----------------------|------|-----|-----|-------|----|-----|

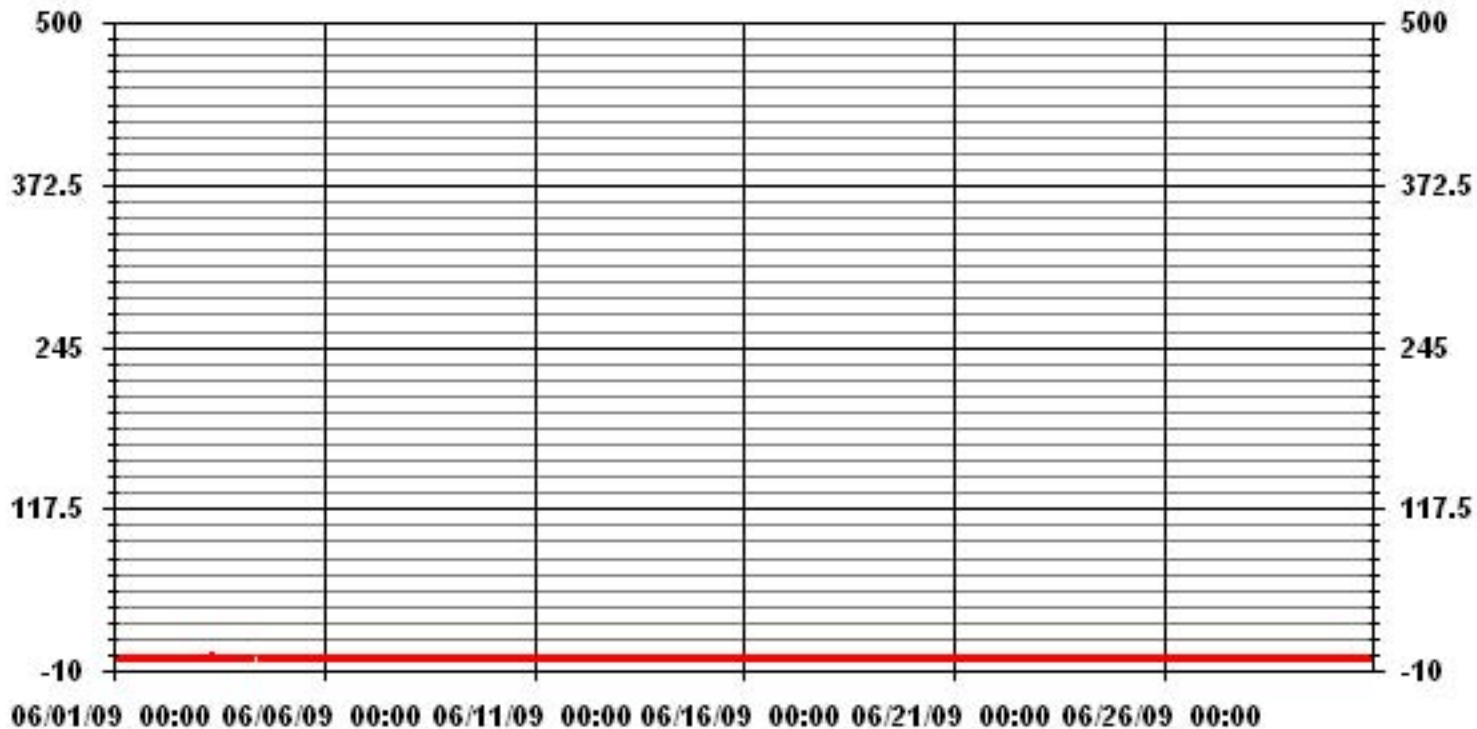
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-----------|-------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 7 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 1 | PPB | @ HOUR(S) | VAR | ON DAY(S) | VAR |
| MAXIMUM 24-HR AVERAGE: | 0.1 | PPB | | | ON DAY(S) | 3, 11 |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 718 | HRS | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | AMD OPERATION UPTIME: | 99.7 | % | |
| STANDARD DEVIATION: | 0.10 | | MONTHLY AVERAGE: | 0.01 | PPB | |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



— LICA SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

| 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 | IZS | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | |
| 2 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 | |
| 3 | | 0 | 0 | P | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 23 | | |
| 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 9 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.3 | 24 | | |
| 10 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 11 | | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 0.3 | 24 | | |
| 12 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 17 | | 0 | 0 | 0 | IZS | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | |
| 18 | | 0 | 0 | IZS | 0 | 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 | IZS | 0 | 0 | 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 | | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | 0 | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 24 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | |
| 25 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 27 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | IZS | 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 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 29 | | 0 | 0 | 0 | 0 | 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 | |
| 30 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| HOURLY MAX | | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | | | |
| HOURLY AVG | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | | | |

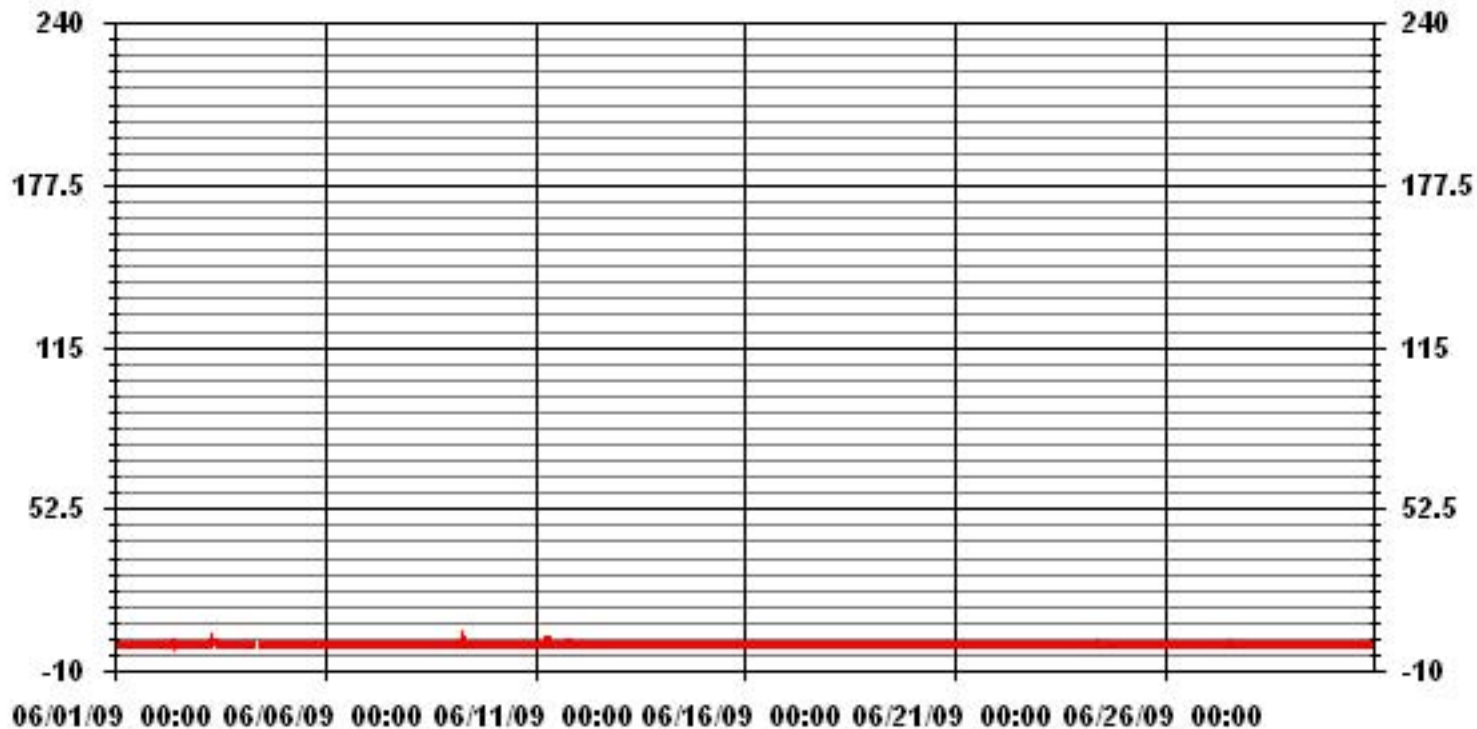
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-----|-----------|---|
| NUMBER OF NON-ZERO READINGS: | 17 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 3 | PPB | @ HOUR(S) | 7 | ON DAY(S) | 9 |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 718 | HRS | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | | | | |
| STANDARD DEVIATION: | 0.23 | | | | | |

01 Hour Averages



— LICA SO2MAX PPB

LICA
 SO2_ / WDR Joint Frequency Distribution (Percent)

June 2009

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 | 4.97 | 6.14 | 8.34 | 4.83 | 3.66 | 5.27 | 7.32 | 4.09 | 3.80 | 5.71 | 7.90 | 12.44 | 8.93 | 5.41 | 6.29 | 4.83 | 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 | 4.97 | 6.14 | 8.34 | 4.83 | 3.66 | 5.27 | 7.32 | 4.09 | 3.80 | 5.71 | 7.90 | 12.44 | 8.93 | 5.41 | 6.29 | 4.83 | |

Calm : .00 %

Total # Operational Hours : 683

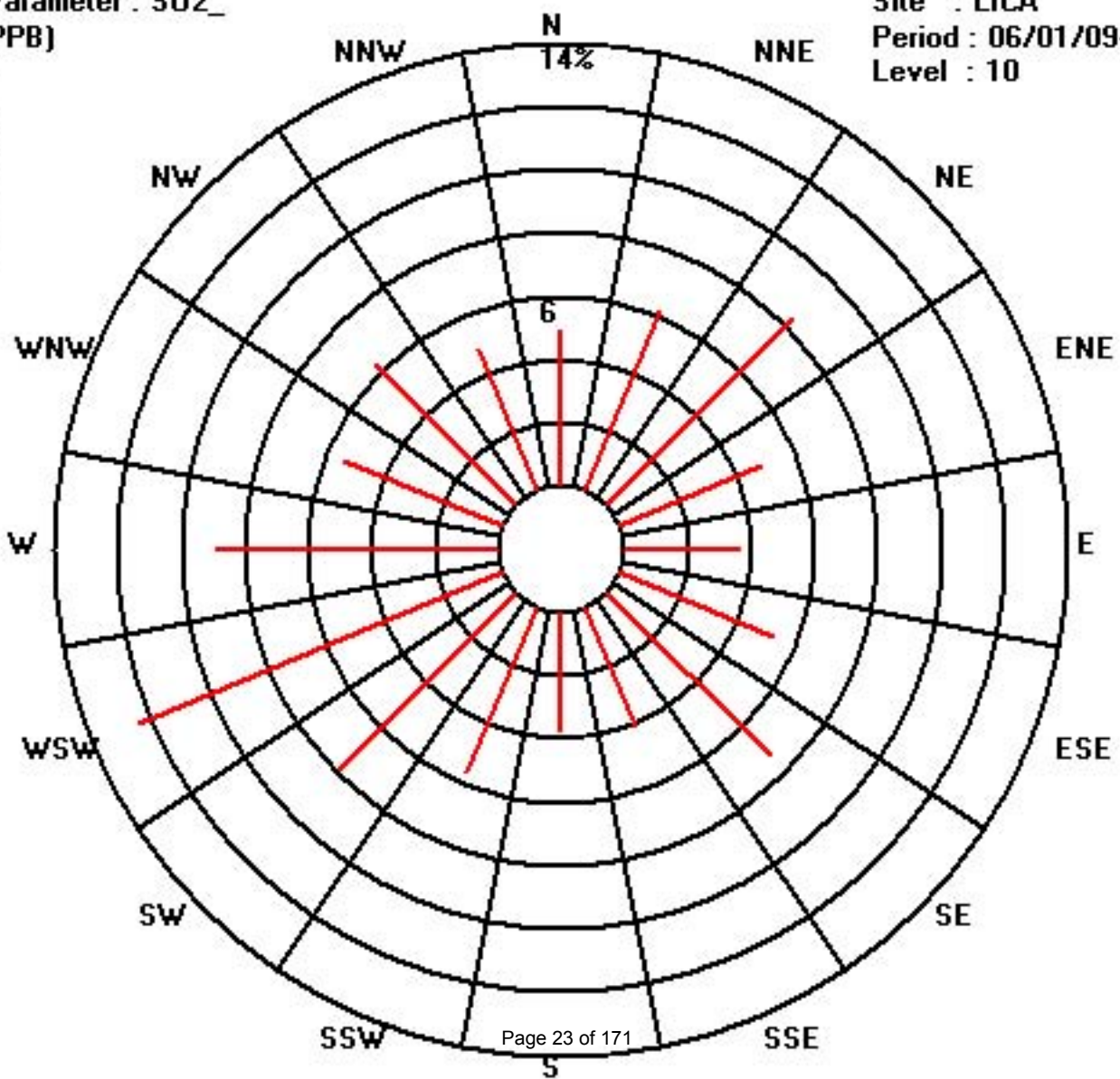
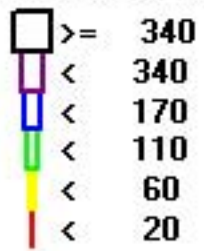
Distribution By Samples

| Limit | Direction | | | | | | | | | | | | | | | | Freq |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | |
| < 20 | 34 | 42 | 57 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | 683 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 110 | | | | | | | | | | | | | | | | | |
| < 170 | | | | | | | | | | | | | | | | | |
| < 340 | | | | | | | | | | | | | | | | | |
| >= 340 | | | | | | | | | | | | | | | | | |
| Totals | 34 | 42 | 57 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | |

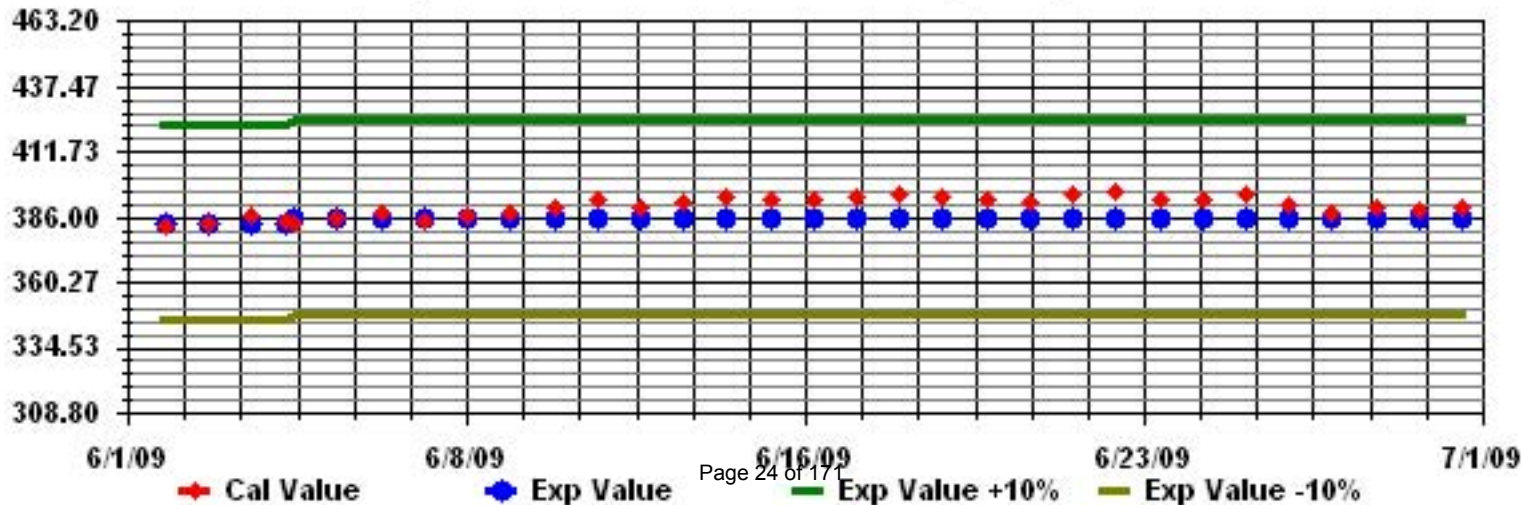
Calm : .00 %

Total # Operational Hours : 683

Class Limits (PPB)



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



Total Reduced Sulphur

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

TOTAL REDUCED SULPHUR (TRS) hourly averages 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 | 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 | 0 | 0 | 0 | 0 | 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 | P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | 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 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 0 | 0 | 0 | 0 | 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 | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 0 | 0 | 0 | 0 | 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 | | | | | | | | | | | | | | | | | | | | | | |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | | | | | | | | | | | | | | | | | | | | | | |
| 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 | 0 | 0 | 0 | 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 | | | | | | | | | | | | | | | | | | | | | | |
| 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 | 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 | 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 | | | | | | | | | | | | | | | | | | | | | | |
| 29 | 0 | 0 | 0 | 0 | 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 | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 0 | 0 | 0 | 0 | 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 | 0 | 0 | 0 | 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 | 0.0 | 0.0 | | | | | | | | | | | | | | | | | | | | | | |

STATUS FLAG CODES

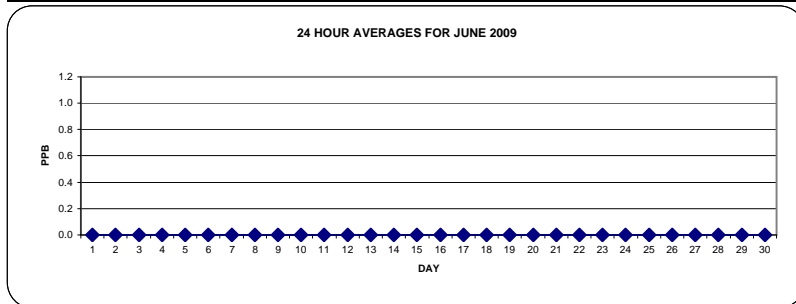
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

OBJECTIVE LIMIT:

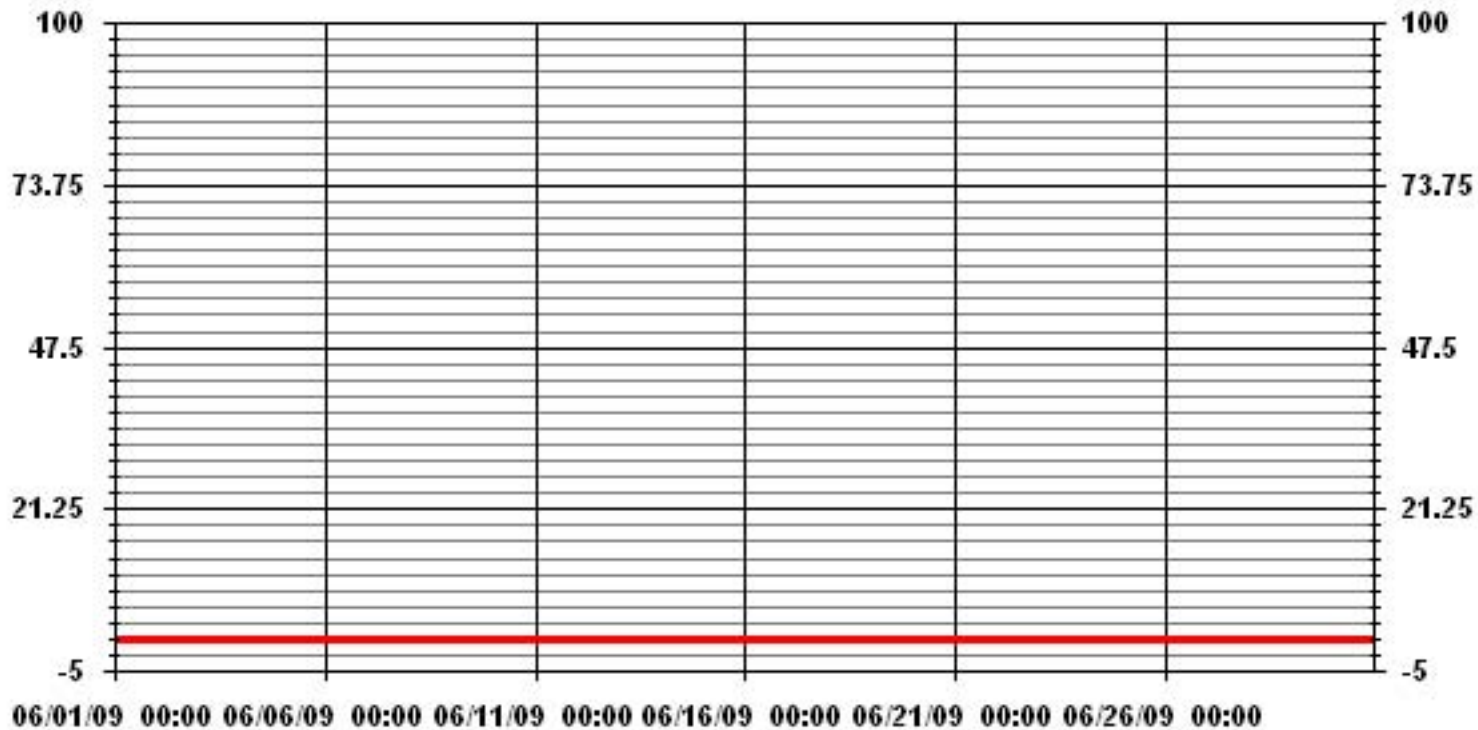
| | | | | | | |
|----------------------|------|-----|-----|-------|----|-----|
| ALBERTA ENVIRONMENT: | 1-HR | 172 | PPB | 24-HR | 57 | PPB |
|----------------------|------|-----|-----|-------|----|-----|

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|----------------------|-------------|-----------|-----|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 0 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 0 | PPB | @ HOUR(S) | ALL | ON DAY(S) | ALL |
| MAXIMUM 24-HR AVERAGE: | 0.0 | PPB | | | ON DAY(S) | ALL |
| | | | | VAR-VARIOUS | | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 718 | HRS | |
| MONTHLY CALIBRATION TIME: | 3 | HRS | AMD OPERATION UPTIME | 99.7 | % | |
| STANDARD DEVIATION | 0.00 | | MONTHLY AVERAGE | 0.00 | PPB | |



01 Hour Averages



— LICA TRS_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

MST

| MST | HOUR START | | | | | | | | | | | | | | | | | | | | | | | | DAILY 24-HOUR | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|------|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 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 | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 0 | 0 | P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | C | 0 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | 0 | 0 | 0 | IZS | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 0 | 0 | IZS | 0 | 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 | IZS | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | 0 | IZS | 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 | 0 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | | | | | | | | | | | | | | | | | | | | | | |
| HOURLY MAX | 0 | 0 | 1 | 1 | 1 | 1 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | |

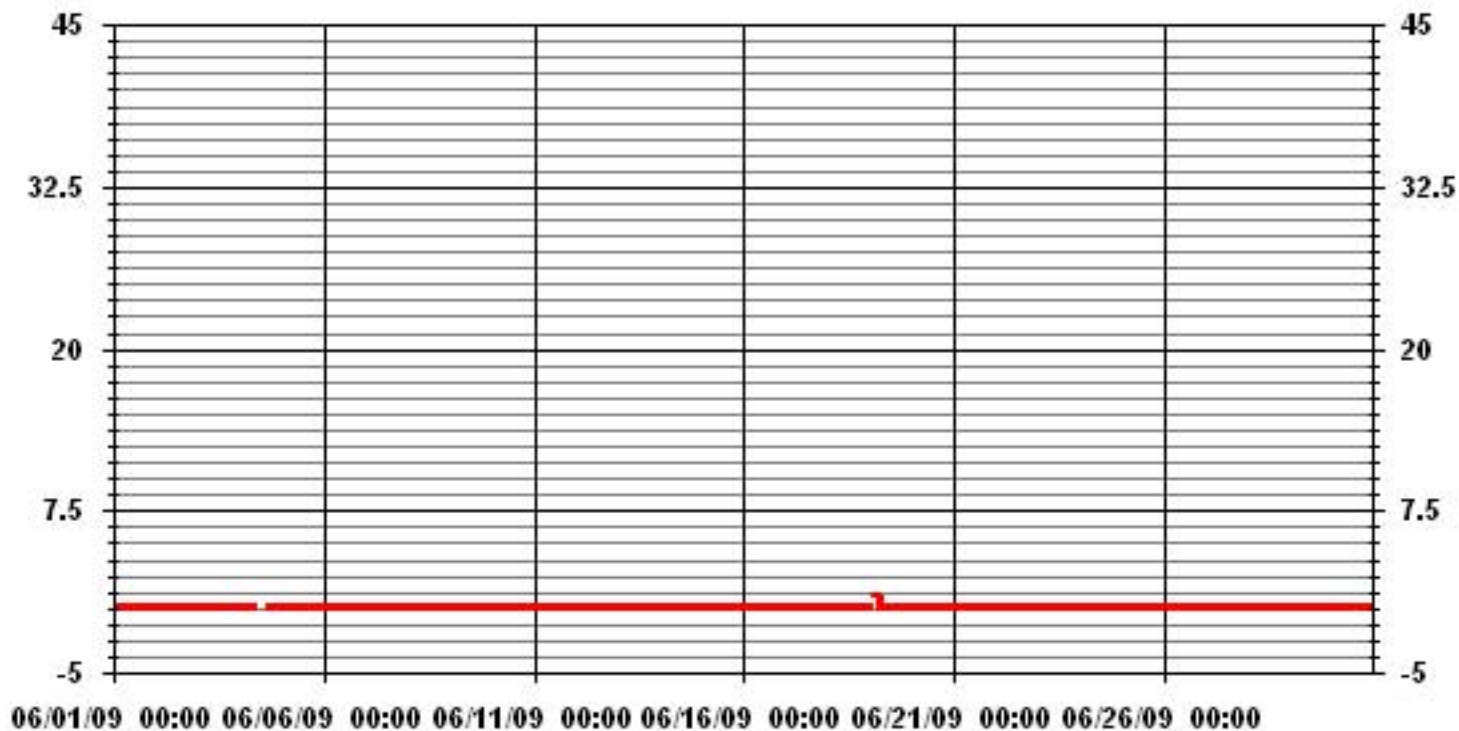
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|---------------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 4 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 1 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 19 |
| | | | | VAR - VARIOUS | | |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 718 | HRS | |
| MONTHLY CALIBRATION TIME: | 5 | HRS | | | | |
| STANDARD DEVIATION: | 0.08 | | | | | |

01 Hour Averages



LICA
 TRS_ / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
 Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3 | 5.11 | 5.99 | 8.18 | 4.82 | 3.65 | 5.26 | 7.30 | 4.09 | 3.80 | 5.70 | 7.89 | 12.42 | 8.91 | 5.40 | 6.28 | 5.11 | 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 | 5.11 | 5.99 | 8.18 | 4.82 | 3.65 | 5.26 | 7.30 | 4.09 | 3.80 | 5.70 | 7.89 | 12.42 | 8.91 | 5.40 | 6.28 | 5.11 | |

Calm : .00 %

Total # Operational Hours : 684

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3 | 35 | 41 | 56 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 35 | 684 |
| < 10 | | | | | | | | | | | | | | | | | |
| < 50 | | | | | | | | | | | | | | | | | |
| >= 50 | | | | | | | | | | | | | | | | | |
| Totals | 35 | 41 | 56 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 35 | |

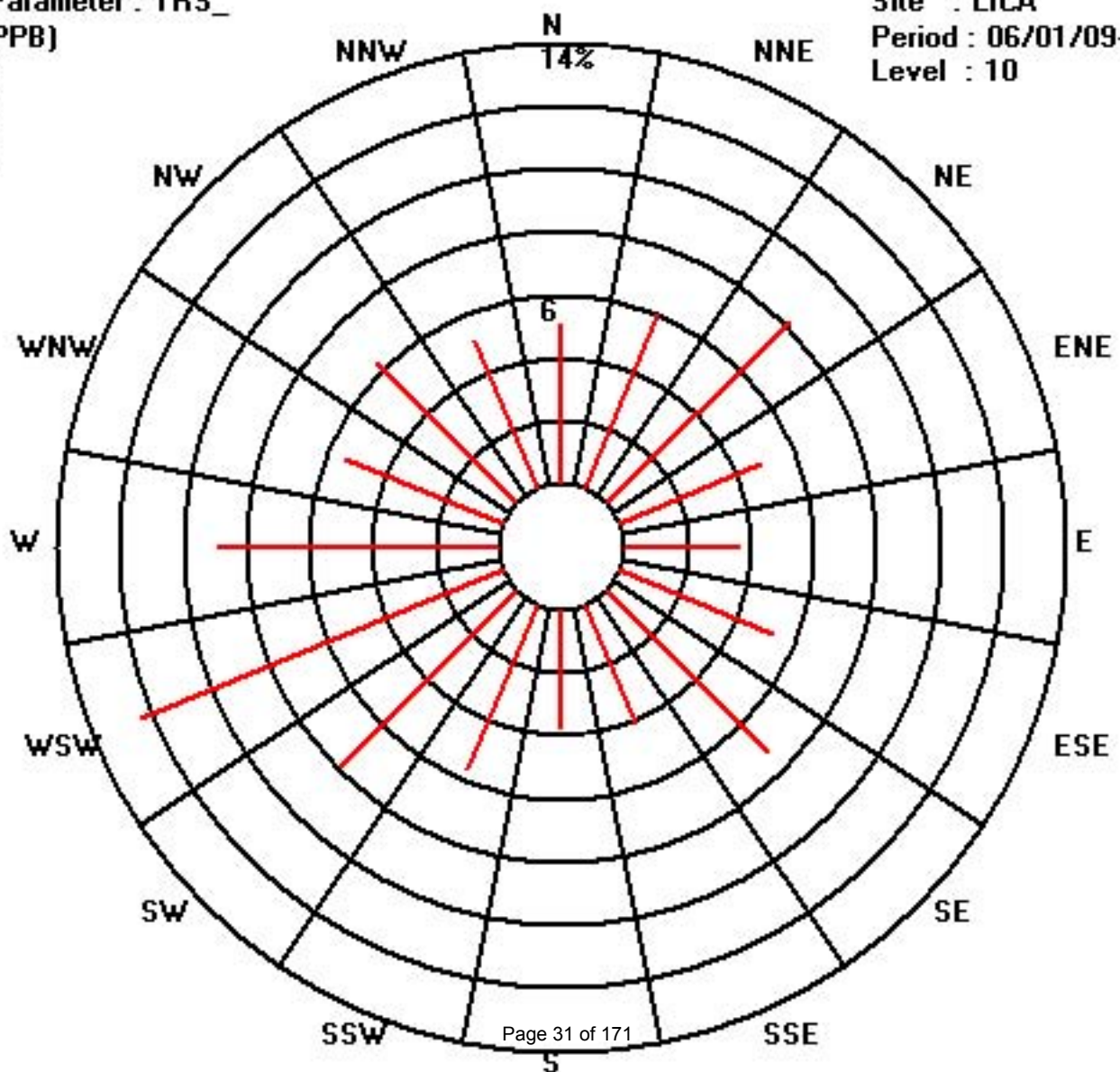
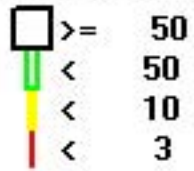
Calm : .00 %

Total # Operational Hours : 684

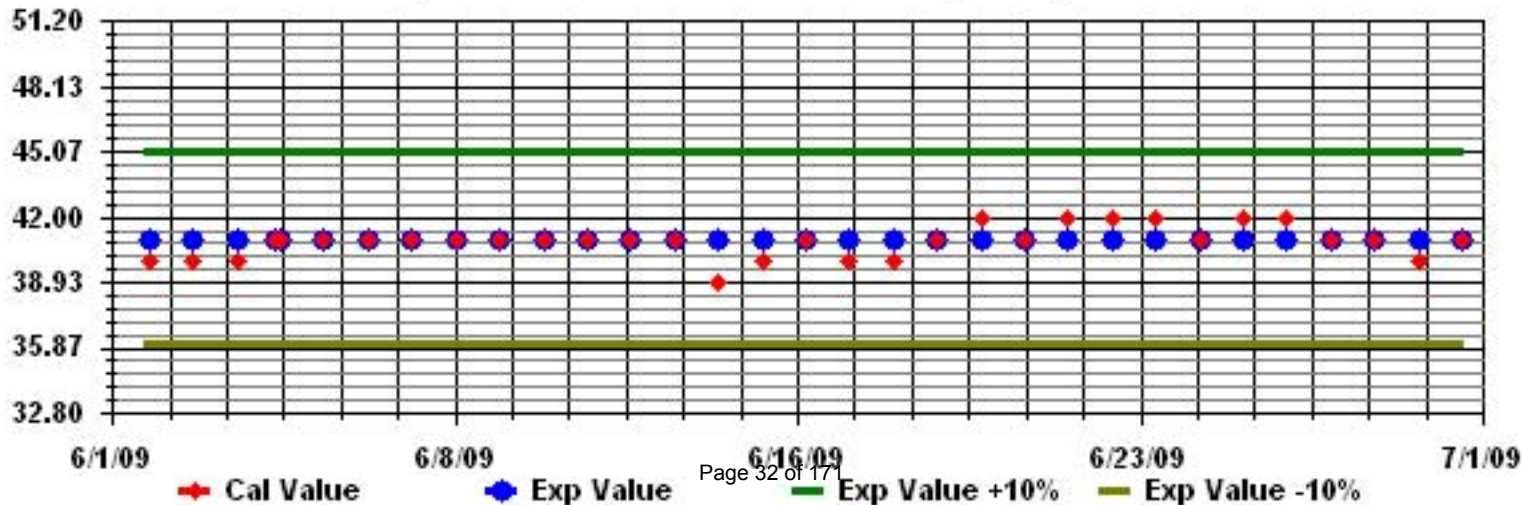
Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10



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



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

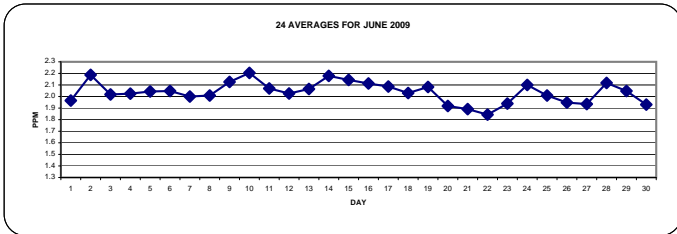
JUNE 2009

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 | 0:00 | DAILY | 24-HOUR | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|-------|------------|------------|------------|------------|----------|------------|-------|------------|------------|-------|------------|------------|------------|-------|---------|-----|-----|----|
| DAY | HOUR START | 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 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.0 | 2.0 | 24 | |
| 2 | 2 | 2.1 | 2.2 | 2.4 | 2.6 | 2.8 | 2.8 | 2.5 | 2.6 | 2.1 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.8 | 2.2 | 24 | |
| 3 | 2.2 | 2.2 | P | N | N | N | C | C | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 1.9 | 2 | 2 | 2 | 1.9 | 2 | 2.2 | 2.0 | 20 | |
| 4 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.1 | C | C | C | C | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.2 | 2.0 | 24 |
| 5 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2 | 2.1 | 2.2 | 2.0 | 24 | | |
| 6 | 2.2 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.0 | 24 | |
| 7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.0 | 2.0 | 24 | |
| 8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 1.9 | 2 | 2 | 2 | 2.1 | 2.2 | 2.2 | 2.0 | 24 | |
| 9 | 2.2 | 2.2 | 2.3 | 2.2 | 2.3 | 2.5 | 2.5 | 2.3 | 2 | 2 | IZS | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.5 | 2.1 | 24 |
| 10 | 2.2 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 | 2.6 | 2.5 | 2.4 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.6 | 2.2 | 2.4 | 24 | |
| 11 | 2.3 | 2.2 | 2.4 | 2.4 | 2.3 | 2.3 | 2.2 | 2.1 | 2.1 | IZS | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 1.9 | 2 | 2 | 2.1 | 2 | 2.4 | 2.1 | 24 | | |
| 12 | 2.1 | 2.1 | 2.3 | 2.3 | 2.4 | 2.3 | 2 | 1.9 | IZS | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2.1 | 2.1 | 2 | 2.4 | 2.0 | 2.4 | 24 | | |
| 13 | 2 | 2 | 2 | 2 | 2.1 | 2.2 | 2.2 | IZS | 2.2 | 2.1 | 2.2 | 2.1 | 2.1 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2.1 | 2.1 | 2.2 | 2.4 | 2.4 | 2.4 | 2.1 | 2.4 | 24 | | |
| 14 | 2.3 | 2.4 | 2.3 | 2.4 | 2.4 | 2.9 | IZS | 2.9 | 2.5 | 2.3 | 2.1 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 1.9 | 1.9 | 1.9 | 2 | 2.1 | 2.1 | 2.1 | 2.9 | 2.2 | 24 | | |
| 15 | 2.1 | 2.1 | 2.2 | 2.3 | 2.4 | IZS | 3 | 2.5 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 3.0 | 2.1 | 24 | | |
| 16 | 2.1 | 2.2 | 2.2 | 2.3 | IZS | 2.3 | 2.4 | 2.3 | 2.2 | 2.1 | 2.1 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2.1 | 2.5 | 2.3 | 2.5 | 2.1 | 24 | | | | |
| 17 | 2.3 | 2.3 | 2.2 | IZS | 2.4 | 2.6 | M | 2.2 | 2.1 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.1 | 2.1 | 2.3 | 2.2 | 2.6 | 2.1 | 2.3 | 2.4 | 24 | | |
| 18 | 2.2 | 2.4 | IZS | 2.6 | 2.5 | 2.1 | 2.1 | 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 | 1.9 | 2 | 2 | 2.1 | 2.6 | 2.0 | 2.4 | 24 | | |
| 19 | 2.2 | IZS | 2.4 | 2.6 | 2.5 | 2.6 | 2.5 | 2.1 | 2.1 | 2 | 2 | 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 | 2 | 2.6 | 2.1 | 24 | | | |
| 20 | IZS | 2 | 2 | 2 | 2 | 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 | 1.9 | IZS | 2.0 | 1.9 | 24 | | |
| 21 | 2 | 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 | 1.9 | 1.9 | 1.8 | 1.8 | IZS | 1.8 | 2.0 | 1.9 | 24 | | |
| 22 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 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 | 1.9 | IZS | 1.9 | 1.9 | 1.8 | 24 | | | |
| 23 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 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 | 2.1 | 2.2 | 2.2 | 1.9 | 24 | | |
| 24 | 2.3 | 2.5 | 2.6 | 2.4 | 2.4 | 2.3 | 2.2 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 2 | 2 | 2 | 2 | 2.6 | 2.1 | 24 | | |
| 25 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 2 | 1.9 | 1.9 | IZS | 1.9 | 2 | 2.1 | 2 | 1.9 | 2.1 | 2.0 | 2.4 | 24 | | | |
| 26 | 1.9 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.1 | 1.9 | 24 | | | |
| 27 | 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 | 1.9 | 1.9 | 1.9 | IZS | 1.9 | 1.9 | 1.9 | 2 | 2 | 2.1 | 2.2 | 2.2 | 1.9 | 24 | | | | |
| 28 | 2.3 | 2.3 | 2.4 | 2.5 | 2.4 | 2.5 | 2.2 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.5 | 2.1 | 24 | | |
| 29 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.1 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | IZS | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.0 | 24 | | |
| 30 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 1.9 | 24 | | | |
| HOURLY MAX | | 2.3 | 2.5 | 2.6 | 2.6 | 2.9 | 3.0 | 2.9 | 2.6 | 2.4 | 2.2 | 2.1 | 2.2 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.5 | 2.4 | | | | | | |
| HOURLY AVG | | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | | | | | | |

STATUS FLAG CODES

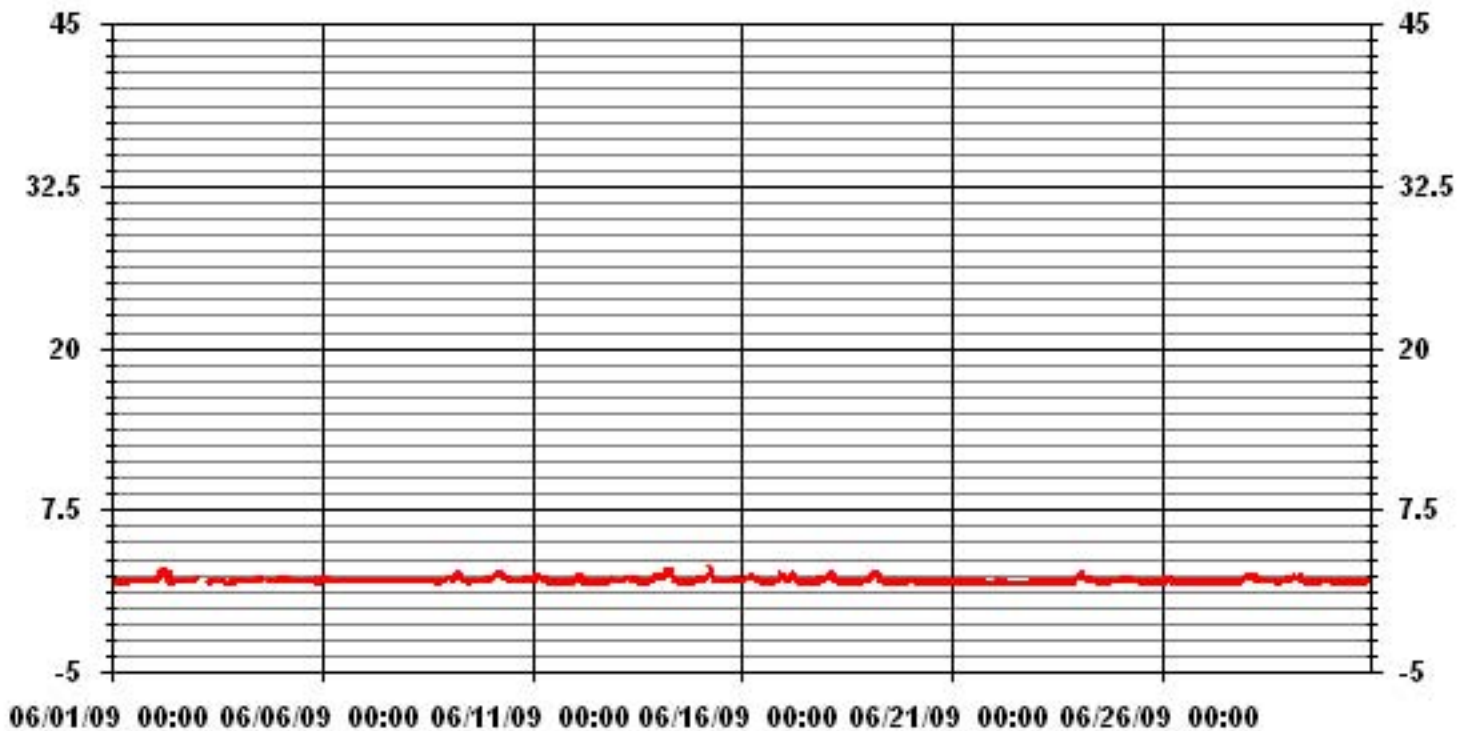
| | | | |
|----|-------------------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |
| BB | - BELOW BACKGROUND OF 1.5 PPM | | |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-----------|-----|
| NUMBER OF NON-ZERO READINGS: | 679 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 3.0 | PPM | @ HOUR(S) | 6 | ON DAY(S) | 15 |
| MAXIMUM 24-HR AVERAGE: | 2.2 | PPM | | | ON DAY(S) | VAR |
| IZS CALIBRATION TIME: | 30 | HRS | OPERATIONAL TIME: | 715 | HRS | |
| MONTHLY CALIBRATION TIME: | 6 | HRS | AMD OPERATION UPTIME: | 99.3 | % | |
| STANDARD DEVIATION: | 0.18 | | MONTHLY AVERAGE: | 2.04 | PPM | |

01 Hour Averages



— LICA THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

| MST | | | | | | | | | | | | | | | | | | | | | | | | | DAILY | 24-HOUR | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|---------|------|-------|----|
| HOURLY MAX | 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 | MAX. | AVG. | RDGS. | |
| 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 | | | | | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2.1 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2 | IZS | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 24 |
| 2 | 2.1 | 2.2 | 2.4 | 2.5 | 2.6 | 2.9 | 2.9 | 2.7 | 2.8 | 2.4 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | IZS | 2.5 | 2.1 | 2.1 | 2.1 | 2.4 | 2.9 | 2.3 | 24 | |
| 3 | 2.3 | 2.3 | P | N | N | N | C | C | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | IZS | 2.1 | 2.1 | 2 | 2 | 2 | 2.1 | 2.3 | 2.1 | 20 | | |
| 4 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2 | 2 | 2 | 4.1 | 2.2 | C | C | C | C | C | 2.8 | 2.1 | 2.1 | 2.2 | 2.1 | 4.1 | 2.2 | 24 | | |
| 5 | 2.2 | 2.1 | 2.2 | 2.1 | 2.3 | 2.2 | 2.1 | 2.2 | 2 | 2.1 | 2.1 | 2 | 2 | 2 | IZS | IZS | 2.5 | 2.1 | 2.7 | 2 | 2.3 | 2.2 | 2.1 | 2.5 | 2.7 | 2.2 | 24 | | |
| 6 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2 | 2 | 2.3 | 2.1 | 24 | |
| 7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2 | 2.1 | 2 | 2 | 2 | IZS | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2.0 | 24 | | |
| 8 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2 | IZS | 2 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2.3 | 2.2 | 2.3 | 2.1 | 24 | | |
| 9 | 2.3 | 2.3 | 2.6 | 2.3 | 2.4 | 2.4 | 2.6 | 2.7 | 2.7 | 2 | 2 | IZS | 2 | 2 | 2.1 | 2 | 2 | 2.8 | 2 | 2.1 | 2.2 | 2.1 | 2.2 | 2.2 | 2.8 | 2.3 | 24 | | |
| 10 | 2.3 | 2.3 | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | 2.7 | 2.5 | IZS | 2.1 | 2.1 | 2.1 | 2 | 2.1 | 2 | 2.4 | 2 | 2.1 | 2.4 | 2.2 | 2.2 | 2.2 | 2.7 | 2.3 | 24 | | |
| 11 | 2.4 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.2 | 2.2 | IZS | 2.1 | 2 | 2 | 2 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.3 | 2.1 | 2.4 | 2.2 | 24 | | |
| 12 | 2.2 | 2.2 | 2.4 | 2.5 | 2.5 | 2.4 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.1 | 2.2 | 2.2 | 2.1 | 2.5 | 2.1 | 24 | |
| 13 | 2.1 | 2.1 | 2 | 2.1 | 2.2 | 2.2 | 2.3 | IZS | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.2 | 2.2 | 2.4 | 2.7 | 2.7 | 2.2 | 24 | |
| 14 | 2.5 | 2.6 | 2.5 | 2.6 | 2.5 | 3.4 | IZS | 3.2 | 2.6 | 2.4 | 2.1 | 2 | 2.1 | 2 | 2 | 2.2 | 2 | 2.3 | 2.1 | 2 | 2 | 2.1 | 2.2 | 2.3 | 3.4 | 2.3 | 24 | | |
| 15 | 2.3 | 2.2 | 2.6 | 2.4 | 2.7 | IZS | 3.2 | 3.1 | 2.1 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2.3 | 2.4 | 2.6 | 2 | 2.2 | 2.4 | 2.3 | 2.2 | 2.2 | 3.2 | 3.2 | 2.3 | 24 | | |
| 16 | 2.2 | 2.4 | 2.3 | 2.4 | IZS | 2.4 | 2.5 | 2.4 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2.2 | 2 | 2 | 2 | 2.2 | 2.1 | 2.2 | 2.5 | 3 | 2.8 | 3 | 2.3 | 24 | | |
| 17 | 2.5 | 2.6 | 2.3 | IZS | 2.7 | 2.9 | M | 2.2 | 2.2 | 2.1 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 2.1 | 2.1 | 2 | 1.9 | 2.5 | 2.3 | 2.3 | 2.9 | 2.4 | 2.9 | 2.3 | 23 | |
| 18 | 2.4 | 2.6 | IZS | 2.7 | 2.7 | 2.2 | 2.2 | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2.4 | 2 | 2.1 | 2.1 | 2.2 | 2.7 | 2.1 | 24 | | |
| 19 | 2.4 | IZS | 2.7 | 2.9 | 2.7 | 2.8 | 2.7 | 2.2 | 2.2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 2 | 2 | 2.1 | 2.1 | 2.9 | 2.2 | 24 | |
| 20 | IZS | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 1.9 | 2 | 1.9 | 2 | 1.9 | 2 | 1.9 | 2 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | IZS | 2.2 | 2.0 | 24 | | |
| 21 | 2.3 | 2.1 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2.2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 1.8 | 2.3 | 1.9 | 24 |
| 22 | 1.9 | 2 | 2.1 | 2.1 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | C | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 2 | 2 | 2.1 | 1.9 | 23 | |
| 23 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 2 | 2.3 | 2.3 | 2.0 | 24 | | |
| 24 | 2.5 | 2.6 | 2.8 | 2.6 | 2.5 | 2.4 | 2.4 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2.5 | IZS | 2.1 | 2.1 | 2 | 2.1 | 2.8 | 2.2 | 24 | |
| 25 | 2 | 2.1 | 2.1 | 2.2 | 2.1 | 2.2 | 2.2 | 2.1 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.4 | 1.9 | 2.1 | IZS | 1.9 | 2.1 | 2.2 | 2.2 | 1.9 | 2.4 | 2.1 | 24 | | |
| 26 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2.1 | 2.0 | 24 | | |
| 27 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2 | 1.9 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2.3 | 2.1 | 2.2 | 2.2 | 2.3 | 2.0 | 24 | | |
| 28 | 2.4 | 2.4 | 2.5 | 2.6 | 2.6 | 2.9 | 2.4 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2.1 | IZS | 2.1 | 2.1 | 2 | 2 | 2 | 2.2 | 2.1 | 2.1 | 2.9 | 2.2 | 24 | | |
| 29 | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | 2.2 | 2.1 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.2 | 2 | 2 | 2.5 | 2.1 | 24 | |
| 30 | 2 | 2.1 | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | IZS | 2 | 1.9 | 2 | 1.9 | 2.1 | 2 | 2.1 | 2 | 2.1 | 2.3 | 2.3 | 2.0 | 24 | | |
| HOURLY MAX | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | | | | |
| HOURLY AVG | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | | | | | |

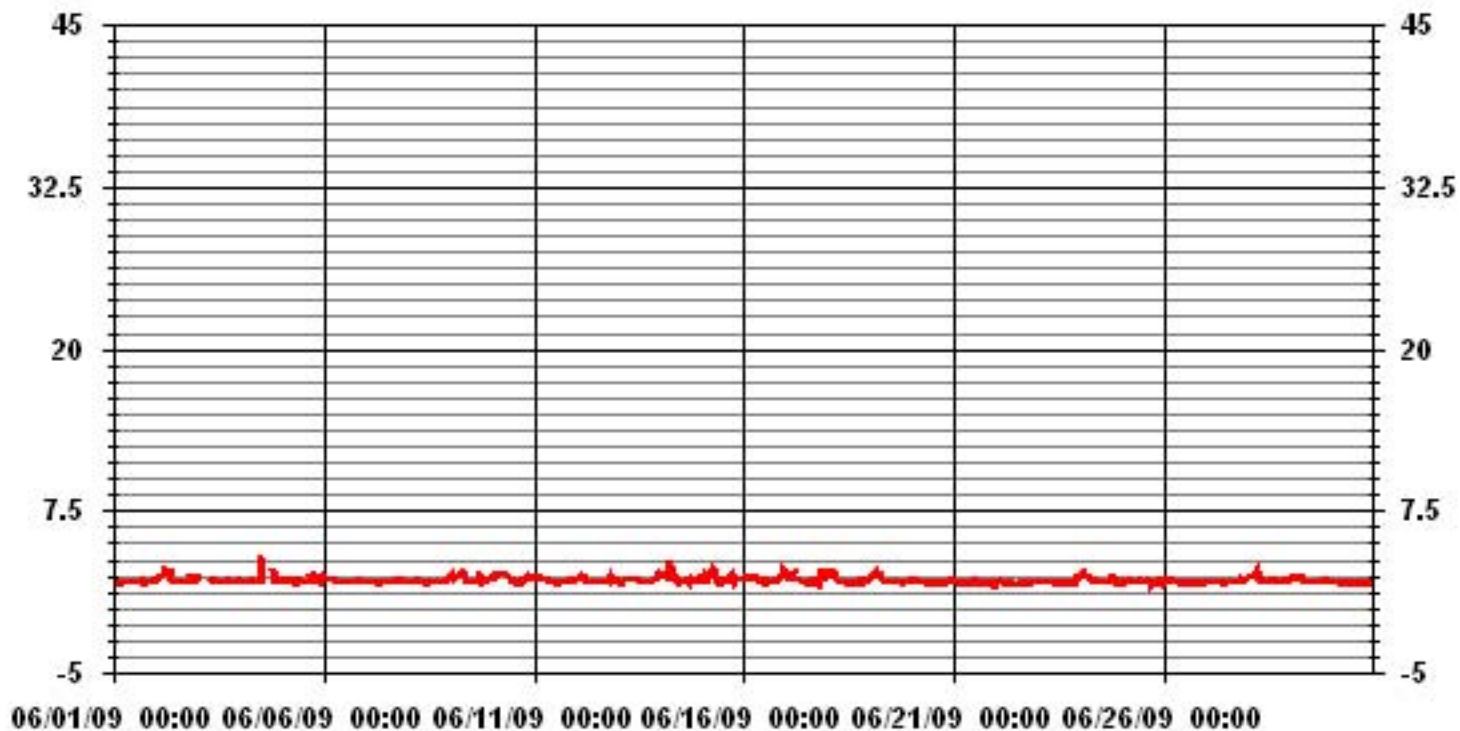
STATUS FLAG CODES

| | |
|----------------------------------|-----------------------------------|
| S - OUT OF SERVICE | IZS - IZS - DAILY ZERO/SPAN CHECK |
| N - INVALID DATA | M - MISSING DATA |
| D - INSTRUMENT DRIFT | P - POWER FAILURE |
| C - CALIBRATION | NA - NOT APPLICABLE |
| BB - BELOW BACKGROUND OF 1.5 PPM | |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------|-----|-------------------|---------|-----------|---|
| NUMBER OF NON-ZERO READINGS: | 677 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 4.1 | PPM | @ HOUR(S) | 12 | ON DAY(S) | 4 |
| IZS CALIBRATION TIME: | 30 | HRS | OPERATIONAL TIME: | 714 HRS | | |
| MONTHLY CALIBRATION TIME: | 8 HRS | | | | | |
| STANDARD DEVIATION: | 0.24 | | | | | |

01 Hour Averages



— LICA THCMAX PPM

LICA
 THC / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
 Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|---------|-----------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|-------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3.0 | 5.15 | 6.18 | 7.95 | 4.86 | 3.68 | 5.30 | 7.36 | 4.12 | 3.82 | 5.59 | 7.95 | 12.07 | 8.98 | 5.15 | 6.33 | 5.30 | 99.85 |
| < 10.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .14 | .00 | .00 | .00 | .00 | .14 |
| < 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 | 5.15 | 6.18 | 7.95 | 4.86 | 3.68 | 5.30 | 7.36 | 4.12 | 3.82 | 5.59 | 7.95 | 12.22 | 8.98 | 5.15 | 6.33 | 5.30 | |

Calm : .00 %

Total # Operational Hours : 679

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3.0 | 35 | 42 | 54 | 33 | 25 | 36 | 50 | 28 | 26 | 38 | 54 | 82 | 61 | 35 | 43 | 36 | 678 |
| < 10.0 | | | | | | | | | | | | 1 | | | | | 1 |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 35 | 42 | 54 | 33 | 25 | 36 | 50 | 28 | 26 | 38 | 54 | 83 | 61 | 35 | 43 | 36 | |

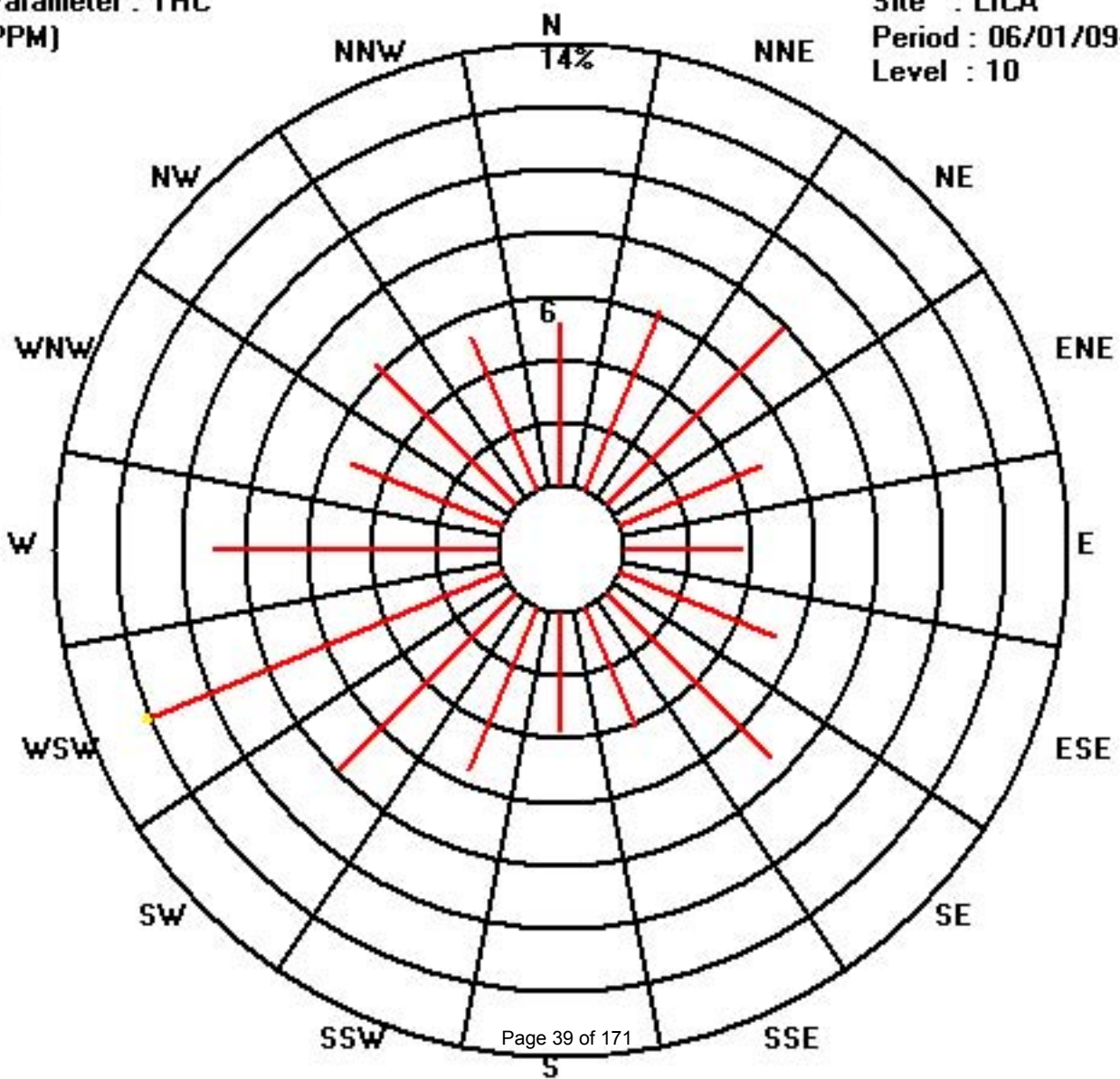
Calm : .00 %

Total # Operational Hours : 679

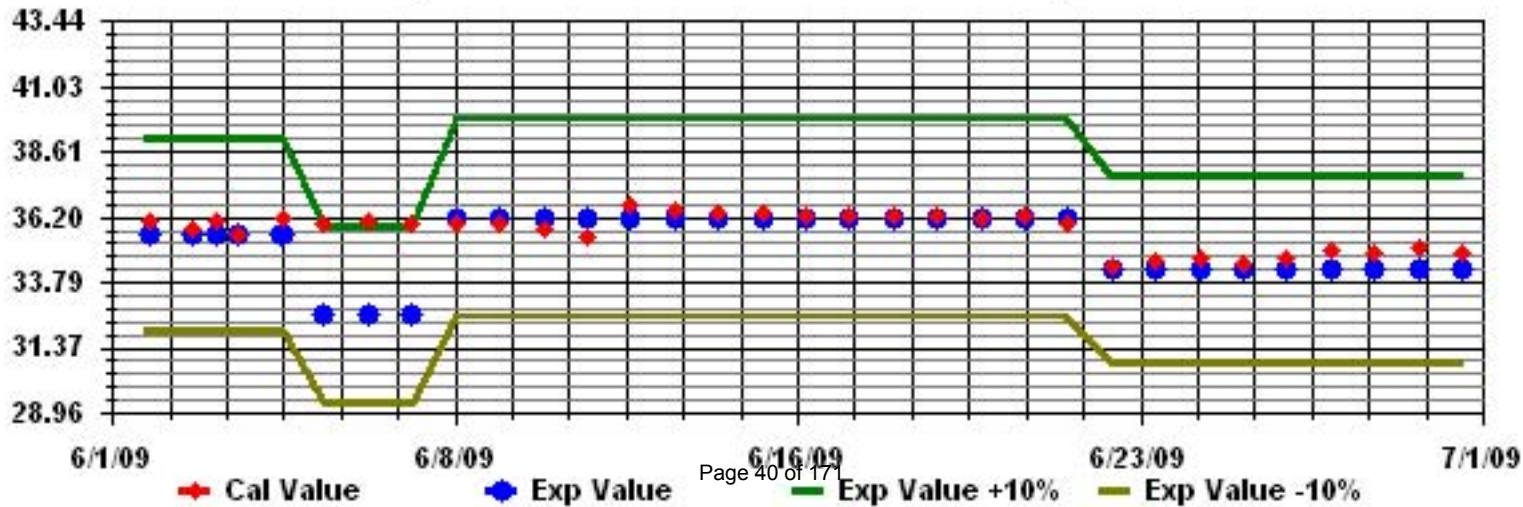
Class Limits (PPM)

Period : 06/01/09-06/30/09

Level : 10



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



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

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

MST

| 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 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|----------|----------|------|------|----------|------|------|-------|----------|-------|----------|----------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|------|-------------|--------------|-------|
| 1 | 5.6 | 6.9 | 6.6 | 5.9 | 4.3 | 1.9 | 4.1 | 2.1 | 4 | 4.4 | 2.3 | 5.3 | 4.5 | 24.9 | 21.3 | 5.9 | 3.8 | 0 | 8 | 2.8 | 7.2 | 11.1 | 14.5 | 21.1 | 24.9 | 7.4 | 24 |
| 2 | 13.3 | 13.3 | 5.1 | 7.6 | 4.7 | 3.6 | 9.2 | 8.8 | 10.8 | 9.9 | 10.9 | 5.8 | 6.4 | 9 | 8 | 6.7 | 10 | 9.7 | 6.7 | 11.8 | 12.6 | 11.2 | 8.4 | 13.3 | 13.3 | 9.0 | 24 |
| 3 | 12.8 | 13 | P | 12.2 | 16.4 | 11.4 | 14.6 | 11.6 | 14.5 | 12 | 16.2 | 11.4 | 10.1 | 9 | 6.5 | 5.2 | 7.9 | 3.2 | 4.8 | 8.1 | 8.1 | 13.9 | 7.5 | 9.3 | 16.4 | 10.4 | 23 |
| 4 | 10.4 | 7.7 | 9.9 | 5.9 | 6.3 | 2.7 | 1.4 | 2.7 | 2.7 | 0 | 1.5 | 7.5 | C | C | 5.8 | 4.7 | 4.8 | 1.8 | 1.3 | 3.1 | 8.3 | 5.6 | 2.5 | 0 | 10.4 | 4.4 | 24 |
| 5 | 6.3 | 5.3 | 4.3 | 1.5 | 0.6 | 1.7 | 2 | 0 | 2.1 | 4.7 | 3.3 | 4.2 | 4.7 | 2.4 | 4.9 | 6 | 3.7 | 3.8 | 3.5 | 5.3 | 4.8 | 13.2 | 10.2 | 7.3 | 13.2 | 4.4 | 24 |
| 6 | 4.1 | 12.5 | 11.7 | 6.2 | 3.9 | 4 | 9.6 | 8.3 | 3.7 | 0 | 0 | 0.9 | 3.8 | 3.9 | 3.8 | 3.8 | 3.9 | 7.9 | 6.7 | 3.7 | 3.7 | 5.8 | 7.1 | 11.8 | 12.5 | 0.0 | 24 |
| 7 | 7.3 | 2.5 | 0.3 | 1.5 | 0 | 0 | 0.8 | 1.7 | 0.5 | 2.5 | 4.8 | 8.3 | 7.8 | 5.4 | 1.5 | 9.4 | 7.6 | 3.6 | 5.3 | 5.1 | 0.4 | 0.6 | 2.8 | 5.4 | 9.4 | 3.5 | 24 |
| 8 | 6.5 | 3.9 | 3.6 | 6.8 | 1.2 | 0.8 | 4.5 | 6.3 | 0 | 1.1 | 2.4 | 0.3 | 2.9 | 1.4 | 0 | 2.4 | 7.5 | 0 | 3.6 | 5 | 2.7 | 1.5 | 4.9 | 4.7 | 7.5 | 3.1 | 24 |
| 9 | 8.3 | 7.8 | 8 | 3.5 | 8.2 | 6.2 | 6.5 | 7.7 | 10 | 0 | 0 | 3.1 | 4.3 | 1.5 | 7.3 | 5.3 | 3.2 | 8.6 | 4.4 | 6.1 | 7.9 | 7.4 | 7.1 | 8.5 | 10.0 | 5.9 | 24 |
| 10 | 12.3 | 9.5 | 8.5 | 14.6 | 11.4 | 1.2 | 3.1 | 0 | 6.8 | 5.6 | 4.8 | 5.8 | 1.8 | 5.3 | 4.6 | 16.6 | 54.6 | 10.3 | 7.6 | 5.3 | 5.7 | 9.4 | 8.3 | 7.2 | 54.6 | 9.2 | 24 |
| 11 | 9.3 | 6.6 | 3.3 | 7.7 | 7.2 | 10.6 | 10.6 | 12.7 | 10.3 | 7.3 | 7.2 | 15.4 | 22.1 | 27.8 | 31.2 | 13.7 | 10.9 | 9.7 | 10.1 | 6.5 | 12.3 | 14.3 | 17.8 | 21.5 | 31.2 | 12.8 | 24 |
| 12 | 11.2 | 10.3 | 11.1 | 10.6 | 12.7 | 7.3 | 5.5 | 0 | 6 | 9.4 | 5 | 8.8 | 9.9 | 6.4 | 5 | 7.2 | 4.8 | 11.6 | 12.7 | 11.5 | 16.3 | 22.4 | 20.2 | 14.2 | 22.4 | 10.0 | 24 |
| 13 | 8.6 | 10.2 | 12 | 8.2 | 8.7 | 9.9 | 9.3 | 10.7 | 16.2 | 11.4 | 24.4 | 18.9 | 17.8 | 15.7 | 17.3 | 9.9 | 9.1 | 11.2 | 12.4 | 14 | 23 | 24.5 | 25.1 | 27 | 27.0 | 14.8 | 24 |
| 14 | 18.5 | 24.8 | 26.1 | 25 | 25.7 | 23.5 | 32.5 | 27.2 | 24.8 | 18.4 | 14.8 | 11.7 | 20.6 | 9.2 | 12.7 | 10.3 | 9.4 | 10.6 | 10.4 | 8.3 | 10.7 | 10.8 | 19.2 | 16.9 | 32.5 | 17.6 | 24 |
| 15 | 12.6 | 14.1 | 14.5 | 12.6 | 15.3 | 19.2 | 22.4 | 21.6 | 17.4 | 14.7 | 11.1 | 11.9 | 11.2 | 17.1 | 19.5 | 7.3 | 18.3 | 23 | 16.3 | 18.7 | 15.5 | 13.1 | 17.4 | 15.2 | 23.0 | 15.8 | 24 |
| 16 | 22.7 | 14.3 | 15.1 | 18.7 | 16.2 | 14.5 | 19.5 | 17.9 | 17.2 | 13.3 | 13.9 | 10 | 13.2 | 7.2 | 2.4 | 8.7 | 12.3 | 7.6 | 9.3 | 9.6 | 10.3 | 10.6 | 12.8 | 15.6 | 22.7 | 13.0 | 24 |
| 17 | 13.9 | 10.8 | 12.7 | 16.2 | 12.4 | 15.4 | M | 20.4 | 21.8 | 23 | 15.8 | 8.1 | 9.7 | 12.9 | 4.1 | 2 | 5.9 | 9.6 | 14.1 | 5.7 | 2.6 | 14.1 | 20.8 | 16 | 23.0 | 12.5 | 23 |
| 18 | 8.5 | 15.6 | 14.4 | 13.8 | 11.2 | 9.2 | 15.8 | 10.8 | 10.5 | 7.4 | 9.8 | 9.2 | 4.1 | 6.8 | 1.3 | 0 | 2.9 | 4.2 | 4.4 | 0.7 | 0.3 | 5.5 | 6.1 | 8.6 | 15.8 | 7.5 | 24 |
| 19 | 9.6 | 10.8 | 10 | 5.7 | 4.1 | 12.6 | 12.1 | 12.1 | 11.6 | 12.4 | 8.6 | 4.7 | 8.4 | 8.1 | 8.6 | 0.8 | 2 | 8.5 | 11 | 16.7 | 6.3 | 5.3 | 6.5 | 5.3 | 16.7 | 8.4 | 24 |
| 20 | 6.9 | 9.7 | 8.4 | 8.9 | 10.9 | 5.2 | 9.7 | 9.7 | 7.3 | 6.3 | 7.9 | 4.9 | 1.4 | 5.8 | 15.5 | 3 | 3.6 | 3.3 | 0.4 | 4.7 | 0.7 | 0 | 8.7 | 11.9 | 15.5 | 6.5 | 24 |
| 21 | 15.6 | 8.2 | 6.6 | 1.9 | 3.1 | 5.3 | 2.3 | 3.7 | 6.5 | 6.8 | 3.9 | 5.6 | 9.7 | 7.4 | 9.5 | 9.5 | 11.2 | 8.2 | 8.5 | 6.9 | 10.3 | 9.4 | 7.8 | 5.1 | 15.6 | 7.2 | 24 |
| 22 | 0 | 3.3 | 0.5 | 1.3 | 0.3 | 2.8 | 0.9 | 3 | 8.1 | 6.9 | 2.4 | 2.4 | 0.7 | 5.1 | 12.2 | 4.1 | 2.2 | 0 | 1.7 | 5.8 | 2.3 | 8.2 | 6 | 6.5 | 12.2 | 3.6 | 24 |
| 23 | 6 | 4.3 | 5.8 | 6.6 | 3.6 | 7.7 | 6.3 | 0.1 | 0.6 | 4.8 | 6.3 | 23.9 | 12.7 | 12.6 | 15.9 | 3.1 | 1.4 | 2.9 | 5.1 | 5.2 | 7 | 13.7 | 4 | 8.9 | 23.9 | 7.0 | 24 |
| 24 | 5 | 6.9 | 7.6 | 9.2 | 6.1 | 4.5 | 5.1 | 7.8 | 9.4 | 5.4 | 6.1 | 5.4 | 3.6 | 6.1 | 4.6 | 4.6 | 6.8 | 9.2 | 6.3 | 8.8 | 8.1 | 11.4 | 7 | 7.5 | 11.4 | 6.8 | 24 |
| 25 | 7.1 | 5.9 | 9.5 | 13.2 | 13.7 | 5.8 | 6.1 | 9.5 | 7.3 | 6.2 | 5.6 | 8.9 | 9.9 | 8 | 12 | 14.1 | 13.8 | 10.7 | 7.8 | 7.4 | 4.4 | 5.5 | 5 | 6.3 | 14.1 | 8.5 | 24 |
| 26 | 5.7 | 3.4 | 3.2 | 2.7 | 1 | 0 | 0 | 0 | 4.6 | 3.8 | 0 | 5.3 | 2.2 | 6.1 | 5.4 | 2.4 | 3.6 | 5.2 | 0.4 | 3.3 | 6 | 0 | 0.7 | 6.1 | 2.7 | 24 | |
| 27 | 0 | 1.4 | 1.1 | 1.9 | 4.3 | 6.2 | 1.8 | 2.1 | 3.8 | 2.7 | 2.1 | 3 | 1.8 | 2.2 | 6.1 | 6.8 | 3.9 | 0 | 2.4 | 3.2 | 3.3 | 1.6 | 5.6 | 5.3 | 6.8 | 3.0 | 24 |
| 28 | 2.3 | 3.7 | 2.1 | 4.2 | 6.3 | 0.5 | 6.2 | 3.3 | 2.2 | 2.8 | 5.7 | 6.6 | 5.5 | 4.9 | 5.5 | 3.3 | 0.5 | 2.2 | 1.6 | 1.4 | 0.5 | 4.1 | 4.3 | 5.3 | 6.6 | 3.5 | 24 |
| 29 | 3.9 | 5.3 | 2.4 | 2.3 | 2.1 | 2.1 | 1.5 | 2.7 | 1.9 | 0.9 | N | 3.8 | 6.7 | 3.2 | 2.5 | 3.3 | 5.4 | 6 | 2.8 | 4.7 | 5.4 | 6.1 | 4.9 | 5 | 6.7 | 3.7 | 23 |
| 30 | 5.1 | 7.8 | 2.7 | N | 2.8 | 3.8 | 1.9 | 0 | 3.9 | 0.1 | 4 | 2.6 | 7.8 | 5.5 | 7.7 | 2.4 | 3.5 | 1.8 | 8.7 | 8.5 | 4.9 | 6.9 | 7 | 4.9 | 8.7 | 4.5 | 23 |
| HOURLY MAX | 23 | 25 | 26 | 25 | 26 | 24 | 33 | 27 | 25 | 23 | 24 | 24 | 22 | 28 | 31 | 17 | 55 | 23 | 16 | 19 | 23 | 25 | 25 | 27 | | | |
| HOURLY AVG | 8.6 | 8.7 | 7.8 | 8.2 | 7.5 | 6.7 | 7.8 | 7.5 | 8.1 | 6.8 | 7.1 | 7.3 | 7.9 | 8.2 | 8.8 | 6.2 | 7.9 | 6.4 | 6.8 | 6.8 | 7.0 | 9.1 | 9.3 | 9.9 | | | |

STATUS FLAG CODES

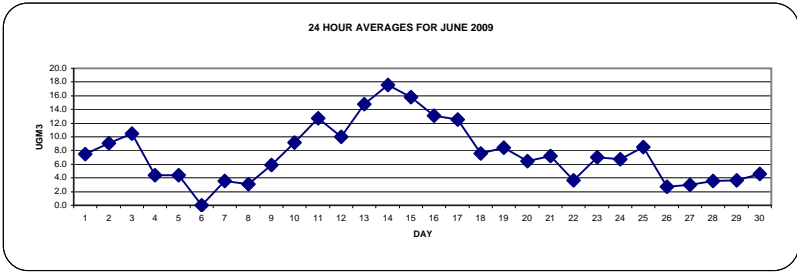
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

OBJECTIVE LIMIT:

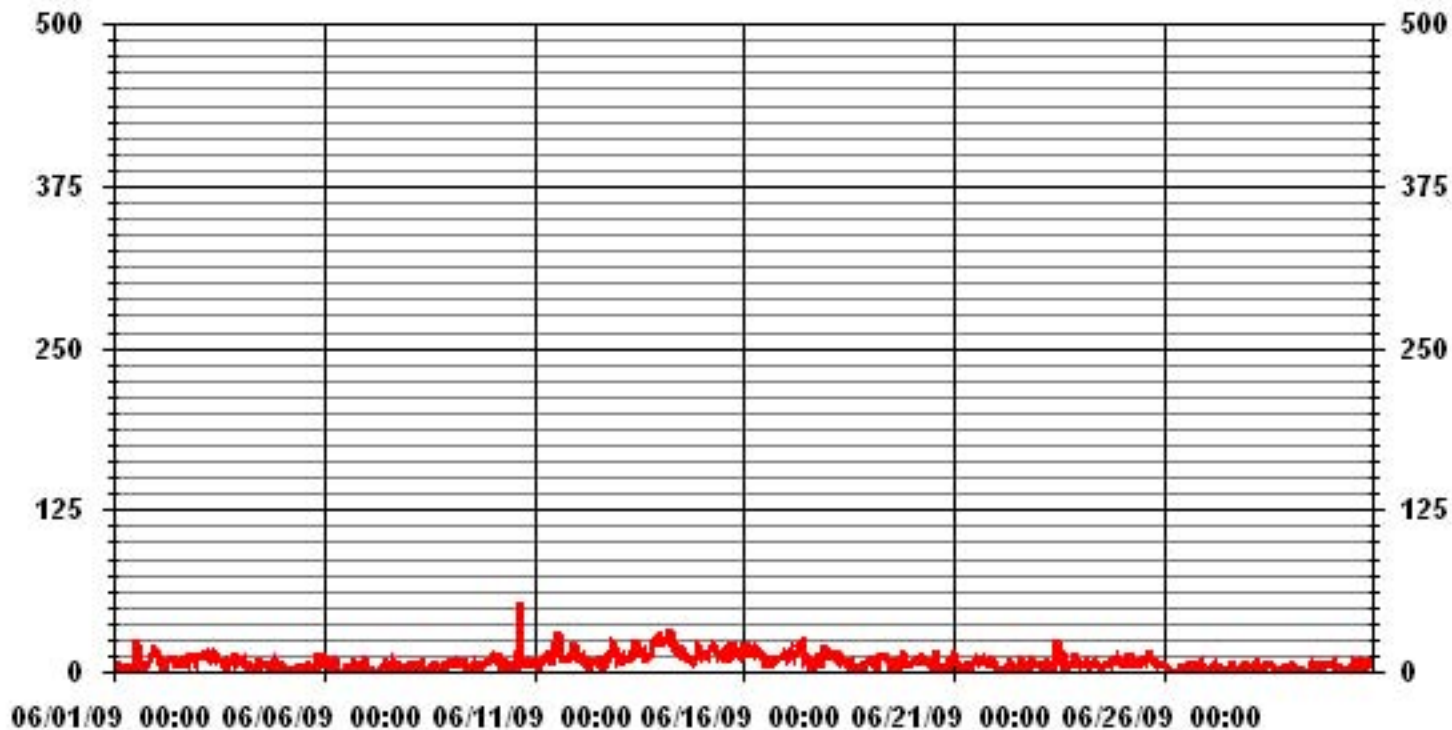
| | | | | | | |
|-----------------------------|------|---|-----|-------|----|-----|
| ALBERTA ENVIRONMENT: | 1-HR | - | PPB | 24-HR | 30 | PPB |
|-----------------------------|------|---|-----|-------|----|-----|

MONTHLY SUMMARY

| | |
|--------------------------------|--|
| NUMBER OF 1-HR EXCEEDENCES: | - |
| NUMBER OF 24-HR EXCEEDENCES: | 0 |
| PROPOSED CANADA WIDE GUIDELINE | |
| NUMBER OF NON-ZERO READINGS: | 686 |
| MAXIMUM 1-HR AVERAGE: | 54.6 UG/M ³ @ HOUR(S) 16 ON DAY(S) 10 |
| MAXIMUM 24-HR AVERAGE: | 17.6 UG/M ³ ON DAY(S) 14 |
| IZS CALIBRATION TIME: | 0 HRS |
| MONTHLY CALIBRATION TIME: | 2 HRS |
| STANDARD DEVIATION: | 5.95 |
| OPERATIONAL TIME: | 716 HRS |
| AMD OPERATION UPTIME: | 99.4 % |
| MONTHLY AVERAGE: | 7.76 UG/M ³ |



01 Hour Averages



— LICA PM2 UG/M3

LICA
PM2 / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|-------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 30.0 | 5.04 | 6.30 | 8.12 | 4.76 | 3.64 | 5.18 | 7.42 | 4.06 | 3.64 | 5.74 | 7.84 | 12.18 | 9.10 | 5.04 | 6.16 | 5.32 | 99.57 |
| < 60.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .14 | .00 | .00 | .00 | .14 | .14 | .00 | .00 | .42 |
| < 80.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 120.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| < 240.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| >= 240.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 5.04 | 6.30 | 8.12 | 4.76 | 3.64 | 5.18 | 7.42 | 4.06 | 3.78 | 5.74 | 7.84 | 12.18 | 9.24 | 5.18 | 6.16 | 5.32 | |

Calm : .00 %

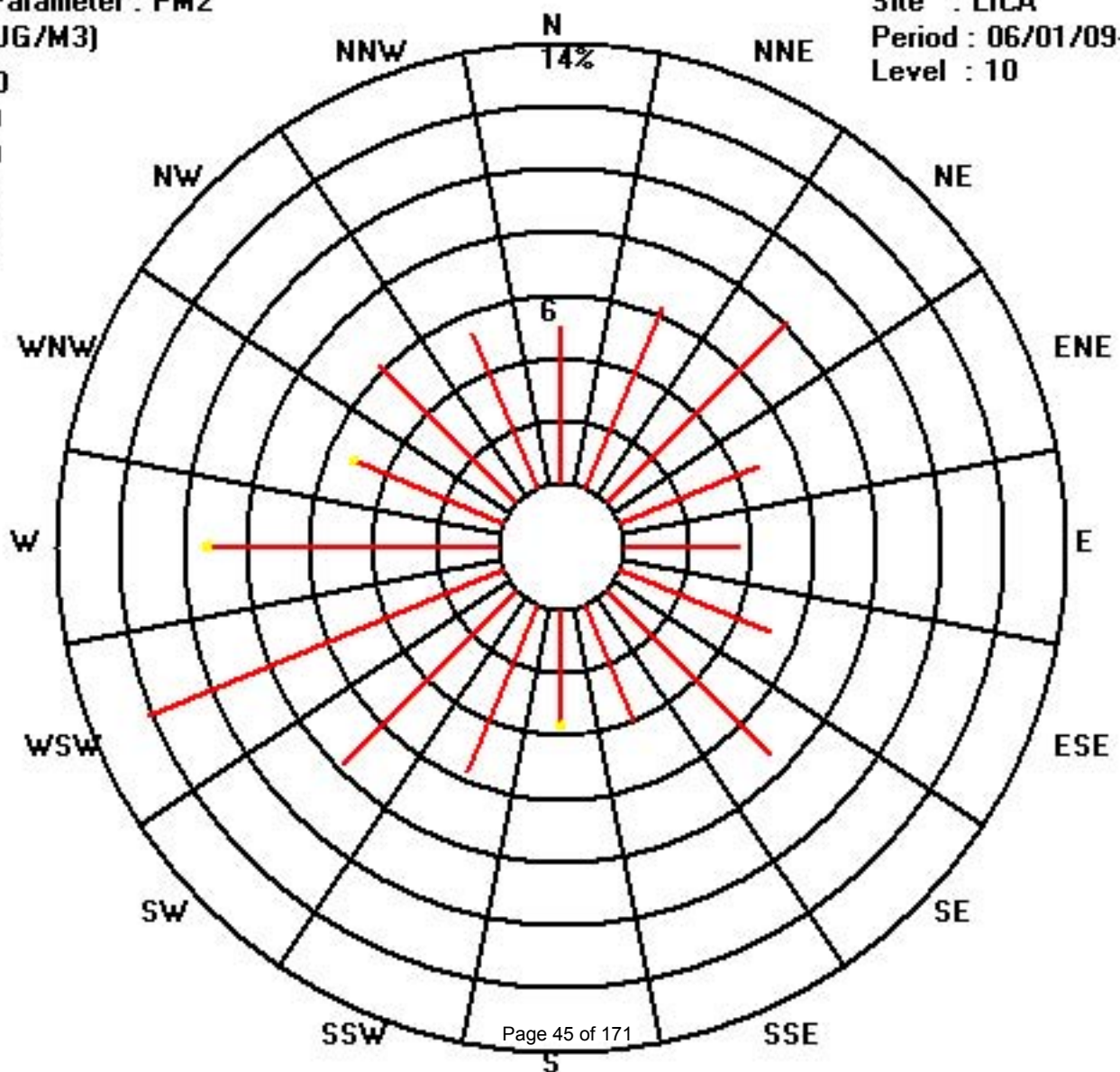
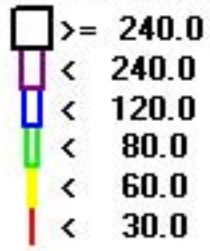
Total # Operational Hours : 714

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|----------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 30.0 | 36 | 45 | 58 | 34 | 26 | 37 | 53 | 29 | 26 | 41 | 56 | 87 | 65 | 36 | 44 | 38 | 711 |
| < 60.0 | | | | | | | | | 1 | | | | 1 | 1 | | | 3 |
| < 80.0 | | | | | | | | | | | | | | | | | |
| < 120.0 | | | | | | | | | | | | | | | | | |
| < 240.0 | | | | | | | | | | | | | | | | | |
| >= 240.0 | | | | | | | | | | | | | | | | | |
| Totals | 36 | 45 | 58 | 34 | 26 | 37 | 53 | 29 | 27 | 41 | 56 | 87 | 66 | 37 | 44 | 38 | |

Calm : .00 %

Total # Operational Hours : 714



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

NITROGEN DIOXIDE hourly averages in ppb

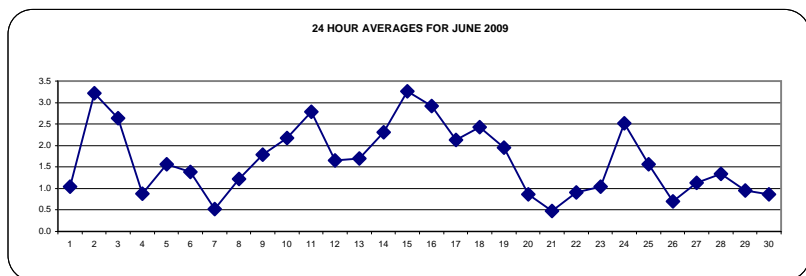
| MST | 0:00 | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | 7:00 | 8:00 | 9:00 | 10:00 | 11:00 | 12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | DAILY | 24-HOUR | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|----|
| 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 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | IZS | 4 | 5 | 4 | 4 | 4 | 5 | 1.0 | 24 | |
| 2 | 3 | 3 | 3 | 4 | 5 | 7 | 7 | 6 | 9 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 2 | 5 | 6 | 4 | 2 | 9 | 3.2 | 24 | |
| 3 | 3 | 4 | P | 4 | 5 | 5 | 10 | 7 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 2 | 1 | 1 | 10 | 2.6 | 23 | |
| 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | C | C | C | IZS | 1 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 0.9 | 24 | |
| 5 | 2 | 2 | 2 | 1 | 5 | 6 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | IZS | 0 | 0 | 1 | 1 | 5 | 3 | 2 | 2 | 6 | 1.6 | 24 | |
| 6 | 3 | 3 | 3 | 5 | 6 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 2 | 6 | 1.4 | 24 | |
| 7 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 1 | 3 | 0.5 | 24 | |
| 8 | 0 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | IZS | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 5 | 3 | 7 | 1.2 | 24 | |
| 9 | 2 | 1 | 2 | 2 | 2 | 3 | 6 | 6 | 5 | 1 | 0 | IZS | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 6 | 1.8 | 24 | |
| 10 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 9 | 4 | 2 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 3 | 2 | 2 | 9 | 2.2 | 24 | |
| 11 | 3 | 3 | 4 | 4 | 6 | 5 | 7 | 8 | 7 | IZS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 3 | 4 | 8 | 2.8 | 24 | |
| 12 | 4 | 3 | 2 | 2 | 3 | 3 | 1 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 8 | 4 | 1 | 8 | 1.7 | 24 | |
| 13 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 4 | 5 | 5 | 1.7 | 24 | |
| 14 | 5 | 4 | 3 | 2 | 2 | 4 | IZS | 7 | 6 | 3 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 3 | 3 | 7 | 2.3 | 24 | |
| 15 | 4 | 4 | 4 | 4 | 5 | IZS | 6 | 6 | 3 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 4 | 2 | 2 | 2 | 4 | 5 | 5 | 4 | 6 | 3.3 | 24 | |
| 16 | 3 | 1 | 2 | 2 | IZS | 2 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 13 | 2 | 2 | 5 | 3 | 13 | 2.9 | 24 | |
| 17 | 4 | 3 | 2 | IZS | 3 | 4 | M | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 6 | 4 | 4 | 6 | 2.1 | 23 | |
| 18 | 5 | 4 | IZS | 5 | 5 | 6 | 3 | 2 | 3 | 2 | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 2 | 4 | 3 | 2 | 2 | 6 | 2.4 | 24 | |
| 19 | 2 | IZS | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 2.0 | 24 | |
| 20 | IZS | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | IZS | 2 | 0.9 | 24 | |
| 21 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 2 | 0.5 | 24 |
| 22 | 0 | 0 | 1 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 2 | 2 | 3 | 0.9 | 24 |
| 23 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 3 | 3 | 4 | 4 | 1.0 | 24 | |
| 24 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 3 | 3 | 5 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | IZS | 3 | 2 | 2 | 1 | 5 | 2.5 | 24 | |
| 25 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | IZS | 2 | 2 | 3 | 1 | 1 | 3 | 1.6 | 24 | |
| 26 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0.7 | 24 | |
| 27 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | IZS | 0 | 1 | 1 | 3 | 4 | 2 | 2 | 4 | 1.1 | 24 | |
| 28 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | IZS | 1 | 1 | 0 | 1 | 2 | 3 | 1 | 1 | 3 | 1.3 | 24 | |
| 29 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | IZS | 1 | 1 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1.0 | 24 | |
| 30 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | IZS | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 0.9 | 24 | |
| HOURLY MAX | 5 | 4 | 4 | 5 | 6 | 7 | 10 | 9 | 9 | 5 | 3 | 3 | 3 | 2 | 1 | 2 | 4 | 3 | 3 | 13 | 5 | 8 | 5 | 5 | | | | |
| HOURLY AVG | 2.3 | 1.9 | 1.8 | 2.1 | 2.7 | 2.8 | 2.7 | 2.7 | 2.2 | 1.4 | 0.8 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.7 | 0.7 | 0.7 | 1.4 | 2.4 | 3.0 | 2.5 | 2.2 | | | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

OBJECTIVE LIMIT:

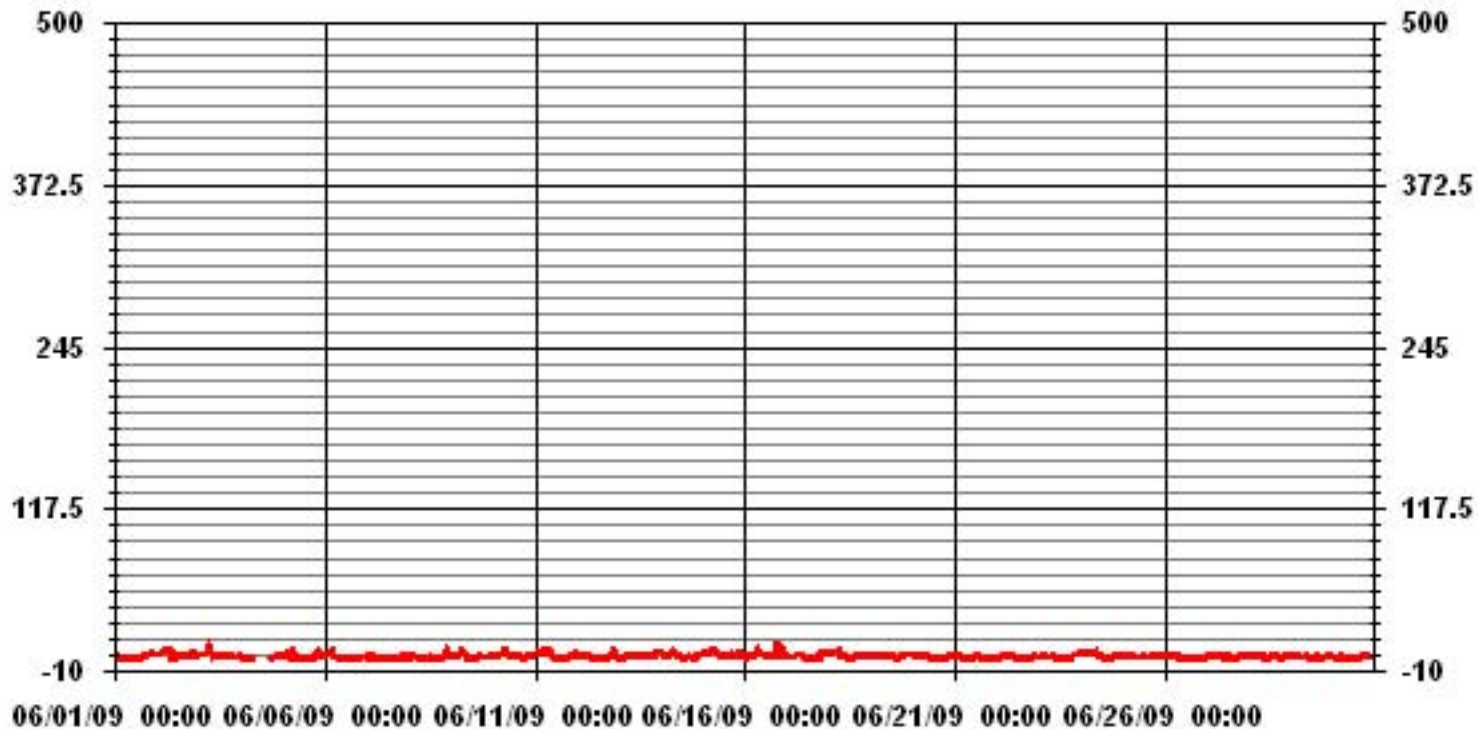
| | | | | | | |
|----------------------|------|-----|-----|-------|-----|-----|
| ALBERTA ENVIRONMENT: | 1-HR | 212 | PPB | 24-HR | 106 | PPB |
|----------------------|------|-----|-----|-------|-----|-----|



MONTHLY SUMMARY

| | |
|------------------------------|----------------------------------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 |
| NUMBER OF 24-HR EXCEEDENCES: | 0 |
| NUMBER OF NON-ZERO READINGS: | 500 |
| MAXIMUM 1-HR AVERAGE: | 13 PPB @ HOUR(S) 19 ON DAY(S) 16 |
| MAXIMUM 24-HR AVERAGE: | 3.3 PPB ON DAY(S) 15 |
| IZS CALIBRATION TIME: | 31 HRS |
| MONTHLY CALIBRATION TIME: | 7 HRS |
| STANDARD DEVIATION | 1.74 |
| OPERATIONAL TIME: | 718 HRS |
| AMD OPERATION UPTIME | 99.7 % |
| MONTHLY AVERAGE | 1.67 PPB |

01 Hour Averages



— LICA H02_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

NITROGEN DIOXIDE 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 | 24-HOUR | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|-----------|-------|---------|--|
| 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 | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 7 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 4 | 2 | IZS | 13 | 8 | 9 | 6 | 13 | 3.0 | 24 | |
| 2 | 4 | 4 | 4 | 4 | 7 | 12 | 8 | 9 | 15 | 4 | 2 | 1 | 3 | 4 | 1 | 2 | 2 | 1 | IZS | 4 | 10 | 12 | 7 | 4 | 15 | 5.4 | 24 | |
| 3 | 6 | 7 | P | 6 | 8 | 8 | 13 | 13 | 3 | 4 | 4 | 2 | 2 | 3 | 2 | 2 | 4 | IZS | 2 | 2 | 2 | 2 | 3 | 3 | 13 | 4.6 | 23 | |
| 4 | 5 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | C | C | C | C | C | C | C | 2 | IZS | 17 | 2 | 10 | 5 | 7 | 4 | 5 | 17 | 3.9 | 24 | |
| 5 | 4 | 3 | 3 | 2 | 8 | 9 | 3 | 2 | 3 | 3 | 2 | 4 | 1 | 3 | 14 | IZS | 2 | 3 | 7 | 5 | 17 | 10 | 5 | 4 | 17 | 5.1 | 24 | |
| 6 | 6 | 5 | 9 | 7 | 8 | 5 | 3 | 2 | 3 | 6 | 1 | 2 | 1 | 6 | IZS | 1 | 1 | 4 | 2 | 3 | 5 | 4 | 2 | 4 | 9 | 3.9 | 24 | |
| 7 | 3 | 4 | 1 | 3 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | IZS | 1 | 3 | 3 | 1 | 1 | 1 | 7 | 6 | 1 | 1 | 7 | 2.1 | 24 | |
| 8 | 1 | 4 | 1 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 1 | 5 | IZS | 8 | 5 | 1 | 1 | 2 | 2 | 1 | 4 | 17 | 7 | 5 | 17 | 3.6 | 24 | |
| 9 | 3 | 2 | 5 | 4 | 3 | 5 | 9 | 11 | 11 | 3 | 1 | IZS | 1 | 3 | 2 | 1 | 4 | 6 | 9 | 4 | 3 | 2 | 3 | 3 | 11 | 4.3 | 24 | |
| 10 | 4 | 3 | 3 | 3 | 5 | 3 | 8 | 38 | 5 | 3 | IZS | 2 | 1 | 1 | 2 | 2 | 2 | 20 | 2 | 4 | 16 | 5 | 4 | 3 | 38 | 6.0 | 24 | |
| 11 | 4 | 4 | 5 | 7 | 11 | 9 | 3 | 12 | 17 | IZS | 20 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 5 | 8 | 9 | 7 | 20 | 5.7 | 24 | |
| 12 | 5 | 9 | 4 | 4 | 6 | 6 | 7 | 2 | IZS | 1 | 1 | 1 | 2 | 2 | 7 | 1 | 6 | 5 | 15 | 17 | 8 | 17 | 9 | 4 | 17 | 6.0 | 24 | |
| 13 | 8 | 1 | 1 | 3 | 4 | 5 | 2 | IZS | 4 | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 4 | 1 | 3 | 3 | 7 | 7 | 7 | 9 | 9 | 3.7 | 24 | |
| 14 | 9 | 7 | 5 | 5 | 3 | 6 | IZS | 8 | 8 | 5 | 2 | 2 | 2 | 2 | 1 | 9 | 4 | 12 | 3 | 2 | 3 | 4 | 6 | 4 | 12 | 4.9 | 24 | |
| 15 | 6 | 6 | 6 | 5 | 7 | IZS | 8 | 16 | 4 | 3 | 2 | 2 | 5 | 3 | 3 | 7 | 6 | 5 | 7 | 6 | 23 | 14 | 7 | 9 | 23 | 7.0 | 24 | |
| 16 | 7 | 3 | 3 | 3 | IZS | 3 | 4 | 11 | 5 | 8 | 12 | 4 | 5 | 5 | 3 | 2 | 2 | 3 | 24 | 39 | 7 | 5 | 7 | 5 | 39 | 7.4 | 24 | |
| 17 | 6 | 6 | 3 | IZS | 5 | 9 | M | 4 | 5 | 5 | 5 | 1 | 9 | 7 | 2 | 2 | 2 | 2 | 1 | 6 | 11 | 8 | 6 | 6 | 11 | 5.0 | 23 | |
| 18 | 8 | 5 | IZS | 6 | 6 | 9 | 5 | 2 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 6 | 4 | 4 | 3 | 9 | 3.5 | 24 | |
| 19 | 3 | IZS | 4 | 4 | 5 | 3 | 4 | 3 | 18 | 27 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | 4 | 9 | 27 | 4.7 | 24 | |
| 20 | IZS | 3 | 3 | 3 | 10 | 3 | 2 | 4 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 5 | 0 | 10 | 2.4 | 24 | |
| 21 | 13 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 7 | 4 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | IZS | 1 | 13 | 2.1 | 24 | |
| 22 | 0 | 1 | 2 | 4 | 4 | 4 | 4 | 1 | 3 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | IZS | 3 | 4 | 4 | 1.8 | 24 | |
| 23 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | IZS | 5 | 4 | 4 | 5 | 1.9 | 24 | |
| 24 | 5 | 5 | 4 | 6 | 6 | 7 | 7 | 5 | 5 | 12 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 27 | IZS | 7 | 4 | 4 | 2 | 27 | 5.1 | 24 | |
| 25 | 2 | 1 | 1 | 4 | 4 | 5 | 3 | 3 | 2 | 59 | 2 | 4 | 2 | 2 | 2 | 5 | 4 | 6 | IZS | 4 | 3 | 4 | 3 | 1 | 59 | 5.5 | 24 | |
| 26 | 2 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 3 | 3 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 1.9 | 24 | |
| 27 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | IZS | 1 | 2 | 3 | 16 | 5 | 4 | 3 | 16 | 2.5 | 24 | |
| 28 | 4 | 3 | 4 | 5 | 3 | 4 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 4 | 2 | IZS | 2 | 1 | 1 | 1 | 4 | 4 | 2 | 2 | 5 | 2.6 | 24 | |
| 29 | 3 | 1 | 1 | 1 | 13 | 5 | 3 | 2 | 3 | 1 | 3 | 1 | 2 | 1 | IZS | 2 | 1 | 2 | 10 | 3 | 3 | 7 | 1 | 2 | 13 | 3.1 | 24 | |
| 30 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 3 | IZS | 1 | 1 | 2 | 3 | 2 | 4 | 6 | 4 | 5 | 3 | 6 | 2.5 | 24 | |
| HOURLY MAX | 13 | 9 | 9 | 7 | 13 | 12 | 13 | 38 | 18 | 59 | 20 | 5 | 9 | 8 | 14 | 9 | 6 | 20 | 27 | 39 | 23 | 17 | 9 | 9 | | | | |
| HOURLY AVG | 4.6 | 3.4 | 3.0 | 3.6 | 4.8 | 4.7 | 3.9 | 5.6 | 4.8 | 6.2 | 3.1 | 1.9 | 2.3 | 2.7 | 2.4 | 2.1 | 2.2 | 3.8 | 4.8 | 4.9 | 6.9 | 6.2 | 4.7 | 3.9 | | | | |

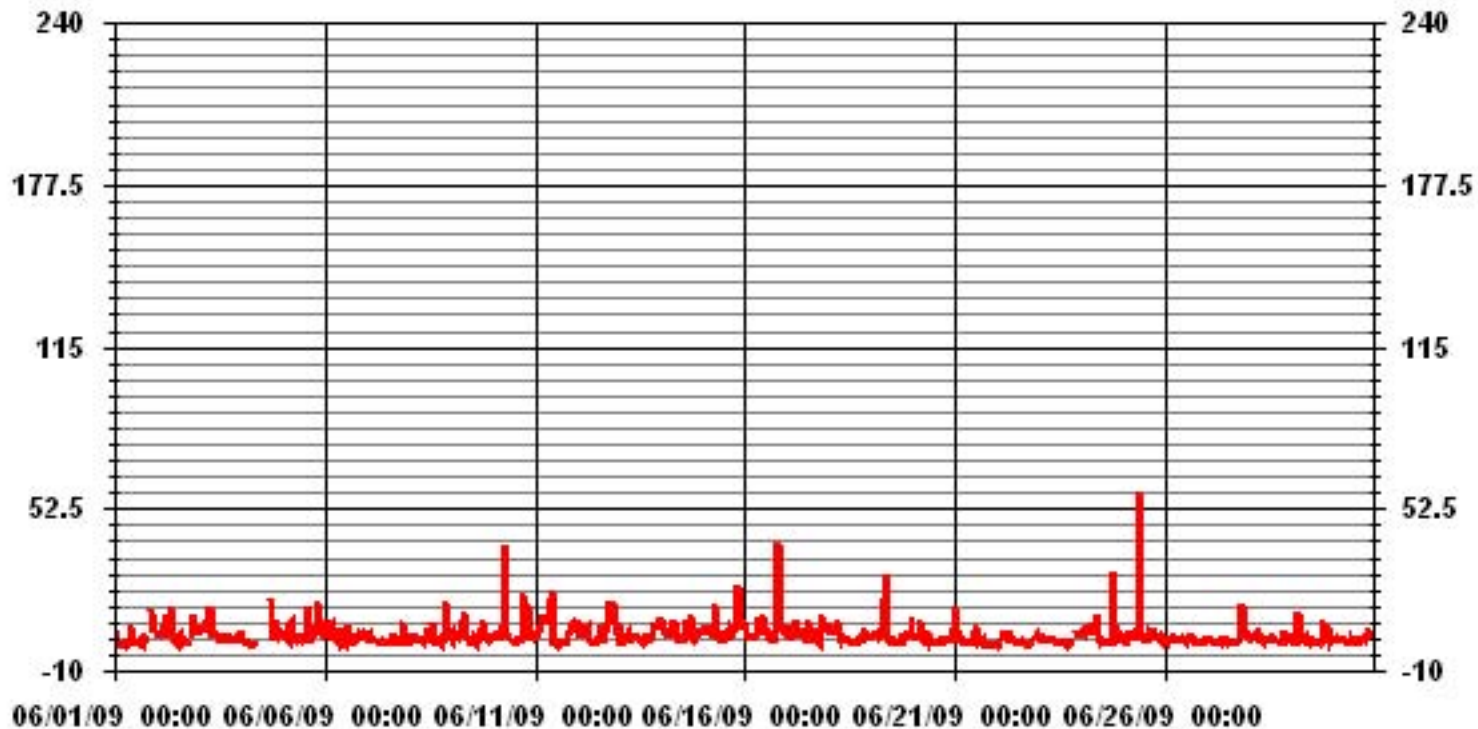
STATUS FLAG CODES

| | |
|----------------------|-----------------------------|
| S - OUT OF SERVICE | IZS - DAILY ZERO/SPAN CHECK |
| N - INVALID DATA | M - MISSING DATA |
| D - INSTRUMENT DRIFT | P - POWER FAILURE |
| C - CALIBRATION | NA - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 663 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 59 | PPB | @ HOUR(S) | 9 | ON DAY(S) | 25 |
| IZS CALIBRATION TIME: | 30 | HRS | OPERATIONAL TIME: | 718 | HRS | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | | | | |
| STANDARD DEVIATION: | 4.61 | | | | | |

01 Hour Averages



— LICA NO2MAX PPB

LICA
NO2_ / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 5.00 | 6.02 | 8.08 | 4.85 | 3.67 | 5.29 | 7.35 | 4.11 | 3.82 | 5.73 | 7.94 | 12.50 | 8.97 | 5.44 | 6.32 | 4.85 | 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 | 5.00 | 6.02 | 8.08 | 4.85 | 3.67 | 5.29 | 7.35 | 4.11 | 3.82 | 5.73 | 7.94 | 12.50 | 8.97 | 5.44 | 6.32 | 4.85 | |

Calm : .00 %

Total # Operational Hours : 680

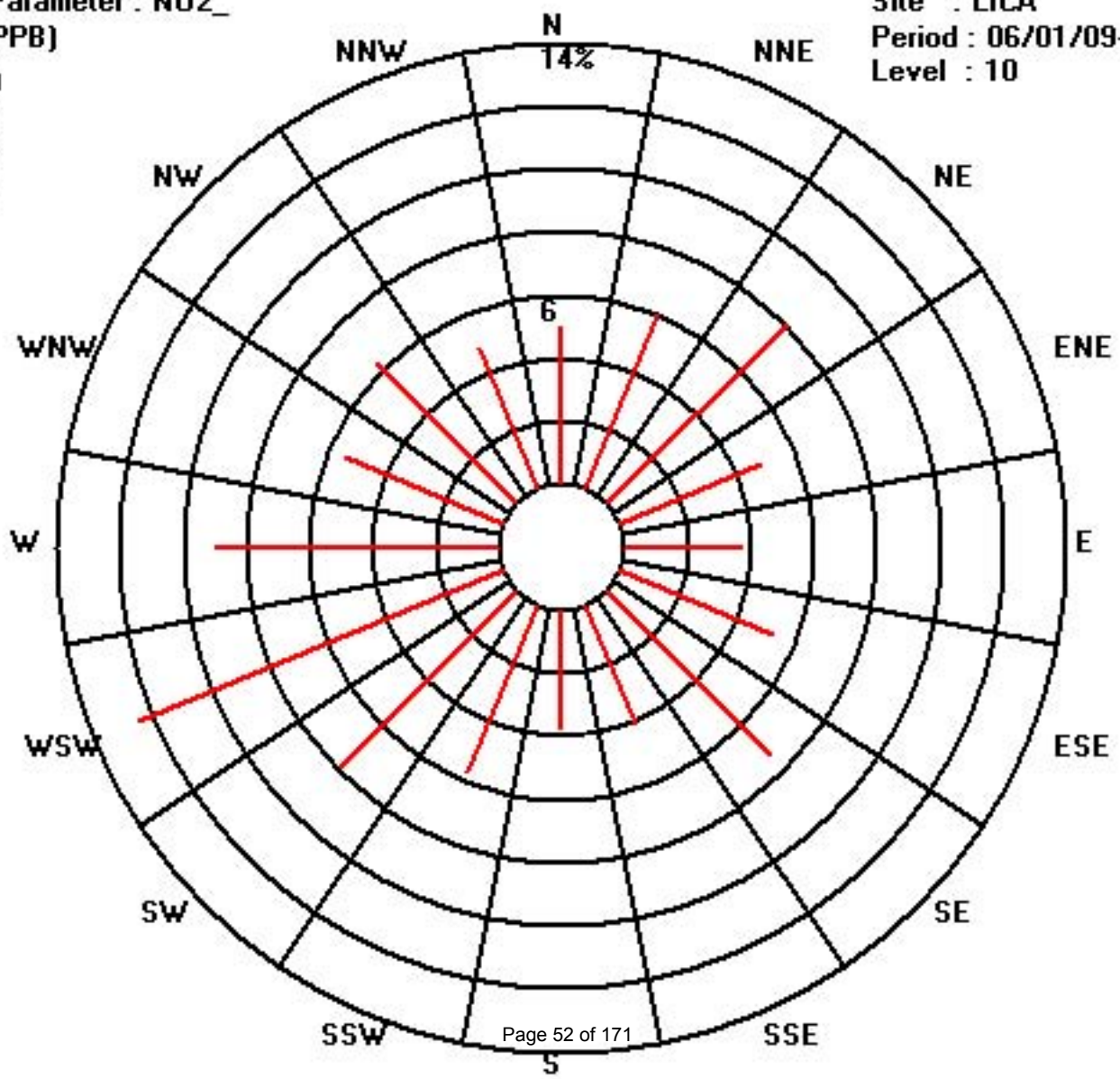
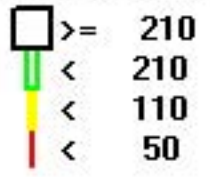
Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 34 | 41 | 55 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | 680 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 34 | 41 | 55 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | |

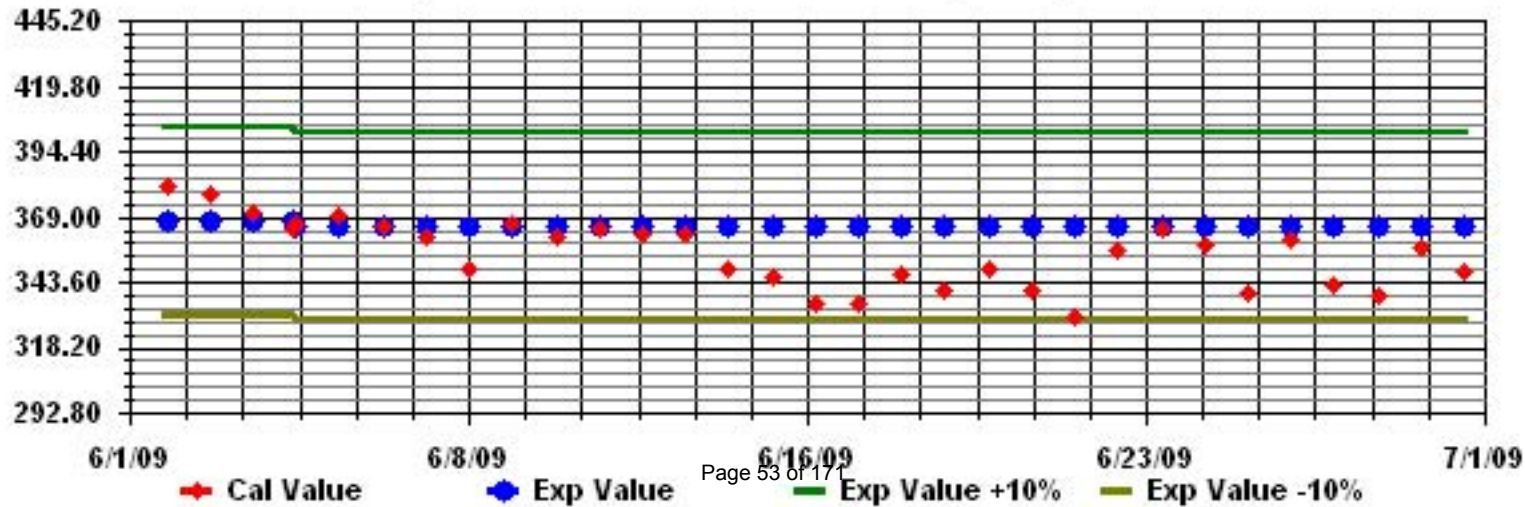
Calm : .00 %

Total # Operational Hours : 680

Class Limits (PPB)



Calibration Graph for Site: LICA Parameter: H02_ Sequence: H02 Phase: SPAN



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

NITRIC OXIDE 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 | HOURLY MAX | HOURLY AVG | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 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 | 24 |
| 2 | 0 | 0.0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.5 | 24 |
| 3 | 0 | 0.1 | 0 | P | 2 | 0 | 2 | 6 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0.6 | 23 |
| 4 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 5 | 0 | 0.0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 24 |
| 6 | 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 | 1 | 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 | 0.0 | 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 | 2 | 0.1 | 24 |
| 9 | 0 | 0.0 | 0 | 0 | 0 | 2 | 5 | 10 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1.0 | 24 | |
| 10 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.1 | 24 |
| 11 | 0 | 0.0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 24 |
| 12 | 0 | 0.0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 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 | 0.0 | 24 |
| 14 | 0 | 0.0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 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 | 3 | 0.2 | 24 | |
| 16 | 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 | 3 | 0.2 | 24 | |
| 17 | 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 | 1 | 0.0 | 23 |
| 18 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 19 | 0 | 0.1 | 0 | 0 | 1 | 3 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.4 | 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 | 0.0 | 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 | 0 | 0 | 0 | 0 | 2 | 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 | 0.0 | 24 |
| 23 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 24 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 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 | 0.0 | 24 |
| 26 | 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 | 1 | 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 | 1 | 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 | 3 | 0.3 | 24 |
| 29 | 0 | 0.0 | 0 | 0 | 0 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.3 | 24 |
| 30 | 0 | 0.0 | 0 | 0 | 0 | 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 | 2 | 0 | 2 | 3 | 4 | 5 | 10 | 4 | 3 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | | | | |
| HOURLY AVG | 0.1 | 0.0 | 0.1 | 0.2 | 0.4 | 0.8 | 1.0 | 0.7 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | | | | |

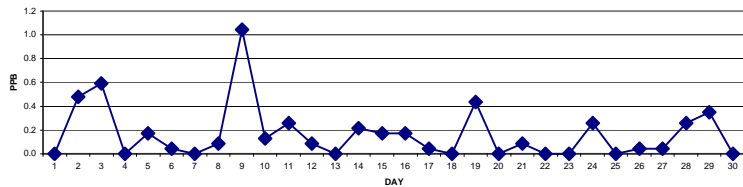
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

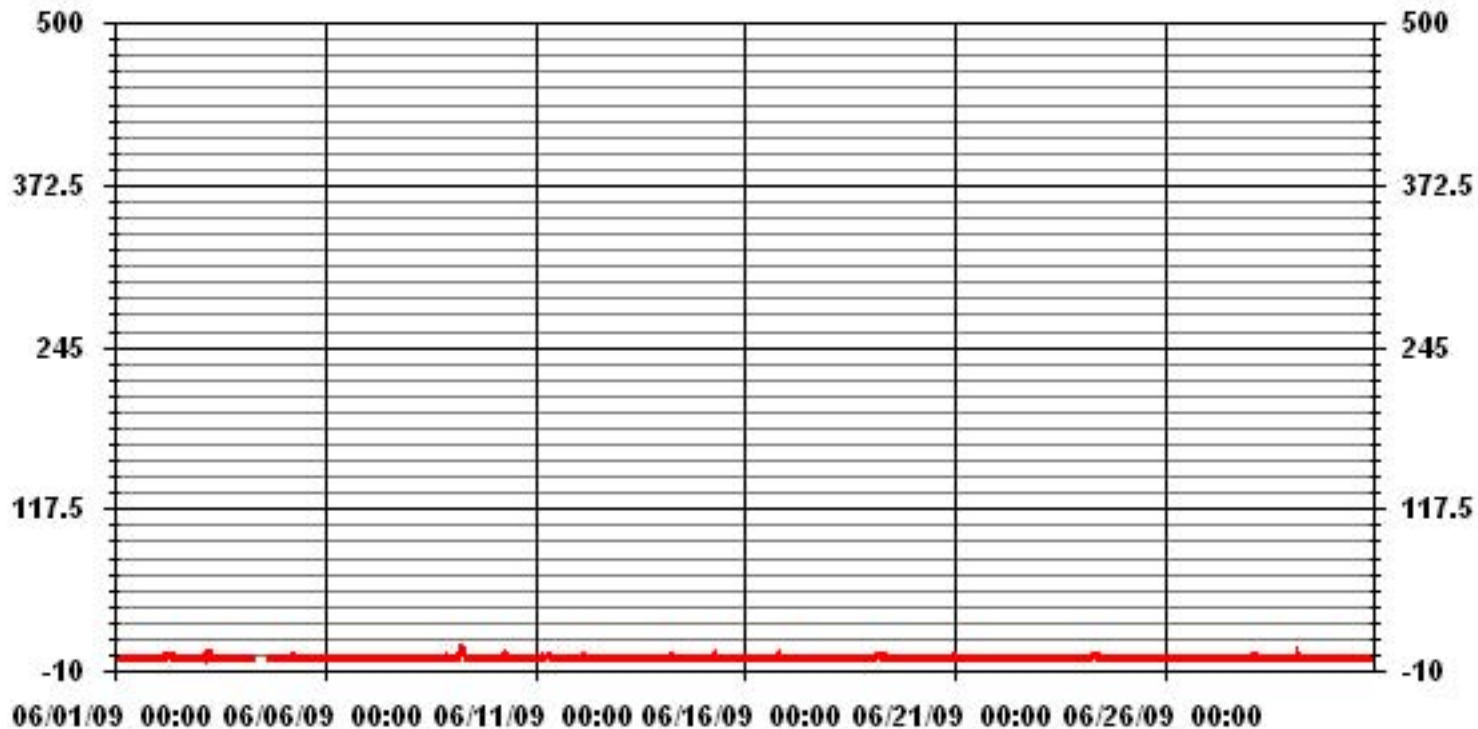
MONTHLY SUMMARY

| | |
|------------------------------|--------------------------------|
| NUMBER OF NON-ZERO READINGS: | 54 |
| MAXIMUM 1-HR AVERAGE: | 10 PPB @ HOUR(S) 6 ON DAY(S) 9 |
| MAXIMUM 24-HR AVERAGE: | 1.0 PPB ON DAY(S) 9 |
| IZS CALIBRATION TIME: | 31 HRS |
| MONTHLY CALIBRATION TIME: | 7 HRS |
| OPERATIONAL TIME: | 718 HRS |
| AMD OPERATION UPTIME: | 99.7 % |
| STANDARD DEVIATION | 0.72 |
| MONTHLY AVERAGE | 0.17 PPB |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

NITRIC OXIDE MAX instantaneous maximum in ppb

MST

| 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 | 0:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. |
|------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------|--------------|-------|
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | IZS | 2 | 0 | 0 | 0 | 5 | 0.7 | 24 | |
| 2 | 0 | 0 | 0 | 0 | 1 | 8 | 3 | 2 | 7 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 8 | 1.0 | 24 | |
| 3 | 0 | 0 | P | 38 | 1 | 3 | 9 | 6 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 | 3 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 3.0 | 23 | |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | C | C | C | C | C | C | C | 1 | IZS | 4 | 0 | 9 | 2 | 3 | 0 | 1 | 9 | 1.3 | 24 | |
| 5 | 0 | 0 | 0 | 0 | 5 | 4 | 0 | 1 | 1 | 1 | 0 | 24 | 0 | 0 | 12 | IZS | 1 | 3 | 16 | 16 | 9 | 3 | 1 | 0 | 24 | 4.2 | 24 | |
| 6 | 0 | 0 | 13 | 0 | 5 | 1 | 1 | 0 | 15 | 3 | 0 | 1 | 0 | 1 | IZS | 0 | 0 | 3 | 0 | 10 | 2 | 1 | 0 | 0 | 15 | 2.4 | 24 | |
| 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | IZS | 0 | 0 | 0 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 3 | 0.3 | 24 | |
| 8 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 4 | 0 | 1 | 3 | 1 | 0 | IZS | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 18 | 1 | 0 | 18 | 1.6 | 24 |
| 9 | 0 | 0 | 5 | 3 | 2 | 8 | 16 | 8 | 6 | 1 | 0 | IZS | 0 | 6 | 2 | 0 | 3 | 4 | 3 | 3 | 0 | 0 | 1 | 0 | 16 | 3.1 | 24 | |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 31 | 1 | 0 | IZS | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 1 | 0 | 0 | 31 | 2.0 | 24 | |
| 11 | 0 | 0 | 0 | 0 | 6 | 2 | 2 | 3 | 6 | IZS | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1.0 | 24 | |
| 12 | 0 | 33 | 0 | 0 | 3 | 3 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 2 | 27 | 8 | 6 | 0 | 0 | 33 | 3.7 | 24 | |
| 13 | 25 | 0 | 0 | 0 | 0 | 3 | 0 | IZS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 14 | 0 | 0 | 0 | 0 | 2 | 25 | 2.1 | 24 | |
| 14 | 1 | 1 | 1 | 1 | 2 | 4 | IZS | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 1.0 | 24 | |
| 15 | 0 | 0 | 0 | 0 | 1 | IZS | 2 | 32 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 11 | 5 | 0 | 4 | 32 | 2.6 | 24 | |
| 16 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 4 | 1 | 1 | 5 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 11 | 16 | 0 | 0 | 0 | 0 | 16 | 1.8 | 24 | |
| 17 | 0 | 0 | 0 | IZS | 1 | 5 | M | 0 | 1 | 9 | 9 | 0 | 8 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 18 | 1 | 0 | 1 | 18 | 2.6 | 23 | |
| 18 | 6 | 1 | IZS | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 6 | 0.6 | 24 | |
| 19 | 2 | IZS | 1 | 3 | 8 | 5 | 2 | 1 | 17 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 23 | 3.2 | 24 | |
| 20 | IZS | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | IZS | 3 | 0.4 | 24 | |
| 21 | 36 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 2.2 | 24 | |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 7 | 0.4 | 24 | |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 24 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 2 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | IZS | 1 | 10 | 2 | 0 | 10 | 1.3 | 24 | |
| 25 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 13 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 13 | 1.2 | 24 | |
| 26 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 6 | 12 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1.2 | 24 | |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | IZS | 0 | 0 | 0 | 17 | 0 | 1 | 1 | 17 | 1.0 | 24 | |
| 28 | 1 | 1 | 7 | 5 | 2 | 4 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 1.1 | 24 | |
| 29 | 0 | 0 | 1 | 1 | 35 | 21 | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | IZS | 1 | 0 | 8 | 25 | 2 | 0 | 22 | 0 | 35 | 5.3 | 24 | | |
| 30 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 4 | IZS | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 7 | 0 | 15 | 1.3 | 24 | | |
| HOURLY MAX | 36 | 33 | 13 | 38 | 35 | 21 | 16 | 32 | 17 | 12 | 9 | 24 | 8 | 6 | 12 | 7 | 3 | 8 | 25 | 27 | 18 | 22 | 7 | 23 | | | | |
| HOURLY AVG | 2.5 | 1.3 | 1.0 | 1.8 | 2.6 | 2.6 | 1.6 | 3.5 | 3.2 | 2.3 | 0.9 | 1.3 | 0.8 | 0.9 | 1.1 | 0.7 | 0.5 | 1.1 | 2.8 | 3.7 | 2.6 | 2.4 | 0.5 | 1.1 | | | | |

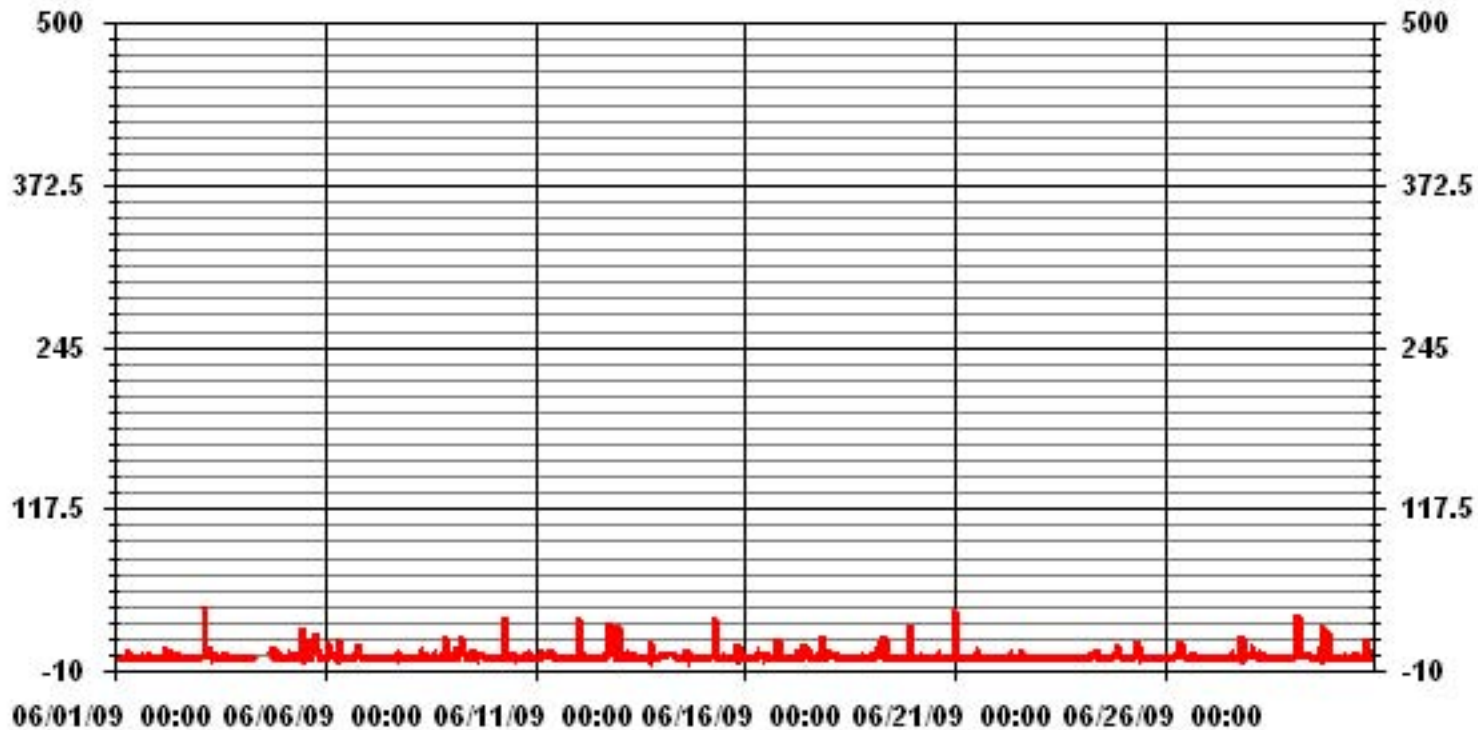
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-----|-----------|---|
| NUMBER OF NON-ZERO READINGS: | 249 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 38 | PPB | @ HOUR(S) | 3 | ON DAY(S) | 3 |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 718 | HRS | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | | | | |
| STANDARD DEVIATION: | 4.77 | | | | | |

01 Hour Averages



— LICA NOMAX PPB

LICA
NO_ / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

| | | Direction | | | | | | | | | | | | | | | | |
|--------|------|-----------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|--|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq | |
| < 50 | 5.00 | 6.02 | 8.08 | 4.85 | 3.67 | 5.29 | 7.35 | 4.11 | 3.82 | 5.73 | 7.94 | 12.50 | 8.97 | 5.44 | 6.32 | 4.85 | 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 | 5.00 | 6.02 | 8.08 | 4.85 | 3.67 | 5.29 | 7.35 | 4.11 | 3.82 | 5.73 | 7.94 | 12.50 | 8.97 | 5.44 | 6.32 | 4.85 | | |

Calm : .00 %

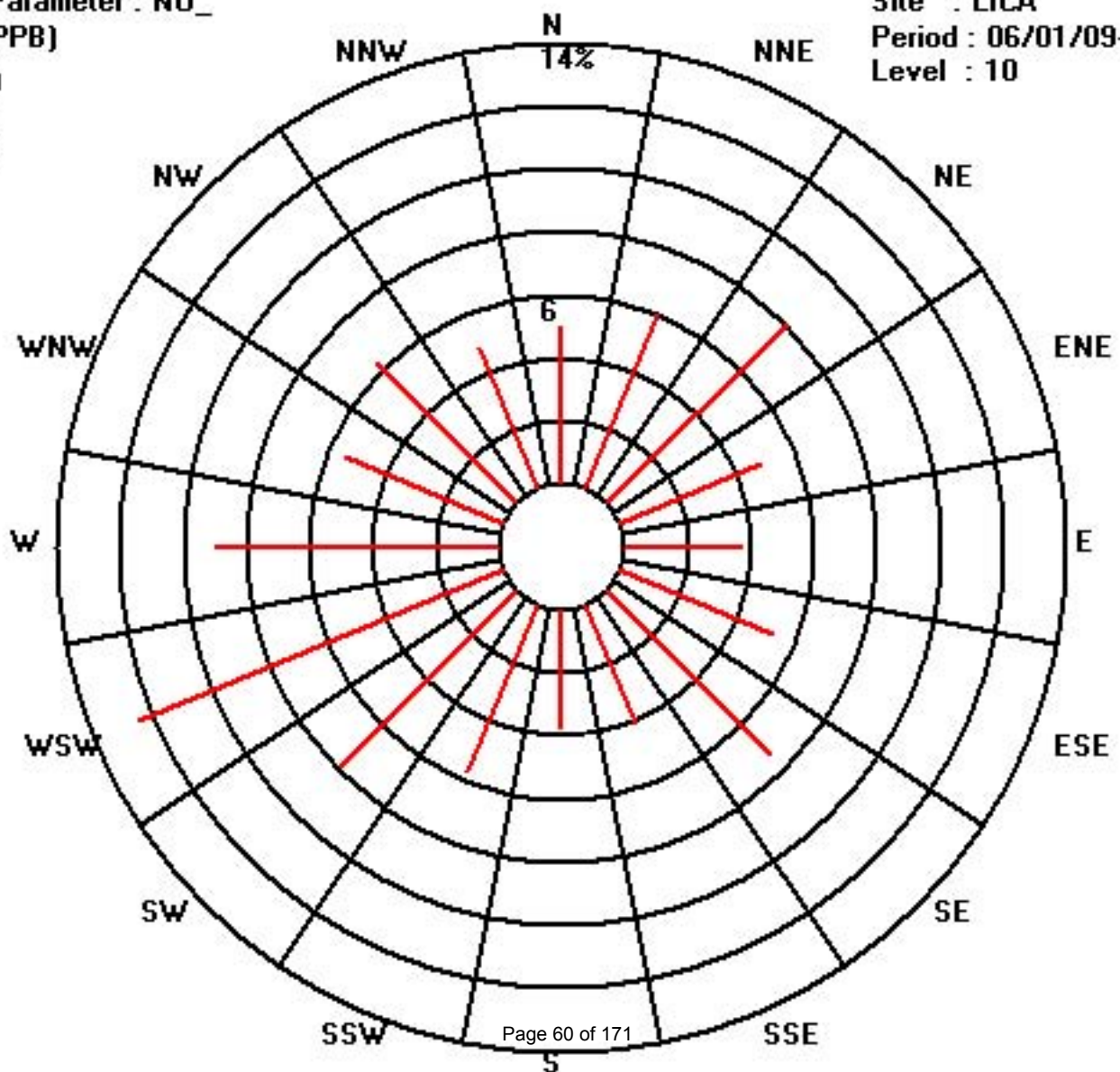
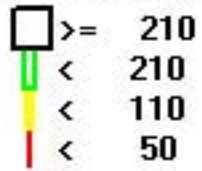
Total # Operational Hours : 680

Distribution By Samples

| | | Direction | | | | | | | | | | | | | | | | |
|--------|----|-----------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|--|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq | |
| < 50 | 34 | 41 | 55 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | 680 | |
| < 110 | | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | | |
| Totals | 34 | 41 | 55 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | | |

Calm : .00 %

Total # Operational Hours : 680



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

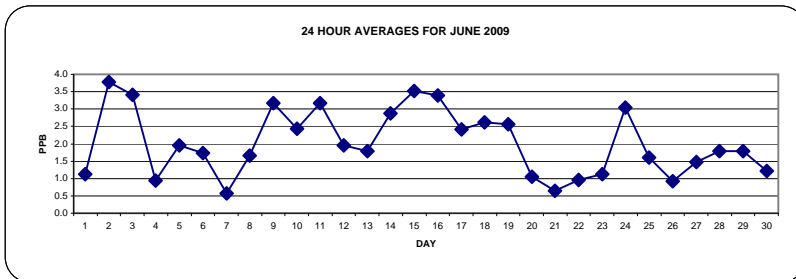
OXIDES OF NITROGEN hourly averages in ppb

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 | DAILY | 24-HOUR | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|----|
| 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 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | IZS | 4 | 5 | 4 | 4 | 4 | 5 | 1.1 | 24 |
| 2 | 3 | 3 | 3 | 4 | 6 | 10 | 10 | 8 | 12 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 2 | 5 | 6 | 4 | 2 | 12 | 3.8 | 24 | |
| 3 | 3 | 4 | P | 7 | 5 | 7 | 16 | 10 | 2 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 2 | 1 | 2 | 16 | 3.4 | 23 | |
| 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | C | C | C | C | C | C | C | 0 | IZS | 1 | 0 | 2 | 2 | 2 | 2 | 2 | 3 | 0.9 | 24 | |
| 5 | 2 | 2 | 2 | 1 | 6 | 9 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | IZS | 0 | 0 | 1 | 2 | 5 | 3 | 2 | 2 | 9 | 2.0 | 24 |
| 6 | 3 | 3 | 4 | 5 | 7 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 7 | 1.7 | 24 |
| 7 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 1 | 3 | 0.6 | 24 |
| 8 | 0 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | IZS | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 2 | 10 | 5 | 3 | 10 | 1.7 | 24 |
| 9 | 2 | 1 | 3 | 3 | 4 | 9 | 16 | 10 | 8 | 1 | 1 | 0 | IZS | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 16 | 3.2 | 24 |
| 10 | 2 | 2 | 2 | 2 | 3 | 3 | 5 | 12 | 4 | 3 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 12 | 2.4 | 24 |
| 11 | 3 | 3 | 4 | 4 | 6 | 6 | 9 | 10 | 10 | IZS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 4 | 3 | 4 | 10 | 3.2 | 24 | |
| 12 | 4 | 4 | 2 | 2 | 4 | 4 | 2 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 5 | 9 | 4 | 1 | 9 | 2.0 | 24 | |
| 13 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 5 | 6 | 6 | 1.8 | 24 | |
| 14 | 5 | 4 | 3 | 3 | 3 | 7 | IZS | 9 | 8 | 4 | 1 | 1 | 1 | 0 | 1 | 2 | 3 | 2 | 1 | 0 | 1 | 1 | 3 | 3 | 9 | 2.9 | 24 | |
| 15 | 4 | 4 | 4 | 4 | 5 | IZS | 7 | 9 | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 4 | 2 | 2 | 2 | 5 | 5 | 5 | 4 | 9 | 3.5 | 24 | |
| 16 | 3 | 1 | 2 | 2 | IZS | 3 | 3 | 7 | 4 | 4 | 4 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 4 | 17 | 2 | 2 | 5 | 3 | 17 | 3.4 | 24 | |
| 17 | 4 | 3 | 3 | IZS | 3 | 5 | M | 3 | 4 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 6 | 4 | 5 | 6 | 2.4 | 23 | |
| 18 | 5 | 4 | IZS | 5 | 5 | 7 | 3 | 2 | 3 | 2 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 2 | 5 | 3 | 3 | 2 | 7 | 2.6 | 24 | |
| 19 | 2 | IZS | 4 | 4 | 6 | 5 | 5 | 3 | 5 | 4 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 6 | 2.6 | 24 | |
| 20 | IZS | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 3 | IZS | 3 | 1.0 | 24 | |
| 21 | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 4 | 0.7 | 24 |
| 22 | 0 | 0 | 1 | 3 | 3 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 2 | 2 | 4 | 1.0 | 24 |
| 23 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 3 | 3 | 4 | 4 | 1.1 | 24 |
| 24 | 4 | 4 | 4 | 5 | 5 | 6 | 8 | 5 | 5 | 8 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 2 | IZS | 3 | 2 | 2 | 1 | 8 | 3.0 | 24 | |
| 25 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | IZS | 2 | 2 | 2 | 1 | 1 | 3 | 1.6 | 24 | |
| 26 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0.9 | 24 | |
| 27 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | IZS | 1 | 1 | 2 | 4 | 4 | 3 | 3 | 4 | 1.5 | 24 | |
| 28 | 3 | 3 | 5 | 6 | 3 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | IZS | 1 | 1 | 0 | 1 | 2 | 3 | 1 | 1 | 6 | 1.8 | 24 |
| 29 | 2 | 1 | 1 | 2 | 5 | 4 | 4 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 2 | 2 | 1 | 3 | 1 | 1 | 5 | 1.8 | 24 | |
| 30 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | IZS | 1 | 0 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 1.2 | 24 | |
| HOURLY MAX | 5 | 4 | 5 | 7 | 7 | 10 | 16 | 12 | 12 | 8 | 4 | 3 | 3 | 2 | 2 | 2 | 4 | 3 | 4 | 17 | 6 | 10 | 5 | 6 | | | | |
| HOURLY AVG | 2.4 | 2.0 | 2.0 | 2.5 | 3.2 | 3.9 | 4.0 | 3.6 | 3.0 | 1.9 | 1.0 | 0.9 | 0.7 | 0.7 | 0.7 | 0.6 | 0.8 | 0.8 | 0.9 | 1.8 | 2.6 | 3.2 | 2.7 | 2.4 | | | | |

STATUS FLAG CODES

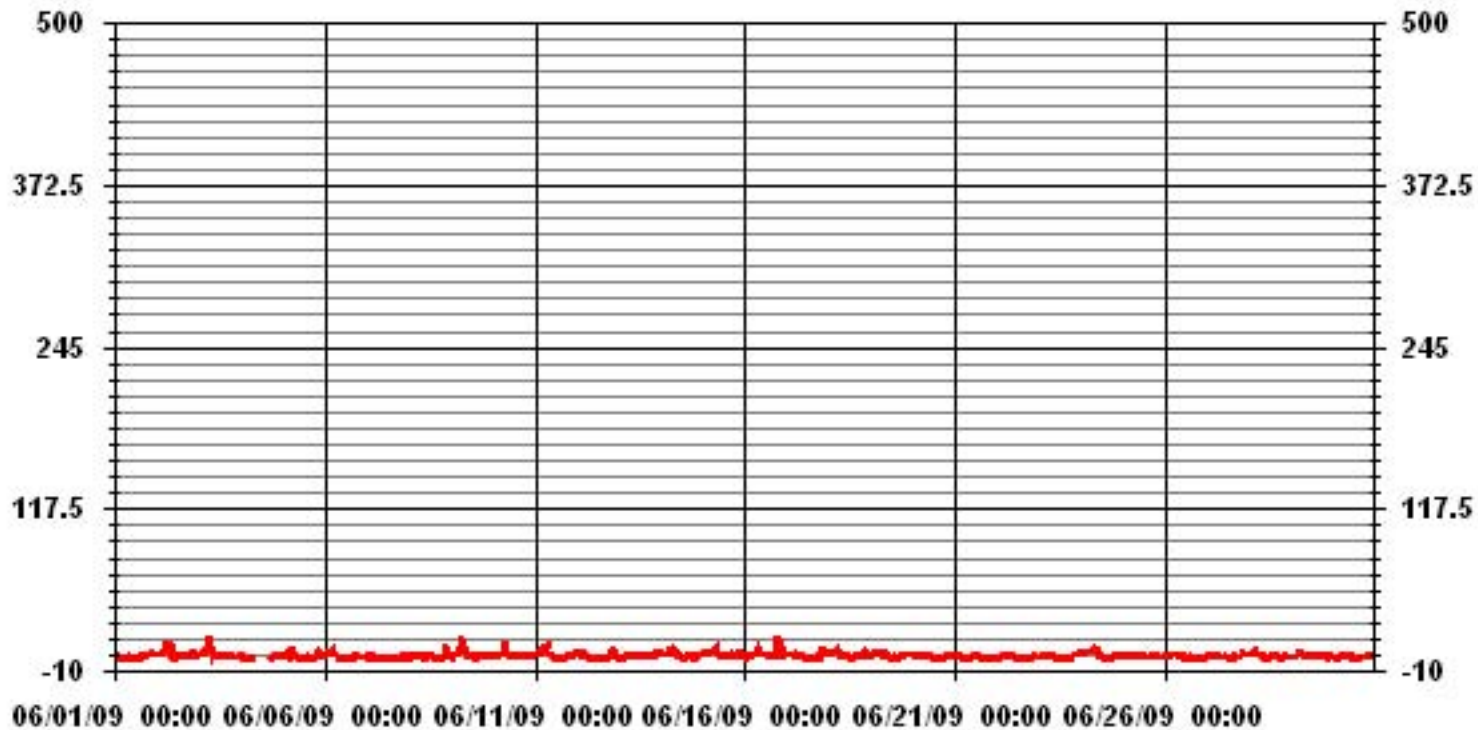
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |



MONTHLY SUMMARY

| | | | | | |
|------------------------------|------|-----|----------------------|------|-----------|
| NUMBER OF NON-ZERO READINGS: | 540 | | | | |
| MAXIMUM 1-HR AVERAGE: | 17 | PPB | @ HOUR(S) | 19 | ON DAY(S) |
| MAXIMUM 24-HR AVERAGE: | 3.8 | PPB | | | ON DAY(S) |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 718 | HRS |
| MONTHLY CALIBRATION TIME: | 7 | HRS | AMD OPERATION UPTIME | 99.7 | % |
| STANDARD DEVIATION | 2.24 | | MONTHLY AVERAGE | 2.03 | PPB |

01 Hour Averages



— LICA NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

OXIDES OF NITROGEN 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 | DAILY | 24-HOUR | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|----|
| 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 | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 5 | 11 | 2 | 1 | 1 | 3 | 2 | 2 | 4 | 5 | 3 | IZS | 16 | 8 | 9 | 6 | 16 | 3.7 | 24 | |
| 2 | 4 | 5 | 4 | 5 | 9 | 21 | 12 | 12 | 23 | 6 | 2 | 2 | 4 | 5 | 2 | 2 | 2 | 2 | IZS | 4 | 10 | 12 | 7 | 4 | 23 | 6.9 | 24 | |
| 3 | 7 | 8 | P | 38 | 10 | 12 | 20 | 19 | 4 | 6 | 5 | 2 | 2 | 4 | 3 | 4 | 8 | IZS | 3 | 2 | 2 | 3 | 3 | 3 | 38 | 7.6 | 23 | |
| 4 | 5 | 2 | 1 | 1 | 1 | 0 | 1 | 2 | C | C | C | C | C | C | C | 3 | 4 | IZS | 21 | 3 | 16 | 6 | 9 | 4 | 7 | 21 | 5.1 | 24 |
| 5 | 4 | 3 | 4 | 2 | 14 | 14 | 4 | 4 | 5 | 3 | 3 | 11 | 2 | 4 | 23 | IZS | 3 | 6 | 21 | 19 | 27 | 13 | 6 | 5 | 27 | 8.7 | 24 | |
| 6 | 6 | 5 | 22 | 8 | 13 | 6 | 5 | 2 | 6 | 10 | 1 | 3 | 1 | 7 | IZS | 1 | 1 | 7 | 2 | 4 | 6 | 5 | 2 | 4 | 22 | 5.5 | 24 | |
| 7 | 3 | 5 | 1 | 3 | 3 | 3 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | IZS | 2 | 3 | 3 | 2 | 1 | 2 | 9 | 6 | 2 | 1 | 9 | 2.7 | 24 | |
| 8 | 1 | 6 | 1 | 3 | 4 | 4 | 4 | 3 | 1 | 4 | 2 | 7 | IZS | 9 | 6 | 4 | 1 | 3 | 3 | 1 | 4 | 35 | 8 | 5 | 35 | 5.2 | 24 | |
| 9 | 3 | 2 | 10 | 7 | 6 | 13 | 26 | 18 | 18 | 5 | 2 | IZS | 2 | 6 | 4 | 2 | 6 | 10 | 12 | 8 | 4 | 2 | 5 | 4 | 26 | 7.6 | 24 | |
| 10 | 4 | 3 | 3 | 3 | 5 | 4 | 10 | 70 | 6 | 4 | IZS | 2 | 2 | 3 | 3 | 2 | 3 | 21 | 3 | 7 | 20 | 6 | 4 | 4 | 70 | 8.3 | 24 | |
| 11 | 4 | 4 | 5 | 7 | 17 | 11 | 12 | 16 | 24 | IZS | 25 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 6 | 8 | 10 | 8 | 25 | 7.4 | 24 | |
| 12 | 6 | 38 | 5 | 4 | 10 | 9 | 7 | 3 | IZS | 1 | 1 | 2 | 3 | 4 | 9 | 1 | 9 | 7 | 15 | 30 | 13 | 21 | 9 | 5 | 38 | 9.2 | 24 | |
| 13 | 29 | 2 | 1 | 3 | 5 | 9 | 3 | IZS | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 3 | 6 | 1 | 8 | 3 | 8 | 7 | 8 | 11 | 29 | 5.6 | 24 | |
| 14 | 11 | 8 | 7 | 5 | 6 | 9 | IZS | 11 | 11 | 6 | 2 | 2 | 3 | 2 | 1 | 16 | 5 | 13 | 4 | 2 | 4 | 4 | 6 | 4 | 16 | 6.2 | 24 | |
| 15 | 6 | 6 | 6 | 5 | 8 | IZS | 10 | 43 | 5 | 4 | 2 | 3 | 7 | 3 | 3 | 8 | 7 | 6 | 8 | 6 | 35 | 19 | 8 | 14 | 43 | 9.7 | 24 | |
| 16 | 7 | 3 | 3 | 3 | IZS | 3 | 5 | 15 | 7 | 10 | 18 | 5 | 7 | 7 | 3 | 2 | 2 | 3 | 31 | 50 | 7 | 5 | 7 | 5 | 50 | 9.0 | 24 | |
| 17 | 7 | 7 | 4 | IZS | 7 | 16 | M | 4 | 6 | 11 | 10 | 1 | 17 | 10 | 2 | 3 | 3 | 4 | 1 | 7 | 22 | 9 | 7 | 7 | 22 | 7.5 | 23 | |
| 18 | 14 | 6 | IZS | 8 | 7 | 11 | 5 | 3 | 4 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 8 | 5 | 4 | 4 | 14 | 4.4 | 24 | |
| 19 | 5 | IZS | 5 | 7 | 13 | 8 | 7 | 4 | 32 | 36 | 2 | 2 | 1 | 2 | 3 | 2 | 3 | 1 | 3 | 3 | 4 | 4 | 5 | 31 | 36 | 8.0 | 24 | |
| 20 | IZS | 3 | 3 | 3 | 13 | 3 | 3 | 4 | 5 | 2 | 2 | 2 | 2 | 2 | 1 | 5 | 1 | 2 | 3 | 3 | 3 | 3 | 6 | IZS | 13 | 3.4 | 24 | |
| 21 | 46 | 3 | 2 | 4 | 2 | 2 | 1 | 1 | 1 | 2 | 4 | 2 | 9 | 5 | 7 | 2 | 3 | 1 | 0 | 1 | 1 | 0 | IZS | 1 | 46 | 4.3 | 24 | |
| 22 | 0 | 1 | 2 | 4 | 4 | 5 | 4 | 2 | 5 | 2 | 2 | 1 | 2 | 1 | 4 | 1 | 0 | 0 | 0 | 1 | 1 | IZS | 3 | 4 | 5 | 2.1 | 24 | |
| 23 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | IZS | 5 | 4 | 5 | 5 | 2.1 | 24 | |
| 24 | 7 | 5 | 4 | 6 | 6 | 9 | 9 | 6 | 7 | 19 | 4 | 1 | 3 | 2 | 1 | 2 | 2 | 1 | 28 | IZS | 9 | 12 | 5 | 2 | 28 | 6.5 | 24 | |
| 25 | 3 | 1 | 1 | 5 | 4 | 6 | 4 | 4 | 3 | 69 | 3 | 5 | 2 | 3 | 2 | 5 | 4 | 6 | IZS | 4 | 3 | 4 | 3 | 2 | 69 | 6.3 | 24 | |
| 26 | 2 | 1 | 2 | 2 | 3 | 5 | 5 | 3 | 4 | 9 | 5 | 4 | 1 | 3 | 4 | 4 | 2 | IZS | 1 | 1 | 1 | 1 | 1 | 2 | 9 | 2.9 | 24 | |
| 27 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 1 | IZS | 1 | 2 | 3 | 32 | 5 | 5 | 4 | 32 | 3.5 | 24 | |
| 28 | 4 | 4 | 12 | 9 | 5 | 8 | 3 | 2 | 2 | 5 | 2 | 2 | 3 | 6 | 2 | IZS | 2 | 2 | 1 | 2 | 4 | 5 | 3 | 2 | 12 | 3.9 | 24 | |
| 29 | 3 | 2 | 2 | 3 | 46 | 26 | 5 | 4 | 5 | 2 | 5 | 2 | 3 | 1 | IZS | 3 | 1 | 6 | 33 | 4 | 3 | 15 | 1 | 2 | 46 | 7.7 | 24 | |
| 30 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 4 | 5 | 3 | IZS | 2 | 1 | 2 | 3 | 2 | 9 | 6 | 4 | 12 | 4 | 12 | 3.4 | 24 | |
| HOURLY MAX | 46 | 38 | 22 | 38 | 46 | 26 | 26 | 70 | 32 | 69 | 25 | 11 | 17 | 10 | 23 | 16 | 9 | 21 | 33 | 50 | 35 | 35 | 12 | 31 | | | | |
| HOURLY AVG | 7.0 | 4.9 | 4.2 | 5.3 | 7.8 | 7.8 | 6.2 | 9.1 | 7.1 | 8.7 | 4.3 | 2.8 | 3.2 | 3.7 | 3.6 | 3.0 | 3.0 | 4.9 | 7.0 | 7.3 | 9.4 | 8.1 | 5.4 | 5.5 | | | | |

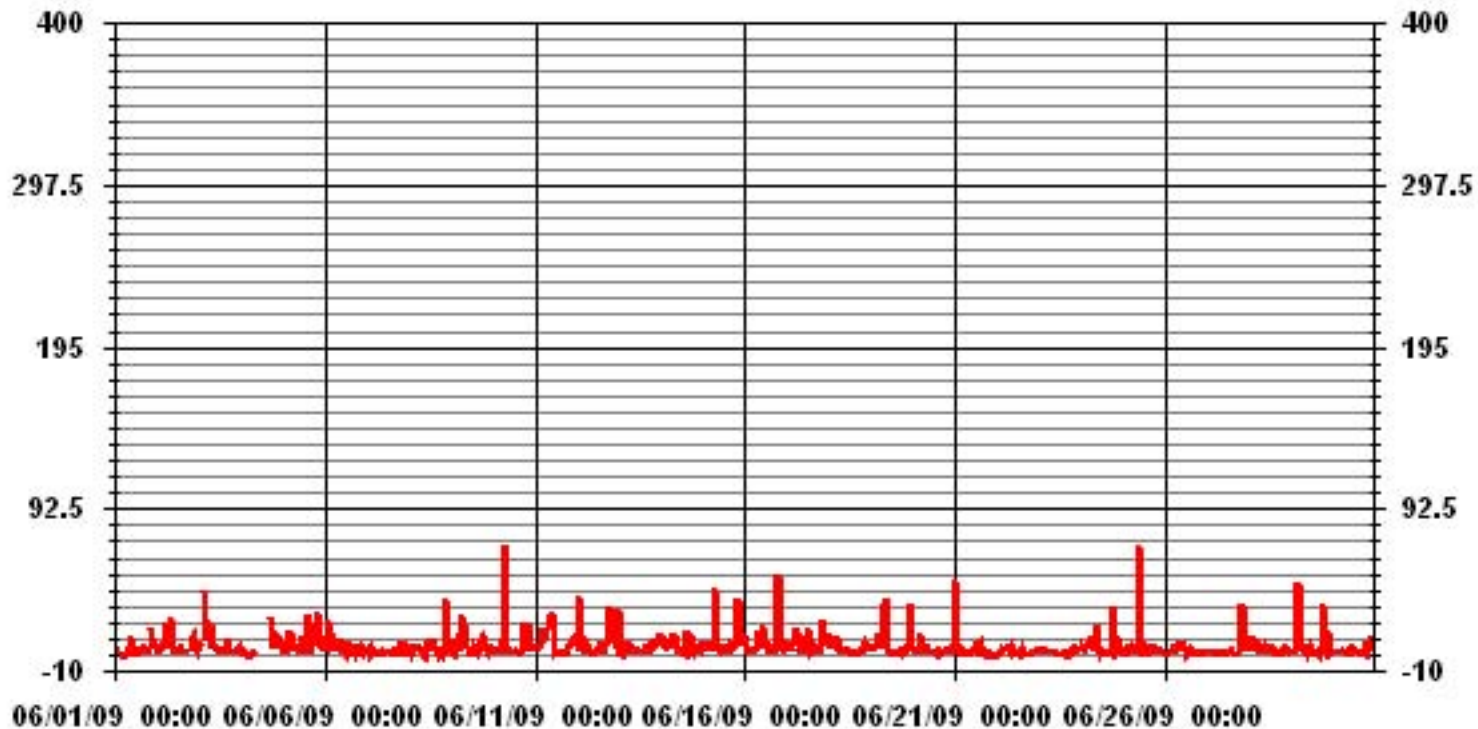
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | |
|------------------------------|------|-----|-------------------|-----|--------------|
| NUMBER OF NON-ZERO READINGS: | 668 | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 70 | PPB | @ HOUR(S) | 7 | ON DAY(S) 10 |
| IZS CALIBRATION TIME: | 31 | HRS | OPERATIONAL TIME: | 718 | HRS |
| MONTHLY CALIBRATION TIME: | 7 | HRS | | | |
| STANDARD DEVIATION: | 7.52 | | | | |

01 Hour Averages



— LICA — NOXMAX — PPB

LICA
 NOX_ / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
 Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 5.00 | 6.02 | 8.08 | 4.85 | 3.67 | 5.29 | 7.35 | 4.11 | 3.82 | 5.73 | 7.94 | 12.50 | 8.97 | 5.44 | 6.32 | 4.85 | 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 | 5.00 | 6.02 | 8.08 | 4.85 | 3.67 | 5.29 | 7.35 | 4.11 | 3.82 | 5.73 | 7.94 | 12.50 | 8.97 | 5.44 | 6.32 | 4.85 | |

Calm : .00 %

Total # Operational Hours : 680

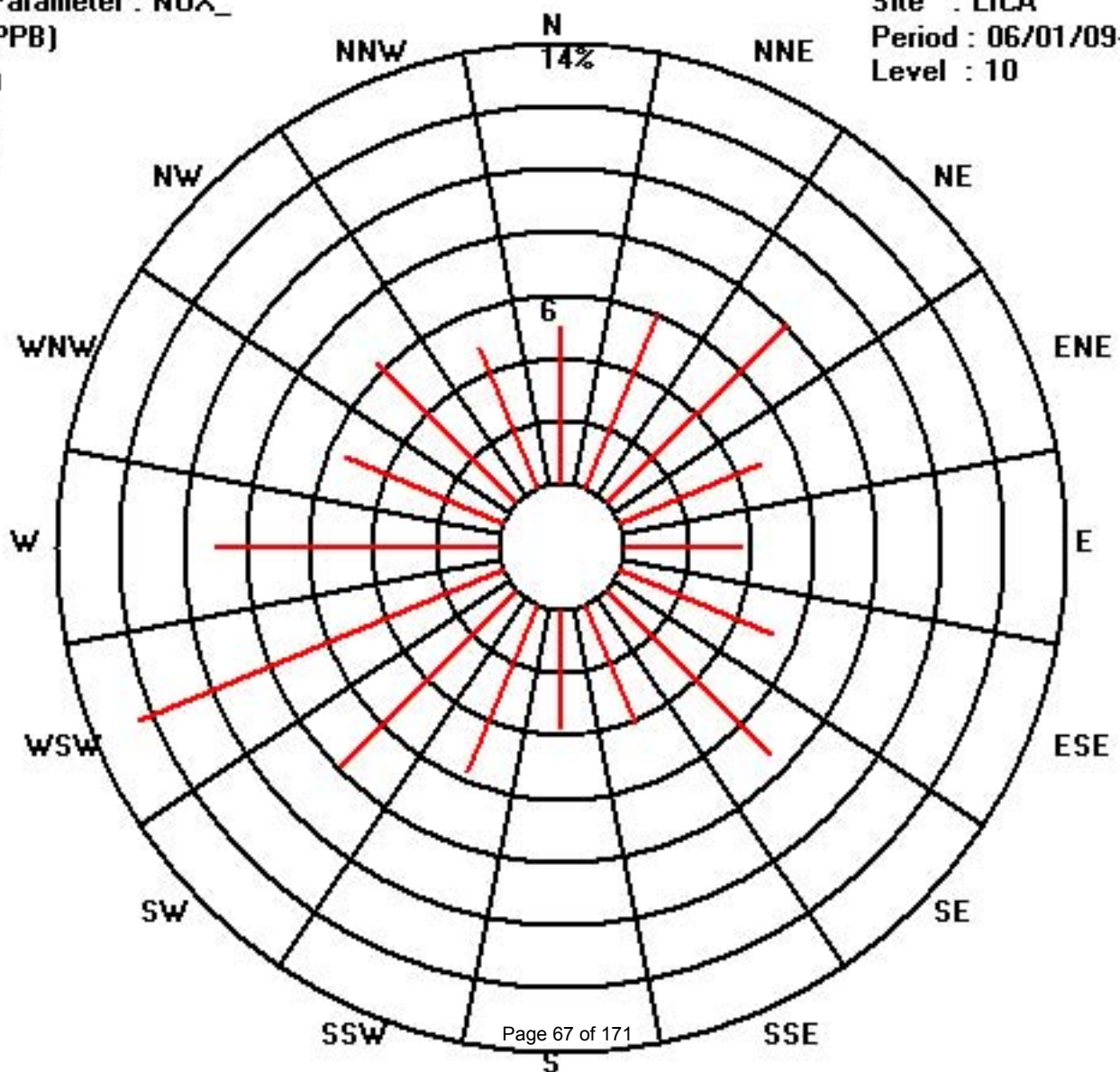
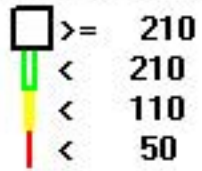
Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 34 | 41 | 55 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | 680 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 34 | 41 | 55 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 33 | |

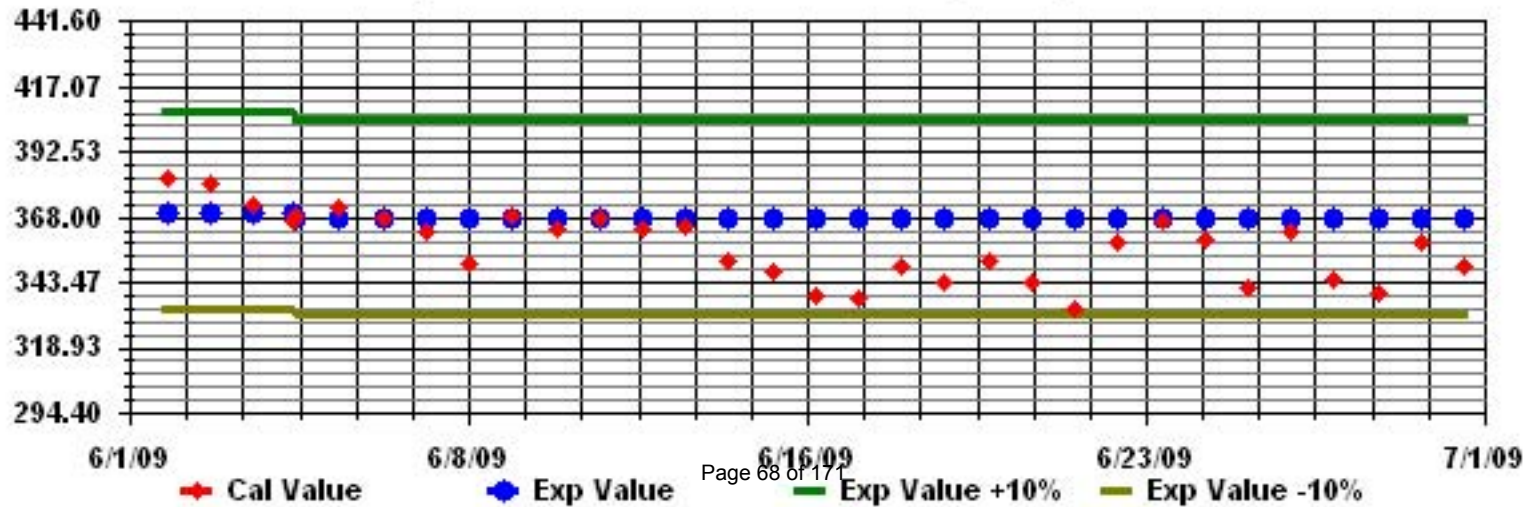
Calm : .00 %

Total # Operational Hours : 680

Class Limits (PPB)



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



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

OZONE (O₃) hourly averages in ppb

MST

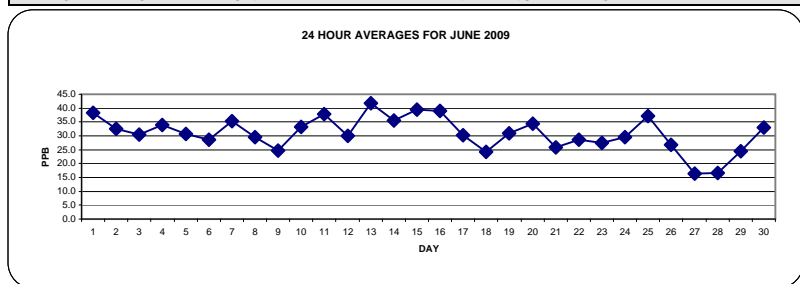
| HOUR START | 0:00 | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | 7:00 | 8:00 | 9:00 | 10:00 | 11:00 | 12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | DAILY MAX. | 24-HOUR AVG. | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|--------------|-------|----|
| 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 | 21 | 29 | 29 | 29 | 30 | 31 | 32 | 35 | 36 | 38 | 42 | 45 | 48 | 49 | 48 | 49 | 50 | 51 | 51 | IZS | 47 | 34 | 31 | 28 | 51 | 38.4 | 24 | |
| 2 | 25 | 19 | 17 | 14 | 9 | 9 | 22 | 33 | 34 | 42 | 46 | 47 | 46 | 45 | 46 | 48 | 50 | 52 | IZS | 47 | 31 | 25 | 23 | 20 | 52 | 32.6 | 24 | |
| 3 | 18 | 15 | P | 10 | 9 | 7 | 10 | 27 | 39 | 39 | 41 | 41 | 40 | 40 | 39 | 40 | 39 | IZS | 38 | 37 | 37 | 38 | 36 | 29 | 41 | 30.4 | 23 | |
| 4 | 27 | 31 | 35 | 34 | 35 | 33 | 32 | 30 | 31 | 31 | 34 | 36 | 37 | 39 | C | C | C | C | 44 | 42 | 39 | 38 | 29 | 22 | 44 | 34.0 | 24 | |
| 5 | 20 | 18 | 16 | 13 | 9 | 18 | 35 | 35 | 37 | 38 | 44 | 44 | 43 | 41 | 40 | IZS | 42 | 40 | 38 | 36 | 30 | 21 | 24 | 24 | 44 | 30.7 | 24 | |
| 6 | 18 | 15 | 12 | 8 | 8 | 14 | 20 | 22 | 31 | 35 | 37 | 41 | 39 | 39 | IZS | 38 | 38 | 37 | 38 | 37 | 37 | 36 | 31 | 27 | 41 | 28.6 | 24 | |
| 7 | 25 | 29 | 32 | 33 | 34 | 35 | 31 | 34 | 36 | 35 | 36 | 36 | 38 | IZS | 40 | 41 | 41 | 42 | 42 | 43 | 37 | 30 | 32 | 30 | 43 | 35.3 | 24 | |
| 8 | 29 | 27 | 26 | 24 | 24 | 23 | 25 | 29 | 33 | 35 | 38 | 43 | IZS | 37 | 37 | 36 | 39 | 40 | 39 | 39 | 36 | 27 | 13 | 9 | 8 | 43 | 29.5 | 24 |
| 9 | 5 | 5 | 3 | 1 | 1 | 2 | 5 | 20 | 31 | 41 | 39 | IZS | 37 | 37 | 39 | 42 | 42 | 40 | 38 | 33 | 27 | 28 | 27 | 25 | 42 | 24.7 | 24 | |
| 10 | 20 | 18 | 17 | 13 | 9 | 17 | 16 | 16 | 21 | 24 | IZS | 40 | 45 | 48 | 49 | 51 | 52 | 52 | 52 | 49 | 46 | 40 | 36 | 35 | 52 | 33.3 | 24 | |
| 11 | 40 | 46 | 41 | 31 | 20 | 20 | 34 | 39 | 41 | IZS | 46 | 46 | 44 | 43 | 41 | 40 | 45 | 46 | 44 | 46 | 44 | 29 | 24 | 18 | 46 | 37.7 | 24 | |
| 12 | 13 | 11 | 12 | 10 | 7 | 13 | 26 | 31 | IZS | 38 | 38 | 39 | 43 | 46 | 47 | 45 | 45 | 46 | 47 | 41 | 24 | 16 | 22 | 31 | 47 | 30.0 | 24 | |
| 13 | 33 | 34 | 33 | 29 | 29 | 28 | 30 | IZS | 39 | 47 | 56 | 60 | 60 | 58 | 59 | 59 | 59 | 58 | 54 | 49 | 32 | 26 | 19 | 12 | 60 | 41.9 | 24 | |
| 14 | 14 | 8 | 7 | 4 | 2 | 7 | IZS | 27 | 37 | 47 | 55 | 58 | 57 | 53 | 52 | 51 | 47 | 44 | 47 | 51 | 47 | 41 | 33 | 29 | 58 | 35.6 | 24 | |
| 15 | 34 | 27 | 22 | 21 | 14 | IZS | 23 | 33 | 47 | 53 | 57 | 59 | 59 | 59 | 58 | 55 | 44 | 50 | 49 | 44 | 35 | 22 | 20 | 23 | 59 | 39.5 | 24 | |
| 16 | 20 | 28 | 26 | 20 | IZS | 21 | 22 | 26 | 37 | 45 | 46 | 42 | 42 | 54 | 55 | 59 | 61 | 62 | 55 | 39 | 40 | 43 | 32 | 20 | 62 | 38.9 | 24 | |
| 17 | 17 | 11 | 19 | IZS | 12 | 13 | M | 24 | 31 | 41 | 43 | 46 | 45 | 45 | 46 | 45 | 45 | 45 | 43 | 27 | 21 | 18 | 16 | 13 | 46 | 30.3 | 23 | |
| 18 | 9 | 10 | IZS | 11 | 11 | 21 | 34 | 41 | 40 | 41 | 42 | 43 | 42 | 36 | 34 | 30 | 26 | 22 | 21 | 18 | 14 | 8 | 3 | 2 | 43 | 24.3 | 24 | |
| 19 | 1 | IZS | 2 | 0 | 1 | 6 | 13 | 23 | 25 | 33 | 43 | 45 | 47 | 47 | 47 | 47 | 46 | 47 | 46 | 49 | 46 | 40 | 30 | 26 | 49 | 30.9 | 24 | |
| 20 | IZS | 22 | 16 | 24 | 37 | 38 | 32 | 35 | 40 | 39 | 39 | 45 | 44 | 43 | 42 | 43 | 40 | 37 | 36 | 37 | 33 | 26 | 10 | IZS | 45 | 34.5 | 24 | |
| 21 | 7 | 20 | 33 | 30 | 29 | 29 | 31 | 31 | 32 | 34 | 35 | 32 | 27 | 25 | 22 | 20 | 18 | 18 | 21 | 23 | 23 | 24 | IZS | 33 | 35 | 26.0 | 24 | |
| 22 | 27 | 25 | 26 | 26 | 19 | 15 | 17 | 20 | 23 | 22 | 25 | 29 | 33 | 33 | 33 | 36 | 41 | 41 | 45 | 42 | 38 | IZS | 23 | 20 | 45 | 28.7 | 24 | |
| 23 | 22 | 22 | 24 | 25 | 24 | 24 | 21 | 22 | 23 | 26 | 28 | 34 | 34 | 34 | 35 | 35 | 37 | 38 | 37 | 36 | IZS | 18 | 17 | 13 | 38 | 27.3 | 24 | |
| 24 | 12 | 16 | 14 | 14 | 12 | 13 | 16 | 22 | 24 | 29 | 39 | 41 | 42 | 41 | 42 | 43 | 43 | 43 | 43 | IZS | 33 | 31 | 33 | 36 | 43 | 29.7 | 24 | |
| 25 | 35 | 34 | 36 | 35 | 35 | 33 | 32 | 31 | 33 | 39 | 44 | 45 | 47 | 49 | 50 | 44 | 43 | 37 | IZS | 27 | 24 | 24 | 31 | 44 | 50 | 37.0 | 24 | |
| 26 | 38 | 28 | 21 | 17 | 16 | 17 | 18 | 21 | 24 | 26 | 27 | 29 | 31 | 34 | 36 | 38 | 38 | IZS | 33 | 29 | 27 | 24 | 23 | 22 | 38 | 26.8 | 24 | |
| 27 | 21 | 20 | 20 | 21 | 21 | 21 | 19 | 16 | 15 | 12 | 13 | 17 | 19 | 18 | 15 | 20 | IZS | 26 | 27 | 19 | 9 | 5 | 3 | 1 | 27 | 16.4 | 24 | |
| 28 | 1 | 0 | 0 | 0 | 4 | 8 | 13 | 17 | 21 | 23 | 23 | 25 | 25 | 23 | 31 | IZS | 39 | 36 | 32 | 29 | 17 | 7 | 6 | 4 | 39 | 16.7 | 24 | |
| 29 | 2 | 2 | 1 | 0 | 0 | 5 | 14 | 22 | 25 | 28 | 30 | 33 | 34 | 34 | IZS | 36 | 38 | 40 | 39 | 36 | 36 | 36 | 35 | 35 | 40 | 24.4 | 24 | |
| 30 | 34 | 31 | 40 | 41 | 32 | 28 | 37 | 38 | 38 | 37 | 36 | 37 | 38 | IZS | 41 | 42 | 42 | 41 | 38 | 33 | 19 | 13 | 11 | 14 | 42 | 33.1 | 24 | |
| HOURLY MAX | 40 | 46 | 41 | 41 | 37 | 38 | 37 | 41 | 47 | 53 | 57 | 60 | 60 | 59 | 59 | 59 | 61 | 62 | 55 | 51 | 47 | 43 | 36 | 44 | | | | |
| HOURLY AVG | 20.3 | 20.7 | 20.7 | 18.6 | 17.0 | 18.9 | 23.6 | 27.6 | 31.9 | 35.1 | 38.7 | 40.6 | 40.9 | 41.1 | 41.6 | 42.1 | 42.5 | 41.9 | 40.6 | 37.0 | 31.7 | 26.0 | 23.1 | 22.2 | | | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

OBJECTIVE LIMIT:

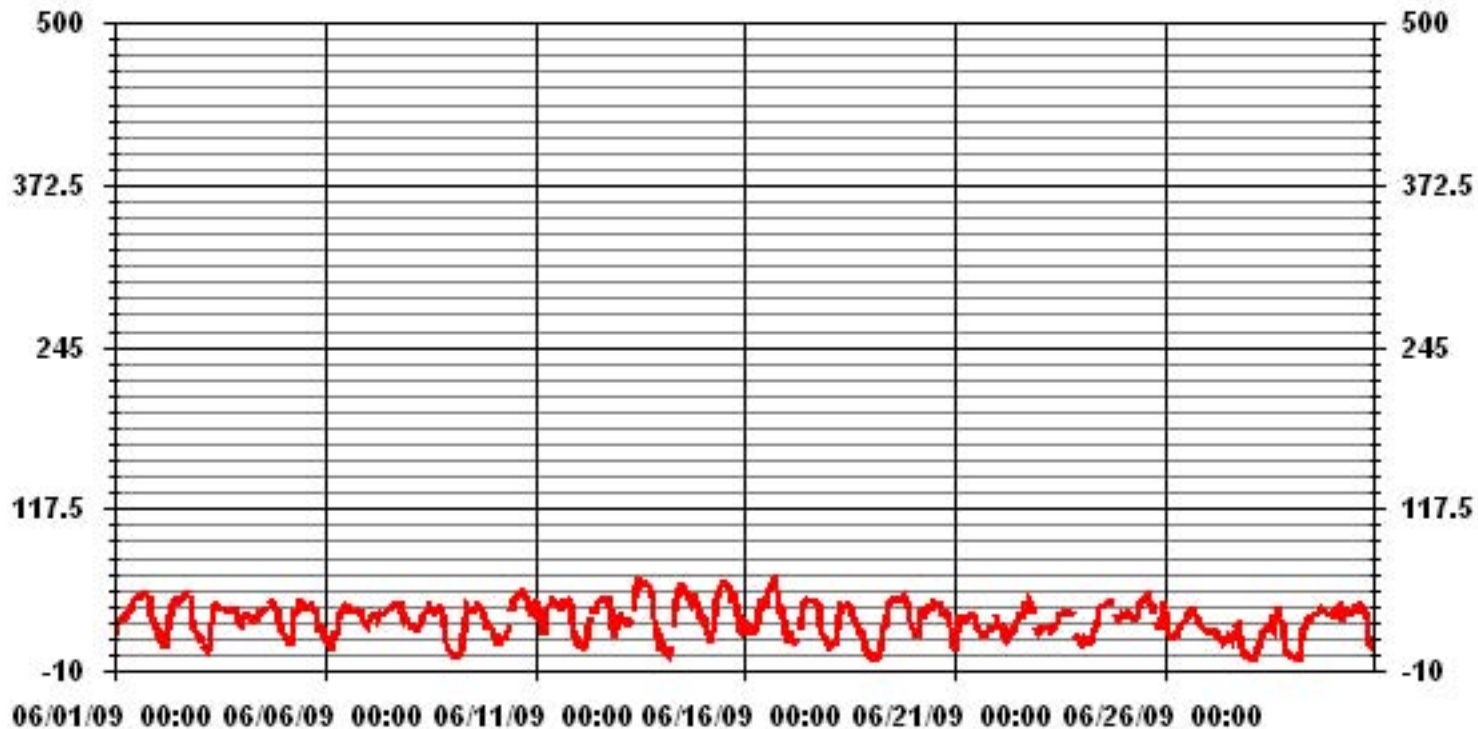
ALBERTA ENVIRONMENT: 1-HR 82 PPB



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------|-----|----------------------|-------|-------------|----|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 678 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 62 | PPB | @ HOUR(S) | 17 | ON DAY(S) | 16 |
| MAXIMUM 24-HR AVERAGE: | 41.9 | PPB | | | ON DAY(S) | 13 |
| | | | | | VAR-VARIOUS | |
| IZS CALIBRATION TIME: | 30 | HRS | OPERATIONAL TIME: | 718 | HRS | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | AMD OPERATION UPTIME | 99.7 | % | |
| STANDARD DEVIATION | 13.35 | | MONTHLY AVERAGE | 30.89 | PPB | |

01 Hour Averages



— LICA 03_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

OZONE 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 | DAILY | 24-HOUR | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|---------|-------|--|
| 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 | 26 | 31 | 30 | 30 | 31 | 33 | 34 | 37 | 37 | 41 | 45 | 46 | 50 | 51 | 50 | 50 | 52 | 53 | 54 | IZS | 51 | 40 | 39 | 32 | 54 | 41.0 | 24 | |
| 2 | 30 | 26 | 20 | 18 | 13 | 15 | 28 | 36 | 39 | 47 | 48 | 48 | 47 | 46 | 47 | 50 | 52 | 53 | IZS | 52 | 42 | 33 | 28 | 28 | 53 | 36.8 | 24 | |
| 3 | 23 | 17 | P | 23 | 13 | 10 | 15 | 37 | 41 | 40 | 44 | 44 | 42 | 41 | 40 | 40 | IZS | 40 | 39 | 39 | 39 | 37 | 35 | 44 | 33.6 | 23 | | |
| 4 | 31 | 33 | 37 | 37 | 37 | 34 | 33 | 32 | 32 | 33 | 35 | 38 | 39 | 40 | C | C | C | C | 45 | 44 | 41 | 40 | 37 | 30 | 45 | 36.4 | 24 | |
| 5 | 25 | 24 | 21 | 16 | 14 | 35 | 37 | 37 | 40 | 44 | 46 | 45 | 44 | 43 | 43 | IZS | 44 | 42 | 39 | 38 | 34 | 24 | 29 | 28 | 46 | 34.4 | 24 | |
| 6 | 22 | 22 | 18 | 14 | 12 | 18 | 23 | 27 | 36 | 39 | 44 | 44 | 43 | 40 | IZS | 39 | 39 | 39 | 39 | 38 | 38 | 39 | 34 | 30 | 44 | 32.0 | 24 | |
| 7 | 29 | 38 | 36 | 35 | 35 | 37 | 36 | 37 | 38 | 37 | 37 | 40 | 40 | IZS | 42 | 42 | 43 | 43 | 44 | 45 | 44 | 33 | 33 | 31 | 45 | 38.0 | 24 | |
| 8 | 30 | 29 | 27 | 26 | 25 | 24 | 30 | 32 | 36 | 38 | 43 | 45 | IZS | 40 | 40 | 41 | 41 | 42 | 42 | 38 | 36 | 22 | 12 | 10 | 45 | 32.6 | 24 | |
| 9 | 8 | 8 | 5 | 3 | 3 | 3 | 12 | 28 | 39 | 42 | 41 | IZS | 39 | 39 | 41 | 43 | 44 | 41 | 40 | 38 | 30 | 30 | 29 | 28 | 44 | 27.6 | 24 | |
| 10 | 24 | 23 | 22 | 17 | 15 | 18 | 18 | 18 | 22 | 28 | IZS | 44 | 47 | 50 | 51 | 53 | 54 | 54 | 54 | 52 | 48 | 44 | 41 | 40 | 54 | 36.4 | 24 | |
| 11 | 51 | 55 | 44 | 39 | 22 | 26 | 37 | 44 | 45 | IZS | 48 | 49 | 45 | 44 | 44 | 43 | 48 | 47 | 46 | 50 | 49 | 39 | 32 | 22 | 55 | 42.1 | 24 | |
| 12 | 18 | 17 | 19 | 15 | 11 | 23 | 29 | 34 | IZS | 40 | 39 | 41 | 45 | 48 | 48 | 48 | 46 | 48 | 48 | 48 | 31 | 23 | 31 | 34 | 48 | 34.1 | 24 | |
| 13 | 35 | 34 | 34 | 32 | 32 | 31 | 31 | IZS | 44 | 53 | 60 | 63 | 62 | 60 | 60 | 61 | 61 | 61 | 55 | 55 | 39 | 32 | 25 | 20 | 63 | 45.2 | 24 | |
| 14 | 21 | 10 | 10 | 7 | 4 | 12 | IZS | 34 | 43 | 53 | 58 | 60 | 61 | 56 | 55 | 52 | 52 | 50 | 54 | 53 | 55 | 49 | 41 | 36 | 61 | 40.3 | 24 | |
| 15 | 39 | 33 | 27 | 27 | 22 | IZS | 26 | 44 | 53 | 58 | 59 | 62 | 63 | 61 | 60 | 58 | 52 | 55 | 52 | 50 | 44 | 31 | 31 | 29 | 63 | 45.0 | 24 | |
| 16 | 26 | 33 | 32 | 27 | IZS | 23 | 28 | 32 | 45 | 56 | 52 | 47 | 49 | 59 | 58 | 62 | 63 | 64 | 63 | 51 | 48 | 45 | 39 | 32 | 64 | 45.0 | 24 | |
| 17 | 24 | 16 | 27 | IZS | 17 | M | 29 | 36 | 44 | 46 | 51 | 48 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 41 | 27 | 24 | 20 | 22 | 51 | 34.9 | 23 | |
| 18 | 13 | 16 | IZS | 15 | 23 | 27 | 41 | 43 | 43 | 43 | 44 | 46 | 45 | 42 | 36 | 34 | 29 | 24 | 22 | 22 | 17 | 15 | 6 | 4 | 46 | 28.3 | 24 | |
| 19 | 3 | IZS | 6 | 1 | 3 | 11 | 21 | 25 | 29 | 40 | 47 | 48 | 49 | 49 | 50 | 50 | 49 | 50 | 49 | 51 | 50 | 44 | 38 | 38 | 51 | 34.8 | 24 | |
| 20 | IZS | 30 | 25 | 30 | 43 | 42 | 36 | 40 | 43 | 41 | 45 | 48 | 47 | 46 | 43 | 45 | 43 | 39 | 37 | 38 | 37 | 30 | 27 | IZS | 48 | 38.9 | 24 | |
| 21 | 15 | 36 | 37 | 33 | 31 | 31 | 34 | 32 | 33 | 36 | 36 | 34 | 30 | 27 | 24 | 22 | 22 | 20 | 23 | 24 | 24 | 26 | IZS | 35 | 37 | 28.9 | 24 | |
| 22 | 31 | 26 | 30 | 31 | 22 | 17 | 18 | 23 | 25 | 23 | 29 | 32 | 35 | 35 | 36 | 40 | 43 | 44 | 47 | 44 | 40 | IZS | 28 | 21 | 47 | 31.3 | 24 | |
| 23 | 23 | 23 | 26 | 25 | 26 | 27 | 22 | 23 | 24 | 27 | 32 | 35 | 35 | 35 | 36 | 37 | 38 | 39 | 38 | 38 | IZS | 21 | 22 | 17 | 39 | 29.1 | 24 | |
| 24 | 17 | 17 | 17 | 15 | 15 | 15 | 19 | 25 | 28 | 35 | 41 | 44 | 44 | 42 | 44 | 45 | 45 | 45 | 45 | IZS | 37 | 33 | 35 | 37 | 45 | 32.2 | 24 | |
| 25 | 36 | 35 | 37 | 36 | 36 | 34 | 33 | 34 | 37 | 42 | 46 | 47 | 49 | 53 | 53 | 52 | 51 | 42 | IZS | 33 | 26 | 26 | 42 | 47 | 53 | 40.3 | 24 | |
| 26 | 42 | 35 | 23 | 23 | 19 | 19 | 22 | 24 | 26 | 27 | 29 | 31 | 33 | 36 | 38 | 39 | 39 | IZS | 35 | 31 | 28 | 26 | 23 | 23 | 42 | 29.2 | 24 | |
| 27 | 22 | 22 | 22 | 22 | 22 | 21 | 20 | 18 | 16 | 14 | 16 | 19 | 21 | 22 | 16 | 23 | IZS | 29 | 30 | 27 | 14 | 10 | 6 | 2 | 30 | 18.9 | 24 | |
| 28 | 3 | 1 | 2 | 1 | 7 | 12 | 16 | 21 | 24 | 25 | 27 | 27 | 38 | 30 | 41 | IZS | 42 | 40 | 33 | 32 | 27 | 11 | 9 | 7 | 42 | 20.7 | 24 | |
| 29 | 4 | 3 | 1 | 1 | 1 | 11 | 19 | 24 | 28 | 30 | 32 | 34 | 36 | 36 | IZS | 38 | 40 | 42 | 41 | 39 | 39 | 39 | 37 | 37 | 42 | 26.6 | 24 | |
| 30 | 37 | 32 | 44 | 45 | 39 | 35 | 40 | 40 | 40 | 39 | 38 | 39 | 40 | IZS | 43 | 45 | 45 | 43 | 41 | 36 | 33 | 19 | 16 | 18 | 45 | 36.8 | 24 | |
| HOURLY MAX | 51 | 55 | 44 | 45 | 43 | 42 | 41 | 44 | 53 | 58 | 60 | 63 | 63 | 61 | 60 | 62 | 63 | 64 | 63 | 55 | 55 | 49 | 42 | 47 | | | | |
| HOURLY AVG | 24.4 | 25.0 | 24.3 | 22.2 | 20.4 | 22.8 | 27.1 | 31.4 | 35.2 | 38.4 | 41.6 | 43.1 | 43.7 | 43.5 | 43.9 | 44.4 | 45.1 | 44.3 | 42.9 | 41.0 | 36.8 | 30.6 | 28.5 | 26.7 | | | | |

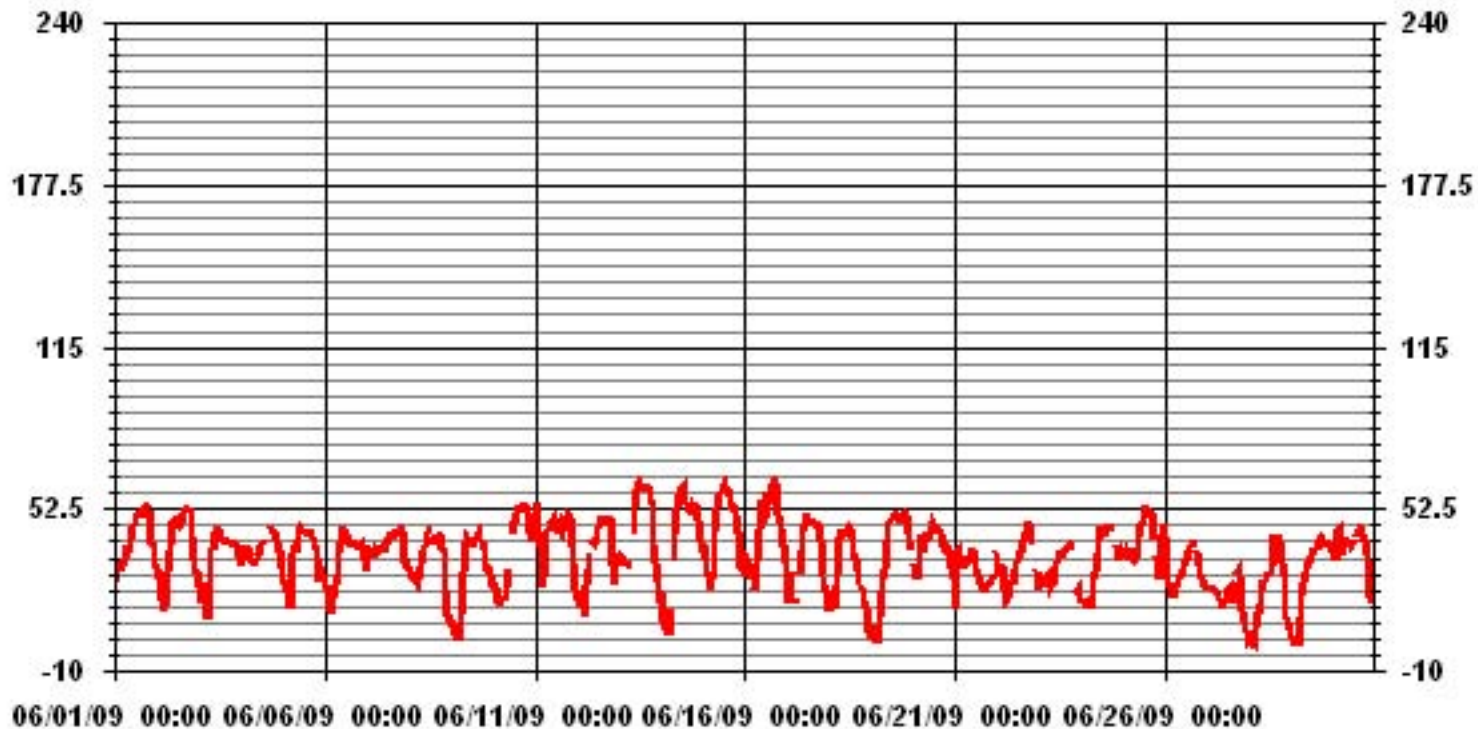
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | |
|------------------------------|-------|-----|-------------------|-----|--------------|
| NUMBER OF NON-ZERO READINGS: | 684 | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 64 | PPB | @ HOUR(S) | 17 | ON DAY(S) 16 |
| IZS CALIBRATION TIME: | 30 | HRS | OPERATIONAL TIME: | 718 | HRS |
| MONTHLY CALIBRATION TIME: | 4 | HRS | | | |
| STANDARD DEVIATION: | 13.09 | | | | |

01 Hour Averages



— LICA O3MAX PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

| | | Direction | | | | | | | | | | | | | | | | |
|--------|------|-----------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|-------|--|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq | |
| < 50 | 4.97 | 5.99 | 7.01 | 4.82 | 3.65 | 5.26 | 7.01 | 3.94 | 3.21 | 5.11 | 6.72 | 11.98 | 8.33 | 5.40 | 5.70 | 4.97 | 94.15 | |
| < 110 | .14 | .14 | .87 | .00 | .00 | .00 | .29 | .14 | .58 | .58 | 1.16 | .43 | .58 | .00 | .58 | .29 | 5.84 | |
| < 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 | 5.11 | 6.14 | 7.89 | 4.82 | 3.65 | 5.26 | 7.30 | 4.09 | 3.80 | 5.70 | 7.89 | 12.42 | 8.91 | 5.40 | 6.28 | 5.26 | | |

Calm : .00 %

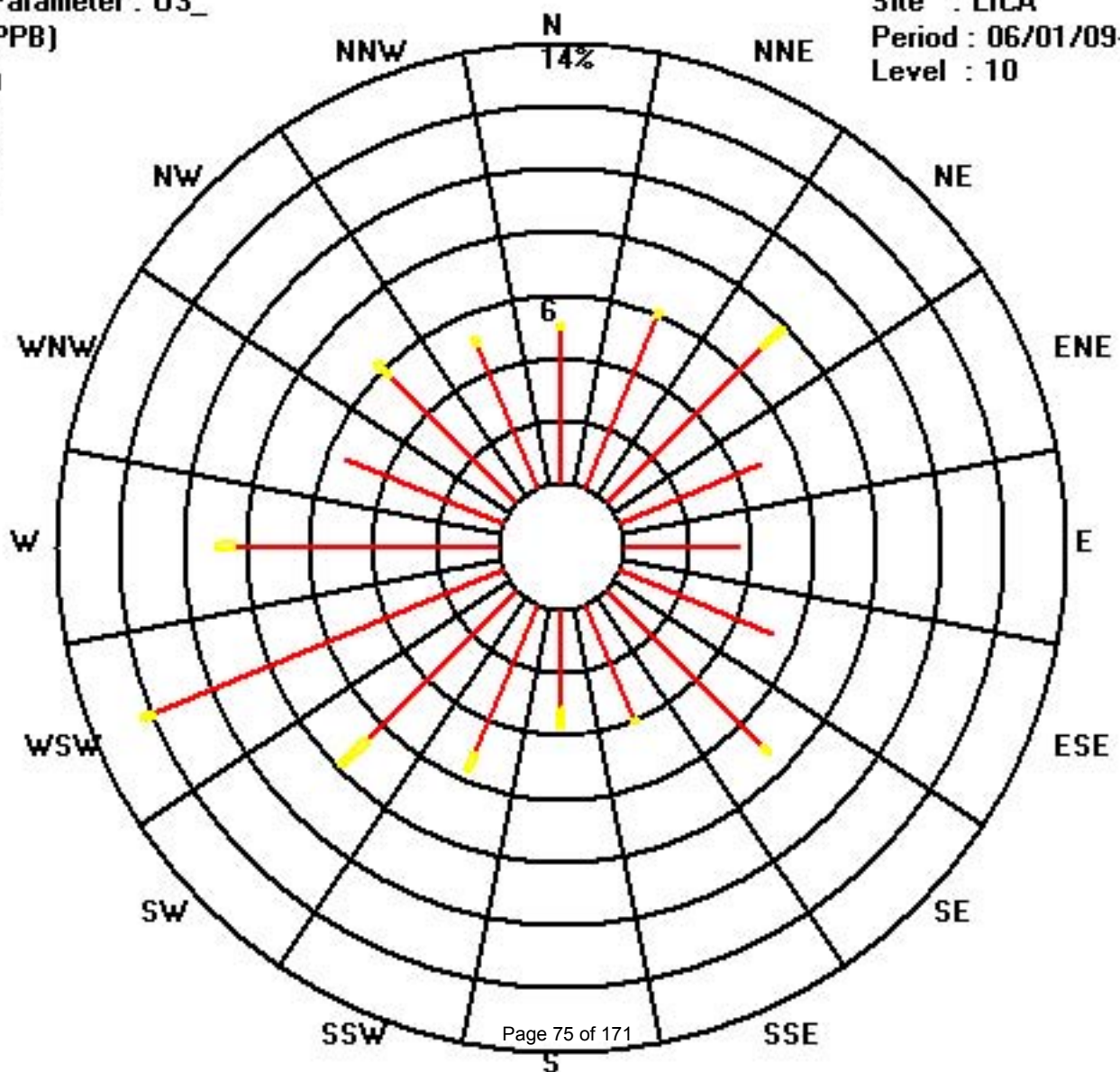
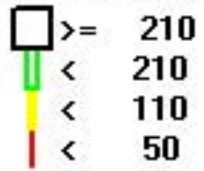
Total # Operational Hours : 684

Distribution By Samples

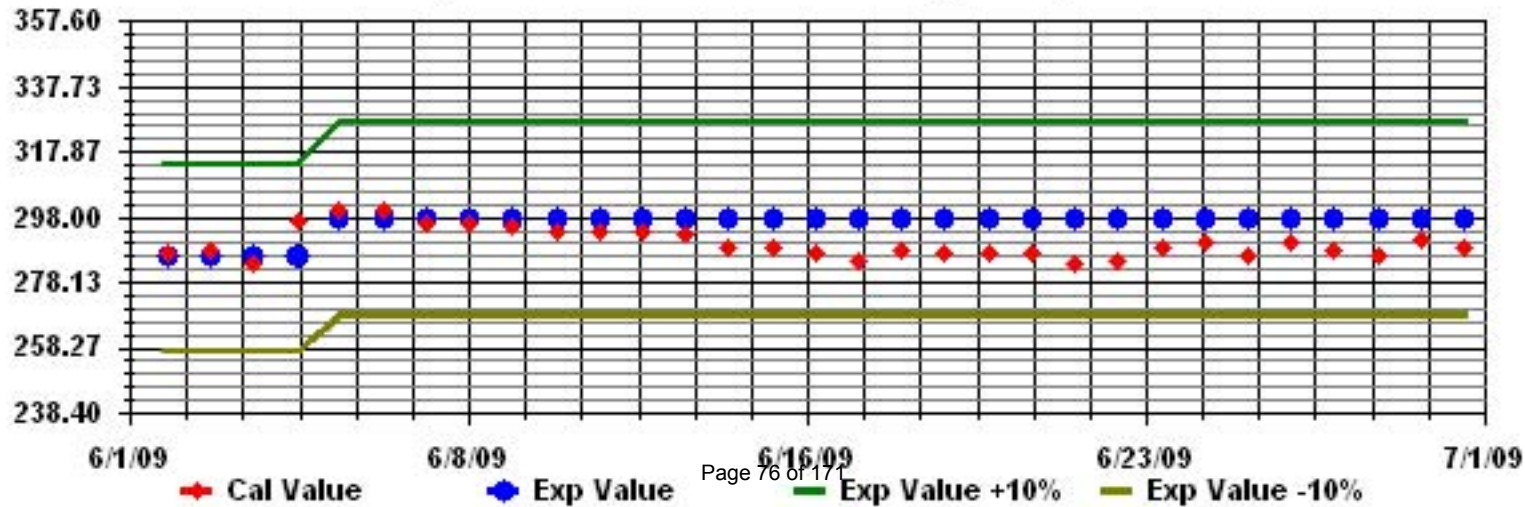
| | | Direction | | | | | | | | | | | | | | | | |
|--------|----|-----------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|--|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq | |
| < 50 | 34 | 41 | 48 | 33 | 25 | 36 | 48 | 27 | 22 | 35 | 46 | 82 | 57 | 37 | 39 | 34 | 644 | |
| < 110 | 1 | 1 | 6 | | | | 2 | 1 | 4 | 4 | 8 | 3 | 4 | | 4 | 2 | 40 | |
| < 210 | | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | | |
| Totals | 35 | 42 | 54 | 33 | 25 | 36 | 50 | 28 | 26 | 39 | 54 | 85 | 61 | 37 | 43 | 36 | | |

Calm : .00 %

Total # Operational Hours : 684



Calibration Graph for Site: LICA Parameter: 03_ Sequence: 03 Phase: SPAll



Ambient Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

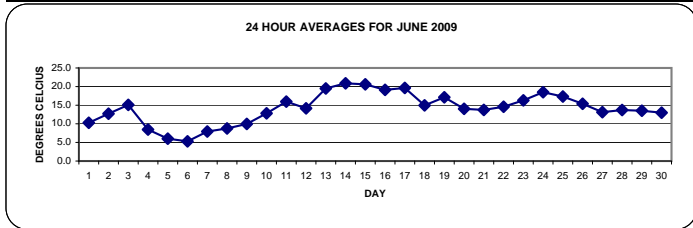
JUNE 2009

AMBIENT TEMPERATURE hourly averages (Degrees C)

| 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 | | |
|------------|------------|------|------|----------|-------------|------|------|----------|------|------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------------|---------|------|----|
| 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. | | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 7.3 | 6.9 | 6.4 | 5.7 | 5.4 | 6 | 7 | 8.8 | 10 | 11 | 12.2 | 13.1 | 14 | 14.7 | 15.2 | 15.3 | 15.4 | 15.7 | 15.4 | 14.3 | 11.9 | 7.5 | 4.6 | 2.7 | 15.7 | 10.3 | 24 | | |
| 2 | | 1.4 | 0.4 | -0.3 | -1 | -0.5 | 3.5 | 8.5 | 11.1 | 14.3 | 17 | 17.9 | 18.9 | 19.5 | 20.2 | 20.7 | 20.8 | 20.7 | 20.8 | 21.1 | 21.1 | 20.5 | 19.2 | 15.7 | 12.7 | 11.4 | 10.9 | 21.1 | 12.7 | 24 |
| 3 | | 10 | 9.5 | P | 5.7 | 5 | 6.7 | 9.6 | 13.8 | 17.4 | 19.1 | 20.7 | 20.8 | 20.7 | 21.3 | 19.7 | 18.9 | 18.7 | 17.8 | 17.8 | 17.3 | 16.1 | 15.1 | 13.9 | 11.5 | 21.3 | 15.1 | 23 | | |
| 4 | | 10.3 | 10.1 | 9.1 | 7.6 | 6.3 | 6.1 | 6.5 | 7.3 | 7.9 | 8.6 | 8.8 | 9.7 | 10 | 10.4 | 10.6 | 10.8 | 10.7 | 10.9 | 10.5 | 9.4 | 8 | 7 | 4.3 | 2 | 10.9 | 8.5 | 24 | | |
| 5 | | 0.6 | -0.6 | -1.3 | -1.8 | -1.1 | 2.7 | 5.6 | 6.6 | 7.3 | 8.1 | 9.1 | 9.5 | 9.8 | 9.9 | 10.3 | 10.6 | 10.6 | 10.5 | 10.1 | 9.4 | 7.8 | 4.3 | 3.6 | 2.6 | 10.6 | 6.0 | 24 | | |
| 6 | | 0.3 | 0 | -0.9 | -1.4 | -0.7 | 0 | 2.2 | 4.7 | 6.8 | 7.4 | 8.6 | 8.4 | 8.7 | 9.5 | 10 | 10.1 | 8.9 | 8.2 | 7.9 | 6.5 | 6 | 5.5 | 5.1 | 5 | 10.1 | 5.3 | 24 | | |
| 7 | | 5.1 | 4.9 | 4.1 | 3.3 | 3.4 | 3.5 | 4.1 | 5.4 | 6.7 | 8 | 8.6 | 6.8 | 7.8 | 11.2 | 11.1 | 12 | 12.4 | 12.8 | 12.9 | 12.1 | 10.1 | 8.6 | 8.4 | 7 | 12.9 | 7.9 | 24 | | |
| 8 | | 6.6 | 6.1 | 5.7 | 5.2 | 5.3 | 5.8 | 6.9 | 7.8 | 9.1 | 9.6 | 11.4 | 12 | 11.5 | 8.7 | 9.1 | 12 | 13.2 | 12.7 | 13.3 | 12.4 | 10.1 | 6.4 | 5 | 4.2 | 13.3 | 8.8 | 24 | | |
| 9 | | 3.5 | 2.7 | 1.9 | 0.8 | 0.8 | 2.5 | 5 | 9.3 | 12.1 | 12.7 | 14.1 | 13.3 | 13.8 | 14.6 | 15.1 | 15.6 | 15.4 | 14.9 | 14.7 | 14 | 12.6 | 11.2 | 9.8 | 8.7 | 15.6 | 10.0 | 24 | | |
| 10 | | 7.4 | 6.7 | 6.6 | 6.3 | 6.2 | 7.2 | 8.1 | 9.3 | 9.9 | 11.4 | 13.9 | 16 | 17.4 | 18.4 | 18 | 18.5 | 18.5 | 18.7 | 18.4 | 17.6 | 15.5 | 13.8 | 12.6 | 11.3 | 18.7 | 12.8 | 24 | | |
| 11 | | 11.7 | 13.3 | 11.7 | 9.2 | 7.5 | 9.3 | 12.4 | 14.7 | 17.5 | 20.1 | 19.8 | 21.6 | 22.5 | 22.8 | 20.1 | 21.1 | 21.3 | 21 | 20.9 | 19.6 | 16.5 | 12.3 | 9.1 | 7.2 | 22.8 | 16.0 | 24 | | |
| 12 | | 6 | 4.9 | 4.2 | 3.4 | 3.5 | 7.6 | 11.1 | 12.4 | 14.6 | 16.1 | 17.3 | 18.3 | 19.2 | 20.1 | 20.8 | 21.3 | 21.7 | 22 | 21.8 | 20.7 | 16.6 | 12.3 | 11.4 | 12.5 | 22.0 | 14.2 | 24 | | |
| 13 | | 12.4 | 11.7 | 11 | 9.9 | 10.4 | 11.6 | 14.2 | 16.3 | 18.9 | 21.7 | 23.6 | 24.9 | 26 | 26.8 | 27.6 | 27.7 | 27.3 | 27 | 26.9 | 25 | 20.9 | 17.5 | 15.2 | 13.4 | 27.7 | 19.5 | 24 | | |
| 14 | | 12.6 | 11.7 | 10.3 | 9.3 | 9.1 | 11.9 | 15.9 | 19.8 | 22.4 | 24.7 | 26.9 | 28 | 28.8 | 28.9 | 28.4 | 27.4 | 26.3 | 26.2 | 25.6 | 25.3 | 24.2 | 21.3 | 18.7 | 17.2 | 28.9 | 20.9 | 24 | | |
| 15 | | 18.1 | 16 | 14.1 | 13.9 | 13 | 14.1 | 16.7 | 20.9 | 22.9 | 24.6 | 25.8 | 26.6 | 26.7 | 27.2 | 27.8 | 27.4 | 24.9 | 22.5 | 22.3 | 21.9 | 19.6 | 16.8 | 15.6 | 15.2 | 27.8 | 20.6 | 24 | | |
| 16 | | 14.4 | 15.3 | 15.2 | 14.4 | 14.3 | 14.6 | 15.8 | 17.6 | 19.8 | 20.1 | 19.8 | 19.1 | 20.4 | 22.5 | 23.1 | 23.8 | 24.5 | 24.8 | 23.6 | 22.8 | 21.6 | 19.7 | 17.1 | 14.6 | 24.8 | 19.1 | 24 | | |
| 17 | | 13.2 | 11.6 | 12.1 | 11.3 | 11 | 11.9 | M | 17 | 19.2 | 21.1 | 23.4 | 24.5 | 25 | 25.7 | 26.2 | 26.4 | 26.7 | 27.1 | 27.2 | 24.4 | 20.3 | 17.3 | 15.3 | 13.7 | 27.2 | 19.6 | 23 | | |
| 18 | | 12.2 | 11.3 | 11.6 | 11.3 | 11.1 | 13.5 | 15.5 | 16.7 | 17.5 | 18.2 | 18.9 | 19.7 | 19.2 | 17.9 | 17.8 | 17.6 | 15.8 | 15.2 | 14.5 | 14.1 | 13.9 | 13.2 | 12 | 10.4 | 19.7 | 15.0 | 24 | | |
| 19 | | 9.6 | 9.6 | 9.9 | 8.3 | 7.8 | 10.1 | 13.8 | 15.9 | 18 | 20.3 | 21.6 | 22.6 | 23 | 23.2 | 23.5 | 23.4 | 23.2 | 23.2 | 21.9 | 19.1 | 17.9 | 16.6 | 14.5 | 13.9 | 23.5 | 17.1 | 24 | | |
| 20 | | 13.7 | 13.5 | 12.9 | 12.9 | 12.5 | 12.5 | 12.5 | 13.1 | 14.2 | 14.8 | 15 | 15.5 | 15.8 | 15.8 | 15.4 | 15.6 | 16.2 | 16.8 | 16.4 | 15.4 | 14.1 | 12.1 | 10.6 | 9.4 | 16.8 | 14.0 | 24 | | |
| 21 | | 9 | 9.6 | 11.7 | 12 | 12.3 | 12.5 | 12.6 | 12.9 | 13.8 | 14.7 | 15.7 | 15.5 | 15.7 | 15.6 | 15.2 | 14.7 | 14.8 | 14.8 | 14.8 | 14.6 | 14.5 | 14.4 | 14.2 | 14 | 15.7 | 13.7 | 24 | | |
| 22 | | 14 | 14 | 13.9 | 13.8 | 13.8 | 13.9 | 13.8 | 13.8 | 13.9 | 14.3 | 14.6 | 14.7 | 15 | 15.3 | 15.6 | 15.5 | 15.7 | 16.2 | 16.1 | 15.7 | 15.4 | 14.3 | 13.6 | 13.1 | 16.2 | 14.6 | 24 | | |
| 23 | | 12.6 | 12.2 | 12.5 | 12.2 | 12.4 | 12.7 | 12.8 | 13.7 | 14.9 | 16.8 | 18.4 | 19.1 | 19.7 | 20.7 | 20.9 | 21.1 | 21.5 | 21.4 | 21.3 | 20.6 | 17.7 | 13 | 11.8 | 11 | 21.5 | 16.3 | 24 | | |
| 24 | | 10.1 | 10.8 | 11.1 | 11.4 | 11.4 | 12.2 | 14.1 | 15.9 | 17.5 | 19.9 | 22.1 | 23.3 | 23.4 | 23.9 | 24.7 | 24.8 | 24.9 | 25.1 | 24.1 | 22.7 | 19.9 | 17.5 | 16.6 | 16.4 | 25.1 | 18.5 | 24 | | |
| 25 | | 15.7 | 14.9 | 14.5 | 14 | 14.5 | 14.4 | 15.2 | 17.2 | 19.1 | 21.5 | 22.8 | 23.4 | 24.6 | 25.3 | 25.3 | 20.9 | 15.1 | 14.7 | 15 | 14.6 | 14.1 | 13.8 | 13.5 | 11.9 | 25.3 | 17.3 | 24 | | |
| 26 | | 10.6 | 10 | 9 | 8.4 | 8.5 | 10.6 | 12.6 | 14.4 | 15.9 | 17 | 18 | 19.1 | 20.1 | 20.9 | 21 | 21 | 21.1 | 20.7 | 19.8 | 18.3 | 15.8 | 13.3 | 11.7 | 11.4 | 21.1 | 15.4 | 24 | | |
| 27 | | 11 | 11.1 | 10.9 | 10.8 | 10.6 | 10.2 | 9.8 | 9.8 | 10.3 | 11.7 | 13 | 14.3 | 14.3 | 14.9 | 15.5 | 16.8 | 17.7 | 19.2 | 18.7 | 17.1 | 14.5 | 12.1 | 10.6 | 10 | 19.2 | 13.1 | 24 | | |
| 28 | | 9.6 | 8.9 | 8.7 | 9.3 | 10 | 12 | 13.5 | 14.9 | 16.3 | 17.2 | 17.7 | 18.2 | 18.1 | 16.3 | 16 | 18 | 17.3 | 16.1 | 16 | 15.6 | 13.4 | 10 | 8.3 | 7.4 | 18.2 | 13.7 | 24 | | |
| 29 | | 6.4 | 5.5 | 4.8 | 4.2 | 4.3 | 7.7 | 10.9 | 13.3 | 15 | 15.7 | 16.8 | 17.9 | 18.2 | 17.8 | 18.2 | 18.9 | 19 | 19.3 | 19.2 | 17.2 | 15 | 14.2 | 13.3 | 11.5 | 19.3 | 13.5 | 24 | | |
| 30 | | 10.9 | 10.7 | 10 | 9.9 | 9.1 | 10.2 | 12.1 | 12.4 | 13 | 13.9 | 14.2 | 14.9 | 15.7 | 16.1 | 17.7 | 18.6 | 17.1 | 16.1 | 15.6 | 14.2 | 12 | 9.7 | 8.9 | 8.5 | 18.6 | 13.0 | 24 | | |
| HOURLY MAX | | 18.1 | 16.0 | 15.2 | 14.4 | 14.5 | 14.6 | 16.7 | 20.9 | 22.9 | 24.7 | 26.9 | 28.0 | 28.8 | 28.9 | 28.4 | 27.7 | 27.3 | 27.1 | 27.2 | 25.3 | 24.2 | 21.3 | 18.7 | 17.2 | | | | | |
| HOURLY AVG | | 9.5 | 9.1 | 8.7 | 8.0 | 7.9 | 9.3 | 11.0 | 12.9 | 14.5 | 15.9 | 17.0 | 17.7 | 18.2 | 18.6 | 18.7 | 18.9 | 18.6 | 18.4 | 18.1 | 17.0 | 15.1 | 12.8 | 11.4 | 10.3 | | | | | |

STATUS FLAG CODES

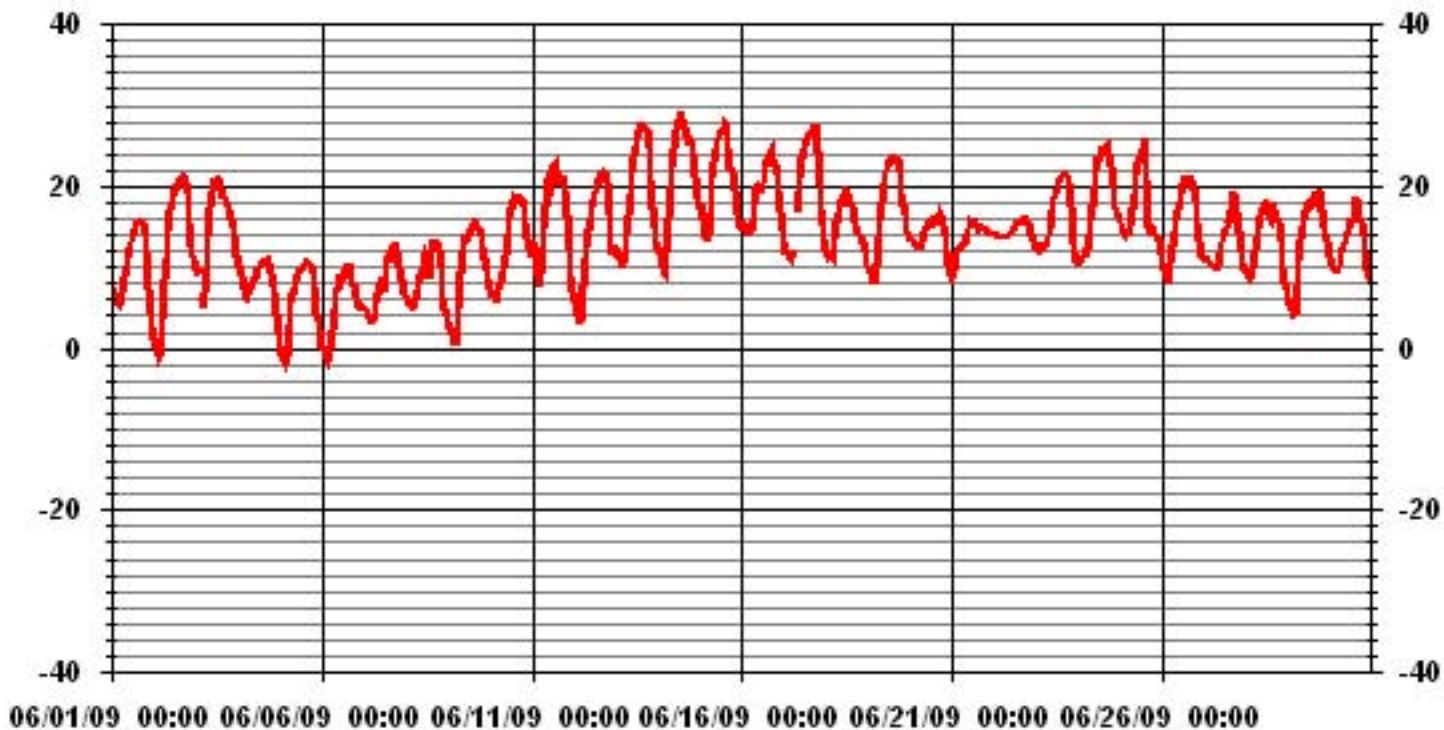
| | | | |
|---|--------------------|----|----------------------------|
| S | - OUT OF SERVICE | OD | - OUTSIDE DETECTION LIMITS |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |



MONTHLY SUMMARY

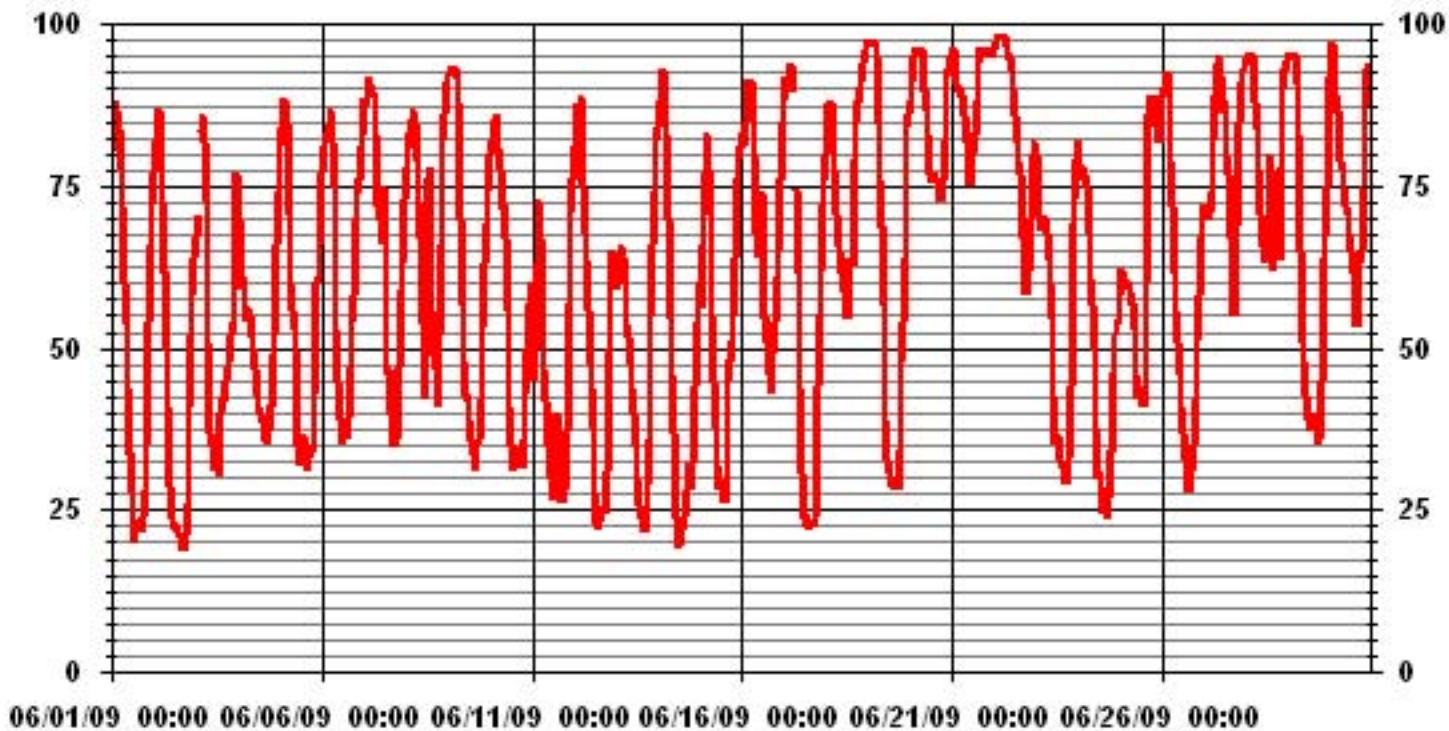
| | | | | | |
|------------------------|---------|-----------|-----------------------|-------------|-----|
| MINIMUM 1-HR AVERAGE: | -1.8 °C | @ HOUR(S) | 3 | ON DAY(S) | 5 |
| MAXIMUM 1-HR AVERAGE: | 28.9 °C | @ HOUR(S) | 13 | ON DAY(S) | 14 |
| MAXIMUM 24-HR AVERAGE: | 20.9 °C | | | ON DAY(S) | 14 |
| | | | | VAR-VARIOUS | |
| CALIBRATION TIME: | 0 | HRS | OPERATIONAL TIME: | 718 | HRS |
| | | | AMD OPERATION UPTIME: | 99.7 | % |
| STANDARD DEVIATION: | 6.12 | | MONTHLY AVERAGE: | 14.07 | °C |

01 Hour Averages



Relative Humidity

01 Hour Averages



— LICA RH %FS

Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

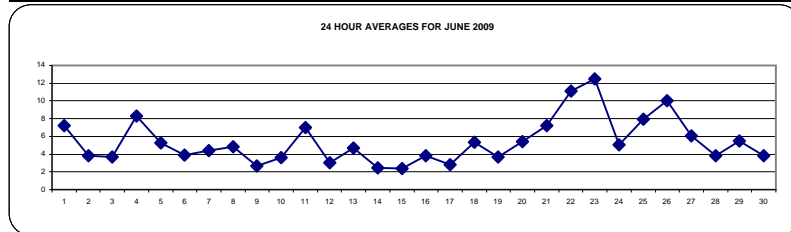
VECTOR WIND SPEED (WS) hourly averages (km/hr)

| 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 | HR | 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 | | 8.8 | 10.5 | 10.1 | 9.7 | 9.3 | 8.4 | 10.2 | 9.7 | 9.5 | 13.1 | 13.4 | 12 | 11.4 | 12.4 | 10.9 | 11.7 | 10.9 | 9.7 | 7.9 | 5.1 | 2.1 | 0.5 | 0.9 | 0.7 | 13.4 | 7.2 | 24 |
| 2 | | 0.4 | 0.1 | 0.5 | 0.7 | 0.2 | 0.3 | 0.4 | 4.4 | 5 | 6.7 | 7 | 8.1 | 7.6 | 9.5 | 9.4 | 9.5 | 9.8 | 9.9 | 6.1 | 1.6 | 0.4 | 0.5 | 0.4 | 0 | 9.9 | 3.8 | 24 |
| 3 | | 0.5 | 0.6 | P | 1 | 0 | 0.2 | 2.1 | 3.9 | 2.4 | 3.2 | 4.1 | 10.1 | 5 | 6.5 | 13.1 | 12.3 | 8.6 | 8.3 | 6.2 | 7.7 | 7.8 | 8.6 | 6.9 | 3.1 | 13.1 | 3.7 | 23 |
| 4 | | 6.2 | 8.4 | 8.6 | 7 | 8.7 | 10.1 | 12.9 | 12.8 | 12.3 | 13.4 | 13.1 | 12.3 | 11.9 | 14.1 | 14.1 | 11 | 10.6 | 10.5 | 8.6 | 5.7 | 5.5 | 4.6 | 0.1 | 0.7 | 14.1 | 8.3 | 24 |
| 5 | | 0.4 | 0.2 | 0.7 | 0.5 | 0.8 | 3.1 | 5.5 | 5.4 | 6.4 | 6.8 | 7.6 | 7.7 | 9 | 9.3 | 10.2 | 7.9 | 8.1 | 10.8 | 9.2 | 7.1 | 2.9 | 1.8 | 2.6 | 1.9 | 10.8 | 5.2 | 24 |
| 6 | | 0.3 | 0.5 | 0.4 | 0.5 | 0.3 | 0.9 | 1.1 | 0.6 | 2.8 | 4.3 | 5.8 | 6.4 | 6.8 | 6.5 | 4.4 | 7.4 | 9.4 | 7.1 | 7.9 | 7.3 | 5.3 | 4.1 | 1.7 | 2.1 | 9.4 | 3.9 | 24 |
| 7 | | 0.8 | 2.2 | 2.9 | 4.7 | 5 | 5.2 | 2.4 | 3.1 | 2.4 | 5.1 | 9 | 5.4 | 4 | 7.2 | 6.8 | 4.8 | 3.3 | 4.1 | 2 | 5.4 | 2.5 | 4.4 | 6.7 | 5.7 | 9.0 | 4.4 | 24 |
| 8 | | 4.9 | 4 | 4.3 | 4.2 | 4.5 | 3.7 | 5.4 | 8.7 | 8.6 | 7.6 | 7.8 | 6.3 | 6.7 | 6.9 | 6 | 5.6 | 2.5 | 7.5 | 4.5 | 3.6 | 0.9 | 0.4 | 0.7 | 0.2 | 8.7 | 4.8 | 24 |
| 9 | | 1 | 0.7 | 0.4 | 0.3 | 0.6 | 0.4 | 1.8 | 3.6 | 4.3 | 4.8 | 2 | 4.9 | 2.8 | 4.2 | 4.1 | 2.1 | 4.1 | 4.3 | 4 | 3.9 | 3.9 | 1.8 | 2.3 | 1.5 | 4.9 | 2.7 | 24 |
| 10 | | 0.8 | 0.2 | 0.7 | 0.6 | 0.5 | 0.9 | 1.2 | 2 | 4 | 2.7 | 4 | 7.8 | 6.2 | 6.3 | 7.7 | 8.5 | 6.7 | 6.2 | 5.4 | 4.4 | 4.6 | 2 | 0.3 | 2.9 | 8.5 | 3.6 | 24 |
| 11 | | 5 | 8.5 | 4.7 | 1.7 | 1.2 | 0.2 | 5.6 | 5.5 | 5.4 | 6.7 | 7.3 | 9.2 | 12.1 | 14.5 | 13.8 | 14.6 | 17.4 | 13.9 | 10.6 | 5.4 | 3.9 | 0.5 | 0.4 | 0.7 | 17.4 | 7.0 | 24 |
| 12 | | 0.1 | 0.7 | 0.3 | 0.7 | 0.1 | 1.2 | 4.9 | 7.2 | 5.7 | 6.1 | 4.9 | 3.9 | 3.9 | 3.3 | 3.5 | 1.3 | 3 | 1.9 | 2.8 | 2.8 | 0.9 | 1.4 | 4.8 | 6.7 | 7.2 | 3.0 | 24 |
| 13 | | 6.7 | 6.7 | 6.2 | 2.4 | 1.6 | 3.7 | 4.8 | 4.2 | 6.2 | 4 | 5.4 | 8.4 | 9.1 | 8.2 | 6.9 | 7.4 | 5.9 | 3.6 | 3.8 | 4.1 | 2.3 | 0.4 | 0.3 | 0.5 | 9.1 | 4.7 | 24 |
| 14 | | 0.2 | 0.5 | 0.9 | 0.8 | 0.7 | 0.6 | 1.3 | 1.7 | 1.5 | 2.5 | 1.2 | 3.8 | 5.5 | 5.2 | 5.6 | 7.8 | 3.6 | 1.3 | 3.5 | 4.9 | 1.1 | 1.4 | 1 | 2.4 | 7.8 | 2.5 | 24 |
| 15 | | 4.8 | 1.1 | 1.1 | 0.7 | 0.6 | 1.4 | 3.9 | 5.5 | 5.5 | 3.2 | 1.4 | 0.1 | 4.1 | 2.4 | 4 | 3.3 | 1.2 | 5.7 | 3.3 | 1 | 0.8 | 0.4 | 1.1 | 0.4 | 5.7 | 2.4 | 24 |
| 16 | | 1 | 2 | 1.2 | 1.4 | 1.1 | 1.8 | 2.2 | 3.1 | 4.5 | 3.1 | 1.1 | 3.2 | 2.8 | 7.5 | 7.2 | 8.8 | 7.6 | 10.2 | 7.5 | 3.4 | 2.3 | 4.8 | 2.8 | 0.9 | 10.2 | 3.8 | 24 |
| 17 | | 1 | 0.9 | 3.3 | 1.6 | 1.2 | 1.6 | M | 1 | 2.4 | 4.9 | 5.4 | 5.4 | 5 | 6 | 4.4 | 4.8 | 4.5 | 1.5 | 3 | 2.4 | 0.7 | 1.9 | 1 | 0.1 | 6.0 | 2.8 | 23 |
| 18 | | 1.5 | 1.8 | 1.7 | 3 | 2.8 | 2.5 | 5.3 | 7.4 | 7 | 7.9 | 8.9 | 11 | 10.6 | 12 | 10.4 | 10.2 | 8 | 4 | 5.7 | 3.7 | 0.3 | 0.5 | 0.8 | 1.3 | 12.0 | 5.3 | 24 |
| 19 | | 0.7 | 1.5 | 0.5 | 1.3 | 0.9 | 1.5 | 4.3 | 7.1 | 4.8 | 3.6 | 3.7 | 4.6 | 4.9 | 2.1 | 4.1 | 3.7 | 4.8 | 6.6 | 8.3 | 10.2 | 4.6 | 2.5 | 0.9 | 1 | 10.2 | 3.7 | 24 |
| 20 | | 2.3 | 0.5 | 1.7 | 3 | 4 | 2.6 | 1.4 | 1.8 | 3.5 | 6.6 | 7.1 | 7.8 | 9 | 12.6 | 11.7 | 11.8 | 9.7 | 9.6 | 8.6 | 7.9 | 3.8 | 2.8 | 0.4 | 0.4 | 12.6 | 5.4 | 24 |
| 21 | | 1.3 | 2.9 | 5.2 | 4.2 | 5.8 | 7 | 8.3 | 7.9 | 8 | 8.3 | 8.5 | 8.2 | 6.6 | 7 | 6.1 | 5.4 | 4.7 | 8.8 | 9.7 | 10.4 | 9.6 | 9.4 | 9.2 | 11.4 | 11.4 | 7.2 | 24 |
| 22 | | 9.1 | 9 | 8.9 | 8 | 7.3 | 7.5 | 8.5 | 9 | 7.9 | 8 | 11.1 | 12.6 | 13.9 | 12.5 | 11.8 | 15.9 | 17.3 | 17.4 | 21.1 | 11.4 | 10 | 8.3 | 9.8 | 10.7 | 21.1 | 11.1 | 24 |
| 23 | | 9.6 | 11 | 12.6 | 14 | 12.8 | 11.4 | 13.8 | 15.9 | 18.4 | 17 | 17.7 | 19.3 | 18.6 | 17.4 | 17.2 | 15.6 | 15.8 | 13.3 | 9.6 | 6.9 | 4.2 | 1.6 | 3.4 | 2.6 | 19.3 | 12.5 | 24 |
| 24 | | 3.9 | 4.6 | 3.5 | 3.8 | 3.3 | 2.5 | 4.3 | 5.6 | 5.5 | 4.7 | 4.7 | 6.9 | 7 | 6.4 | 5.6 | 5.7 | 4.7 | 3.2 | 5.2 | 5.2 | 4.9 | 5.7 | 6.6 | 7.4 | 7.4 | 5.0 | 24 |
| 25 | | 8.2 | 8.6 | 10.2 | 8.6 | 10.6 | 10.2 | 11 | 11.5 | 12 | 11.8 | 7.3 | 6.7 | 4.9 | 5.8 | 3.1 | 6.4 | 1.4 | 3.8 | 10.7 | 4.3 | 4.9 | 6.4 | 14.8 | 7.9 | 14.8 | 8.0 | 24 |
| 26 | | 5.2 | 3.8 | 2.8 | 2.5 | 3.2 | 4.4 | 6.1 | 9.4 | 11.6 | 14 | 13.9 | 12.7 | 12.6 | 14.8 | 15.2 | 15.9 | 15.3 | 12.2 | 12.4 | 10.8 | 10.5 | 10.1 | 10.5 | 10.1 | 15.9 | 10.0 | 24 |
| 27 | | 9 | 9 | 9.3 | 8.7 | 7.1 | 9.4 | 7.7 | 5.8 | 6.5 | 6.8 | 7.3 | 10.7 | 10.4 | 6.8 | 5.7 | 5.9 | 5.1 | 4.8 | 4 | 1.7 | 1.8 | 0.9 | 0.5 | 0.4 | 10.7 | 6.1 | 24 |
| 28 | | 0.1 | 0.5 | 1.2 | 0.4 | 1.2 | 2.4 | 4.1 | 5.5 | 8 | 8.2 | 3 | 1.9 | 1.7 | 4 | 0.9 | 5.3 | 9 | 13 | 11.7 | 7 | 0.8 | 1 | 1.2 | 0.1 | 13.0 | 3.8 | 24 |
| 29 | | 0.5 | 1.2 | 0.5 | 0.2 | 0.3 | 2.1 | 5.5 | 6.9 | 7 | 8.5 | 10.7 | 11.6 | 10.7 | 7.2 | 5.2 | 7.1 | 7.7 | 4 | 2.5 | 6.3 | 8.9 | 4.1 | 6 | 6.5 | 11.6 | 5.5 | 24 |
| 30 | | 3.5 | 1.5 | 13.7 | 2 | 1.6 | 1.9 | 4.9 | 5.1 | 6 | 2.4 | 4 | 3.1 | 3.3 | 4.3 | 2.8 | 2.5 | 7.7 | 6.1 | 4.3 | 3.1 | 0.4 | 1.7 | 1.6 | 4 | 13.7 | 3.8 | 24 |
| HOURLY MAX | | 9.6 | 11.0 | 13.7 | 14.0 | 12.8 | 11.4 | 13.8 | 15.9 | 18.4 | 17.0 | 17.7 | 19.3 | 18.6 | 17.4 | 17.2 | 15.9 | 17.4 | 17.4 | 21.1 | 11.4 | 10.5 | 10.1 | 14.8 | 11.4 | | | |
| HOURLY AVG | | 3.3 | 3.5 | 4.1 | 3.3 | 3.2 | 3.6 | 5.2 | 6.0 | 6.5 | 6.9 | 6.9 | 7.7 | 7.6 | 8.1 | 7.7 | 8.0 | 7.6 | 7.4 | 7.0 | 5.5 | 3.8 | 3.2 | 3.3 | 3.1 | | | |

STATUS FLAG CODES

| | |
|----------------------|-----------------------------------|
| S - OUT OF SERVICE | IZS - IZS - DAILY ZERO/SPAN CHECK |
| N - INVALID DATA | M - MISSING DATA |
| D - INSTRUMENT DRIFT | P - POWER FAILURE |
| C - CALIBRATION | NA - NOT APPLICABLE |

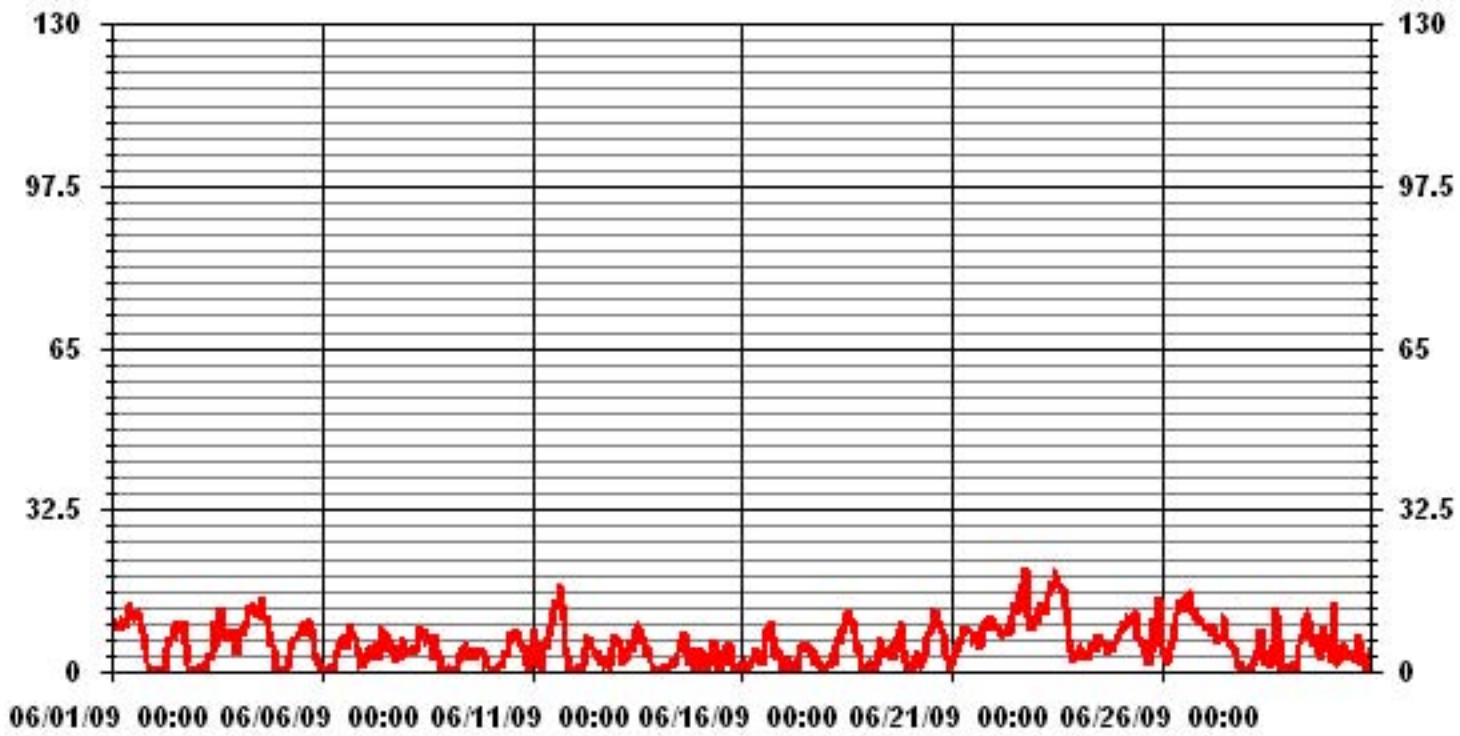
| | |
|-------------------|------------------|
| LAST CALIBRATION: | November 5, 2008 |
|-------------------|------------------|



MONTHLY SUMMARY

| | | | | | |
|---------------------------|----------|-----------|----|----------------------|----------|
| MAXIMUM 1-HR AVERAGE: | 21.1 KPH | @ HOUR(S) | 18 | ON DAY(S) | 22 |
| MAXIMUM 24-HR AVERAGE: | 12.5 KPH | | | ON DAY(S) | 23 |
| CALMS (≤ 0 KPH) | 3.63 % | | | OPERATIONAL TIME: | 718 HRS |
| MONTHLY CALIBRATION TIME: | 0 HRS | | | AMD OPERATION UPTIME | 99.7 % |
| STANDARD DEVIATION: | 4.12 | | | MONTHLY AVERAGE | 5.53 KPH |

01 Hour Averages



— LICA WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

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 |
|------------|----------|------|------|----------|------|------|------|----------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|-------------|
| 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. |
| DAY | 1 | 12.7 | 16.2 | 15.3 | 13.9 | 13.7 | 13.9 | 16.2 | 16.7 | 20.9 | 20.4 | 21.2 | 24.6 | 20.2 | 21.3 | 18.8 | 16.4 | 16 | 13.6 | 8.7 | 5.3 | 1.6 | 2.3 | 3.3 | 24.6 | |
| | 2 | 3.5 | 1.2 | 2.9 | 3.1 | 2 | 1.4 | 3.1 | 8.5 | 9.3 | 11.9 | 14.5 | 16.3 | 18.4 | 17.8 | 21 | 19 | 20.4 | 22.3 | 12.9 | 4.6 | 2.4 | 1.8 | 2.2 | 3 | 22.3 |
| | 3 | 5.8 | 3.8 | P | 2.2 | 2.5 | 3.5 | 4.6 | 7.2 | 8.2 | 10.7 | 16.1 | 21.2 | 16.4 | 15.2 | 20.4 | 19.9 | 17.3 | 16.3 | 13.1 | 21.3 | 17.8 | 12.9 | 10 | 5.7 | 21.3 |
| | 4 | 14.1 | 13 | 12.9 | 13.2 | 14.8 | 17.6 | 22.4 | 20.6 | 22.1 | 21.6 | 23.1 | 20.9 | 20.1 | 20.4 | 22.1 | 17.6 | 16.1 | 17.9 | 15.3 | 10 | 8 | 7.6 | 2.6 | 2.8 | 23.1 |
| | 5 | 1.9 | 1.7 | 2.1 | 2 | 2.2 | 5.9 | 10.3 | 10 | 10.8 | 12.6 | 14.7 | 15.1 | 16.5 | 16.5 | 15 | 15.8 | 16 | 16.4 | 14.8 | 10.3 | 6.5 | 3.2 | 5.5 | 5 | 16.5 |
| | 6 | 2.2 | 1.5 | 1.9 | 2 | 2.6 | 3.7 | 3.9 | 3.3 | 7.9 | 9.9 | 14.2 | 12.8 | 12.6 | 11.9 | 15.7 | 14.1 | 14.7 | 12.2 | 14.6 | 12.2 | 9.8 | 7.7 | 3.5 | 4.9 | 15.7 |
| | 7 | 4.4 | 5.9 | 9.9 | 7.1 | 7.8 | 8.4 | 4.9 | 5.8 | 6.7 | 12.8 | 14.3 | 19.2 | 9.4 | 15.8 | 15.1 | 13.3 | 11.6 | 11.5 | 11.2 | 11.3 | 6.9 | 12.4 | 9.8 | 9 | 19.2 |
| | 8 | 10 | 6 | 8.1 | 8.3 | 8.1 | 6.3 | 10.5 | 14.1 | 12.4 | 12.1 | 16.7 | 12.6 | 15.7 | 15.1 | 11.5 | 9.6 | 12.9 | 21.5 | 9.6 | 9.6 | 4 | 3.6 | 4.4 | 1.7 | 21.5 |
| | 9 | 3.6 | 3.2 | 3 | 1.8 | 2.2 | 2.2 | 4.5 | 7.1 | 9.4 | 10.4 | 12.5 | 9.5 | 9.4 | 10.3 | 9 | 11 | 11.2 | 7.9 | 7.4 | 6 | 8.1 | 4.3 | 4.3 | 4.1 | 12.5 |
| | 10 | 2.1 | 2 | 2.4 | 2.9 | 2.5 | 3.1 | 4.6 | 4.3 | 6.6 | 7.1 | 9.5 | 18.5 | 12.8 | 15.9 | 17.3 | 17.5 | 14.6 | 12.3 | 10 | 8.4 | 7.4 | 5.1 | 4.4 | 7.5 | 18.5 |
| | 11 | 12.5 | 15.1 | 10 | 4.1 | 2.6 | 3.4 | 11 | 9 | 8.8 | 12.5 | 15.3 | 17.2 | 19.4 | 29.6 | 31.3 | 25.6 | 27.6 | 20.1 | 16.9 | 14.5 | 8.7 | 1.7 | 1.6 | 2.8 | 31.3 |
| | 12 | 1.7 | 2.7 | 1.8 | 3 | 3.4 | 5.2 | 11.3 | 10.6 | 9.1 | 10.6 | 10.7 | 12 | 10.2 | 10.8 | 13.5 | 10.7 | 10.9 | 7.6 | 7.1 | 4.9 | 2.5 | 2.9 | 7.1 | 8.7 | 13.5 |
| | 13 | 9.7 | 8.8 | 8.6 | 5.3 | 5 | 9.3 | 10.3 | 8.5 | 11.4 | 10.9 | 13.8 | 15.7 | 15.2 | 16 | 15.1 | 14.4 | 12 | 8.2 | 7.4 | 5.4 | 4.2 | 1.9 | 1.9 | 3.6 | 16 |
| | 14 | 3.8 | 3.2 | 4.6 | 3.8 | 2.9 | 4.6 | 5.3 | 6.2 | 4.8 | 8.8 | 7.2 | 12.4 | 14 | 13.9 | 16.7 | 10.9 | 9.9 | 6.6 | 9.2 | 12.1 | 7.8 | 6.4 | 5.3 | 9.6 | 16.7 |
| | 15 | 8.1 | 4.9 | 5.6 | 4.2 | 3.6 | 4.7 | 8.2 | 9.3 | 11 | 7.1 | 6.2 | 9 | 8.8 | 8.1 | 9 | 6.6 | 4.9 | 17.5 | 8.1 | 6.6 | 7.2 | 2.1 | 3.9 | 4.4 | 17.5 |
| | 16 | 6.5 | 8.2 | 4.4 | 4.2 | 5.5 | 8.1 | 7.3 | 6.5 | 8.3 | 8.3 | 9.9 | 10.2 | 9.8 | 14.9 | 11.5 | 14.6 | 12 | 17.5 | 13.4 | 5.5 | 5 | 7.5 | 4.9 | 4 | 17.5 |
| | 17 | 4.5 | 4.8 | 14.7 | 3.9 | 3 | 6.6 | M | 3.4 | 6.2 | 8 | 11 | 11.6 | 11.8 | 12.8 | 11.7 | 10.2 | 11.2 | 6.9 | 6.9 | 4.1 | 4.4 | 7.1 | 9.3 | 2.9 | 14.7 |
| | 18 | 5 | 8.9 | 8 | 7 | 6.8 | 4.7 | 10.1 | 12.9 | 14.9 | 14.5 | 13 | 16.3 | 17.4 | 18.6 | 16.7 | 17.9 | 17.2 | 7.4 | 8.9 | 6.9 | 6.1 | 4 | 2.4 | 3.2 | 18.6 |
| | 19 | 3.6 | 5.8 | 3.1 | 4.6 | 4.3 | 4.9 | 9.4 | 11.3 | 9.3 | 10.4 | 9.8 | 15.7 | 16.3 | 10.3 | 12.3 | 10.9 | 9.8 | 11.4 | 18.4 | 16.9 | 9.5 | 6.3 | 6.6 | 5.6 | 18.4 |
| | 20 | 7.7 | 8.1 | 4 | 8.4 | 6.5 | 6.1 | 3.5 | 4.5 | 8 | 10.8 | 14.4 | 12.1 | 14.6 | 22 | 17.8 | 17.9 | 16 | 15.7 | 13.1 | 13.5 | 10 | 4.7 | 3.1 | 2.3 | 22 |
| | 21 | 4.8 | 7 | 7.9 | 6.2 | 10.3 | 11.1 | 13.2 | 12.2 | 12.4 | 13 | 14.4 | 13.3 | 11.3 | 10.9 | 13 | 8.7 | 9.9 | 14.7 | 15.7 | 14.3 | 13.3 | 14.6 | 14.7 | 15.9 | 15.9 |
| | 22 | 12.7 | 12.7 | 12.2 | 13.1 | 10.7 | 10.2 | 13.1 | 13.2 | 11.7 | 13.5 | 19.7 | 20.9 | 24.6 | 19.8 | 23.3 | 22 | 26.6 | 26 | 33.8 | 21.8 | 19.1 | 12.3 | 14.9 | 14.2 | 33.8 |
| | 23 | 12.5 | 15.3 | 16.4 | 18.4 | 20.2 | 17 | 21.6 | 22.6 | 24.5 | 23.8 | 28.8 | 27 | 26.9 | 26.4 | 25.6 | 23.9 | 28.2 | 20.2 | 17.5 | 13 | 7.6 | 3.3 | 4.8 | 4.3 | 28.8 |
| | 24 | 5.4 | 6.1 | 5.2 | 5.4 | 4.8 | 4.5 | 7.8 | 10.1 | 10.8 | 9.3 | 10.4 | 14.2 | 13.2 | 12.5 | 12.4 | 13.4 | 13.3 | 8.7 | 8.9 | 6.6 | 5.9 | 7 | 9 | 9.9 | 14.2 |
| | 25 | 10.7 | 12.3 | 13.8 | 12.1 | 13.4 | 13.9 | 16.1 | 16.2 | 18.2 | 21.7 | 14.7 | 17 | 14.7 | 13.9 | 10.6 | 16.3 | 23.7 | 17.8 | 19.4 | 7.5 | 7.3 | 9.5 | 27.6 | 31.4 | 31.4 |
| | 26 | 9.3 | 7.7 | 4.2 | 4.3 | 5.7 | 7.1 | 11.3 | 17.5 | 18.8 | 20.8 | 22.1 | 21.2 | 22.8 | 23.7 | 24.8 | 25.1 | 27.4 | 19.2 | 18.8 | 17.9 | 18.2 | 16.1 | 13.9 | 15.6 | 27.4 |
| | 27 | 16 | 14 | 13.7 | 12.4 | 11.2 | 15 | 13.4 | 9.2 | 11.7 | 14 | 15.9 | 19.1 | 16.1 | 14.7 | 10.4 | 10.2 | 9.5 | 10.9 | 9.9 | 3.2 | 3.3 | 3 | 3.4 | 1.7 | 19.1 |
| | 28 | 1.1 | 1.4 | 3.6 | 3.4 | 4.4 | 5.2 | 6.2 | 10.1 | 16.5 | 13.5 | 6.7 | 6 | 4.8 | 12.5 | 8.3 | 12.1 | 18.5 | 21.1 | 18.9 | 13.4 | 3 | 2.4 | 2.7 | 1.7 | 21.1 |
| | 29 | 4.3 | 3.5 | 2.1 | 1.5 | 3 | 5.8 | 9.7 | 10.8 | 11.9 | 13.9 | 17.4 | 20.3 | 16.6 | 15.8 | 9.8 | 14.1 | 11.9 | 10 | 5.8 | 10 | 12.4 | 11.6 | 10.3 | 12.8 | 20.3 |
| | 30 | 8.4 | 6.1 | 33.3 | 13.2 | 5.3 | 4.8 | 7.8 | 8.1 | 11.4 | 7.6 | 8.6 | 9.7 | 7.9 | 8.9 | 9 | 8.9 | 14.9 | 10.7 | 7.6 | 8.8 | 3 | 5.4 | 6.3 | 6.8 | 33.3 |
| PEAK | | 16.0 | 16.2 | 33.3 | 18.4 | 20.2 | 17.6 | 22.4 | 22.6 | 24.5 | 23.8 | 28.8 | 27.0 | 26.9 | 29.6 | 31.3 | 25.6 | 28.2 | 26.0 | 33.8 | 21.8 | 19.1 | 16.1 | 27.6 | 31.4 | |

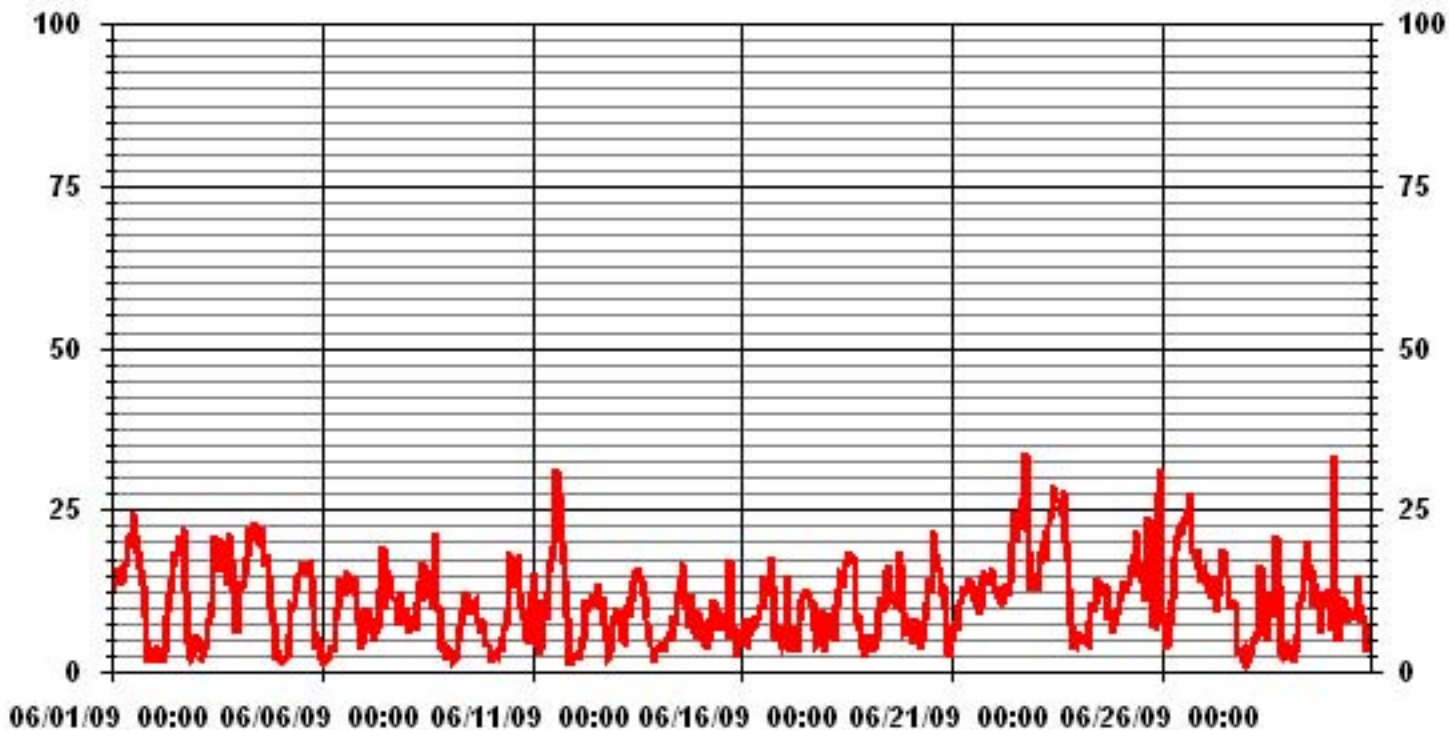
STATUS FLAG CODES

| | |
|----------------------|-----------------------------------|
| S - OUT OF SERVICE | IZS - IZS - DAILY ZERO/SPAN CHECK |
| N - INVALID DATA | M - MISSING DATA |
| D - INSTRUMENT DRIFT | P - POWER FAILURE |
| C - CALIBRATION | NA - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | |
|-------------------------------|------|-----|-----------|----|
| MAXIMUM INSTANTANEOUS READING | 33.8 | KPH | @ HOUR(S) | 18 |
| | | | ON DAY(S) | 22 |

01 Hour Averages



— LICA WSMAX KPH

LICA
WSP / WD Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

| | Direction | | | | | | | | | | | | | | | | |
|---------|-----------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|-------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 6.0 | 3.34 | 3.62 | 3.48 | 3.89 | 2.78 | 3.76 | 4.45 | 2.92 | 2.92 | 5.01 | 5.98 | 5.29 | 3.20 | 1.53 | 1.81 | 1.53 | 55.57 |
| < 12.0 | .83 | 2.92 | 4.17 | .69 | .55 | 1.25 | 2.36 | .41 | .55 | .41 | 1.81 | 4.59 | 3.62 | 1.94 | 3.89 | 2.50 | 32.59 |
| < 20.0 | .55 | .00 | .55 | .00 | .13 | .00 | .13 | .00 | .00 | .00 | .00 | 1.94 | 2.22 | .97 | .41 | .97 | 7.93 |
| < 29.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .13 | .00 | .00 | .13 |
| < 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 | 4.73 | 6.54 | 8.21 | 4.59 | 3.48 | 5.01 | 6.96 | 3.34 | 3.48 | 5.43 | 7.79 | 11.83 | 9.05 | 4.59 | 6.12 | 5.01 | |

Calm : 3.76 %

Total # Operational Hours : 718

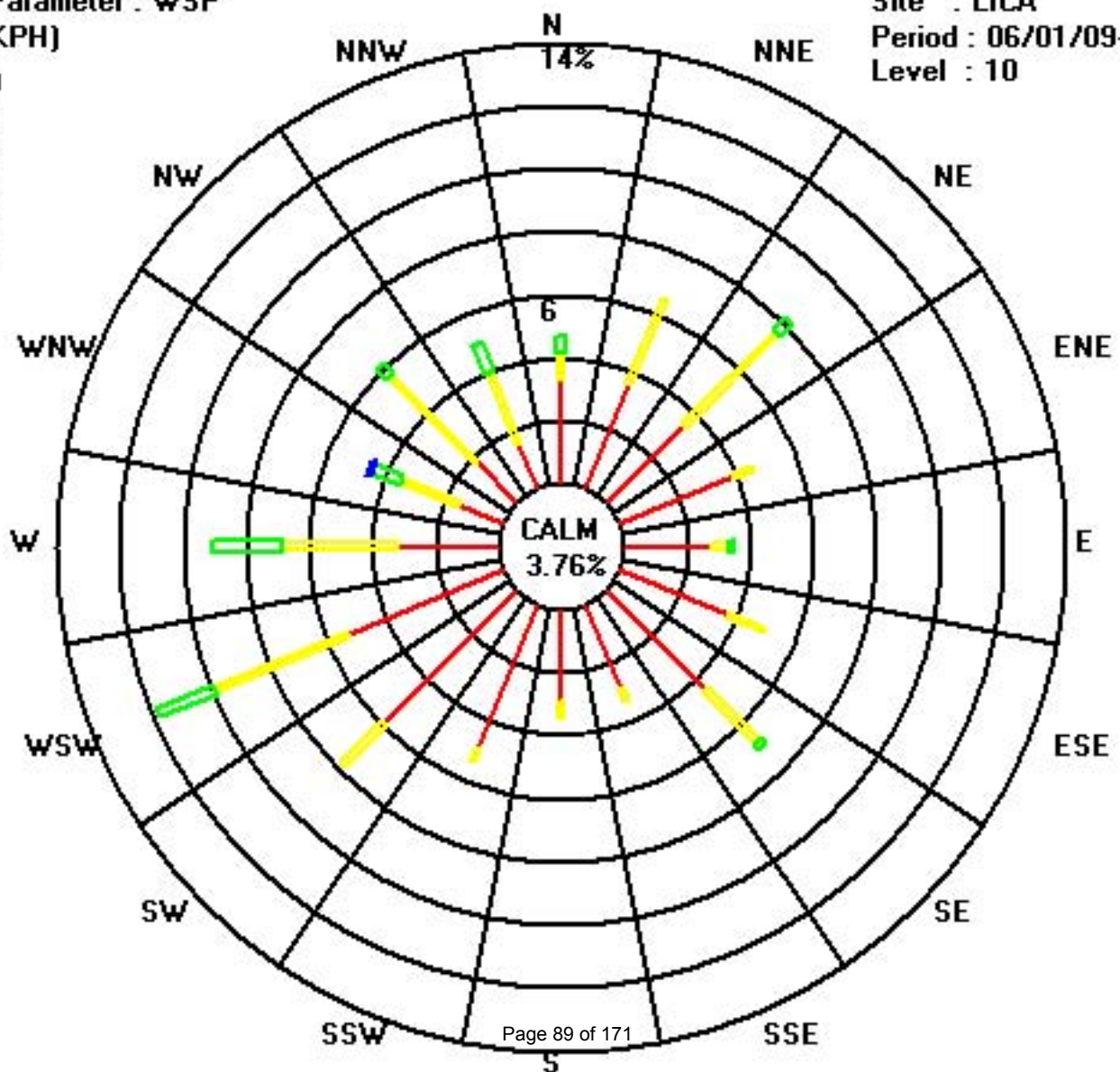
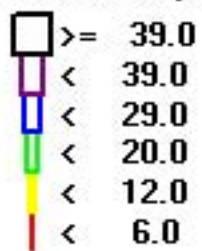
Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 6.0 | 24 | 26 | 25 | 28 | 20 | 27 | 32 | 21 | 21 | 36 | 43 | 38 | 23 | 11 | 13 | 11 | 399 |
| < 12.0 | 6 | 21 | 30 | 5 | 4 | 9 | 17 | 3 | 4 | 3 | 13 | 33 | 26 | 14 | 28 | 18 | 234 |
| < 20.0 | 4 | | 4 | | 1 | | 1 | | | | | 14 | 16 | 7 | 3 | 7 | 57 |
| < 29.0 | | | | | | | | | | | | | | 1 | | | 1 |
| < 39.0 | | | | | | | | | | | | | | | | | |
| >= 39.0 | | | | | | | | | | | | | | | | | |
| Totals | 34 | 47 | 59 | 33 | 25 | 36 | 50 | 24 | 25 | 39 | 56 | 85 | 65 | 33 | 44 | 36 | |

Calm : 3.76 %

Total # Operational Hours : 718

Class Limits (KPH)



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

VECTOR WIND DIRECTION (WD) hourly averages in degrees

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 | 24-HOUR | 24-HOUR AVG | 24-HOUR QUADRANT | 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 | AVG. | QUADRANT | RDGS | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 310 | 327 | 325 | 325 | 324 | 331 | 325 | 335 | 314 | 341 | 356 | 335 | 345 | 340 | 18 | 49 | 49 | 42 | 39 | 32 | 34 | 181 | 226 | 199 | 349 | NNW | 24 | |
| 2 | 173 | 157 | 199 | 202 | 126 | 253 | 152 | 229 | 244 | 272 | 271 | 265 | 251 | 249 | 252 | 240 | 240 | 262 | 279 | 249 | 137 | 169 | 181 | 142 | 252 | WSW | 24 | |
| 3 | 253 | 164 | P | 207 | 248 | 292 | 244 | 290 | 331 | 299 | 9 | 332 | 6 | 335 | 38 | 50 | 34 | 14 | 341 | 308 | 312 | 302 | 306 | 271 | 344 | NNW | 23 | |
| 4 | 307 | 345 | 12 | 352 | 353 | 358 | 345 | 352 | 357 | 348 | 342 | 338 | 19 | 38 | 35 | 39 | 45 | 46 | 34 | 36 | 43 | 52 | 329 | 57 | 10 | N | 24 | |
| 5 | 197 | 160 | 244 | 181 | 65 | 54 | 72 | 88 | 63 | 34 | 56 | 53 | 38 | 47 | 62 | 37 | 23 | 36 | 60 | 54 | 63 | 30 | 41 | 62 | 50 | NE | 24 | |
| 6 | 345 | 273 | 86 | 90 | 212 | 2 | 5 | 254 | 9 | 354 | 324 | 29 | 45 | 61 | 6 | 14 | 42 | 43 | 37 | 32 | 36 | 68 | 356 | 12 | 27 | NNE | 24 | |
| 7 | 5 | 129 | 97 | 57 | 62 | 64 | 314 | 296 | 87 | 21 | 35 | 130 | 212 | 134 | 157 | 142 | 134 | 139 | 89 | 130 | 74 | 107 | 107 | 107 | 101 | E | 24 | |
| 8 | 111 | 83 | 94 | 83 | 95 | 92 | 104 | 128 | 110 | 86 | 105 | 86 | 105 | 224 | 298 | 338 | 194 | 100 | 115 | 196 | 212 | 124 | 155 | 301 | 107 | ESE | 24 | |
| 9 | 223 | 180 | 203 | 122 | 237 | 276 | 292 | 305 | 45 | 82 | 69 | 33 | 46 | 64 | 70 | 343 | 67 | 65 | 117 | 122 | 143 | 169 | 145 | 193 | 77 | ENE | 24 | |
| 10 | 118 | 171 | 135 | 123 | 156 | 157 | 54 | 103 | 134 | 175 | 170 | 157 | 179 | 225 | 240 | 217 | 186 | 170 | 182 | 161 | 136 | 113 | 62 | 183 | 177 | S | 24 | |
| 11 | 211 | 211 | 211 | 220 | 148 | 183 | 252 | 243 | 245 | 257 | 306 | 286 | 275 | 305 | 300 | 302 | 317 | 311 | 306 | 352 | 51 | 21 | 233 | 103 | 288 | WNW | 24 | |
| 12 | 357 | 87 | 359 | 170 | 256 | 353 | 40 | 29 | 27 | 15 | 40 | 14 | 54 | 67 | 26 | 348 | 354 | 279 | 151 | 134 | 112 | 110 | 130 | 134 | 53 | NE | 24 | |
| 13 | 134 | 123 | 123 | 131 | 118 | 117 | 129 | 141 | 131 | 194 | 210 | 214 | 226 | 216 | 206 | 216 | 204 | 137 | 136 | 144 | 109 | 298 | 164 | 173 | 173 | S | 24 | |
| 14 | 192 | 238 | 196 | 228 | 98 | 188 | 274 | 237 | 249 | 142 | 191 | 229 | 217 | 263 | 34 | 47 | 66 | 174 | 216 | 155 | 102 | 187 | 313 | 223 | 194 | SSW | 24 | |
| 15 | 242 | 206 | 197 | 210 | 222 | 203 | 247 | 265 | 279 | 263 | 238 | 280 | 37 | 9 | 128 | 14 | 309 | 211 | 149 | 117 | 138 | 10 | 66 | 188 | 240 | WSW | 24 | |
| 16 | 106 | 166 | 141 | 31 | 168 | 166 | 259 | 69 | 74 | 66 | 349 | 28 | 8 | 343 | 341 | 309 | 308 | 319 | 312 | 318 | 294 | 305 | 270 | 183 | 329 | NNW | 24 | |
| 17 | 211 | 153 | 118 | 328 | 281 | 211 | M | 162 | 11 | 8 | 43 | 51 | 33 | 32 | 33 | 34 | 1 | 15 | 297 | 263 | 6 | 159 | 219 | 294 | 24 | NNE | 23 | |
| 18 | 63 | 237 | 271 | 246 | 251 | 261 | 302 | 312 | 310 | 313 | 307 | 307 | 286 | 270 | 275 | 272 | 261 | 267 | 281 | 313 | 168 | 206 | 200 | 163 | 285 | WNW | 24 | |
| 19 | 214 | 211 | 264 | 250 | 194 | 242 | 254 | 245 | 241 | 268 | 303 | 254 | 289 | 26 | 57 | 317 | 229 | 239 | 237 | 248 | 261 | 218 | 324 | 129 | 253 | WSW | 24 | |
| 20 | 92 | 70 | 133 | 108 | 97 | 67 | 345 | 346 | 98 | 10 | 17 | 15 | 10 | 6 | 6 | 19 | 12 | 26 | 45 | 40 | 28 | 345 | 85 | 77 | 25 | NNE | 24 | |
| 21 | 17 | 23 | 39 | 39 | 42 | 40 | 36 | 27 | 38 | 37 | 31 | 32 | 38 | 60 | 15 | 1 | 341 | 334 | 339 | 343 | 331 | 330 | 336 | 328 | 9 | N | 24 | |
| 22 | 315 | 306 | 305 | 300 | 296 | 290 | 286 | 288 | 281 | 278 | 286 | 287 | 287 | 280 | 274 | 279 | 294 | 300 | 299 | 284 | 277 | 259 | 252 | 251 | 286 | WNW | 24 | |
| 23 | 249 | 250 | 254 | 252 | 256 | 253 | 251 | 254 | 254 | 261 | 268 | 269 | 272 | 267 | 274 | 280 | 279 | 275 | 274 | 273 | 254 | 218 | 226 | 217 | 262 | 262 | W | 24 |
| 24 | 231 | 228 | 232 | 232 | 238 | 239 | 245 | 244 | 234 | 235 | 259 | 264 | 258 | 253 | 258 | 248 | 219 | 206 | 140 | 135 | 131 | 131 | 129 | 125 | 218 | SW | 24 | |
| 25 | 128 | 129 | 127 | 128 | 125 | 122 | 123 | 124 | 128 | 134 | 190 | 162 | 194 | 206 | 253 | 134 | 326 | 309 | 235 | 257 | 235 | 230 | 255 | 271 | 162 | SSE | 24 | |
| 26 | 230 | 222 | 221 | 216 | 216 | 233 | 240 | 256 | 258 | 260 | 253 | 247 | 247 | 239 | 246 | 247 | 247 | 264 | 280 | 281 | 275 | 273 | 266 | 260 | 253 | WSW | 24 | |
| 27 | 263 | 255 | 252 | 250 | 243 | 250 | 246 | 229 | 239 | 255 | 276 | 297 | 307 | 344 | 332 | 334 | 312 | 288 | 270 | 214 | 222 | 179 | 203 | 186 | 270 | 270 | W | 24 |
| 28 | 132 | 101 | 71 | 227 | 193 | 109 | 107 | 105 | 122 | 127 | 206 | 138 | 210 | 239 | 209 | 225 | 268 | 289 | 306 | 311 | 241 | 158 | 158 | 155 | 236 | SW | 24 | |
| 29 | 154 | 230 | 102 | 147 | 80 | 244 | 228 | 231 | 241 | 227 | 242 | 237 | 233 | 258 | 247 | 263 | 296 | 289 | 23 | 79 | 126 | 118 | 222 | 207 | 233 | SW | 24 | |
| 30 | 263 | 58 | 88 | 18 | 28 | 17 | 39 | 8 | 17 | 47 | 17 | 21 | 11 | 18 | 98 | 253 | 290 | 317 | 349 | 41 | 230 | 222 | 186 | 236 | 13 | NNE | 24 | |
| HOURLY AVG | 357 | 345 | 359 | 352 | 353 | 358 | 345 | 352 | 357 | 354 | 356 | 338 | 345 | 344 | 341 | 348 | 354 | 334 | 349 | 352 | 331 | 345 | 356 | 328 | | | | |

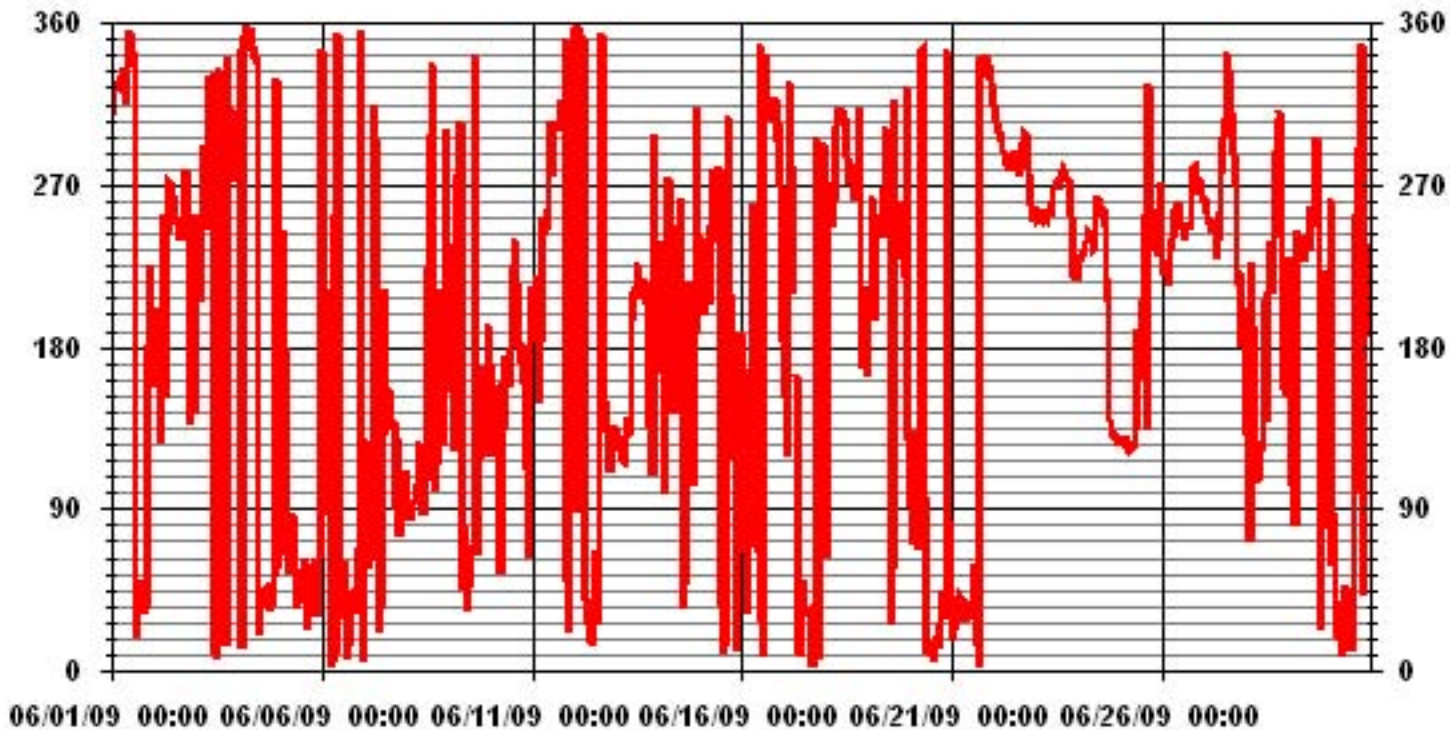
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

| | |
|-------------------|--------------------------------|
| LAST CALIBRATION: | November 5, 2008 |
| DECLINATION : | 19 DEGREES FROM MAGNETIC NORTH |

| | | | |
|---------------------------|--------|----------------------|---------|
| MONTHLY CALIBRATION TIME: | 0 HRS | OPERATIONAL TIME: | 718 HRS |
| STANDARD DEVIATION | 103.05 | AMD OPERATION UPTIME | 99.7 % |
| | | MONTHLY AVERAGE | 298 DEG |

01 Hour Averages



— LICA WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JUNE 2009

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

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 |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 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 | 12 | 16 | 14 | 14 | 16 | 18 | 17 | 23 | 28 | 22 | 23 | 27 | 31 | 28 | 25 | 23 | 20 | 21 | 21 | 20 | 29 | 45 | 51 | 50 |
| 2 | 56 | 65 | 59 | 44 | 77 | 42 | 45 | 25 | 32 | 33 | 37 | 36 | 55 | 31 | 31 | 31 | 26 | 25 | 22 | 19 | 58 | 58 | 58 | 62 |
| 3 | 60 | 64 | P | 25 | 70 | 57 | 32 | 28 | 64 | 53 | 52 | 25 | 37 | 36 | 20 | 19 | 26 | 24 | 23 | 15 | 20 | 16 | 15 | 18 |
| 4 | 13 | 17 | 18 | 18 | 19 | 20 | 21 | 21 | 23 | 24 | 25 | 30 | 23 | 22 | 22 | 24 | 23 | 19 | 22 | 19 | 17 | 16 | 53 | 38 |
| 5 | 58 | 62 | 59 | 44 | 58 | 17 | 22 | 27 | 26 | 27 | 30 | 34 | 29 | 27 | 24 | 33 | 35 | 25 | 21 | 18 | 23 | 23 | 22 | 39 |
| 6 | 64 | 55 | 35 | 44 | 45 | 42 | 54 | 45 | 54 | 46 | 48 | 33 | 29 | 41 | 63 | 34 | 20 | 22 | 21 | 20 | 19 | 21 | 31 | 33 |
| 7 | 44 | 43 | 48 | 18 | 20 | 20 | 37 | 28 | 59 | 39 | 22 | 30 | 42 | 34 | 36 | 53 | 47 | 49 | 53 | 21 | 50 | 40 | 21 | 21 |
| 8 | 24 | 19 | 18 | 24 | 20 | 19 | 22 | 17 | 22 | 23 | 28 | 39 | 34 | 26 | 25 | 33 | 66 | 36 | 34 | 33 | 38 | 43 | 50 | 63 |
| 9 | 59 | 43 | 38 | 71 | 52 | 42 | 29 | 31 | 39 | 41 | 59 | 33 | 49 | 37 | 45 | 58 | 47 | 28 | 23 | 18 | 21 | 36 | 38 | 50 |
| 10 | 56 | 64 | 59 | 59 | 68 | 63 | 37 | 27 | 15 | 53 | 42 | 35 | 44 | 41 | 28 | 29 | 37 | 35 | 38 | 33 | 20 | 35 | 68 | 49 |
| 11 | 29 | 21 | 27 | 31 | 29 | 49 | 23 | 26 | 28 | 33 | 29 | 30 | 27 | 23 | 21 | 19 | 17 | 17 | 16 | 24 | 15 | 49 | 62 | 52 |
| 12 | 76 | 42 | 43 | 24 | 58 | 26 | 27 | 21 | 27 | 32 | 43 | 52 | 52 | 58 | 54 | 64 | 70 | 58 | 45 | 11 | 34 | 16 | 8 | 10 |
| 13 | 12 | 11 | 11 | 22 | 50 | 34 | 32 | 34 | 28 | 53 | 45 | 32 | 32 | 32 | 44 | 35 | 30 | 26 | 23 | 9 | 13 | 61 | 49 | 60 |
| 14 | 67 | 52 | 45 | 55 | 47 | 48 | 48 | 45 | 73 | 57 | 56 | 63 | 47 | 38 | 49 | 20 | 44 | 54 | 37 | 27 | 44 | 37 | 44 | 44 |
| 15 | 28 | 62 | 40 | 36 | 54 | 37 | 23 | 24 | 29 | 38 | 65 | 51 | 39 | 50 | 38 | 41 | 44 | 44 | 38 | 75 | 58 | 60 | 48 | 67 |
| 16 | 35 | 59 | 49 | 41 | 40 | 37 | 38 | 29 | 32 | 31 | 69 | 54 | 39 | 25 | 30 | 25 | 27 | 20 | 16 | 17 | 18 | 11 | 17 | 46 |
| 17 | 60 | 35 | 44 | 22 | 45 | 29 | M | 60 | 41 | 34 | 35 | 39 | 44 | 40 | 58 | 42 | 42 | 67 | 22 | 11 | 44 | 57 | 56 | 57 |
| 18 | 48 | 34 | 68 | 32 | 37 | 25 | 17 | 17 | 22 | 18 | 18 | 20 | 21 | 20 | 21 | 21 | 22 | 21 | 16 | 25 | 38 | 68 | 46 | 31 |
| 19 | 56 | 35 | 68 | 37 | 30 | 51 | 22 | 19 | 29 | 43 | 49 | 53 | 43 | 51 | 50 | 40 | 31 | 22 | 20 | 19 | 21 | 40 | 62 | 39 |
| 20 | 27 | 43 | 22 | 21 | 21 | 25 | 30 | 29 | 30 | 24 | 23 | 25 | 24 | 22 | 21 | 24 | 26 | 22 | 21 | 18 | 21 | 21 | 72 | 50 |
| 21 | 47 | 19 | 19 | 19 | 20 | 20 | 21 | 22 | 20 | 20 | 23 | 21 | 19 | 20 | 24 | 22 | 30 | 17 | 19 | 18 | 17 | 16 | 18 | 15 |
| 22 | 14 | 12 | 13 | 15 | 16 | 16 | 17 | 18 | 20 | 21 | 20 | 19 | 20 | 20 | 23 | 20 | 18 | 17 | 16 | 19 | 20 | 17 | 16 | 15 |
| 23 | 16 | 17 | 17 | 16 | 18 | 17 | 18 | 18 | 18 | 20 | 21 | 21 | 21 | 22 | 22 | 22 | 22 | 21 | 22 | 21 | 14 | 19 | 11 | 17 |
| 24 | 10 | 11 | 13 | 14 | 13 | 23 | 24 | 22 | 26 | 28 | 39 | 34 | 32 | 34 | 41 | 46 | 43 | 43 | 21 | 10 | 8 | 9 | 10 | 11 |
| 25 | 11 | 11 | 12 | 13 | 12 | 14 | 14 | 17 | 16 | 21 | 40 | 44 | 49 | 43 | 35 | 54 | 53 | 64 | 24 | 19 | 18 | 20 | 20 | 47 |
| 26 | 24 | 23 | 24 | 25 | 23 | 21 | 22 | 21 | 21 | 22 | 22 | 25 | 25 | 24 | 22 | 21 | 21 | 23 | 21 | 21 | 20 | 21 | 20 | 20 |
| 27 | 20 | 19 | 18 | 17 | 20 | 17 | 20 | 24 | 21 | 21 | 20 | 20 | 15 | 24 | 23 | 26 | 32 | 30 | 26 | 25 | 19 | 29 | 50 | 41 |
| 28 | 66 | 37 | 39 | 72 | 31 | 21 | 22 | 21 | 20 | 20 | 31 | 54 | 49 | 47 | 58 | 29 | 22 | 21 | 18 | 15 | 27 | 47 | 34 | 66 |
| 29 | 82 | 37 | 56 | 54 | 68 | 40 | 20 | 22 | 25 | 29 | 24 | 25 | 26 | 24 | 30 | 29 | 24 | 44 | 37 | 19 | 11 | 34 | 24 | 27 |
| 30 | 27 | 32 | 18 | 58 | 45 | 37 | 24 | 29 | 27 | 45 | 42 | 57 | 54 | 30 | 52 | 58 | 22 | 24 | 21 | 51 | 43 | 48 | 33 | 14 |

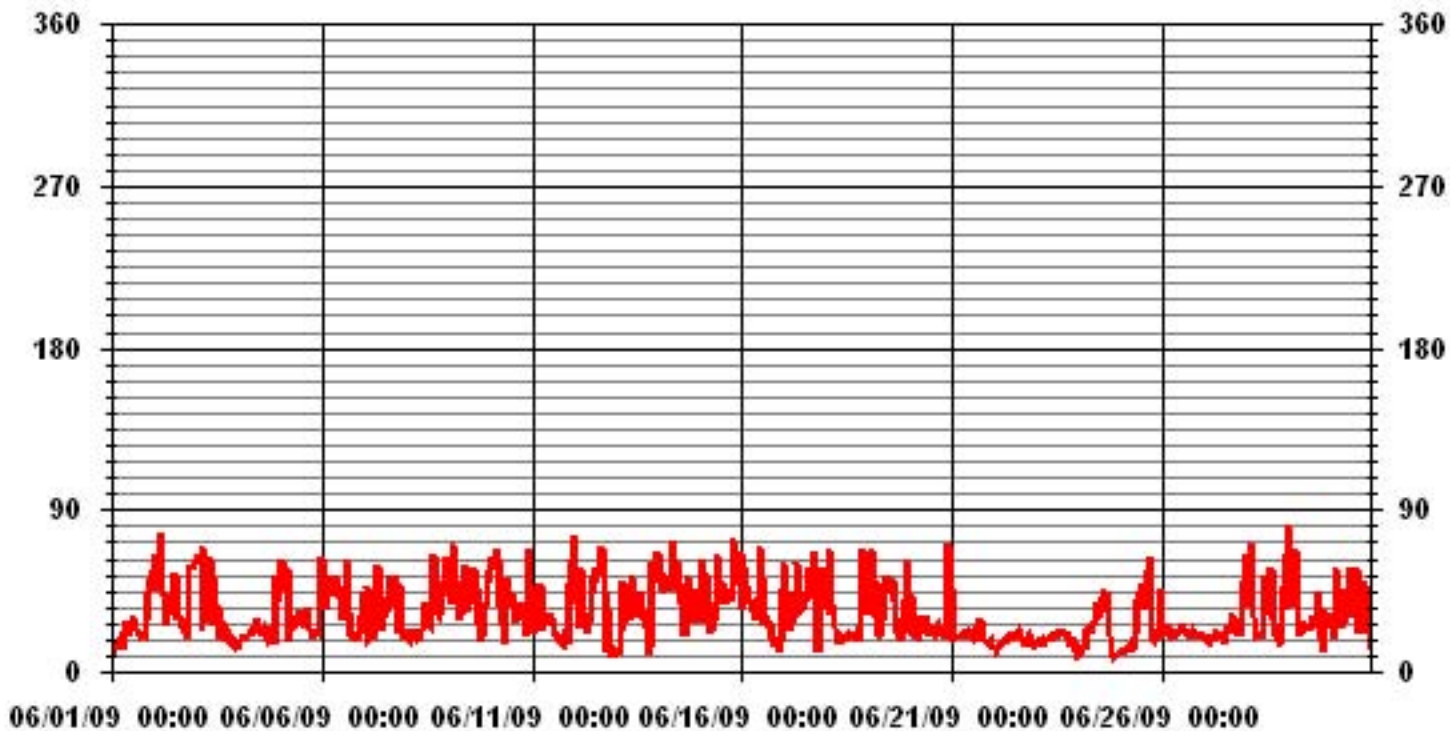
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

LAST CALIBRATION: November 5, 2008

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 718 HRS

01 Hour Averages



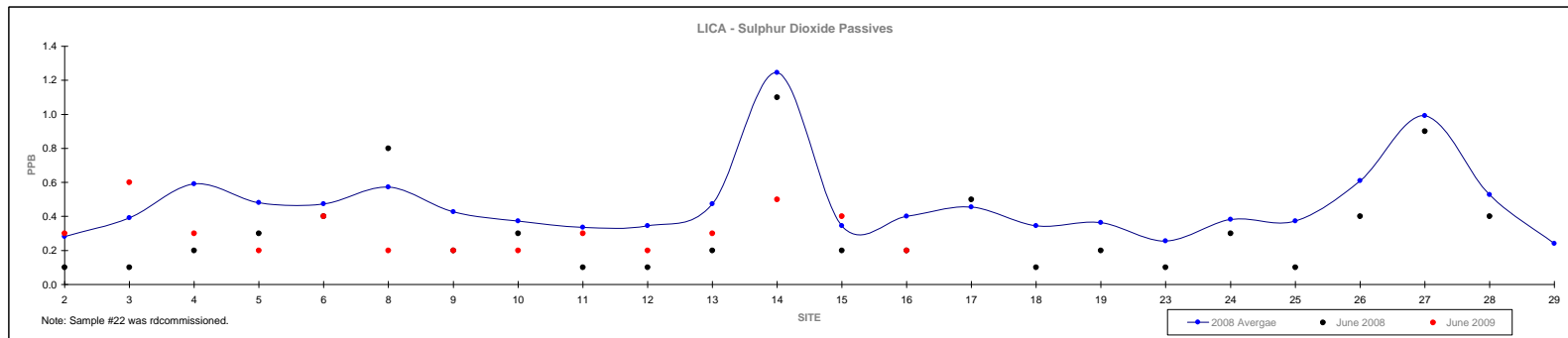
— LICA STDWDIR DEG

Non-Continuous Monitoring

Passive Summary Results for June 2009

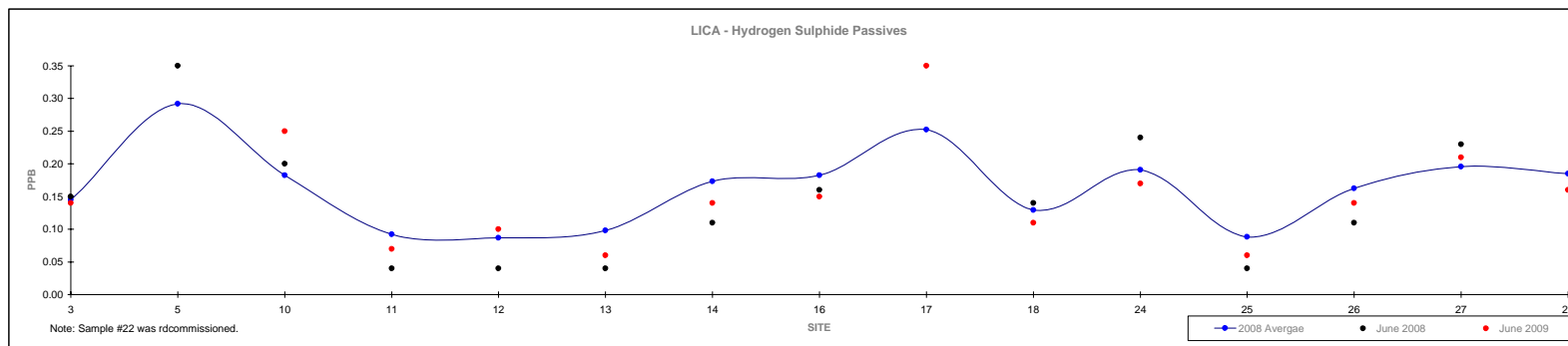
Lakeland Industry & Community Association

| | Sulphur Dioxide ppb | | | | | | | | | | | | | | | | | | | | | | | | | | | | Reading | Site |
|---------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--|---------|------|
| | 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 | | | | | |
| Mean | 0.3 | 0.4 | 0.6 | 0.5 | 0.5 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 | 0.5 | 1.2 | 0.3 | 0.4 | 0.5 | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.6 | 1.0 | 0.5 | 0.2 | 0.3 | - | | | |
| Minimum | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.7 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 0.6 | 0.3 | 0.1 | 0.2 | VARIOUS | | | |
| Maximum | 0.3 | 0.4 | 0.5 | 0.4 | 0.6 | 1.4 | 1.3 | 1.1 | 1.0 | 1.0 | 1.3 | 2.1 | 1.0 | 1.3 | 1.2 | 1.2 | 1.2 | 0.8 | 0.8 | 1.1 | 1.3 | 1.3 | 1.9 | 1.1 | 0.5 | 0.6 | #14 | | | |



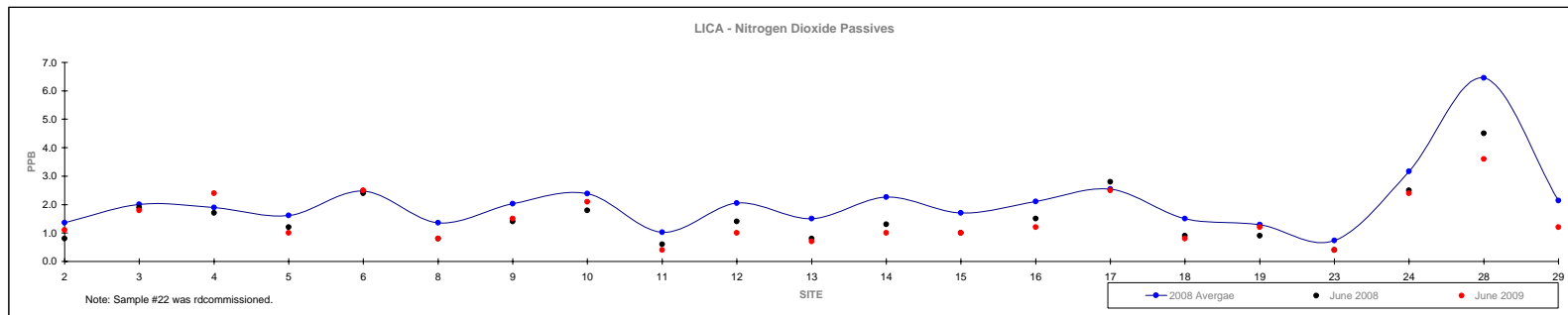
Passive Summary Results for June 2009 Lakeland Industry & Community Association

| | Hydrogen Sulphide ppb | | | | | | | | | | | | | | | June 2009 | | |
|---------|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|---------|----------|
| | 3 | 5 | 10 | 11 | 12 | 13 | 14 | 16 | 17 | 18 | 22 | 24 | 25 | 26 | 27 | 29 | Reading | Site |
| Mean | 0.1 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.18 | - |
| Minimum | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.06 | #13, #25 |
| Maximum | 0.3 | 1.0 | 0.5 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.2 | 0.3 | 0.4 | 0.2 | 0.3 | 0.3 | 0.3 | 0.61 | #5 |



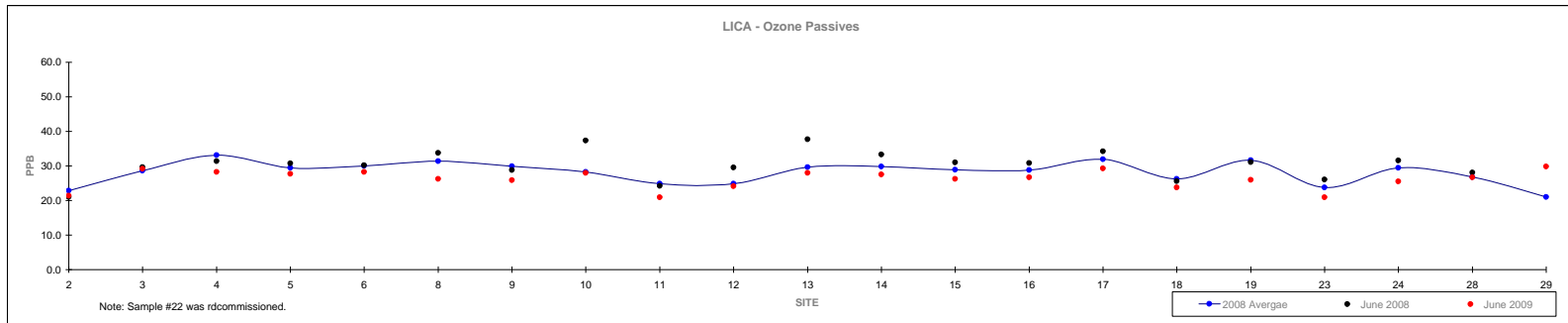
Passive Summary Results for June 2009 Lakeland Industry & Community Association

| | Nitrogen Dioxide ppb | | | | | | | | | | | | | | | | | | | | June 2009 | | | |
|----------------|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|---------|----------|
| | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 22 | 23 | 24 | 28 | 29 | Reading | Site |
| Mean | 1.4 | 2.0 | 1.9 | 1.6 | 2.5 | 1.4 | 2.0 | 2.4 | 1.0 | 2.0 | 1.5 | 2.3 | 1.7 | 2.1 | 2.5 | 1.5 | 1.3 | 2.8 | 0.7 | 3.2 | 6.5 | 2.1 | 1.5 | - |
| Minimum | 0.5 | 0.9 | 0.4 | 0.6 | 1.2 | 0.6 | 1.0 | 1.1 | 0.3 | 0.9 | 0.5 | 1.1 | 0.8 | 1.1 | 0.9 | 0.8 | 0.4 | 0.9 | 0.2 | 1.7 | 3.1 | 1.2 | 0.4 | #11, #23 |
| Maximum | 2.9 | 4.3 | 4.8 | 4.3 | 4.8 | 2.9 | 4.4 | 5.5 | 2.3 | 6.0 | 3.4 | 3.8 | 4.4 | 4.4 | 5.1 | 3.2 | 3.2 | 6.8 | 2.8 | 6.6 | 13.2 | 3.5 | 3.6 | #6 |



Passive Summary Results for June 2009 Lakeland Industry & Community Association

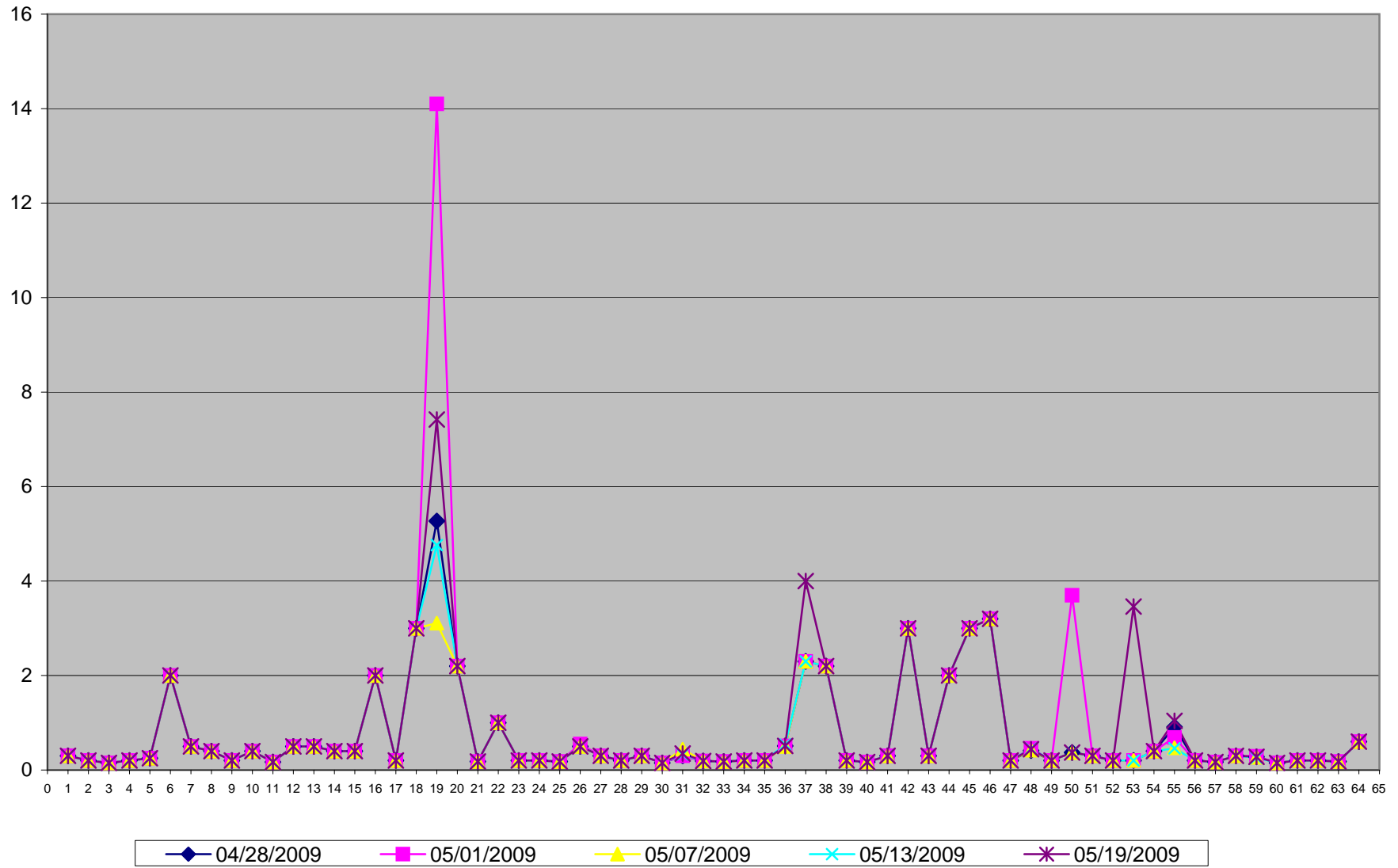
| | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 25 | 26 | June 2009 Reading | Site |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------|------|
| Mean | 22.9 | 28.6 | 33.1 | 29.5 | 30.0 | 31.4 | 29.9 | 28.3 | 24.9 | 24.9 | 29.6 | 29.8 | 28.9 | 28.8 | 32.0 | 26.2 | 31.7 | 26.2 | 23.8 | 29.5 | 26.8 | 21.0 | 26.2 | - |
| Minimum | 12.8 | 17.8 | 20.8 | 17.8 | 18.2 | 18.5 | 19.3 | 16.3 | 12.6 | 14.1 | 17.2 | 17.8 | 16.9 | 18.8 | 16.6 | 13.7 | 20.9 | 15.7 | 13.4 | 17.7 | 15.5 | 17.7 | 20.9 | #23 |
| Maximum | 39.1 | 47.6 | 54.5 | 46.9 | 47.6 | 47.2 | 45.4 | 44.3 | 40.1 | 41.9 | 48.2 | 43.9 | 50.3 | 47.7 | 52.9 | 45.4 | 46.8 | 40.4 | 36.9 | 51.1 | 45.9 | 26.8 | 29.8 | #29 |



Volatile Organics

Volatile Organics 5 Days Average in ppb

Site: LICA - Cold Lake South



| | | | |
|----|-------------------------------|----|--------------------------------------|
| 1 | 1,1,1-Trichloroethane | 33 | cis-1,3-Dichloropropene |
| 2 | 1,1,2,2-Tetrachloroethane | 34 | Cyclohexane |
| 3 | 1,1,2-Trichloroethane | 35 | Dibromochloromethane |
| 4 | 1,1-Dichloroethane | 36 | Dichlorodifluoromethane (FREON 12) |
| 5 | 1,1-Dichloroethylene | 37 | Ethanol |
| 6 | 1,2,4-Trichlorobenzene | 38 | Ethyl Acetate |
| 7 | 1,2,4-Trimethylbenzene | 39 | Ethylbenzene |
| 8 | 1,2-Dichlorobenzene | 40 | Ethylene Dibromide |
| 9 | 1,2-Dichloroethane | 41 | Heptane |
| 10 | 1,2-Dichloropropane | 42 | Hexachlorobutadiene |
| 11 | 1,2-Dichlorotetrafluoroethane | 43 | Hexane |
| 12 | 1,3,5-Trimethylbenzene | 44 | Methyl Butyl Ketone (2-Hexanone) |
| 13 | 1,3-Butadiene | 45 | Methyl Ethyl Ketone (2-Butanone) |
| 14 | 1,3-Dichlorobenzene | 46 | Methyl Isobutyl Ketone |
| 15 | 1,4-Dichlorobenzene | 47 | Methyl t-butyl ether (MTBE) |
| 16 | 1,4-Dioxane | 48 | Methylene Chloride (Dichloromethane) |
| 17 | 2,2,4-Trimethylpentane | 49 | o-Xylene |
| 18 | 2-Propanol | 50 | p+m-Xylene |
| 19 | 2-Propanone | 51 | Propene |
| 20 | 4-ethyltoluene | 52 | Styrene |
| 21 | Benzene | 53 | Tetrachloroethylene |
| 22 | Benzyl chloride | 54 | Tetrahydrofuran |
| 23 | Bromodichloromethane | 55 | Toluene |
| 24 | Bromoform | 56 | trans-1,2-Dichloroethylene |
| 25 | Bromomethane | 57 | trans-1,3-Dichloropropene |
| 26 | Carbon Disulfide | 58 | Trichloroethylene |
| 27 | Carbon Tetrachloride | 59 | Trichlorofluoromethane (FREON 11) |
| 28 | Chlorobenzene | 60 | Trichlorotrifluoroethane |
| 29 | Chloroethane | 61 | Vinyl Acetate |
| 30 | Chloroform | 62 | Vinyl Bromide |
| 31 | Chloromethane | 63 | Vinyl Chloride |
| 32 | cis-1,2-Dichloroethylene | 64 | Xylene (Total) |

Calibration Reports

Cold Lake

Sulphur Dioxide

SO₂ Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|-------------|
| Calibration Date | June 4, 2009 | Previous Calibration | May 8, 2009 |
| Company | Lakeland Community and Industry Association | | |
| Plant / Location | LICA 1 - Cold Lake South | | |
| Start Time (MST) | 8:40 | End Time (MST) | 11:37 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 718 mmHg | Station Temperature | 23 Deg C |
| Cal Gas | 52.2 ppm | Cal Gas Expiry date | 12/19/2010 |
| DAS Output Voltage | 0 - 10 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|-------------|-------|-----------|---------|---------------|
| Analyzer Make / Model: | Thermon 43i | S/N : | 806528242 | Method: | UV absorbtion |
| Converter Make / Model: | - | S/N : | - | | |
| Calibrator Make / Model: | API 700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | 263 | | |
| Flow Meter: | API 700 | S/N : | 831 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|------------------------|----------|------------|--|-------------------|------------|--|--|
| Concentration Range | 0 - 500 | | | ppb | | | |
| Sample Flow / Box Temp | 448 ccm | 38.3 Deg C | | 448 ccm | 28.7 Deg C | | |
| HVPS / Lamp Setting | -631 | 752 | | -631 | 752 | | |
| PMT / RxCell Temp | OK Deg C | 44.9 Deg C | | OK Deg C | 45.0 Deg C | | |
| Converter / IZS Temp | NA Deg C | 45.0 Deg C | | NA Deg C | 45.0 Deg C | | |
| Offset / Slope | 5 | 1.049 | | 5 | 1.049 | | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| | | | | |
| 4999 | 0 | 0 | 0 | N/A |
| 4962 | 38.3 | 400 | 403 | 0.9921 |
| 4974 | 23.9 | 250 | 253 | 0.9866 |
| 4983 | 14.4 | 150 | 152 | 0.9896 |
| 4998 | 0 | 0 | 0 | N/A |
| Sum of Least Squares | | | | 0.3437 |
| New Correction Factor | | | | 0.9921 |

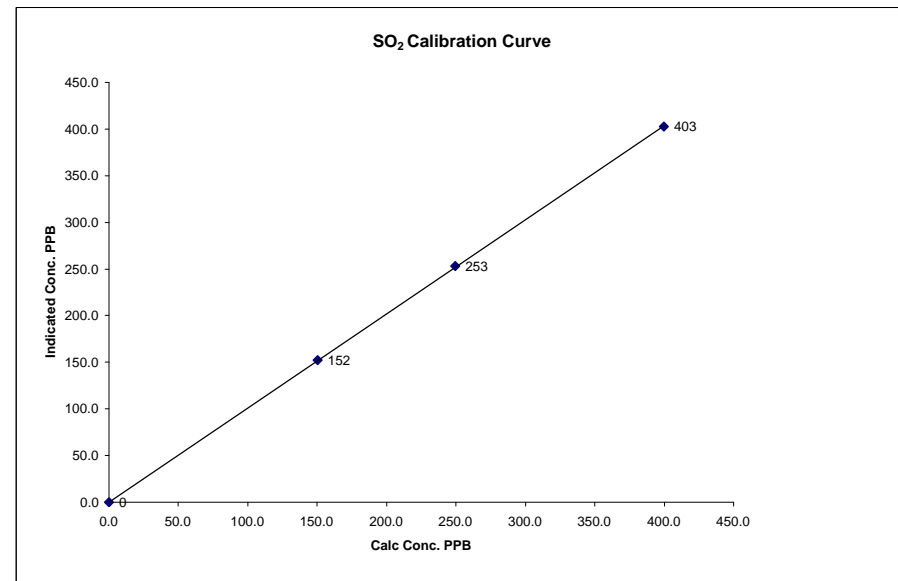
| | Before Calibration | After Calibration |
|--|--------------------|-------------------|
| Auto Zero | -0.1 | 0.0 |
| Auto Span | 388.0 | 386.0 |
| Sample Lines Connected | | YES |
| Percent Change from Previous Calibration | | 0.5% |

Calibration Performed by: Shea Beaton

SO₂ Calibration Curve

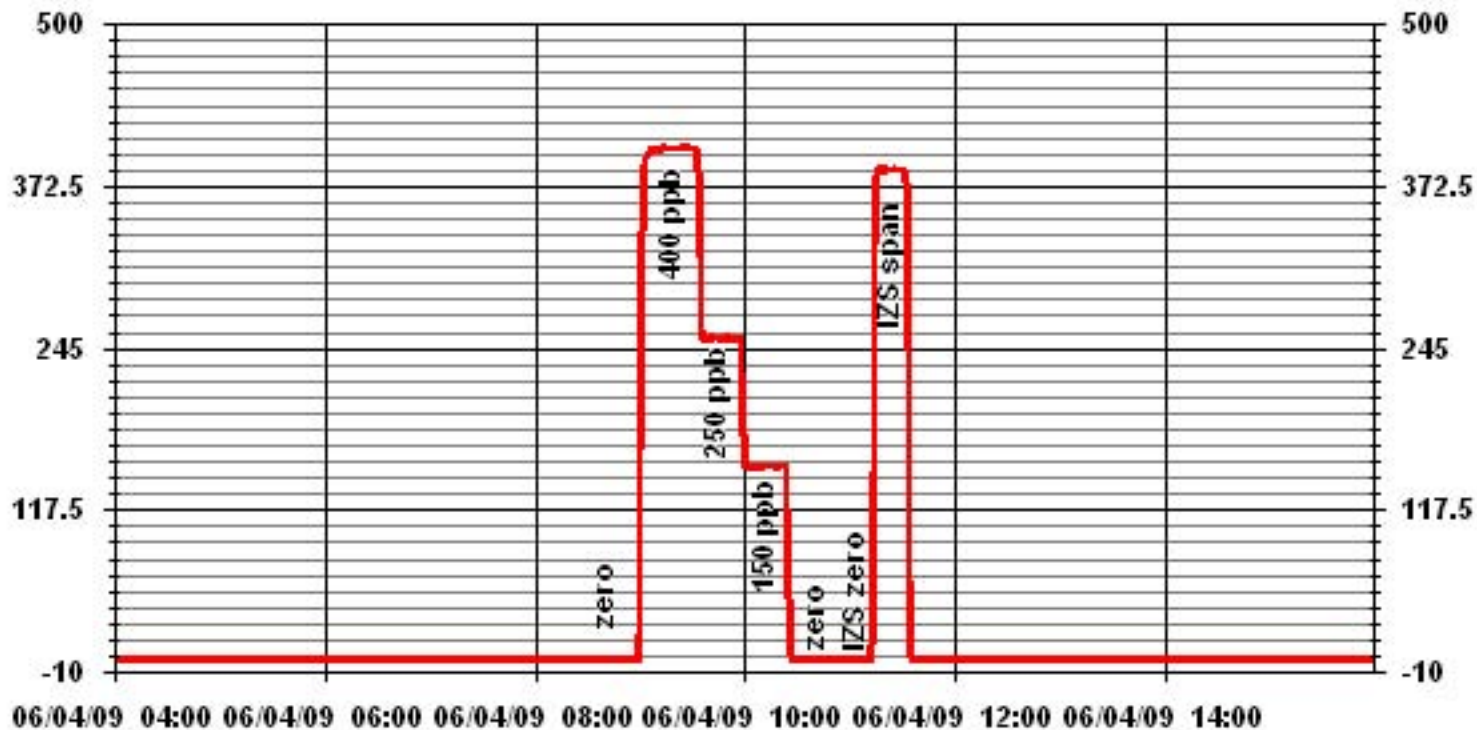
| | |
|------------------|---|
| Calibration Date | June 4, 2009 |
| Company | Lakeland Community and Industry Association |
| Plant / Location | LICA 1 - Cold Lake South |
| Start Time (MST) | 8:40 |
| End Time (MST) | 11:37 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|--|-----------------------|
| 0 | 0 | n/a | 0.999985 | 1.008523 |
| 150 | 152 | 0.9896 | | |
| 250 | 253 | 0.9866 | | |
| 400 | 403 | 0.9921 | | |



Notes:

01 Minute Averages



Total Reduced Sulphur

TRS Calibration Report
Station Information

| | | | |
|---------------------|---|----------------------|---------------|
| Calibration Date | June 4, 2009 | Previous Calibration | May 8, 2008 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | LICA 1 - Cold Lake South | | |
| Start Time (MST) | 10:52 | End Time (MST) | 14:05 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 718 mm Hg | Station Temperature | 23 Deg C |
| Cal Gas | 10.6 ppm | Cal Gas Expiry date | April 3, 2009 |
| DAS Output Voltage | 0 - 10 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|-----------------|-------|-----------|---------|-------------|
| Analyzer Make / Model: | TEI 4501 | S/N : | 812728560 | Method: | Fluorescent |
| Converter Make / Model: | CD Nova CDN 101 | S/N : | 250 | | |
| Calibrator Make / Model: | API 700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | 263 | | |
| Flow Meter: | API 700 | S/N : | 831 | | |

Analyzer Settings

| Before Calibration | | | After Calibration | | |
|------------------------|-------------|------------|-------------------|------------|--|
| Concentration Range | 0 - 100 ppb | | | | |
| Sample Flow / Box Temp | 364 ccm | 31.3 Deg C | 364 ccm | 31.5 Deg C | |
| HVPS / Lamp Setting | -622.7 | 766 | -622.7 | 765 | |
| PMT / RxCell Temp | OK Deg C | 44.9 Deg C | OK Deg C | 44.8 Deg C | |
| Converter / IZS Temp | 849 Deg C | 45.0 Deg C | 849 Deg C | 45.0 Deg C | |
| Offset / Slope | 11.3 | 1.187 | 11.4 | 1.196 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4999 | 0 | 0 | 0 | N/A |
| 4962 | 37.7 | 80 | 78 | 1.0247 |
| 4962 | 37.7 | 80 | 80 | 0.9991 |
| 4979 | 21.2 | 45 | 45 | 0.9987 |
| 4988 | 11.8 | 25 | 25 | 1.0007 |
| 4999 | 0 | 0 | 0 | N/A |
| Sum of Least Squares | | | | 0.9991 |
| New Correction Factor | | | | 0.9991 |

Before Calibration

After Calibration

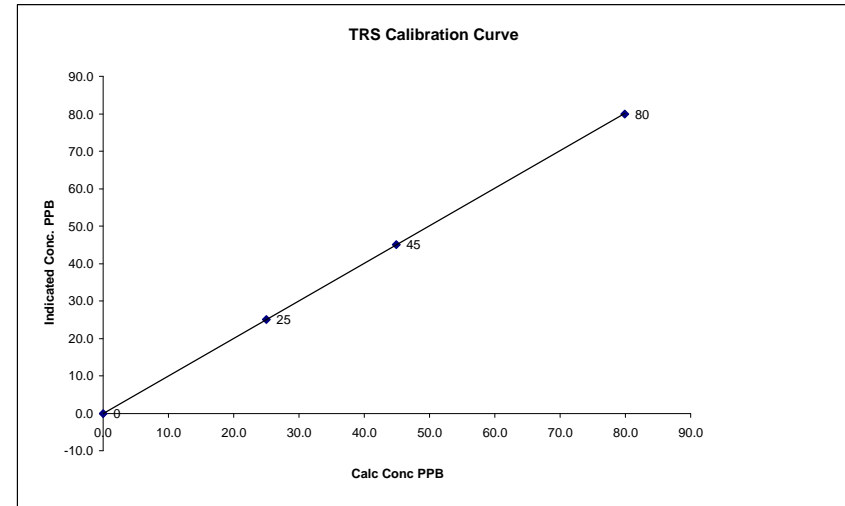
| | | |
|--|------|-------|
| Auto Zero | -0.3 | -0.1 |
| Auto Span | 40.0 | 41.0 |
| Sample Lines Connected | | YES |
| Percent Change from Previous Calibration | | -2.5% |

Calibration Performed by: Shea Beaton

TRS Calibration Curve

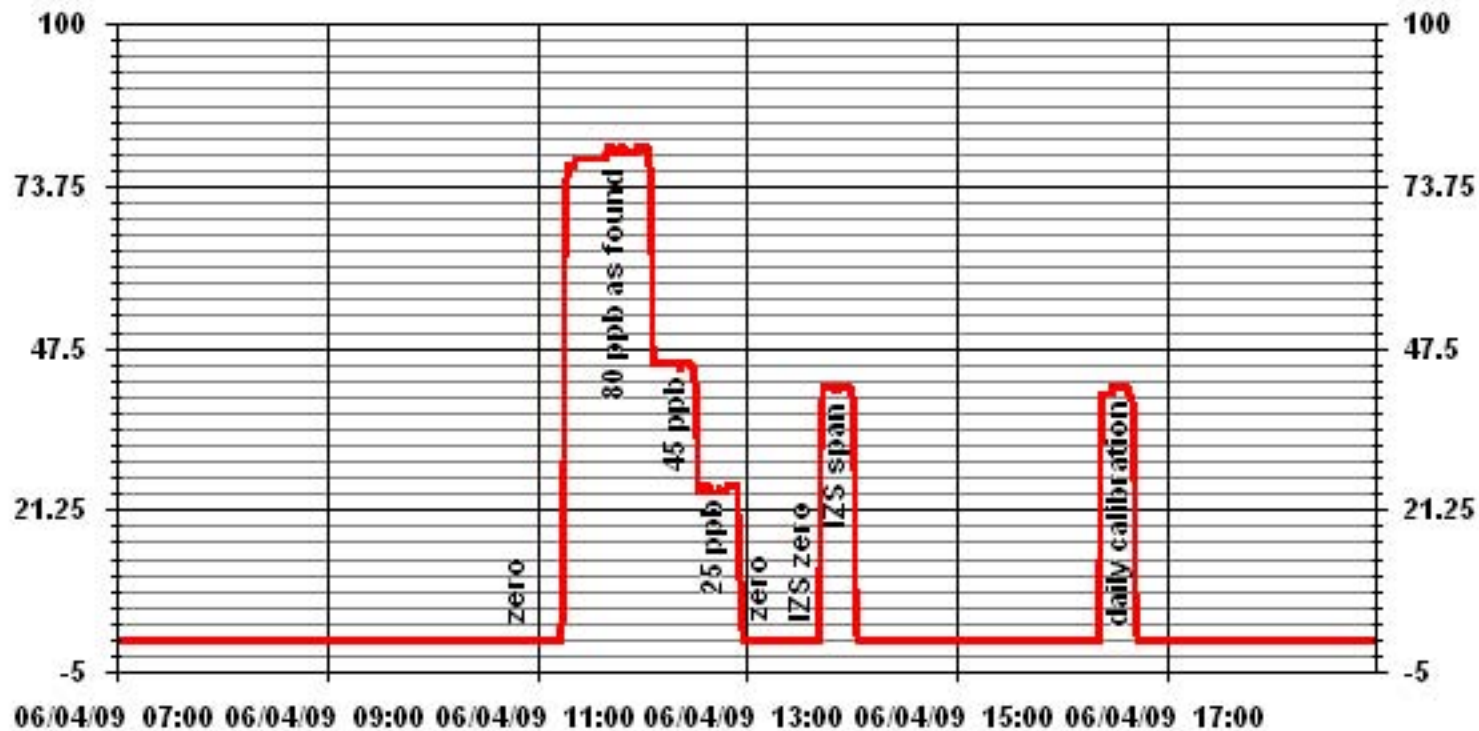
| | |
|------------------|---|
| Calibration Date | June 4, 2009 |
| Company | Lakeland Industry & Community Association |
| Plant / Location | LICA 1 - Cold Lake South |
| Start Time (MST) | 10:52 |
| End Time (MST) | 14:05 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) | 1.000000 |
|----------------------|------------------------|-------------------|-------------------------------|----------------|-----------|
| 0 | 0 | n/a | Intercept | (0.85 to 1.15) | 1.001073 |
| 25 | 25 | 1.0007 | | (± 3% F.S.) | -0.012201 |
| 45 | 45 | 0.9987 | | | |
| 80 | 80 | 0.9991 | | | |



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information

| | | | |
|------------------------|---|----------------------|--------------------------------|
| Calibration Date: | June 4, 2009 | Previous Calibration | May 21, 2009 |
| Company: | Lakeland Industry and Community Association | | |
| Plant / Location: | LICA1/Cold Lake | | |
| Start Time (MST) | 14:30 | End Time (MST) | 18:07 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure: | 717 mmHg | Station Temperature: | 23 Deg C |
| Calibrator: | API 700 | S/N: | 831 |
| Cal Gas Concentration: | 299Prop/1019Meth | ppm | Cal Gas Expiry Date: 8/11/2011 |
| DAS make & Model: | ESC 8832 | S/N : | 263 |
| Output Voltage Range: | 0 - 10 VDC | | |

Analyzer Information

| | | | | | |
|--------------|-------------|-------|------------------|--------|------------------|
| Make / Model | TECO 51C-LT | S/N : | 51CLT-42740-8718 | 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 | 8 psi | 8 psi |
| Air Pressure | 19.5 psi | 19.5 psi |

Calibration Data

| Dilution Flow | Source Gas Flow | Calculated Concentration | Indicated Concentration | Correction Factor |
|---------------|-----------------|--------------------------|-------------------------|-------------------|
| 3009 | 0 | 0.0 | 0.0 | N/A |
| 3004 | 66 | 39.5 | 39.7 | 0.9950 |
| 3005 | 0.0 | 0.0 | 0.0 | N/A |
| 3002 | 66.2 | 39.7 | 39.8 | 0.9975 |
| 3008 | 35.4 | 21.4 | 21.2 | 1.0094 |
| 3003 | 20.1 | 12.2 | 12.1 | 1.0083 |
| 3004 | 0 | 0.0 | 0.0 | N/A |
| | | | Correction Factor: | 0.9975 |

Percent Change

| | |
|---|--------|
| Previous Calibration Correction Factor: | 0.9974 |
| Current Correction Factor Before Span Adjust: | 0.9950 |
| Percent Change: | 0.2% |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.0 |
| Auto Span | 35.7 | 36.2 |
| Sample Lines Connected | | YES |

Cylinder Pressures

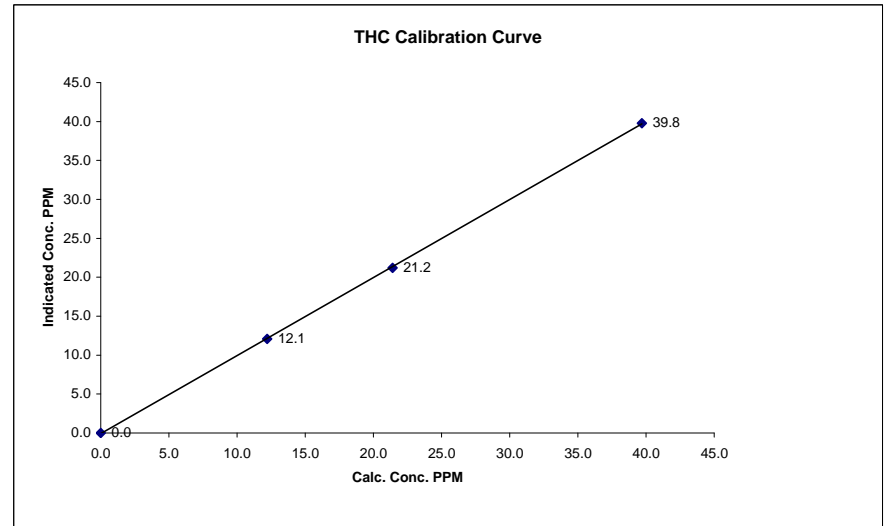
| | |
|----------|--|
| Span | 200 psi |
| Hydrogen | 550 psi |
| Zero Air | unlimited psi Maxxam-owned API 701 zero air supply with catalytic oxidizer |

Calibration Performed by: Shea Beaton

THC Calibration Curve

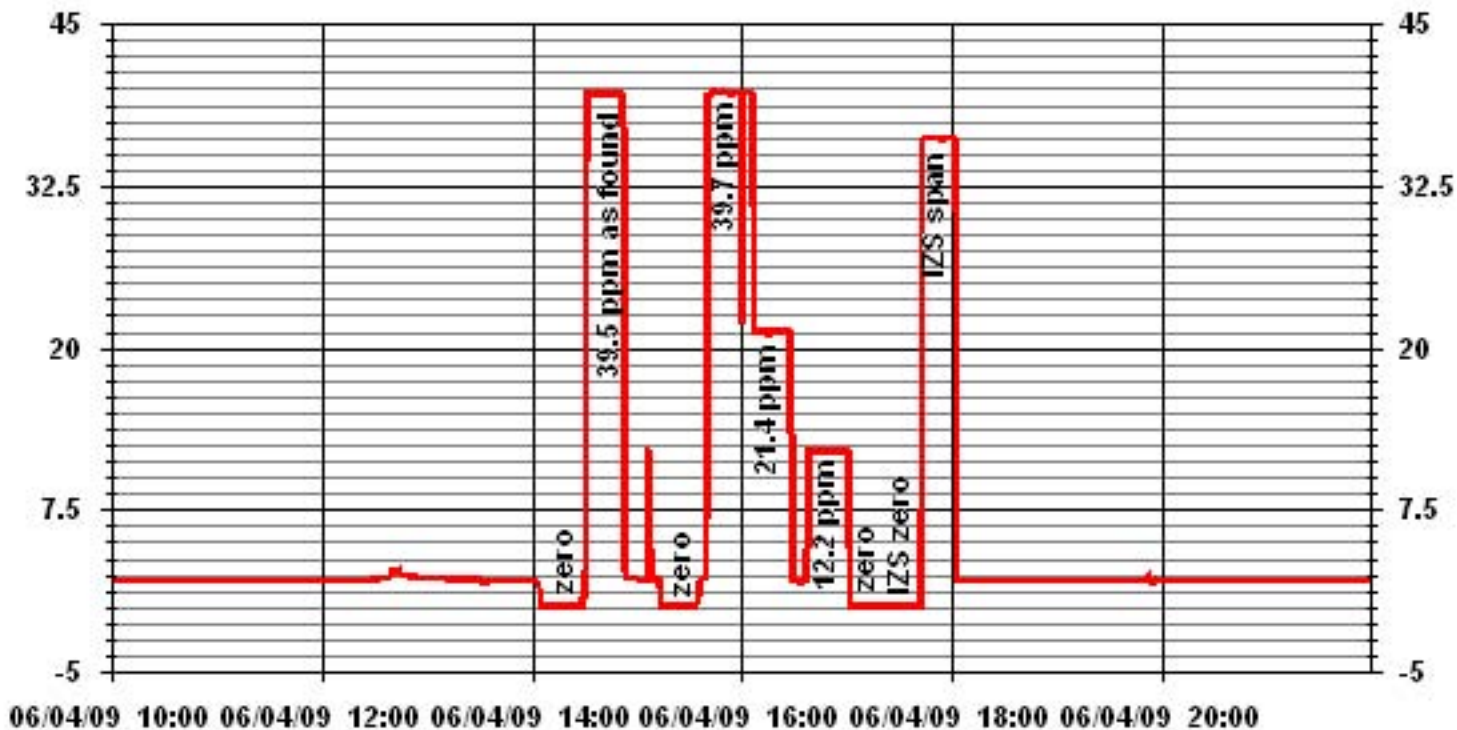
| | |
|------------------|---|
| Calibration Date | June 4, 2009 |
| Company | Lakeland Industry and Community Association |
| Plant / Location | LICA1/Cold Lake |
| Start Time (MST) | 14:30 |
| End Time (MST) | 18:07 |

| Calculated Conc. ppm | Indicated Response ppm | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) | 0.999947 |
|----------------------|------------------------|-------------------|-------------------------------|-------------|-----------|
| 0.0 | 0.0 | | Intercept | (± 3% F.S.) | -0.096594 |
| 12.2 | 12.1 | 1.0083 | | | |
| 21.4 | 21.2 | 1.0094 | | | |
| 39.7 | 39.8 | 0.9975 | | | |



Notes:

01 Minute Averages



Particulate Matter 2.5

TEOM® 1405F Audit

Station
 Date: June 4, 2009
 Station Name: LICA 1
 Location: Cold Lake South
 Operator: LICA

Audit Transfer Standard
 Make/Model: Bios DC2
 Serial Number: 1193
 Cell s/n: 2272
 Thermometer s/n: 2178

Sampler
 Make/Model: Thermo Scientific Series 1405F
 Unit #: AMU 1775
 Unit s/n: 1405A201620804
 Firmware Ver.: 1.22
 Parameter: PM 2.5 (with FDMS)

Set-up and current Sampler readings
 F-Main Set Pt (l/min): 3.00
 F-Aux Set Pt (l/min): 13.67
 Filter Load (%): 32%
 K_o Factor: 14578.0
 Temp (°C): 10.7
 Press (ATM): 0.940

Conversion from mmHg or "Hg to ATM (Atmospheres)

$$\text{ATM} = (\text{mmHg}) \times (1.316 \times 10^{-3}) \quad \text{or} \quad \text{ATM} = (\text{"Hg}) \times (3.34207 \times 10^{-2})$$

Note: Tolerances are noted as BOLD in Brackets

Audit

| | | | |
|---|-----------------|--|---------------|
| Status | | | |
| Noise <0.10ug | <u>0.007</u> | Warnings | <u>None</u> |
| Pump Vacuum | <u>0.35 ATM</u> | | |
| Temperature/Pressure | | | |
| Measured Temp (± 2 °C) | <u>10.2</u> | Δ °C | <u>0.5</u> |
| Measured Press (± 0.01atm) | <u>0.943</u> | Δ ATM | <u>-0.003</u> |
| Flow Audit | | | |
| Indicated Main Flow (l/min) | <u>3.00</u> | Main Flow Drift (±10.0%) | <u>3.49%</u> |
| Measured Main Flow (l/min) | <u>2.96</u> | Flow Adjusted to Measured? | <u>YES</u> |
| Indicated Bypass Flow (l/min) | <u>13.67</u> | Bypass Flow Drift (±10.0%) | <u>4.00%</u> |
| Measured Bypass Flow (l/min) | <u>13.36</u> | Flow Adjusted to Measured? | <u>YES</u> |
| Leak Check | | Instrument Setup | |
| Main (< 0.15 l/min) | <u>NA</u> | Flow Control = Active | |
| Aux (< 0.15 l/min) | <u>NA</u> | Report Conditions = Standard (25.0 C and 1atm) | |
| K_o Factor | | | |
| Measured | <u>NA</u> | | |
| K _o Difference (± 2.5%) | <u>NA</u> | | |

Start Time: 12:05 **Finish Time:** 13:40

Sample Inlet Cleaned: Yes **New Filters Installed:** NO
New Filter Loading %: NA

Comments: Adjusted flows to measured values. Filters were just changed on May 21st so new filters were not required yet.

Auditor/s: Shea Beaton

Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report

Station Information

| | | | | | |
|-----------------------|-----------------------------|---------------------|----------------------|--------------------------|--|
| Calibration Date | June 4, 2009 | | Previous Calibration | May 28, 2009 | |
| Company | Lakeland Ind & Comm. Assoc. | | Plant/Location | LICA 1 - Cold Lake South | |
| Start Time (MST) | 8:40 | End Time (MST) | 14:57 | | |
| Reason: | Monthly Calibration | | | | |
| Barometric Pressure | 718 mmHg | Station Temperature | 23.0 Deg C | | |
| Cal Gas Concentration | NOx 51.8 ppm | NO 51.6 ppm | Cal Gas Expiry date | 12/19/2010 | |
| DAS Output Voltage | 0 - 1 Volts | Chart Rec. Output | NA | Volts | |

Equipment Information

| | | | | | |
|--------------------------|-----------------|-------|-------------|---------|------------------|
| Analyzer Make / Model: | TECO 42C | S/N : | 42-7408-716 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 2000 | S/N: | 1991 | | |
| DAS Make / Model: | ESC 8832 | S/N : | 263 | | |
| Flow Meter: | EnviroNics 2000 | S/N : | 1991 | | |

Analyzer Settings

| | | Before Calibration | | | After Calibration | | |
|------------------------|------------|--------------------|------------|------------|-------------------|--|--|
| Concentration Range | | 0 - 1000 | | | ppb | | |
| Sample Flow/Conv. Temp | 716 ccm | 317 Deg C | 716 ccm | 317 Deg C | | | |
| Ozone Flow / Vacuum | OK ccm | 186.1 mmHg | OK ccm | 185.7 mmHg | | | |
| HVPS | -821 Volts | | -821 Volts | | | | |
| Rx/ Temp / PMT Temp | 49.8 Deg C | -2.5 Deg C | 49.7 Deg C | -2.5 Deg C | | | |
| Box Temp / IZS Temp | 28.0 Deg C | OK Deg C | 29.1 Deg C | OK Deg C | | | |
| Offset | 3.9 NOx | 3.7 NO | 3.8 NOx | 3.6 NO | | | |
| Slope | 1.006 NOx | 0.989 NO | 1.005 NOx | 0.957 NO | | | |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | Indicated Concentration | | | Correction Factor | |
|------------------------|------------------|--------------|--------------------------|-----|-------------------------|-----|-----------------|-------------------|--------|
| | | | NOx | NO | NOx | NO | NO ₂ | NOx | NO |
| 5013.0 | 0.0 | N/A | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| 4972.0 | 38.8 | N/A | 401 | 400 | 415 | 413 | 2 | 0.9665 | 0.9674 |
| 4972.0 | 38.8 | N/A | 401 | 400 | 401 | 400 | 1 | 1.0003 | 0.9989 |
| 4983.0 | 24.3 | N/A | 251 | 250 | 251 | 250 | 1 | 1.0015 | 1.0016 |
| 4996.0 | 14.6 | N/A | 151 | 150 | 151 | 150 | 1 | 0.9996 | 1.0024 |
| 5006.0 | 0.0 | N/A | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Converter Efficiency | | | | | | | | | |
| 4966.0 | 38.8 | N/A | 402 | 400 | 401 | 399 | 2 | N/A | |
| 4963.0 | 38.8 | 300 | 402 | 400 | 398 | 124 | 274 | 99% | |
| 4963.0 | 38.8 | 200 | 402 | 400 | 399 | 204 | 195 | 99% | |
| 4966.0 | 38.8 | 100 | 402 | 400 | 399 | 303 | 97 | 99% | |
| 4966.0 | 38.8 | N/A | 402 | 400 | 401 | 399 | 2 | N/A | |
| 5005.0 | 0 | N/A | 0 | 0 | 0 | 0 | 0 | N/A | N/A |

| | | | | | |
|------------------------|-----|----|------------------------------|--------|--------|
| Linearity OK? | Yes | No | Sum of Least Squares | 1.0005 | 0.9999 |
| Flows Checked on-site? | Yes | No | New Correction Factor | 1.0003 | 0.9989 |
| | | | Average Converter Efficiency | 99% | |

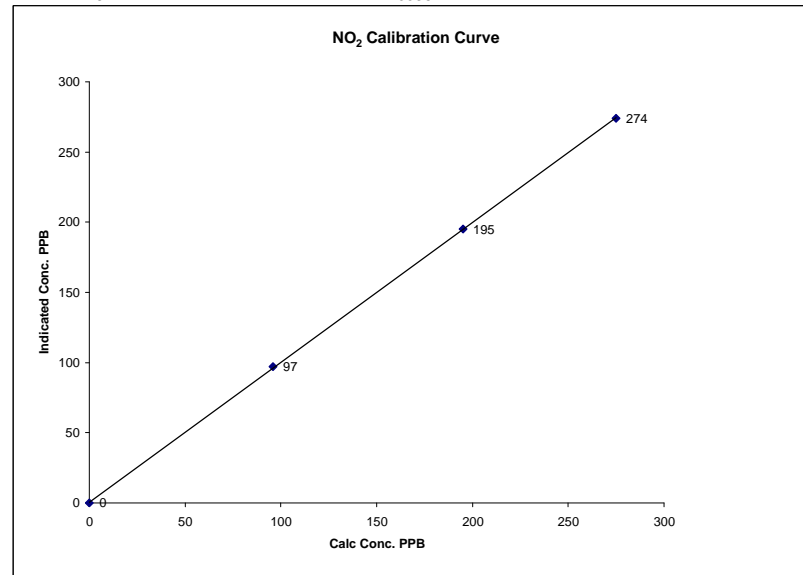
| | | Before Calibration | | | After Calibration | | |
|--|-----------|-----------------------|-----------|-----------------------|-------------------|--|--|
| Auto Zero | 0.1 NOx | 0.2 NO ₂ | 0.1 NOx | 0.1 NO ₂ | | | |
| Auto Span | 374.0 NOx | 372.0 NO ₂ | 368.0 NOx | 366.0 NO ₂ | | | |
| Sample Lines Connected | YES | | | | | | |
| Percent Change from Previous Calibration | NOx 3.2% | | NO 3.2% | | | | |

Calibration Performed by: Shea Beaton

NO₂ Calibration Curve

| | | |
|------------------|-----------------------------|----------------------|
| Calibration Date | June 4, 2009 | |
| Company | Lakeland Ind & Comm. Assoc. | |
| Plant / Location | LICA 1 - Cold Lake South | |
| Start Time (MST) | 8:40 | End Time (MST) 14:57 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient (≥ 0.995) | 0.999971 |
|----------------------|------------------------|-------------------|-----------------------------------|----------|
| 0 | 0 | N/A | Slope (0.85 to 1.15) | 0.995816 |
| 96 | 97 | 0.9897 | Intercept (± 3% F.S.) | 0.59211 |
| 195 | 195 | 1.0000 | | |
| 275 | 274 | 1.0036 | | |

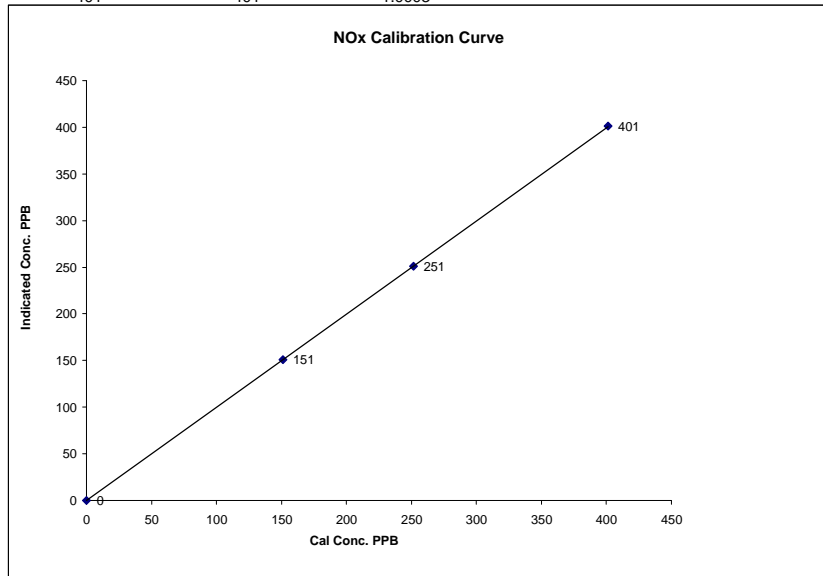


Notes: _____

NOx Calibration Curve

Calibration Date June 4, 2009
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location LICA 1 - Cold Lake South
 Start Time (MST) 8:40 End Time (MST) 14:57

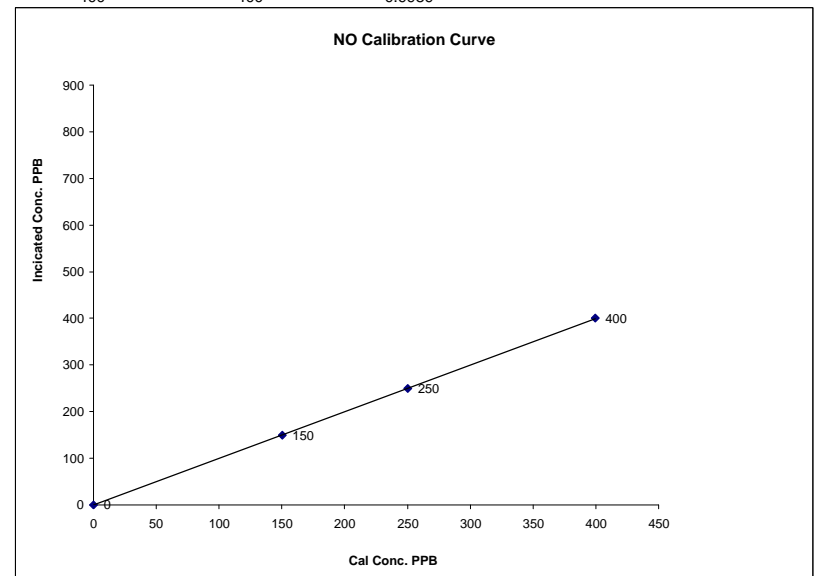
| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | (≥ 0.995) | 0.999999 |
|------------------|--------------------|-------------------|-------------------------|----------------|----------|
| ppb | ppb | | Slope | (0.85 to 1.15) | 0.999499 |
| 0 | 0 | N/A | Intercept | (± 3% F.S.) | -0.00411 |
| 151 | 151 | 0.9996 | | | |
| 251 | 251 | 1.0015 | | | |
| 401 | 401 | 1.0003 | | | |



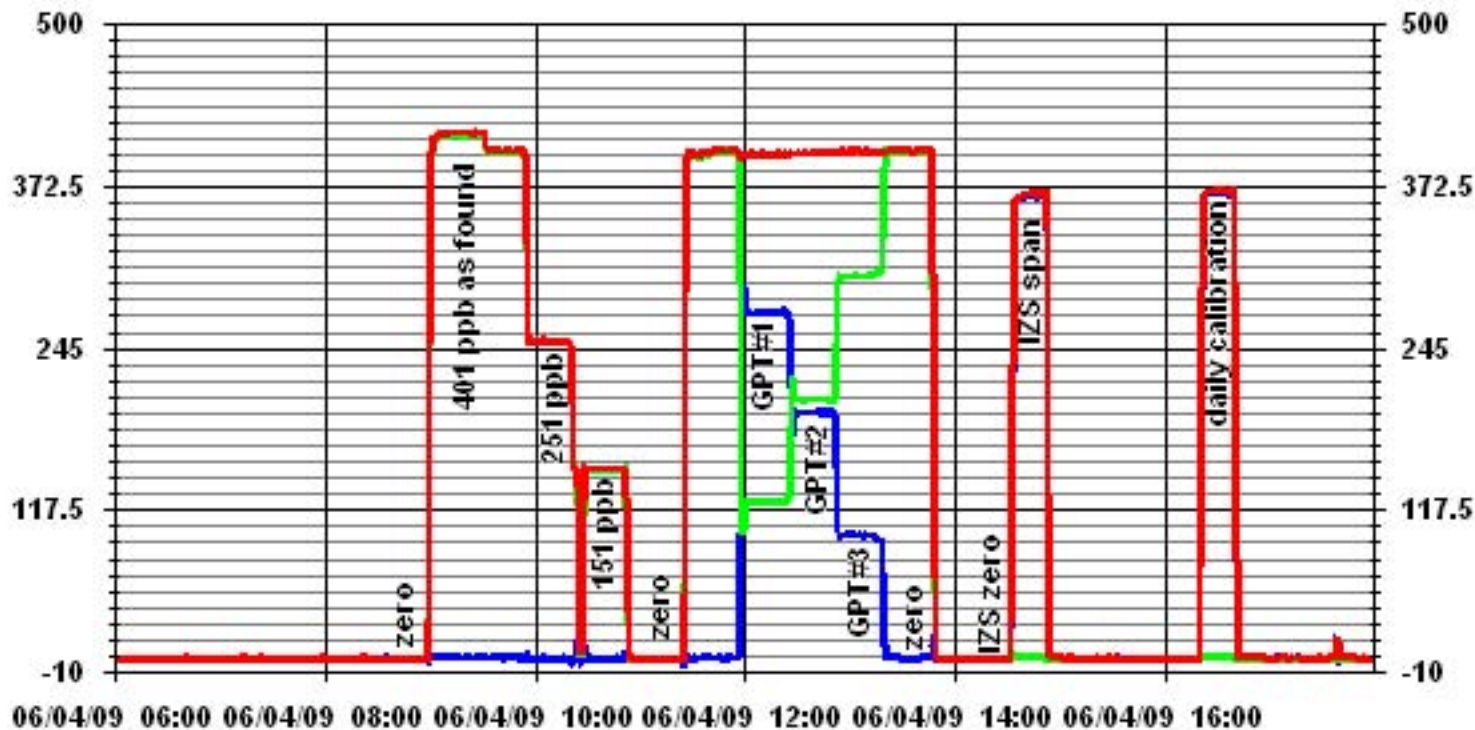
NO Calibration Curve

Calibration Date June 4, 2009
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location LICA 1 - Cold Lake South
 Start Time (MST) 8:40 End Time (MST) 14:57

| Calculated Conc. | Indicated Response | Correction Factor | Correlation Coefficient | (≥ 0.995) | 0.999996 |
|------------------|--------------------|-------------------|-------------------------|----------------|----------|
| ppb | ppb | | Slope | (0.85 to 1.15) | 1.003408 |
| 0 | 0 | N/A | Intercept | (± 3% F.S.) | -1.8500 |
| 150 | 150 | 1.0024 | | | |
| 250 | 250 | 1.0016 | | | |
| 400 | 400 | 0.9989 | | | |



01 Minute Averages



— LICA NOX_ PPB
 — LICA NO_ PPB
 — LICA NO2_ PPB

Ozone

O₃ Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|--------------|
| Calibration Date | June 4, 2009 | Previous Calibration | May 21, 2009 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | LICA 1 - Cold Lake South | | |
| Start Time (MST) | 14:15 | End Time (MST) | 17:40 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 717 mm Hg | Station Temperature | 24 Deg C |
| DAS Output Voltage | 0 - 10 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|-----------------|-------|-----------|---------|-------------|
| Analyzer Make / Model: | TEI 49i | S/N : | 700419951 | Method: | Fluorescent |
| Calibrator Make / Model: | EnviroNics 2000 | S/N : | 1991 | Method: | GPT |
| DAS Make / Model: | ESC 8832 | S/N : | 263 | | |

Analyzer Settings

| | Before Calibration | | After Calibration | |
|--------------------------------|--------------------|-----------|-------------------|-----------|
| Concentration Range | 0 - 500 ppb | | | |
| Bench Temp/ Pressure | 28.7 Deg C | | 28.7 Deg C | |
| O ₃ Set Level | 29% | | 29% | |
| Bench Lamp/O ₃ Lamp | | | | |
| Sample Flow A/B | 0.743 LPM | 0.758 LPM | 0.743 LPM | 0.757 LPM |
| Offset / Slope | 0.7 | 1.023 | 0.7 | 1.063 |

Calibration Data

| Dilution Flow Rate | Ozone Set Point | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|-----------------|--------------------------|-----------------------|-------------------|
| 5001 | 0 | 0 | 0 | N/A |
| 5004 | 400 | 384 | 396 | 0.9697 |
| 5004 | 400 | 384 | 384 | 1.0000 |
| 5006 | 200 | 192 | 193 | 0.9948 |
| 5006 | 100 | 94 | 94 | 1.0000 |
| 5006 | 0 | 0 | 0 | N/A |
| Sum of Least Squares | | | | N/A |
| New Correction Factor | | | | 1.0000 |

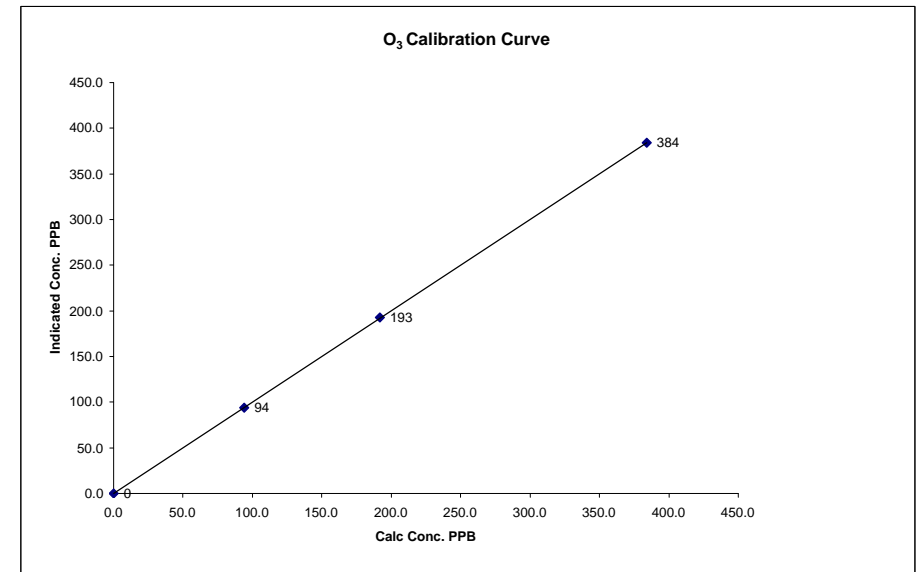
| | Before Calibration | After Calibration |
|--|--------------------|-------------------|
| Auto Zero | -0.1 | -0.1 |
| Auto Span | 284.0 | 298.0 |
| Sample Lines Connected | | YES |
| Percent Change from Previous Calibration | | 3.4% |

Calibration Performed by: Shea Beaton

O₃ Calibration Curve

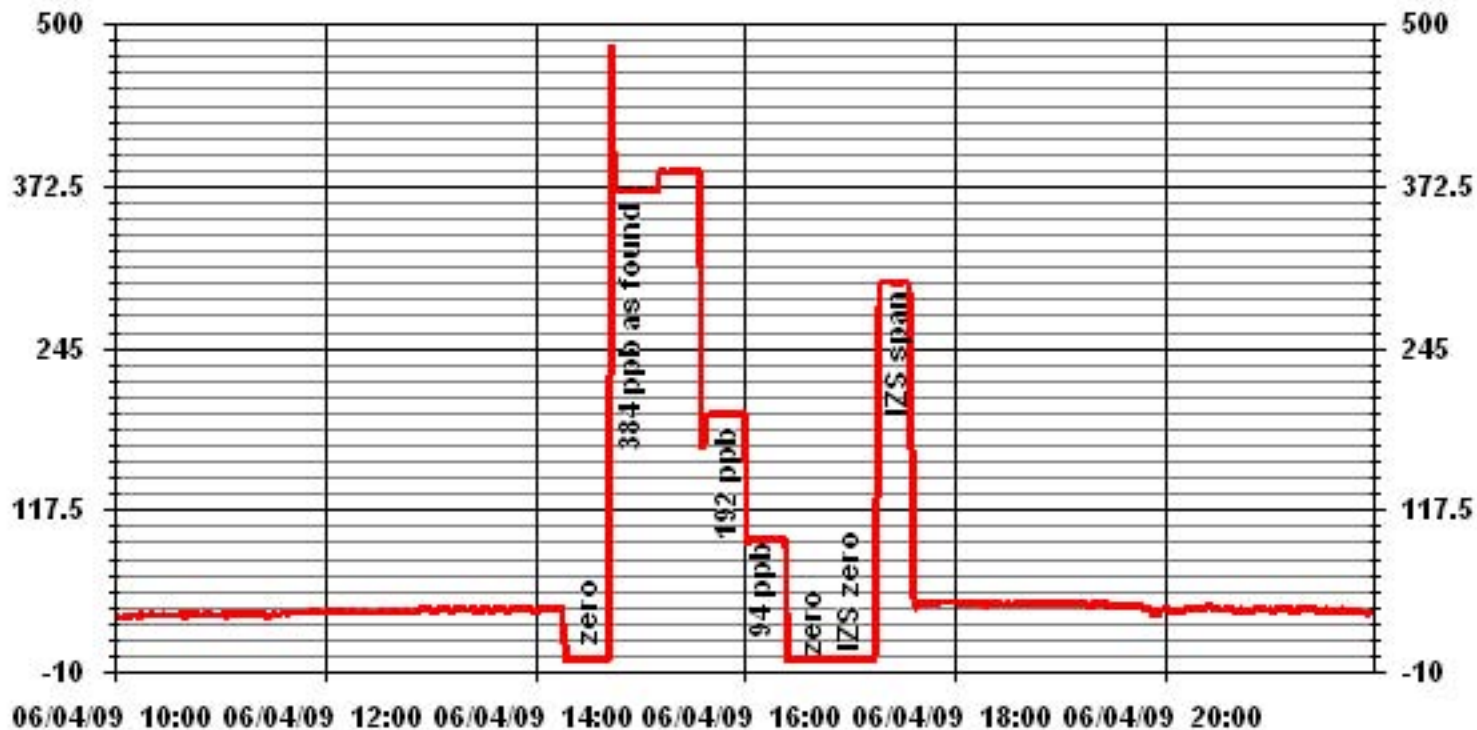
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | June 4, 2009 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | LICA 1 - Cold Lake South | | |
| Start Time (MST) | 14:15 | End Time (MST) | 17:40 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|--|-----------------------|
| 0 | 0 | n/a | 0.999991 | 1.000303 |
| 94 | 94 | 1.0000 | | |
| 192 | 193 | 0.9948 | | |
| 384 | 384 | 1.0000 | | 0.199293 |



Notes: Bench Temp=53.3C, O₃ lamp temp=67.7C, Daily calibration program at the end of the middle, it didn't affect either the middle or final span points.

01 Minute Averages



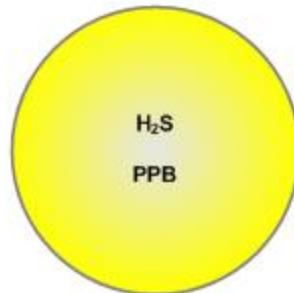
Passive Bubble Maps

Lakeland Industry & Community Association H₂S Passive Bubble Map

JUNE 2009

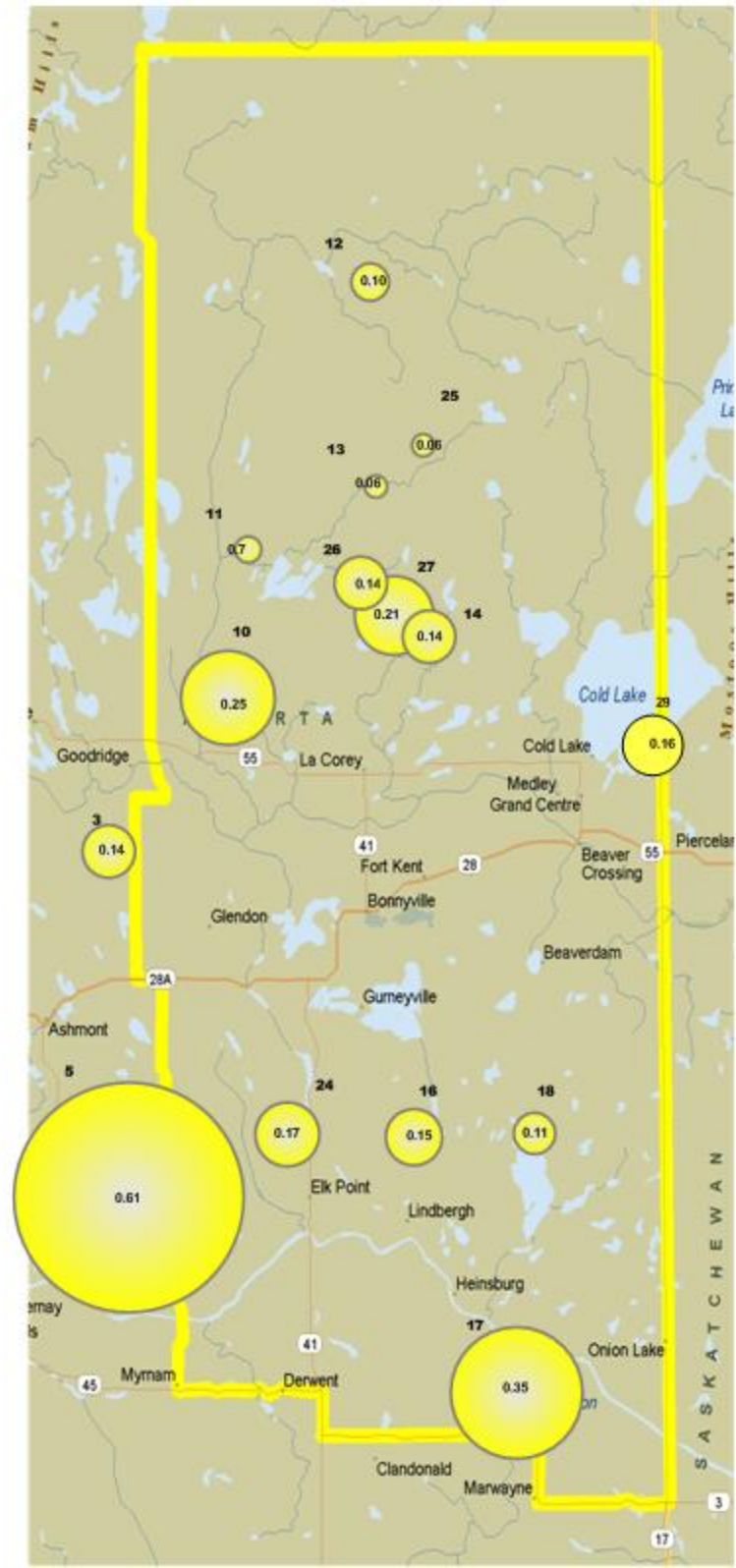
PASSIVE STATIONS

| | | DUPLICATE |
|------------------------|----------|-----------|
| 3 – Therien | 0.14 PPB | NA |
| 5 – Lake Eliza | 0.61 PPB | NA |
| 10 – La Corey | 0.25 PPB | NA |
| 11 – Wolf Lake | 0.07 PPB | 0.06 PPB |
| 12 – Foster Creek | 0.10 PPB | NA |
| 13 – Primrose | 0.06 PPB | 0.06 PPB |
| 14 – Maskwa | 0.14 PPB | NA |
| 16 – Frog Lake | 0.14 PPB | 0.16 PPB |
| 17 – Clear Range | 0.35 PPB | NA |
| 18 – Fishing Lake | 0.11 PPB | 0.10 PPB |
| 24 – Fort George | 0.17 PPB | NA |
| 25 – Burnt Lake | 0.06 PPB | 0.06 PPB |
| 26 – Mahihkan | 0.14 PPB | NA |
| 27 – Hilda Lake | 0.21 PPB | 0.21 PPB |
| 29 – Cold Lake South 2 | 0.16 PPB | NA |



Summary

Minimum : 0.06PPB – Primrose and Burnt Lake
Maximum: 0.61 PPB –Lake Eliza
Average: 0.18 PPB *Includes Duplicates



Lakeland Industry & Community Association NO₂ Passive Bubble Map

JUNE 2009

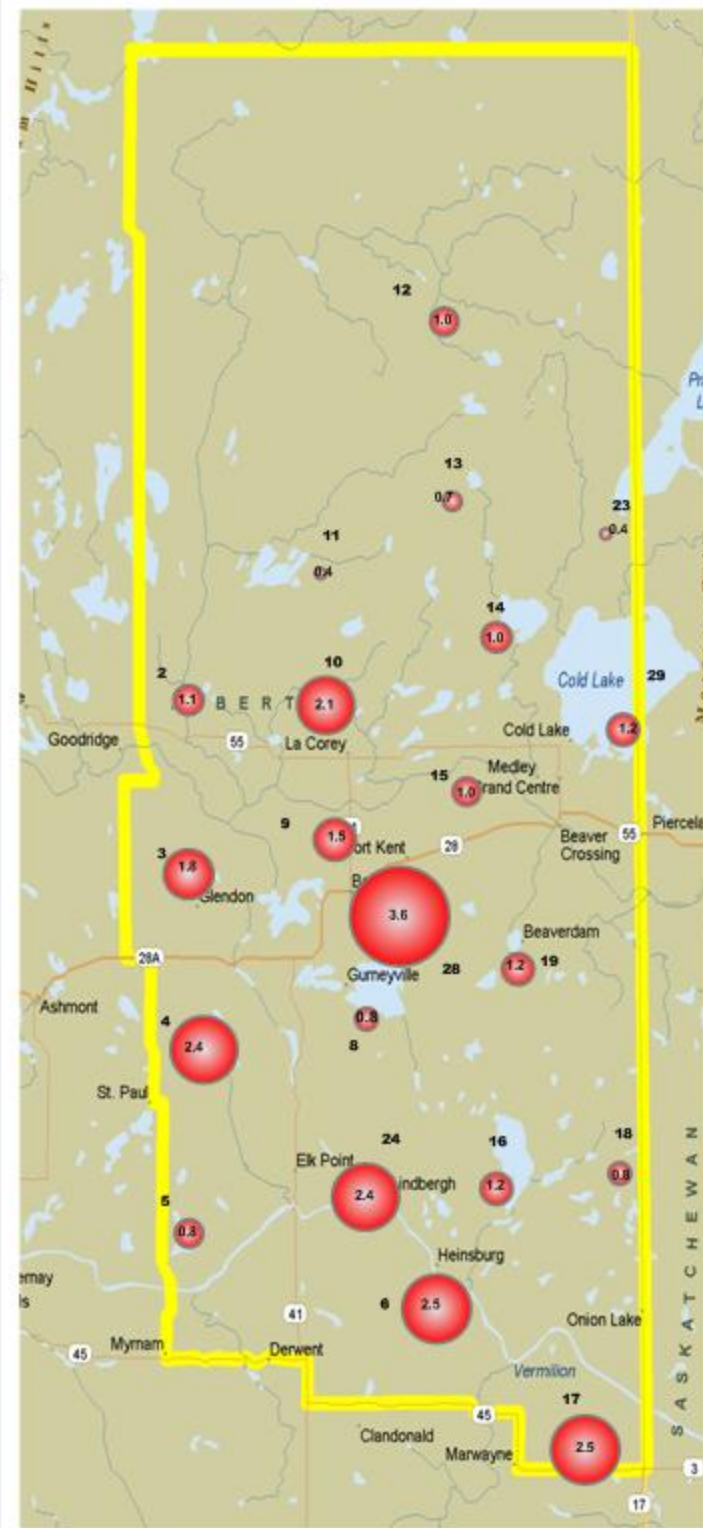
PASSIVE STATIONS

| | | DUPLICATE |
|-------------------------|---------|-----------|
| 2 – Sand River | 1.1 PPB | 1.1PPB |
| 3 – Therien | 1.8 PPB | N/A |
| 4 – Flat Lake | 2.5 PPB | 2.2PPB |
| 5 – Lake Eliza | 1.0 PPB | N/A |
| 6 – Telegraph Creek | 2.4 PPB | 2.5PPB |
| 8 – Muriel-Kehewin | 0.8 PPB | N/A |
| 9 – Dupre | 1.6 PPB | 1.4PPB |
| 10 – La Corey | 2.1 PPB | N/A |
| 11 – Wolf Lake | 0.4 PPB | 0.4PPB |
| 12 – Foster Creek | 1.0 PPB | N/A |
| 13 – Primrose | 0.8 PPB | 0.5PPB |
| 14 – Maskwa | 1.0 PPB | N/A |
| 15 – Ardmore | 0.9 PPB | 1.0PPB |
| 16 – Frog Lake | 1.2 PPB | N/A |
| 17 – Clear Range | 2.6 PPB | 2.4PPB |
| 18 – Fishing Lake | 0.8 PPB | N/A |
| 19 – Beaverdam | 1.2 PPB | 1.1PPB |
| 23 – Medley-Martineau | 0.4 PPB | N/A |
| 24 – Fort George | 2.4 PPB | 2.3PPB |
| 28 – Town of Bonnyville | 3.6 PPB | N/A |
| 29 – Cold Lake South 2 | 1.2 PPB | 1.1PPB |



Summary

Minimum : 0.4 PPB – Wolf Lake and Medley-Martineau
 Maximum: 3.6 PPB – Town of Bonnyville
 Average: 1.5 PPB *Includes Duplicates

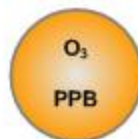


Lakeland Industry & Community Association O₃ Passive Bubble Map

JUNE 2009

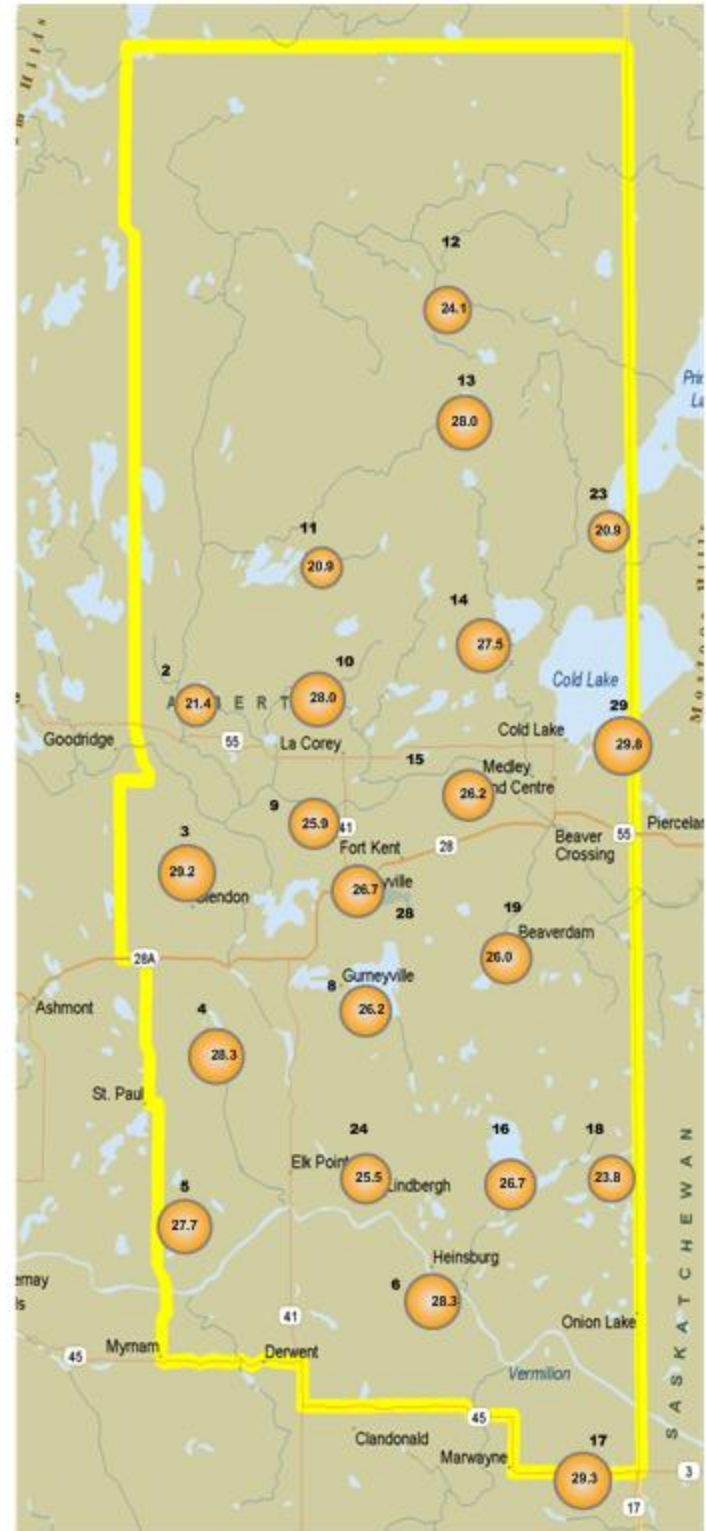
PASSIVE STATIONS

| | | DUPLICATE |
|-------------------------|----------|-----------|
| 2 – Sand River | 20.8 PPB | 22.0PPB |
| 3 – Therien | 29.2 PPB | N/A |
| 4 – Flat Lake | 27.8 PPB | 28.7PPB |
| 5 – Lake Eliza | 27.7 PPB | N/A |
| 6 – Telegraph Creek | 28.3 PPB | 28.2PPB |
| 8 – Muriel-Kehewin | 26.2 PPB | N/A |
| 9 – Dupre | 24.9 PPB | 26.9PPB |
| 10 – La Corey | 28.0 PPB | N/A |
| 11 – Wolf Lake | 19.7 PPB | 22.1PPB |
| 12 – Foster Creek | 24.1 PPB | N/A |
| 13 – Primrose | 26.6 PPB | 29.3PPB |
| 14 – Maskwa | 27.5 PPB | N/A |
| 15 – Ardmore | 24.0 PPB | 28.3PPB |
| 16 – Frog Lake | 26.7 PPB | N/A |
| 17 – Clear Range | 29.4 PPB | 29.2PPB |
| 18 – Fishing Lake | 23.8 PPB | N/A |
| 19 – Beaverdam | 26.9 PPB | 25.0PPB |
| 23 – Medley-Martineau | 20.9 PPB | N/A |
| 24 – Fort George | 26.1 PPB | 24.7PPB |
| 28 – Town of Bonnyville | 26.7 PPB | N/A |
| 29 – Cold Lake South 2 | 30.0 PPB | 29.5PPB |



Summary

Minimum : 20.9 PPB –Medley-Martineau
 Maximum: 29.8 PPB –Cold Lake South 2
 Average: 26.2 PPB *Includes Duplicates



Lakeland Industry & Community Association SO₂ Passive Bubble Map

JUNE 2008

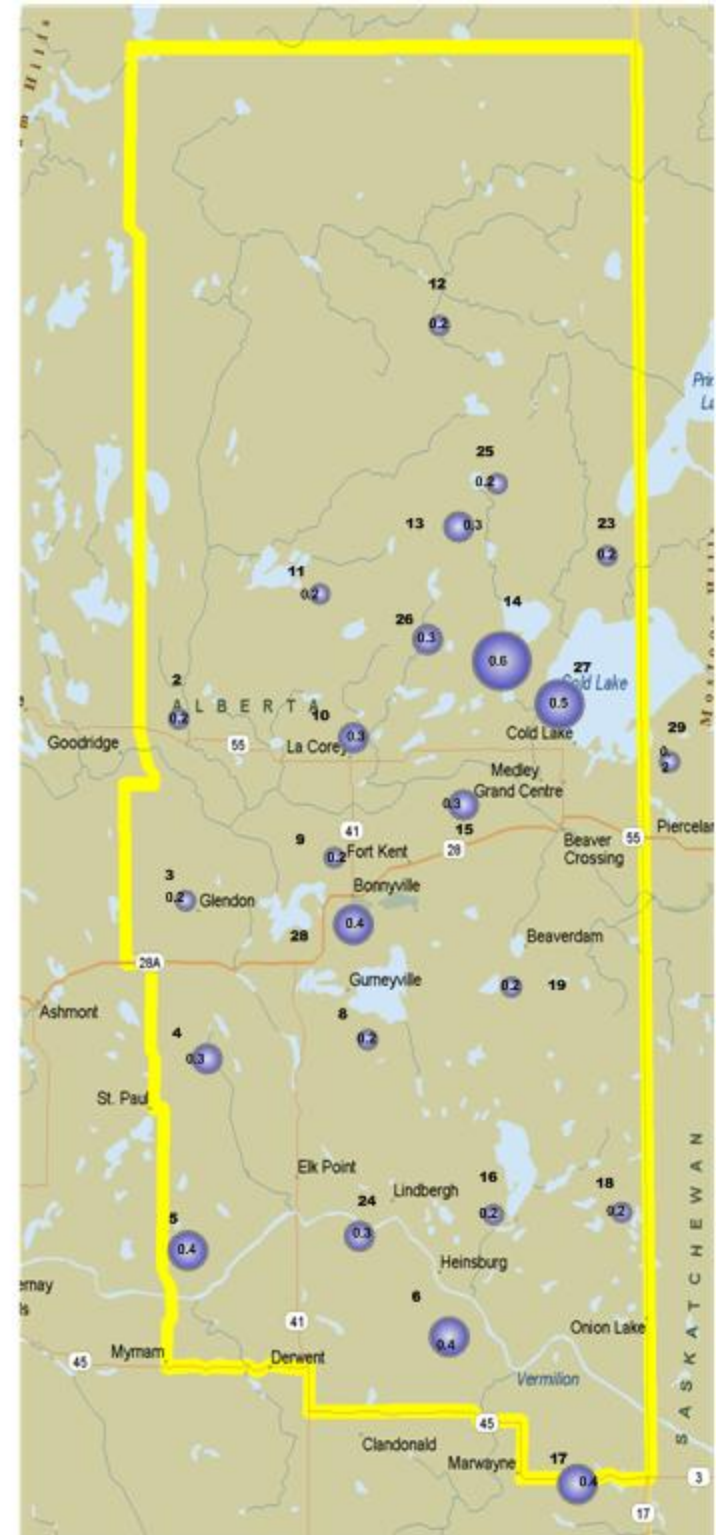
PASSIVE STATIONS

| | | DUPLICATE |
|-------------------------|---------|-----------|
| 2 – Sand River | 0.2 PPB | 0.2PPB |
| 3 – Therien | 0.2 PPB | NA |
| 4 – Flat Lake | 0.3 PPB | 0.3PPB |
| 5 – Lake Eliza | 0.4 PPB | 0.4PPB |
| 6 – Telegraph Creek | 0.4 PPB | 0.4PPB |
| 8 – Muriel-Kehewin | 0.2 PPB | NA |
| 9 – Dupre | 0.2 PPB | 0.2PPB |
| 10 – La Corey | 0.3 PPB | NA |
| 11 – Wolf Lake | 0.2 PPB | 0.2PPB |
| 12 – Foster Creek | 0.2 PPB | NA |
| 13 – Primrose | 0.3 PPB | 0.2PPB |
| 14 – Maskwa | 0.6 PPB | NA |
| 15 – Ardmore | 0.3 PPB | 0.2PPB |
| 16 – Frog Lake | 0.2 PPB | NA |
| 17 – Clear Range | 0.5 PPB | 0.3PPB |
| 18 – Fishing Lake | 0.2 PPB | NA |
| 19 – Beaverdam | 0.2 PPB | 0.2PPB |
| 23 – Medley-Martineau | 0.2 PPB | NA |
| 24 – Fort George | 0.3 PPB | 0.2PPB |
| 25 – Burnt Lake | 0.2 PPB | NA |
| 26 – Mahihkan | 0.3 PPB | 0.3PPB |
| 27 – Hilda Lake | 0.5 PPB | NA |
| 28 – Town of Bonnyville | 0.4 PPB | 0.4PPB |
| 29 – Cold Lake South 2 | 0.2 PPB | NA |



Summary

Minimum : 0.2 PPB – VARIOUS STATION
 Maximum: 0.6 PPB –Maskwa
 Average: 0.3 PPB *Includes Duplicates



Passive Network Laboratory Analysis



Your Project #: 2009/05/29 - 2009/07/03
Site:LICA

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

Report Date: 2009/07/24

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A934803
Received: 2009/07/08, 16:32

Sample Matrix: Air
Samples Received: 42

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|--------------------------|----------|-------------------|------------------|-------------------|-------------------|
| H2S Passive Analysis (0) | 22 | 2009/07/23 | 2009/07/24 | | EDM SOP-0320 |
| NO2 Passive Analysis (0) | 32 | 2009/07/22 | 2009/07/24 | | EDM SOP-0318 |
| O3 Passive Analysis (0) | 32 | 2009/07/20 | 2009/07/24 | | EDM SOP-0317 |
| SO2 Passive Analysis (0) | 1 | 2009/07/22 | 2009/07/24 | | EDM SOP-0319 |
| SO2 Passive Analysis (0) | 35 | 2009/07/23 | 2009/07/24 | | EDM SOP-0319 |

* 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,
Email:
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. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

RESULTS OF CHEMICAL ANALYSES OF AIR

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68712 | P68713 | P68714 | P68715 | | |
| Sampling Date | | 2009/05/29 09:15 | 2009/05/29 09:15 | 2009/05/29 08:40 | 2009/05/29 08:40 | | |
| | Units | 2 | 2A (DUP) | 3 | 3A (DUP) | RDL | QC Batch |

| | | | | | | | |
|----------------------------------|-----|------|------|------|------|------|---------|
| Passive Monitoring | | | | | | | |
| Calculated H2S | ppb | | | 0.14 | 0.14 | 0.02 | 3296250 |
| Calculated NO2 | ppb | 1.1 | 1.1 | 1.8 | | 0.1 | 3290557 |
| Calculated O3 | ppb | 20.8 | 22.0 | 29.2 | | 0.1 | 3284250 |
| Calculated SO2 | ppb | 0.2 | 0.2 | 0.2 | | 0.1 | 3296531 |
| RDL = Reportable Detection Limit | | | | | | | |

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68716 | P68717 | P68718 | P68719 | | |
| Sampling Date | | 2009/05/30 12:45 | 2009/05/30 12:45 | 2009/05/30 12:10 | 2009/05/30 10:55 | | |
| | Units | 4 | 4A (DUP) | 5 | 6 | RDL | QC Batch |

| | | | | | | | |
|----------------------------------|-----|------|------|------|------|------|---------|
| Passive Monitoring | | | | | | | |
| Calculated H2S | ppb | | | 0.61 | | 0.02 | 3296250 |
| Calculated NO2 | ppb | 2.5 | 2.2 | 1.0 | 2.4 | 0.1 | 3290557 |
| Calculated O3 | ppb | 27.8 | 28.7 | 27.7 | 28.3 | 0.1 | 3284250 |
| Calculated SO2 | ppb | 0.3 | 0.3 | 0.4 | 0.4 | 0.1 | 3296531 |
| RDL = Reportable Detection Limit | | | | | | | |

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68720 | P68721 | P68722 | P68723 | | |
| Sampling Date | | 2009/05/30 10:55 | 2009/05/30 13:35 | 2009/05/29 08:05 | 2009/05/29 08:05 | | |
| | Units | 6A (DUP) | 8 | 9 | 9A (DUP) | RDL | QC Batch |

| | | | | | | | |
|----------------------------------|-----|------|------|------|------|-----|---------|
| Passive Monitoring | | | | | | | |
| Calculated NO2 | ppb | 2.5 | 0.8 | 1.6 | 1.4 | 0.1 | 3290557 |
| Calculated O3 | ppb | 28.2 | 26.2 | 24.9 | 26.9 | 0.1 | 3284250 |
| Calculated SO2 | ppb | 0.4 | 0.2 | 0.2 | 0.2 | 0.1 | 3296531 |
| RDL = Reportable Detection Limit | | | | | | | |

RESULTS OF CHEMICAL ANALYSES OF AIR

| | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68724 | P68725 | P68726 | | |
| Sampling Date | | 2009/05/29 10:00 | 2009/05/29 10:40 | 2009/05/29 10:40 | | |
| | Units | 10 | 11 | 11A (DUP) | RDL | QC Batch |

| | | | | | | |
|----------------------------------|-----|------|------|------|------|---------|
| Passive Monitoring | | | | | | |
| Calculated H2S | ppb | 0.25 | 0.07 | 0.06 | 0.02 | 3296250 |
| Calculated NO2 | ppb | 2.1 | 0.4 | 0.4 | 0.1 | 3290559 |
| Calculated O3 | ppb | 28.0 | 19.7 | 22.1 | 0.1 | 3284250 |
| Calculated SO2 | ppb | 0.3 | 0.1 | 0.2 | 0.1 | 3296531 |
| RDL = Reportable Detection Limit | | | | | | |

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68727 | P68728 | P68729 | P68730 | | |
| Sampling Date | | 2009/05/29 12:15 | 2009/05/29 14:00 | 2009/05/29 14:00 | 2009/05/29 15:00 | | |
| | Units | 12 | 13 | 13A (DUP) | 14 | RDL | QC Batch |

| | | | | | | |
|----------------------------------|-----|------|------|------|------|--------------|
| Passive Monitoring | | | | | | |
| Calculated H2S | ppb | 0.10 | 0.06 | 0.06 | 0.14 | 0.02 3296250 |
| Calculated NO2 | ppb | 1.0 | 0.8 | 0.5 | 1.0 | 0.1 3290559 |
| Calculated O3 | ppb | 24.1 | 26.6 | 29.3 | 27.5 | 0.1 3284250 |
| Calculated SO2 | ppb | 0.2 | 0.3 | 0.2 | 0.6 | 0.1 3296646 |
| RDL = Reportable Detection Limit | | | | | | |

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68731 | P68732 | P68733 | P68734 | | |
| Sampling Date | | 2009/05/29 07:15 | 2009/05/29 07:15 | 2009/05/30 09:25 | 2009/05/30 09:25 | | |
| | Units | 15 | 15A (DUP) | 16 | 16A (DUP) | RDL | QC Batch |

| | | | | | | |
|----------------------------------|-----|------|------|------|------|--------------|
| Passive Monitoring | | | | | | |
| Calculated H2S | ppb | | | 0.14 | 0.16 | 0.02 3296250 |
| Calculated NO2 | ppb | 0.9 | 1.0 | 1.2 | | 0.1 3290559 |
| Calculated O3 | ppb | 24.0 | 28.3 | 26.7 | | 0.1 3284250 |
| Calculated SO2 | ppb | 0.3 | 0.2 | 0.2 | | 0.1 3296646 |
| RDL = Reportable Detection Limit | | | | | | |

RESULTS OF CHEMICAL ANALYSES OF AIR

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68735 | P68736 | P68737 | P68738 | | |
| Sampling Date | | 2009/05/30 10:10 | 2009/05/30 10:10 | 2009/05/30 08:40 | 2009/05/30 08:40 | | |
| | Units | 17 | 17A (DUP) | 18 | 18A (DUP) | RDL | QC Batch |

| | | | | | | | |
|---------------------------|-----|------|------|------|------|------|---------|
| Passive Monitoring | | | | | | | |
| Calculated H2S | ppb | 0.35 | | 0.11 | 0.10 | 0.02 | 3296250 |
| Calculated NO2 | ppb | 2.6 | 2.4 | 0.8 | | 0.1 | 3290559 |
| Calculated O3 | ppb | 29.4 | 29.2 | 23.8 | | 0.1 | 3284250 |
| Calculated SO2 | ppb | 0.5 | 0.3 | 0.2 | | 0.1 | 3296646 |

RDL = Reportable Detection Limit

| | | | | | | | |
|---------------|--------------|---------------------|-----------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68739 | | P68740 | P68750 | | |
| Sampling Date | | 2009/05/30 07:45 | | 2009/05/30 07:45 | 2009/05/29 16:10 | | |
| | Units | 19 | QC Batch | 19A (DUP) | 23 | RDL | QC Batch |

| | | | | | | | |
|---------------------------|-----|------|---------|------|------|-----|---------|
| Passive Monitoring | | | | | | | |
| Calculated NO2 | ppb | 1.2 | 3290559 | 1.1 | 0.4 | 0.1 | 3290559 |
| Calculated O3 | ppb | 26.9 | 3284250 | 25.0 | 20.9 | 0.1 | 3284251 |
| Calculated SO2 | ppb | 0.2 | 3296646 | 0.2 | 0.2 | 0.1 | 3296646 |

RDL = Reportable Detection Limit

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68751 | P68752 | P68753 | P68754 | | |
| Sampling Date | | 2009/05/30 11:30 | 2009/05/30 11:30 | 2009/05/29 13:35 | 2009/05/29 13:35 | | |
| | Units | 24 | 24A (DUP) | 25 | 25A (DUP) | RDL | QC Batch |

| | | | | | | | |
|---------------------------|-----|------|------|------|------|------|---------|
| Passive Monitoring | | | | | | | |
| Calculated H2S | ppb | 0.17 | | 0.06 | 0.06 | 0.02 | 3296250 |
| Calculated NO2 | ppb | 2.4 | 2.3 | | | 0.1 | 3290559 |
| Calculated O3 | ppb | 26.2 | 24.7 | | | 0.1 | 3284251 |
| Calculated SO2 | ppb | 0.3 | 0.2 | 0.2 | | 0.1 | 3296646 |

RDL = Reportable Detection Limit

RESULTS OF CHEMICAL ANALYSES OF AIR

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68755 | P68756 | P68757 | P68758 | | |
| Sampling Date | | 2009/05/29 14:40 | 2009/05/29 14:40 | 2009/05/29 15:20 | 2009/05/29 15:20 | | |
| | Units | 26 | 26A (DUP) | 27 | 27A (DUP) | RDL | QC Batch |

| | | | | | | | |
|---------------------------|-----|------|-----|------|------|------|---------|
| Passive Monitoring | | | | | | | |
| Calculated H2S | ppb | 0.14 | | 0.21 | 0.21 | 0.02 | 3296250 |
| Calculated SO2 | ppb | 0.3 | 0.3 | 0.5 | | 0.1 | 3296646 |

RDL = Reportable Detection Limit

| | | | | | | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Maxxam ID | | P68759 | P68760 | P68761 | P68762 | | |
| Sampling Date | | 2009/05/29 07:45 | 2009/05/29 07:45 | 2009/05/29 06:25 | 2009/05/29 06:25 | | |
| | Units | 28 | 28A (DUP) | 29 | 29A (DUP) | RDL | QC Batch |

| | | | | | | | |
|---------------------------|-----|------|-----|------|------|------|---------|
| Passive Monitoring | | | | | | | |
| Calculated H2S | ppb | | | 0.16 | | 0.02 | 3296250 |
| Calculated NO2 | ppb | 3.6 | | 1.2 | 1.1 | 0.1 | 3290559 |
| Calculated O3 | ppb | 26.7 | | 30.0 | 29.5 | 0.1 | 3284251 |
| Calculated SO2 | ppb | 0.4 | 0.4 | 0.2 | | 0.1 | 3296646 |

RDL = Reportable Detection Limit



Maxxam Job #: A934803
Report Date: 2009/07/24

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2009/05/29 - 2009/07/03
Site Reference: LICA
Sampler Initials: SB

General Comments

Results relate only to the items tested.



LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 Attention: MICHAEL BISAGA
 Client Project #: 2009/05/29 - 2009/07/03
 P.O. #:
 Site Reference: LICA

Quality Assurance Report
 Maxxam Job Number: PA934803

| QA/QC Batch Num Init | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | Recovery | Units | QC Limits |
|----------------------|-------------------|----------------|--------------------------|-------|----------|-------|-----------|
| 3284250 OZ | Calibration Check | Calculated O3 | 2009/07/20 | | 100 | % | 91 - 107 |
| | SPIKE | Calculated O3 | 2009/07/20 | | 101 | % | N/A |
| | BLANK | Calculated O3 | 2009/07/20 | <0.1 | | ppb | |
| 3284251 OZ | Calibration Check | Calculated O3 | 2009/07/20 | | 101 | % | 91 - 107 |
| | SPIKE | Calculated O3 | 2009/07/20 | | 98 | % | N/A |
| | BLANK | Calculated O3 | 2009/07/20 | <0.1 | | ppb | |
| 3290557 DF4 | Calibration Check | Calculated NO2 | 2009/07/22 | | 99 | % | 76 - 118 |
| | SPIKE | Calculated NO2 | 2009/07/22 | | 101 | % | N/A |
| | BLANK | Calculated NO2 | 2009/07/22 | <0.1 | | ppb | |
| 3290559 DF4 | Calibration Check | Calculated NO2 | 2009/07/22 | | 99 | % | 76 - 118 |
| | SPIKE | Calculated NO2 | 2009/07/22 | | 99 | % | N/A |
| | BLANK | Calculated NO2 | 2009/07/22 | <0.1 | | ppb | |
| 3296250 TM5 | Calibration Check | Calculated H2S | 2009/07/23 | | 101 | % | 80 - 120 |
| | SPIKE | Calculated H2S | 2009/07/23 | | 101 | % | N/A |
| 3296531 DF4 | Calibration Check | Calculated SO2 | 2009/07/23 | | 97 | % | 95 - 105 |
| | SPIKE | Calculated SO2 | 2009/07/23 | | 97 | % | N/A |
| | BLANK | Calculated SO2 | 2009/07/23 | <0.1 | | ppb | |
| 3296646 DF4 | Calibration Check | Calculated SO2 | 2009/07/23 | | 96 | % | 95 - 105 |
| | SPIKE | Calculated SO2 | 2009/07/23 | | 101 | % | N/A |
| | BLANK | Calculated SO2 | 2009/07/23 | <0.1 | | ppb | |

N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332

Passive Field Data

Field Notes

| ID | SAMPLER | START | | END | | NOTES |
|-----------|---|----------|-------|----------|-------|-------|
| | | DATE | TIME | DATE | TIME | |
| 2 | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 09:15 | 07/03/09 | 11:30 | |
| 2A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 09:15 | 07/03/09 | 11:30 | |
| 3 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 08:40 | 07/03/09 | 10:50 | |
| 3A (Dup) | H ₂ S | 05/29/09 | 08:40 | 07/03/09 | 10:50 | |
| 4 | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 12:45 | 07/04/09 | 15:10 | |
| 4A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 12:45 | 07/04/09 | 15:10 | |
| 5 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/30/09 | 12:10 | 07/04/09 | 14:10 | |
| 5A (Dup) | NA | NA | NA | NA | NA | |
| 6 | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 10:55 | 07/04/09 | 12:40 | |
| 6A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 10:55 | 07/04/09 | 12:40 | |
| 8 | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 13:35 | 07/04/09 | 16:00 | |
| 8A (Dup) | NA | NA | NA | NA | NA | |
| 9 | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 08:05 | 07/03/09 | 09:15 | |
| 9A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 08:05 | 07/03/09 | 09:15 | |
| 10 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 10:00 | 07/03/09 | 12:15 | |
| 10A (Dup) | NA | NA | NA | NA | NA | |
| 11 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 10:40 | 07/03/09 | 12:55 | |
| 11A (Dup) | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 10:40 | 07/03/09 | 12:55 | |
| 12 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 12:25 | 07/03/09 | 14:15 | |
| 12A (Dup) | NA | NA | NA | NA | NA | |
| 13 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 14:00 | 07/03/09 | 15:55 | |
| 13A (Dup) | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 14:00 | 07/03/09 | 15:55 | |
| 14 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 15:00 | 07/03/09 | 16:55 | |
| 14A (Dup) | NA | NA | NA | NA | NA | |
| 15 | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 07:15 | 07/03/09 | 08:15 | |
| 15A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 07:15 | 07/03/09 | 08:15 | |
| 16 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/30/09 | 09:25 | 07/04/09 | 11:00 | |
| 16A (Dup) | H ₂ S | 05/30/09 | 09:25 | 07/04/09 | 11:00 | |

| ID | SAMPLER | START | | END | | NOTES |
|-----------|---|----------|-------|----------|-------|-------|
| | | DATE | TIME | DATE | TIME | |
| 17 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/30/09 | 10:10 | 07/04/09 | 11:50 | |
| 17A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 10:10 | 07/04/09 | 11:50 | |
| 18 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/30/09 | 08:40 | 07/04/09 | 10:15 | |
| 18A (Dup) | H ₂ S | 05/30/09 | 08:40 | 07/04/09 | 10:15 | |
| 19 | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 07:45 | 07/04/09 | 09:20 | |
| 19A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 07:45 | 07/04/09 | 09:20 | |
| 23 | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 16:10 | 07/04/09 | 07:50 | |
| 23A (Dup) | NA | NA | NA | NA | NA | |
| 24 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/30/09 | 11:30 | 07/04/09 | 13:20 | |
| 24A (Dup) | SO ₂ /NO ₂ /O ₃ | 05/30/09 | 11:30 | 07/04/09 | 13:20 | |
| 25 | H ₂ S/SO ₂ | 05/29/09 | 10:35 | 07/03/09 | 15:35 | |
| 25A (Dup) | H ₂ S | 05/29/09 | 10:35 | 07/03/09 | 15:35 | |
| 26 | H ₂ S/SO ₂ | 05/29/09 | 14:40 | 07/03/09 | 16:25 | |
| 26A (Dup) | SO ₂ | 05/29/09 | 14:40 | 07/03/09 | 16:25 | |
| 27 | H ₂ S/SO ₂ | 05/29/09 | 15:20 | 07/03/09 | 17:25 | |
| 27A (Dup) | H ₂ S | 05/29/09 | 15:20 | 07/03/09 | 14:25 | |
| 28 | SO ₂ /NO ₂ /O ₃ | 05/29/09 | 07:45 | 07/03/09 | 08:50 | |
| 28A (Dup) | SO ₂ | 05/29/09 | 07:45 | 07/03/09 | 08:50 | |
| 29 | H ₂ S/SO ₂ /NO ₂ /O ₃ | 05/29/09 | 06:25 | 07/04/09 | 17:20 | |
| 29A (Dup) | NO ₂ /O ₃ | 05/29/09 | 06:25 | 07/04/09 | 17:20 | |

Volatile Organics Laboratory Analysis



Your Project #: LICA 1
Site: Cold Lake South

Attention: Gail Nielsen

Lakeland Industry and Community Association
5107 - 50th Street
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2009/06/08

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A952911

Received: 2009/05/07, 12:43

Sample Matrix: AIR
Samples Received: 1

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Method Reference |
|------------------------------------|----------|-------------------|------------------|-------------------|---------------------|
| Canister Pressure (TO-15) | 1 | N/A | 2009/06/03 | BRL SOP-00304 | EPA TO-15 |
| Volatile Organics in Air (TO-15) ¶ | 1 | N/A | 2009/06/03 | BRL SOP-00304 | EPA TO-15 |

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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. SCC and CALA have approved this reporting process and electronic report format.

Maxxam Analytics Inc. is a NELAC accredited laboratory. Certificate # CANA001. Use of the NELAC logo however does not insure that Maxxam is accredited for all of the methods indicated. This certificate shall not be reproduced except in full, without the written approval of Maxxam Analytics Inc. Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section.

Total cover pages: 1

Maxxam Job #: A952911
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

RESULTS OF ANALYSES OF AIR

| | | | | |
|---------------|--------------|---------------|-----------|-----------------|
| Maxxam ID | | CK5311 | | |
| Sampling Date | | 2009/04/28 | | |
| | Units | # 2575 | DL | QC Batch |

| | | | | |
|--|------|----|-----|---------|
| Volatile Organics | | | | |
| Pressure on Receipt | psig | 18 | N/A | 1836944 |
| RDL = Reportable Detection Limit QC Batch = Quality Control Batch | | | | |

Maxxam Job #: A952911
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|---------------|--------------|---------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CK5311 | | | | |
| Sampling Date | | 2009/04/28 | | | | |
| | Units | # 2575 | DL | ug/m3 | DL (ug/m3) | QC Batch |

| Volatile Organics | | | | | | |
|-------------------------------|------|-------|------|--------|-------|---------|
| 1,1,1-Trichloroethane | ppbv | <0.30 | 0.30 | <1.64 | 1.64 | 1836906 |
| 1,1,2,2-Tetrachloroethane | ppbv | <0.20 | 0.20 | <1.37 | 1.37 | 1836906 |
| 1,1,2-Trichloroethane | ppbv | <0.15 | 0.15 | <0.818 | 0.818 | 1836906 |
| 1,1-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,1-Dichloroethylene | ppbv | <0.25 | 0.25 | <0.991 | 0.991 | 1836906 |
| 1,2,4-Trichlorobenzene | ppbv | <2.0 | 2.0 | <14.8 | 14.8 | 1836906 |
| 1,2,4-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,2-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,2-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,2-Dichloropropane | ppbv | <0.40 | 0.40 | <1.85 | 1.85 | 1836906 |
| 1,2-Dichlorotetrafluoroethane | ppbv | <0.17 | 0.17 | <1.19 | 1.19 | 1836906 |
| 1,3,5-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,3-Butadiene | ppbv | <0.50 | 0.50 | <1.11 | 1.11 | 1836906 |
| 1,3-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dioxane | ppbv | <2.0 | 2.0 | <7.21 | 7.21 | 1836906 |
| 2,2,4-Trimethylpentane | ppbv | <0.20 | 0.20 | <0.934 | 0.934 | 1836906 |
| 2-propanol | ppbv | <3.0 | 3.0 | <7.37 | 7.37 | 1836906 |
| 2-Propanone | ppbv | 5.27 | 0.80 | 12.5 | 1.90 | 1836906 |
| 4-ethyltoluene | ppbv | <2.2 | 2.2 | <10.8 | 10.8 | 1836906 |
| Benzene | ppbv | <0.18 | 0.18 | <0.575 | 0.575 | 1836906 |
| Benzyl chloride | ppbv | <1.0 | 1.0 | <5.18 | 5.18 | 1836906 |
| Bromodichloromethane | ppbv | <0.20 | 0.20 | <1.34 | 1.34 | 1836906 |
| Bromoform | ppbv | <0.20 | 0.20 | <2.07 | 2.07 | 1836906 |
| Bromomethane | ppbv | <0.18 | 0.18 | <0.699 | 0.699 | 1836906 |
| Carbon Disulfide | ppbv | <0.50 | 0.50 | <1.56 | 1.56 | 1836906 |
| Carbon Tetrachloride | ppbv | <0.30 | 0.30 | <1.89 | 1.89 | 1836906 |
| Chlorobenzene | ppbv | <0.20 | 0.20 | <0.921 | 0.921 | 1836906 |
| Chloroethane | ppbv | <0.30 | 0.30 | <0.792 | 0.792 | 1836906 |
| Chloroform | ppbv | <0.15 | 0.15 | <0.732 | 0.732 | 1836906 |
| Chloromethane | ppbv | 0.30 | 0.30 | 0.620 | 0.620 | 1836906 |
| cis-1,2-Dichloroethylene | ppbv | <0.19 | 0.19 | <0.753 | 0.753 | 1836906 |
| cis-1,3-Dichloropropene | ppbv | <0.18 | 0.18 | <0.817 | 0.817 | 1836906 |

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: A952911
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|--|--------------|---------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CK5311 | | | | |
| Sampling Date | | 2009/04/28 | | | | |
| | Units | # 2575 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| Cyclohexane | ppbv | <0.20 | 0.20 | <0.688 | 0.688 | 1836906 |
| Dibromochloromethane | ppbv | <0.20 | 0.20 | <1.70 | 1.70 | 1836906 |
| Dichlorodifluoromethane (FREON 12) | ppbv | 0.51 | 0.20 | 2.54 | 0.989 | 1836906 |
| Ethanol | ppbv | <2.3 | 2.3 | <4.33 | 4.33 | 1836906 |
| Ethyl Acetate | ppbv | <2.2 | 2.2 | <7.93 | 7.93 | 1836906 |
| Ethylbenzene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| Ethylene Dibromide | ppbv | <0.17 | 0.17 | <1.31 | 1.31 | 1836906 |
| Heptane | ppbv | <0.30 | 0.30 | <1.23 | 1.23 | 1836906 |
| Hexachlorobutadiene | ppbv | <3.0 | 3.0 | <32.0 | 32.0 | 1836906 |
| Hexane | ppbv | <0.30 | 0.30 | <1.06 | 1.06 | 1836906 |
| Methyl Butyl Ketone (2-Hexanone) | ppbv | <2.0 | 2.0 | <8.19 | 8.19 | 1836906 |
| Methyl Ethyl Ketone (2-Butanone) | ppbv | <3.0 | 3.0 | <8.85 | 8.85 | 1836906 |
| Methyl Isobutyl Ketone | ppbv | <3.2 | 3.2 | <13.1 | 13.1 | 1836906 |
| Methyl t-butyl ether (MTBE) | ppbv | <0.20 | 0.20 | <0.721 | 0.721 | 1836906 |
| Methylene Chloride(Dichloromethane) | ppbv | 0.41 | 0.30 | 1.41 | 1.04 | 1836906 |
| o-Xylene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| p+m-Xylene | ppbv | <0.37 | 0.37 | <1.61 | 1.61 | 1836906 |
| Propene | ppbv | <0.30 | 0.30 | <0.516 | 0.516 | 1836906 |
| Styrene | ppbv | <0.20 | 0.20 | <0.852 | 0.852 | 1836906 |
| Tetrachloroethylene | ppbv | <0.20 | 0.20 | <1.36 | 1.36 | 1836906 |
| Tetrahydrofuran | ppbv | <0.40 | 0.40 | <1.18 | 1.18 | 1836906 |
| Toluene | ppbv | 0.91 | 0.20 | 3.44 | 0.753 | 1836906 |
| trans-1,2-Dichloroethylene | ppbv | <0.20 | 0.20 | <0.793 | 0.793 | 1836906 |
| trans-1,3-Dichloropropene | ppbv | <0.17 | 0.17 | <0.772 | 0.772 | 1836906 |
| Trichloroethylene | ppbv | <0.30 | 0.30 | <1.61 | 1.61 | 1836906 |
| Trichlorofluoromethane (FREON 11) | ppbv | 0.28 | 0.20 | 1.58 | 1.12 | 1836906 |
| Trichlorotrifluoroethane | ppbv | <0.15 | 0.15 | <1.15 | 1.15 | 1836906 |
| Vinyl Acetate | ppbv | <0.20 | 0.20 | <0.704 | 0.704 | 1836906 |
| Vinyl Bromide | ppbv | <0.20 | 0.20 | <0.875 | 0.875 | 1836906 |
| Vinyl Chloride | ppbv | <0.18 | 0.18 | <0.460 | 0.460 | 1836906 |
| Xylene (Total) | ppbv | <0.60 | 0.60 | <2.61 | 2.61 | 1836906 |
| Surrogate Recovery (%) | | | | | | |
| Bromochloromethane | % | 88 | | N/A | N/A | 1836906 |
| D5-Chlorobenzene | % | 90 | | N/A | N/A | 1836906 |
| N/A = Not Applicable QC Batch = Quality Control Batch | | | | | | |

Maxxam Job #: A952911
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|---------------|--------------|---------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CK5311 | | | | |
| Sampling Date | | 2009/04/28 | | | | |
| | Units | # 2575 | DL | ug/m3 | DL (ug/m3) | QC Batch |

| | | | | | | |
|-----------------|---|----|--|-----|-----|---------|
| Difluorobenzene | % | 91 | | N/A | N/A | 1836906 |
|-----------------|---|----|--|-----|-----|---------|

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: A952911
Report Date: 2009/06/08

Lakeland Industry and Community Association
Client Project #: LICA 1
Project name: Cold Lake South

Test Summary

Maxxam ID CK5311
Sample ID # 2575
Matrix AIR

Collected 2009/04/28
Shipped
Received 2009/05/07

| Test Description | Instrumentation | Batch | Extracted | Analyzed | Analyst |
|----------------------------------|-----------------|---------|-----------|------------|---------|
| Canister Pressure (TO-15) | PRES | 1836944 | N/A | 2009/06/03 | DBJ |
| Volatile Organics in Air (TO-15) | GC/MS | 1836906 | N/A | 2009/06/03 | DBJ |

Maxxam Job #: A952911
Report Date: 2009/06/08

Lakeland Industry and Community Association
Client Project #: LICA 1
Project name: Cold Lake South

GENERAL COMMENTS

Sample CK5311-01: Sample analyzed after 30 day hold time.

Results relate only to the items tested.

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report
 Maxxam Job Number: GA952911

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|-------------|--------------|-------------------------------------|-----------------------------|----------------|-----------|-------|-----------|
| 1836906 DBJ | Spiked Blank | Bromochloromethane | 2009/06/03 | | 102 | % | 60 - 140 |
| | | D5-Chlorobenzene | 2009/06/03 | | 106 | % | 60 - 140 |
| | | Difluorobenzene | 2009/06/03 | | 105 | % | 60 - 140 |
| | | 1,1,1-Trichloroethane | 2009/06/03 | 57.7, RDL=0.30 | 112 | ppbv | 70 - 130 |
| | | 1,1,2,2-Tetrachloroethane | 2009/06/03 | 47.6, RDL=0.20 | 89 | ppbv | 70 - 130 |
| | | 1,1,2-Trichloroethane | 2009/06/03 | 50.4, RDL=0.15 | 96 | ppbv | 70 - 130 |
| | | 1,1-Dichloroethane | 2009/06/03 | 42.4, RDL=0.20 | 84 | ppbv | 70 - 130 |
| | | 1,1-Dichloroethylene | 2009/06/03 | 52.0, RDL=0.25 | 104 | ppbv | 70 - 130 |
| | | 1,2,4-Trichlorobenzene | 2009/06/03 | 57.2, RDL=2.0 | 105 | ppbv | 70 - 130 |
| | | 1,2,4-Trimethylbenzene | 2009/06/03 | 57.2, RDL=0.50 | 105 | ppbv | 70 - 130 |
| | | 1,2-Dichlorobenzene | 2009/06/03 | 57.8, RDL=0.40 | 109 | ppbv | 70 - 130 |
| | | 1,2-Dichloroethane | 2009/06/03 | 53.6, RDL=0.20 | 102 | ppbv | 70 - 130 |
| | | 1,2-Dichloropropane | 2009/06/03 | 41.9, RDL=0.40 | 79 | ppbv | 70 - 130 |
| | | 1,2-Dichlorotetrafluoroethane | 2009/06/03 | 49.9, RDL=0.17 | 104 | ppbv | 70 - 130 |
| | | 1,3,5-Trimethylbenzene | 2009/06/03 | 56.7, RDL=0.50 | 104 | ppbv | 70 - 130 |
| | | 1,3-Butadiene | 2009/06/03 | 88.5, RDL=0.50 | 93 | ppbv | 70 - 130 |
| | | 1,3-Dichlorobenzene | 2009/06/03 | 59.4, RDL=0.40 | 108 | ppbv | 70 - 130 |
| | | 1,4-Dichlorobenzene | 2009/06/03 | 59.4, RDL=0.40 | 110 | ppbv | 70 - 130 |
| | | 1,4-Dioxane | 2009/06/03 | 80.0, RDL=2.0 | 85 | ppbv | 70 - 130 |
| | | 2,2,4-Trimethylpentane | 2009/06/03 | 32.0, RDL=0.20 | 74 | ppbv | 70 - 130 |
| | | 2-propanol | 2009/06/03 | 81.6, RDL=3.0 | 87 | ppbv | 70 - 130 |
| | | 2-Propanone | 2009/06/03 | 106, RDL=0.80 | 110 | ppbv | 70 - 130 |
| | | 4-ethyltoluene | 2009/06/03 | 100, RDL=2.2 | 101 | ppbv | 70 - 130 |
| | | Benzene | 2009/06/03 | 43.6, RDL=0.18 | 83 | ppbv | 70 - 130 |
| | | Benzyl chloride | 2009/06/03 | 95.4, RDL=1.0 | 99 | ppbv | 70 - 130 |
| | | Bromodichloromethane | 2009/06/03 | 103, RDL=0.20 | 109 | ppbv | 70 - 130 |
| | | Bromoform | 2009/06/03 | 105, RDL=0.20 | 108 | ppbv | 70 - 130 |
| | | Bromomethane | 2009/06/03 | 53.4, RDL=0.18 | 109 | ppbv | 70 - 130 |
| | | Carbon Disulfide | 2009/06/03 | 92.8, RDL=0.50 | 98 | ppbv | 70 - 130 |
| | | Carbon Tetrachloride | 2009/06/03 | 61.2, RDL=0.30 | 120 | ppbv | 70 - 130 |
| | | Chlorobenzene | 2009/06/03 | 52.4, RDL=0.20 | 97 | ppbv | 70 - 130 |
| | | Chloroethane | 2009/06/03 | 46.6, RDL=0.30 | 96 | ppbv | 70 - 130 |
| | | Chloroform | 2009/06/03 | 43.2, RDL=0.15 | 95 | ppbv | 70 - 130 |
| | | Chloromethane | 2009/06/03 | 45.6, RDL=0.30 | 94 | ppbv | 70 - 130 |
| | | cis-1,2-Dichloroethylene | 2009/06/03 | 46.5, RDL=0.19 | 87 | ppbv | 70 - 130 |
| | | cis-1,3-Dichloropropene | 2009/06/03 | 47.4, RDL=0.18 | 92 | ppbv | 70 - 130 |
| | | Cyclohexane | 2009/06/03 | 79.8, RDL=0.20 | 83 | ppbv | 70 - 130 |
| | | Dibromochloromethane | 2009/06/03 | 106, RDL=0.20 | 111 | ppbv | 70 - 130 |
| | | Dichlorodifluoromethane (FREON 12) | 2009/06/03 | 49.0, RDL=0.20 | 102 | ppbv | 70 - 130 |
| | | Ethanol | 2009/06/03 | 39.6, RDL=2.3 | 74 | ppbv | 70 - 130 |
| | | Ethyl Acetate | 2009/06/03 | 68.5, RDL=2.2 | 78 | ppbv | 70 - 130 |
| | | Ethylbenzene | 2009/06/03 | 52.4, RDL=0.20 | 97 | ppbv | 70 - 130 |
| | | Ethylene Dibromide | 2009/06/03 | 53.5, RDL=0.17 | 100 | ppbv | 70 - 130 |
| | | Heptane | 2009/06/03 | 73.7, RDL=0.30 | 77 | ppbv | 70 - 130 |
| | | Hexachlorobutadiene | 2009/06/03 | 55.6, RDL=3.0 | 102 | ppbv | 70 - 130 |
| | | Hexane | 2009/06/03 | 73.9, RDL=0.30 | 76 | ppbv | 70 - 130 |
| | | Methyl Butyl Ketone (2-Hexanone) | 2009/06/03 | 74.6, RDL=2.0 | 76 | ppbv | 70 - 130 |
| | | Methyl Ethyl Ketone (2-Butanone) | 2009/06/03 | 76.8, RDL=3.0 | 79 | ppbv | 70 - 130 |
| | | Methyl Isobutyl Ketone | 2009/06/03 | 76.2, RDL=3.2 | 78 | ppbv | 70 - 130 |
| | | Methyl t-butyl ether (MTBE) | 2009/06/03 | 86.2, RDL=0.20 | 88 | ppbv | 70 - 130 |
| | | Methylene Chloride(Dichloromethane) | 2009/06/03 | 49.4, RDL=0.30 | 96 | ppbv | 70 - 130 |
| | | o-Xylene | 2009/06/03 | 54.0, RDL=0.20 | 101 | ppbv | 70 - 130 |
| | | p+m-Xylene | 2009/06/03 | 116, RDL=0.37 | 109 | ppbv | 70 - 130 |
| | | Propene | 2009/06/03 | 62.2, RDL=0.30 | 62 (1) | ppbv | 70 - 130 |
| | | Styrene | 2009/06/03 | 42.5, RDL=0.20 | 78 | ppbv | 70 - 130 |

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report (Continued)

Maxxam Job Number: GA952911

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|------------------------------------|-------------------------------|---------------------|-----------------------------|----------------|-----------|----------|-----------|
| 1836906 DBJ | Spiked Blank | Tetrachloroethylene | 2009/06/03 | 56.2, RDL=0.20 | 107 | ppbv | 70 - 130 |
| | | Tetrahydrofuran | 2009/06/03 | 70.8, RDL=0.40 | 74 | ppbv | 70 - 130 |
| Toluene | | 2009/06/03 | 50.8, RDL=0.20 | 94 | ppbv | 70 - 130 | |
| trans-1,2-Dichloroethylene | | 2009/06/03 | 82.1, RDL=0.20 | 86 | ppbv | 70 - 130 | |
| trans-1,3-Dichloropropene | | 2009/06/03 | 53.4, RDL=0.17 | 97 | ppbv | 70 - 130 | |
| Trichloroethylene | | 2009/06/03 | 51.5, RDL=0.30 | 102 | ppbv | 70 - 130 | |
| Trichlorofluoromethane (FREON 11) | | 2009/06/03 | 54.4, RDL=0.20 | 111 | ppbv | 70 - 130 | |
| Trichlorotrifluoroethane | | 2009/06/03 | 52.4, RDL=0.15 | 108 | ppbv | 70 - 130 | |
| Vinyl Acetate | | 2009/06/03 | 73.0, RDL=0.20 | 77 | ppbv | 70 - 130 | |
| Vinyl Bromide | | 2009/06/03 | 41.9, RDL=0.20 | 98 | ppbv | 70 - 130 | |
| Method Blank | Vinyl Chloride | 2009/06/03 | 46.1, RDL=0.18 | 95 | ppbv | 70 - 130 | |
| | Bromochloromethane | 2009/06/03 | | 89 | % | 60 - 140 | |
| | D5-Chlorobenzene | 2009/06/03 | | 92 | % | 60 - 140 | |
| | Difluorobenzene | 2009/06/03 | | 94 | % | 60 - 140 | |
| | 1,1,1-Trichloroethane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | 1,1,2,2-Tetrachloroethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 1,1,2-Trichloroethane | 2009/06/03 | ND, RDL=0.15 | | ppbv | | |
| | 1,1-Dichloroethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 1,1-Dichloroethylene | 2009/06/03 | ND, RDL=0.25 | | ppbv | | |
| | 1,2,4-Trichlorobenzene | 2009/06/03 | ND, RDL=2.0 | | ppbv | | |
| | 1,2,4-Trimethylbenzene | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | 1,2-Dichlorobenzene | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,2-Dichloroethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 1,2-Dichloropropane | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,2-Dichlorotetrafluoroethane | 2009/06/03 | ND, RDL=0.17 | | ppbv | | |
| | 1,3,5-Trimethylbenzene | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | 1,3-Butadiene | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | 1,3-Dichlorobenzene | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,4-Dichlorobenzene | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,4-Dioxane | 2009/06/03 | ND, RDL=2.0 | | ppbv | | |
| | 2,2,4-Trimethylpentane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 2-propanol | 2009/06/03 | ND, RDL=3.0 | | ppbv | | |
| | 2-Propanone | 2009/06/03 | ND, RDL=0.80 | | ppbv | | |
| | 4-ethyltoluene | 2009/06/03 | ND, RDL=2.2 | | ppbv | | |
| | Benzene | 2009/06/03 | ND, RDL=0.18 | | ppbv | | |
| | Benzyl chloride | 2009/06/03 | ND, RDL=1.0 | | ppbv | | |
| | Bromodichloromethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | Bromoform | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | Bromomethane | 2009/06/03 | ND, RDL=0.18 | | ppbv | | |
| | Carbon Disulfide | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | Carbon Tetrachloride | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | Chlorobenzene | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | Chloroethane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | Chloroform | 2009/06/03 | ND, RDL=0.15 | | ppbv | | |
| | Chloromethane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | cis-1,2-Dichloroethylene | 2009/06/03 | ND, RDL=0.19 | | ppbv | | |
| | cis-1,3-Dichloropropene | 2009/06/03 | ND, RDL=0.18 | | ppbv | | |
| | Cyclohexane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| Dibromochloromethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | | |
| Dichlorodifluoromethane (FREON 12) | 2009/06/03 | ND, RDL=0.20 | | ppbv | | | |
| Ethanol | 2009/06/03 | ND, RDL=2.3 | | ppbv | | | |
| Ethyl Acetate | 2009/06/03 | ND, RDL=2.2 | | ppbv | | | |
| Ethylbenzene | 2009/06/03 | ND, RDL=0.20 | | ppbv | | | |
| Ethylene Dibromide | 2009/06/03 | ND, RDL=0.17 | | ppbv | | | |
| Heptane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | | |

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report (Continued)

Maxxam Job Number: GA952911

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|-------------|--------------|-------------------------------------|-----------------------------|----------------|-----------|-------|-----------|
| 1836906 DBJ | Method Blank | Hexachlorobutadiene | 2009/06/03 | ND, RDL=3.0 | | ppbv | |
| | | Hexane | 2009/06/03 | ND, RDL=0.30 | | ppbv | |
| | | Methyl Butyl Ketone (2-Hexanone) | 2009/06/03 | ND, RDL=2.0 | | ppbv | |
| | | Methyl Ethyl Ketone (2-Butanone) | 2009/06/03 | ND, RDL=3.0 | | ppbv | |
| | | Methyl Isobutyl Ketone | 2009/06/03 | ND, RDL=3.2 | | ppbv | |
| | | Methyl t-butyl ether (MTBE) | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Methylene Chloride(Dichloromethane) | 2009/06/03 | 0.41, RDL=0.30 | | ppbv | |
| | | o-Xylene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | p+m-Xylene | 2009/06/03 | ND, RDL=0.37 | | ppbv | |
| | | Propene | 2009/06/03 | ND, RDL=0.30 | | ppbv | |
| | | Styrene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Tetrachloroethylene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Tetrahydrofuran | 2009/06/03 | ND, RDL=0.40 | | ppbv | |
| | | Toluene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | trans-1,2-Dichloroethylene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | trans-1,3-Dichloropropene | 2009/06/03 | ND, RDL=0.17 | | ppbv | |
| | | Trichloroethylene | 2009/06/03 | ND, RDL=0.30 | | ppbv | |
| | | Trichlorofluoromethane (FREON 11) | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Trichlorotrifluoroethane | 2009/06/03 | ND, RDL=0.15 | | ppbv | |
| | | Vinyl Acetate | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Vinyl Bromide | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Vinyl Chloride | 2009/06/03 | ND, RDL=0.18 | | ppbv | |
| | | Xylene (Total) | 2009/06/03 | ND, RDL=0.60 | | ppbv | |
| | RPD | 1,1,1-Trichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1,2,2-Tetrachloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1,2-Trichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1-Dichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1-Dichloroethylene | 2009/06/03 | NC | | % | 25 |
| | | 1,2,4-Trichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,2,4-Trimethylbenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichloropropane | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichlorotetrafluoroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,3,5-Trimethylbenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,3-Butadiene | 2009/06/03 | NC | | % | 25 |
| | | 1,3-Dichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,4-Dichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,4-Dioxane | 2009/06/03 | NC | | % | 25 |
| | | 2,2,4-Trimethylpentane | 2009/06/03 | NC | | % | 25 |
| | | 2-propanol | 2009/06/03 | NC | | % | 25 |
| | | 2-Propanone | 2009/06/03 | NC | | % | 25 |
| | | 4-ethyltoluene | 2009/06/03 | NC | | % | 25 |
| | | Benzene | 2009/06/03 | NC | | % | 25 |
| | | Benzyl chloride | 2009/06/03 | NC | | % | 25 |
| | | Bromodichloromethane | 2009/06/03 | NC | | % | 25 |
| | | Bromoform | 2009/06/03 | NC | | % | 25 |
| | | Bromomethane | 2009/06/03 | NC | | % | 25 |
| | | Carbon Disulfide | 2009/06/03 | NC | | % | 25 |
| | | Carbon Tetrachloride | 2009/06/03 | NC | | % | 25 |
| | | Chlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | Chloroethane | 2009/06/03 | NC | | % | 25 |
| | | Chloroform | 2009/06/03 | NC | | % | 25 |
| | | Chloromethane | 2009/06/03 | NC | | % | 25 |
| | | cis-1,2-Dichloroethylene | 2009/06/03 | NC | | % | 25 |

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report (Continued)

Maxxam Job Number: GA952911

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|-------------|---------|-------------------------------------|-----------------------------|-------|-----------|-------|-----------|
| 1836906 DBJ | RPD | cis-1,3-Dichloropropene | 2009/06/03 | NC | | % | 25 |
| | | Cyclohexane | 2009/06/03 | NC | | % | 25 |
| | | Dibromochloromethane | 2009/06/03 | NC | | % | 25 |
| | | Dichlorodifluoromethane (FREON 12) | 2009/06/03 | NC | | % | 25 |
| | | Ethanol | 2009/06/03 | NC | | % | 25 |
| | | Ethyl Acetate | 2009/06/03 | NC | | % | 25 |
| | | Ethylbenzene | 2009/06/03 | NC | | % | 25 |
| | | Ethylene Dibromide | 2009/06/03 | NC | | % | 25 |
| | | Heptane | 2009/06/03 | NC | | % | 25 |
| | | Hexachlorobutadiene | 2009/06/03 | NC | | % | 25 |
| | | Hexane | 2009/06/03 | NC | | % | 25 |
| | | Methyl Butyl Ketone (2-Hexanone) | 2009/06/03 | NC | | % | 25 |
| | | Methyl Ethyl Ketone (2-Butanone) | 2009/06/03 | NC | | % | 25 |
| | | Methyl Isobutyl Ketone | 2009/06/03 | NC | | % | 25 |
| | | Methyl t-butyl ether (MTBE) | 2009/06/03 | NC | | % | 25 |
| | | Methylene Chloride(Dichloromethane) | 2009/06/03 | NC | | % | 25 |
| | | o-Xylene | 2009/06/03 | NC | | % | 25 |
| | | p+m-Xylene | 2009/06/03 | NC | | % | 25 |
| | | Propene | 2009/06/03 | NC | | % | 25 |
| | | Styrene | 2009/06/03 | NC | | % | 25 |
| | | Tetrachloroethylene | 2009/06/03 | NC | | % | 25 |
| | | Tetrahydrofuran | 2009/06/03 | NC | | % | 25 |
| | | Toluene | 2009/06/03 | NC | | % | 25 |
| | | trans-1,2-Dichloroethylene | 2009/06/03 | NC | | % | 25 |
| | | trans-1,3-Dichloropropene | 2009/06/03 | NC | | % | 25 |
| | | Trichloroethylene | 2009/06/03 | NC | | % | 25 |
| | | Trichlorofluoromethane (FREON 11) | 2009/06/03 | NC | | % | 25 |
| | | Trichlorotrifluoroethane | 2009/06/03 | NC | | % | 25 |
| | | Vinyl Acetate | 2009/06/03 | NC | | % | 25 |
| | | Vinyl Bromide | 2009/06/03 | NC | | % | 25 |
| | | Vinyl Chloride | 2009/06/03 | NC | | % | 25 |
| | | Xylene (Total) | 2009/06/03 | NC | | % | N/A |

ND = Not detected
 N/A = Not Applicable
 NC = Non-calculable
 RPD = Relative Percent Difference
 SPIKE = Fortified sample
 (1) Please refer to General Comments page for specific clarification.



Your Project #: LICA 1
Site: Cold Lake South
Your C.O.C. #: 1231

Attention: Gail Nielsen

Lakeland Industry and Community Association
5107 - 50th Street
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2009/06/08

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A963184

Received: 2009/05/28, 17:23

Sample Matrix: AIR
Samples Received: 4

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Method Reference |
|------------------------------------|----------|-------------------|------------------|-------------------|---------------------|
| Canister Pressure (TO-15) | 4 | N/A | 2009/06/03 | BRL SOP-00304 | EPA TO-15 |
| Volatile Organics in Air (TO-15) ¶ | 4 | N/A | 2009/06/03 | BRL SOP-00304 | EPA TO-15 |

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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. SCC and CALA have approved this reporting process and electronic report format.

Maxxam Analytics Inc. is a NELAC accredited laboratory. Certificate # CANA001. Use of the NELAC logo however does not insure that Maxxam is accredited for all of the methods indicated. This certificate shall not be reproduced except in full, without the written approval of Maxxam Analytics Inc. Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section.

Total cover pages: 1

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

RESULTS OF ANALYSES OF AIR

| | | | | | | |
|---------------|--------------|-------------------------|-------------------------|--------------------------|-----------|-----------------|
| Maxxam ID | | CP7003 | CP7004 | CP7005 | | |
| Sampling Date | | 2009/05/01 | 2009/05/07 | 2009/05/13 | | |
| COC Number | | 1231 | 1231 | 1231 | | |
| | Units | LICA/CLS/MAY1/09 | LICA/CLS/MAY7/09 | LICA/CLS/MAY13/09 | DL | QC Batch |

| | | | | | | |
|--------------------------|------|----|----|----|-----|---------|
| Volatile Organics | | | | | | |
| Pressure on Receipt | psig | 18 | 17 | 18 | N/A | 1836944 |

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

| | | | | |
|---------------|--------------|--------------------------|-----------|-----------------|
| Maxxam ID | | CP7006 | | |
| Sampling Date | | 2009/05/19 | | |
| COC Number | | 1231 | | |
| | Units | LICA/CLS/MAY19/09 | DL | QC Batch |

| | | | | |
|--------------------------|------|----|-----|---------|
| Volatile Organics | | | | |
| Pressure on Receipt | psig | 18 | N/A | 1836944 |

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|---------------|--------------|-------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7003 | | | | |
| Sampling Date | | 2009/05/01 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY1/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |

| Volatile Organics | | | | | | |
|-------------------------------|------|-------|------|--------|-------|---------|
| 1,1,1-Trichloroethane | ppbv | <0.30 | 0.30 | <1.64 | 1.64 | 1836906 |
| 1,1,2,2-Tetrachloroethane | ppbv | <0.20 | 0.20 | <1.37 | 1.37 | 1836906 |
| 1,1,2-Trichloroethane | ppbv | <0.15 | 0.15 | <0.818 | 0.818 | 1836906 |
| 1,1-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,1-Dichloroethylene | ppbv | <0.25 | 0.25 | <0.991 | 0.991 | 1836906 |
| 1,2,4-Trichlorobenzene | ppbv | <2.0 | 2.0 | <14.8 | 14.8 | 1836906 |
| 1,2,4-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,2-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,2-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,2-Dichloropropane | ppbv | <0.40 | 0.40 | <1.85 | 1.85 | 1836906 |
| 1,2-Dichlorotetrafluoroethane | ppbv | <0.17 | 0.17 | <1.19 | 1.19 | 1836906 |
| 1,3,5-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,3-Butadiene | ppbv | <0.50 | 0.50 | <1.11 | 1.11 | 1836906 |
| 1,3-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dioxane | ppbv | <2.0 | 2.0 | <7.21 | 7.21 | 1836906 |
| 2,2,4-Trimethylpentane | ppbv | <0.20 | 0.20 | <0.934 | 0.934 | 1836906 |
| 2-propanol | ppbv | <3.0 | 3.0 | <7.37 | 7.37 | 1836906 |
| 2-Propanone | ppbv | 14.1 | 0.80 | 33.6 | 1.90 | 1836906 |
| 4-ethyltoluene | ppbv | <2.2 | 2.2 | <10.8 | 10.8 | 1836906 |
| Benzene | ppbv | <0.18 | 0.18 | <0.575 | 0.575 | 1836906 |
| Benzyl chloride | ppbv | <1.0 | 1.0 | <5.18 | 5.18 | 1836906 |
| Bromodichloromethane | ppbv | <0.20 | 0.20 | <1.34 | 1.34 | 1836906 |
| Bromoform | ppbv | <0.20 | 0.20 | <2.07 | 2.07 | 1836906 |
| Bromomethane | ppbv | <0.18 | 0.18 | <0.699 | 0.699 | 1836906 |
| Carbon Disulfide | ppbv | 0.55 | 0.50 | 1.71 | 1.56 | 1836906 |
| Carbon Tetrachloride | ppbv | <0.30 | 0.30 | <1.89 | 1.89 | 1836906 |
| Chlorobenzene | ppbv | <0.20 | 0.20 | <0.921 | 0.921 | 1836906 |
| Chloroethane | ppbv | <0.30 | 0.30 | <0.792 | 0.792 | 1836906 |
| Chloroform | ppbv | <0.15 | 0.15 | <0.732 | 0.732 | 1836906 |
| Chloromethane | ppbv | <0.30 | 0.30 | <0.620 | 0.620 | 1836906 |
| cis-1,2-Dichloroethylene | ppbv | <0.19 | 0.19 | <0.753 | 0.753 | 1836906 |

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| Maxxam ID | | CP7003 | | | | |
|--|-------|------------------|------|--------|------------|----------|
| Sampling Date | | 2009/05/01 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY1/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| cis-1,3-Dichloropropene | ppbv | <0.18 | 0.18 | <0.817 | 0.817 | 1836906 |
| Cyclohexane | ppbv | <0.20 | 0.20 | <0.688 | 0.688 | 1836906 |
| Dibromochloromethane | ppbv | <0.20 | 0.20 | <1.70 | 1.70 | 1836906 |
| Dichlorodifluoromethane (FREON 12) | ppbv | 0.51 | 0.20 | 2.54 | 0.989 | 1836906 |
| Ethanol | ppbv | <2.3 | 2.3 | <4.33 | 4.33 | 1836906 |
| Ethyl Acetate | ppbv | <2.2 | 2.2 | <7.93 | 7.93 | 1836906 |
| Ethylbenzene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| Ethylene Dibromide | ppbv | <0.17 | 0.17 | <1.31 | 1.31 | 1836906 |
| Heptane | ppbv | <0.30 | 0.30 | <1.23 | 1.23 | 1836906 |
| Hexachlorobutadiene | ppbv | <3.0 | 3.0 | <32.0 | 32.0 | 1836906 |
| Hexane | ppbv | <0.30 | 0.30 | <1.06 | 1.06 | 1836906 |
| Methyl Butyl Ketone (2-Hexanone) | ppbv | <2.0 | 2.0 | <8.19 | 8.19 | 1836906 |
| Methyl Ethyl Ketone (2-Butanone) | ppbv | <3.0 | 3.0 | <8.85 | 8.85 | 1836906 |
| Methyl Isobutyl Ketone | ppbv | <3.2 | 3.2 | <13.1 | 13.1 | 1836906 |
| Methyl t-butyl ether (MTBE) | ppbv | <0.20 | 0.20 | <0.721 | 0.721 | 1836906 |
| Methylene Chloride(Dichloromethane) | ppbv | 0.46 | 0.30 | 1.58 | 1.04 | 1836906 |
| o-Xylene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| p+m-Xylene | ppbv | <0.37 | 0.37 | <1.61 | 1.61 | 1836906 |
| Propene | ppbv | <0.30 | 0.30 | <0.516 | 0.516 | 1836906 |
| Styrene | ppbv | <0.20 | 0.20 | <0.852 | 0.852 | 1836906 |
| Tetrachloroethylene | ppbv | <0.20 | 0.20 | <1.36 | 1.36 | 1836906 |
| Tetrahydrofuran | ppbv | <0.40 | 0.40 | <1.18 | 1.18 | 1836906 |
| Toluene | ppbv | 0.69 | 0.20 | 2.58 | 0.753 | 1836906 |
| trans-1,2-Dichloroethylene | ppbv | <0.20 | 0.20 | <0.793 | 0.793 | 1836906 |
| trans-1,3-Dichloropropene | ppbv | <0.17 | 0.17 | <0.772 | 0.772 | 1836906 |
| Trichloroethylene | ppbv | <0.30 | 0.30 | <1.61 | 1.61 | 1836906 |
| Trichlorofluoromethane (FREON 11) | ppbv | 0.29 | 0.20 | 1.61 | 1.12 | 1836906 |
| Trichlorotrifluoroethane | ppbv | <0.15 | 0.15 | <1.15 | 1.15 | 1836906 |
| Vinyl Acetate | ppbv | <0.20 | 0.20 | <0.704 | 0.704 | 1836906 |
| Vinyl Bromide | ppbv | <0.20 | 0.20 | <0.875 | 0.875 | 1836906 |
| Vinyl Chloride | ppbv | <0.18 | 0.18 | <0.460 | 0.460 | 1836906 |
| Xylene (Total) | ppbv | <0.60 | 0.60 | <2.61 | 2.61 | 1836906 |
| Surrogate Recovery (%) | | | | | | |
| Bromochloromethane | % | 90 | | N/A | N/A | 1836906 |
| N/A = Not Applicable QC Batch = Quality Control Batch | | | | | | |

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|---------------|--------------|-------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7003 | | | | |
| Sampling Date | | 2009/05/01 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY1/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |

| | | | | | | |
|------------------|---|----|--|-----|-----|---------|
| D5-Chlorobenzene | % | 93 | | N/A | N/A | 1836906 |
| Difluorobenzene | % | 94 | | N/A | N/A | 1836906 |

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|---------------|--------------|-------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7004 | | | | |
| Sampling Date | | 2009/05/07 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY7/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |

| Volatile Organics | | | | | | |
|-------------------------------|------|-------|------|--------|-------|---------|
| 1,1,1-Trichloroethane | ppbv | <0.30 | 0.30 | <1.64 | 1.64 | 1836906 |
| 1,1,2,2-Tetrachloroethane | ppbv | <0.20 | 0.20 | <1.37 | 1.37 | 1836906 |
| 1,1,2-Trichloroethane | ppbv | <0.15 | 0.15 | <0.818 | 0.818 | 1836906 |
| 1,1-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,1-Dichloroethylene | ppbv | <0.25 | 0.25 | <0.991 | 0.991 | 1836906 |
| 1,2,4-Trichlorobenzene | ppbv | <2.0 | 2.0 | <14.8 | 14.8 | 1836906 |
| 1,2,4-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,2-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,2-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,2-Dichloropropane | ppbv | <0.40 | 0.40 | <1.85 | 1.85 | 1836906 |
| 1,2-Dichlorotetrafluoroethane | ppbv | <0.17 | 0.17 | <1.19 | 1.19 | 1836906 |
| 1,3,5-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,3-Butadiene | ppbv | <0.50 | 0.50 | <1.11 | 1.11 | 1836906 |
| 1,3-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dioxane | ppbv | <2.0 | 2.0 | <7.21 | 7.21 | 1836906 |
| 2,2,4-Trimethylpentane | ppbv | <0.20 | 0.20 | <0.934 | 0.934 | 1836906 |
| 2-propanol | ppbv | <3.0 | 3.0 | <7.37 | 7.37 | 1836906 |
| 2-Propanone | ppbv | 3.11 | 0.80 | 7.38 | 1.90 | 1836906 |
| 4-ethyltoluene | ppbv | <2.2 | 2.2 | <10.8 | 10.8 | 1836906 |
| Benzene | ppbv | <0.18 | 0.18 | <0.575 | 0.575 | 1836906 |
| Benzyl chloride | ppbv | <1.0 | 1.0 | <5.18 | 5.18 | 1836906 |
| Bromodichloromethane | ppbv | <0.20 | 0.20 | <1.34 | 1.34 | 1836906 |
| Bromoform | ppbv | <0.20 | 0.20 | <2.07 | 2.07 | 1836906 |
| Bromomethane | ppbv | <0.18 | 0.18 | <0.699 | 0.699 | 1836906 |
| Carbon Disulfide | ppbv | <0.50 | 0.50 | <1.56 | 1.56 | 1836906 |
| Carbon Tetrachloride | ppbv | <0.30 | 0.30 | <1.89 | 1.89 | 1836906 |
| Chlorobenzene | ppbv | <0.20 | 0.20 | <0.921 | 0.921 | 1836906 |
| Chloroethane | ppbv | <0.30 | 0.30 | <0.792 | 0.792 | 1836906 |
| Chloroform | ppbv | <0.15 | 0.15 | <0.732 | 0.732 | 1836906 |
| Chloromethane | ppbv | 0.44 | 0.30 | 0.900 | 0.620 | 1836906 |
| cis-1,2-Dichloroethylene | ppbv | <0.19 | 0.19 | <0.753 | 0.753 | 1836906 |

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: A963184
 Report Date: 2009/06/08

 Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| Maxxam ID | | CP7004 | | | | |
|--|-------|------------------|------|--------|------------|----------|
| Sampling Date | | 2009/05/07 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY7/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| cis-1,3-Dichloropropene | ppbv | <0.18 | 0.18 | <0.817 | 0.817 | 1836906 |
| Cyclohexane | ppbv | <0.20 | 0.20 | <0.688 | 0.688 | 1836906 |
| Dibromochloromethane | ppbv | <0.20 | 0.20 | <1.70 | 1.70 | 1836906 |
| Dichlorodifluoromethane (FREON 12) | ppbv | 0.50 | 0.20 | 2.48 | 0.989 | 1836906 |
| Ethanol | ppbv | <2.3 | 2.3 | <4.33 | 4.33 | 1836906 |
| Ethyl Acetate | ppbv | <2.2 | 2.2 | <7.93 | 7.93 | 1836906 |
| Ethylbenzene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| Ethylene Dibromide | ppbv | <0.17 | 0.17 | <1.31 | 1.31 | 1836906 |
| Heptane | ppbv | <0.30 | 0.30 | <1.23 | 1.23 | 1836906 |
| Hexachlorobutadiene | ppbv | <3.0 | 3.0 | <32.0 | 32.0 | 1836906 |
| Hexane | ppbv | <0.30 | 0.30 | <1.06 | 1.06 | 1836906 |
| Methyl Butyl Ketone (2-Hexanone) | ppbv | <2.0 | 2.0 | <8.19 | 8.19 | 1836906 |
| Methyl Ethyl Ketone (2-Butanone) | ppbv | <3.0 | 3.0 | <8.85 | 8.85 | 1836906 |
| Methyl Isobutyl Ketone | ppbv | <3.2 | 3.2 | <13.1 | 13.1 | 1836906 |
| Methyl t-butyl ether (MTBE) | ppbv | <0.20 | 0.20 | <0.721 | 0.721 | 1836906 |
| Methylene Chloride(Dichloromethane) | ppbv | 0.42 | 0.30 | 1.47 | 1.04 | 1836906 |
| o-Xylene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| p+m-Xylene | ppbv | <0.37 | 0.37 | <1.61 | 1.61 | 1836906 |
| Propene | ppbv | <0.30 | 0.30 | <0.516 | 0.516 | 1836906 |
| Styrene | ppbv | <0.20 | 0.20 | <0.852 | 0.852 | 1836906 |
| Tetrachloroethylene | ppbv | <0.20 | 0.20 | <1.36 | 1.36 | 1836906 |
| Tetrahydrofuran | ppbv | <0.40 | 0.40 | <1.18 | 1.18 | 1836906 |
| Toluene | ppbv | 0.47 | 0.20 | 1.78 | 0.753 | 1836906 |
| trans-1,2-Dichloroethylene | ppbv | <0.20 | 0.20 | <0.793 | 0.793 | 1836906 |
| trans-1,3-Dichloropropene | ppbv | <0.17 | 0.17 | <0.772 | 0.772 | 1836906 |
| Trichloroethylene | ppbv | <0.30 | 0.30 | <1.61 | 1.61 | 1836906 |
| Trichlorofluoromethane (FREON 11) | ppbv | 0.27 | 0.20 | 1.50 | 1.12 | 1836906 |
| Trichlorotrifluoroethane | ppbv | <0.15 | 0.15 | <1.15 | 1.15 | 1836906 |
| Vinyl Acetate | ppbv | <0.20 | 0.20 | <0.704 | 0.704 | 1836906 |
| Vinyl Bromide | ppbv | <0.20 | 0.20 | <0.875 | 0.875 | 1836906 |
| Vinyl Chloride | ppbv | <0.18 | 0.18 | <0.460 | 0.460 | 1836906 |
| Xylene (Total) | ppbv | <0.60 | 0.60 | <2.61 | 2.61 | 1836906 |
| Surrogate Recovery (%) | | | | | | |
| Bromochloromethane | % | 91 | | N/A | N/A | 1836906 |
| N/A = Not Applicable QC Batch = Quality Control Batch | | | | | | |

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|---------------|--------------|-------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7004 | | | | |
| Sampling Date | | 2009/05/07 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY7/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |

| | | | | | | |
|------------------|---|----|--|-----|-----|---------|
| D5-Chlorobenzene | % | 94 | | N/A | N/A | 1836906 |
| Difluorobenzene | % | 94 | | N/A | N/A | 1836906 |

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|--|--------------|--------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7005 | | | | |
| Sampling Date | | 2009/05/13 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY13/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| Volatile Organics | | | | | | |
| 1,1,1-Trichloroethane | ppbv | <0.30 | 0.30 | <1.64 | 1.64 | 1836906 |
| 1,1,2,2-Tetrachloroethane | ppbv | <0.20 | 0.20 | <1.37 | 1.37 | 1836906 |
| 1,1,2-Trichloroethane | ppbv | <0.15 | 0.15 | <0.818 | 0.818 | 1836906 |
| 1,1-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,1-Dichloroethylene | ppbv | <0.25 | 0.25 | <0.991 | 0.991 | 1836906 |
| 1,2,4-Trichlorobenzene | ppbv | <2.0 | 2.0 | <14.8 | 14.8 | 1836906 |
| 1,2,4-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,2-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,2-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,2-Dichloropropane | ppbv | <0.40 | 0.40 | <1.85 | 1.85 | 1836906 |
| 1,2-Dichlorotetrafluoroethane | ppbv | <0.17 | 0.17 | <1.19 | 1.19 | 1836906 |
| 1,3,5-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,3-Butadiene | ppbv | <0.50 | 0.50 | <1.11 | 1.11 | 1836906 |
| 1,3-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dioxane | ppbv | <2.0 | 2.0 | <7.21 | 7.21 | 1836906 |
| 2,2,4-Trimethylpentane | ppbv | <0.20 | 0.20 | <0.934 | 0.934 | 1836906 |
| 2-propanol | ppbv | <3.0 | 3.0 | <7.37 | 7.37 | 1836906 |
| 2-Propanone | ppbv | 4.76 | 0.80 | 11.3 | 1.90 | 1836906 |
| 4-ethyltoluene | ppbv | <2.2 | 2.2 | <10.8 | 10.8 | 1836906 |
| Benzene | ppbv | <0.18 | 0.18 | <0.575 | 0.575 | 1836906 |
| Benzyl chloride | ppbv | <1.0 | 1.0 | <5.18 | 5.18 | 1836906 |
| Bromodichloromethane | ppbv | <0.20 | 0.20 | <1.34 | 1.34 | 1836906 |
| Bromoform | ppbv | <0.20 | 0.20 | <2.07 | 2.07 | 1836906 |
| Bromomethane | ppbv | <0.18 | 0.18 | <0.699 | 0.699 | 1836906 |
| Carbon Disulfide | ppbv | <0.50 | 0.50 | <1.56 | 1.56 | 1836906 |
| Carbon Tetrachloride | ppbv | <0.30 | 0.30 | <1.89 | 1.89 | 1836906 |
| Chlorobenzene | ppbv | <0.20 | 0.20 | <0.921 | 0.921 | 1836906 |
| Chloroethane | ppbv | <0.30 | 0.30 | <0.792 | 0.792 | 1836906 |
| Chloroform | ppbv | <0.15 | 0.15 | <0.732 | 0.732 | 1836906 |
| Chloromethane | ppbv | 0.33 | 0.30 | 0.691 | 0.620 | 1836906 |
| cis-1,2-Dichloroethylene | ppbv | <0.19 | 0.19 | <0.753 | 0.753 | 1836906 |
| RDL = Reportable Detection Limit QC Batch = Quality Control Batch | | | | | | |

Maxxam Job #: A963184
 Report Date: 2009/06/08

 Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|-------------------------------------|--------------|--------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7005 | | | | |
| Sampling Date | | 2009/05/13 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY13/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| cis-1,3-Dichloropropene | ppbv | <0.18 | 0.18 | <0.817 | 0.817 | 1836906 |
| Cyclohexane | ppbv | <0.20 | 0.20 | <0.688 | 0.688 | 1836906 |
| Dibromochloromethane | ppbv | <0.20 | 0.20 | <1.70 | 1.70 | 1836906 |
| Dichlorodifluoromethane (FREON 12) | ppbv | 0.54 | 0.20 | 2.67 | 0.989 | 1836906 |
| Ethanol | ppbv | <2.3 | 2.3 | <4.33 | 4.33 | 1836906 |
| Ethyl Acetate | ppbv | <2.2 | 2.2 | <7.93 | 7.93 | 1836906 |
| Ethylbenzene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| Ethylene Dibromide | ppbv | <0.17 | 0.17 | <1.31 | 1.31 | 1836906 |
| Heptane | ppbv | <0.30 | 0.30 | <1.23 | 1.23 | 1836906 |
| Hexachlorobutadiene | ppbv | <3.0 | 3.0 | <32.0 | 32.0 | 1836906 |
| Hexane | ppbv | <0.30 | 0.30 | <1.06 | 1.06 | 1836906 |
| Methyl Butyl Ketone (2-Hexanone) | ppbv | <2.0 | 2.0 | <8.19 | 8.19 | 1836906 |
| Methyl Ethyl Ketone (2-Butanone) | ppbv | <3.0 | 3.0 | <8.85 | 8.85 | 1836906 |
| Methyl Isobutyl Ketone | ppbv | <3.2 | 3.2 | <13.1 | 13.1 | 1836906 |
| Methyl t-butyl ether (MTBE) | ppbv | <0.20 | 0.20 | <0.721 | 0.721 | 1836906 |
| Methylene Chloride(Dichloromethane) | ppbv | 0.45 | 0.30 | 1.56 | 1.04 | 1836906 |
| o-Xylene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| p+m-Xylene | ppbv | <0.37 | 0.37 | <1.61 | 1.61 | 1836906 |
| Propene | ppbv | <0.30 | 0.30 | <0.516 | 0.516 | 1836906 |
| Styrene | ppbv | <0.20 | 0.20 | <0.852 | 0.852 | 1836906 |
| Tetrachloroethylene | ppbv | <0.20 | 0.20 | <1.36 | 1.36 | 1836906 |
| Tetrahydrofuran | ppbv | <0.40 | 0.40 | <1.18 | 1.18 | 1836906 |
| Toluene | ppbv | 0.46 | 0.20 | 1.72 | 0.753 | 1836906 |
| trans-1,2-Dichloroethylene | ppbv | <0.20 | 0.20 | <0.793 | 0.793 | 1836906 |
| trans-1,3-Dichloropropene | ppbv | <0.17 | 0.17 | <0.772 | 0.772 | 1836906 |
| Trichloroethylene | ppbv | <0.30 | 0.30 | <1.61 | 1.61 | 1836906 |
| Trichlorofluoromethane (FREON 11) | ppbv | 0.26 | 0.20 | 1.47 | 1.12 | 1836906 |
| Trichlorotrifluoroethane | ppbv | <0.15 | 0.15 | <1.15 | 1.15 | 1836906 |
| Vinyl Acetate | ppbv | <0.20 | 0.20 | <0.704 | 0.704 | 1836906 |
| Vinyl Bromide | ppbv | <0.20 | 0.20 | <0.875 | 0.875 | 1836906 |
| Vinyl Chloride | ppbv | <0.18 | 0.18 | <0.460 | 0.460 | 1836906 |
| Xylene (Total) | ppbv | <0.60 | 0.60 | <2.61 | 2.61 | 1836906 |
| Surrogate Recovery (%) | | | | | | |
| Bromochloromethane | % | 85 | | N/A | N/A | 1836906 |

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|--|--------------|--------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7005 | | | | |
| Sampling Date | | 2009/05/13 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY13/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| D5-Chlorobenzene | % | 89 | | N/A | N/A | 1836906 |
| Difluorobenzene | % | 89 | | N/A | N/A | 1836906 |
| N/A = Not Applicable QC Batch = Quality Control Batch | | | | | | |

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|--|--------------|--------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7006 | | | | |
| Sampling Date | | 2009/05/19 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY19/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| Volatile Organics | | | | | | |
| 1,1,1-Trichloroethane | ppbv | <0.30 | 0.30 | <1.64 | 1.64 | 1836906 |
| 1,1,2,2-Tetrachloroethane | ppbv | <0.20 | 0.20 | <1.37 | 1.37 | 1836906 |
| 1,1,2-Trichloroethane | ppbv | <0.15 | 0.15 | <0.818 | 0.818 | 1836906 |
| 1,1-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,1-Dichloroethylene | ppbv | <0.25 | 0.25 | <0.991 | 0.991 | 1836906 |
| 1,2,4-Trichlorobenzene | ppbv | <2.0 | 2.0 | <14.8 | 14.8 | 1836906 |
| 1,2,4-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,2-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,2-Dichloroethane | ppbv | <0.20 | 0.20 | <0.809 | 0.809 | 1836906 |
| 1,2-Dichloropropane | ppbv | <0.40 | 0.40 | <1.85 | 1.85 | 1836906 |
| 1,2-Dichlorotetrafluoroethane | ppbv | <0.17 | 0.17 | <1.19 | 1.19 | 1836906 |
| 1,3,5-Trimethylbenzene | ppbv | <0.50 | 0.50 | <2.46 | 2.46 | 1836906 |
| 1,3-Butadiene | ppbv | <0.50 | 0.50 | <1.11 | 1.11 | 1836906 |
| 1,3-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dichlorobenzene | ppbv | <0.40 | 0.40 | <2.40 | 2.40 | 1836906 |
| 1,4-Dioxane | ppbv | <2.0 | 2.0 | <7.21 | 7.21 | 1836906 |
| 2,2,4-Trimethylpentane | ppbv | <0.20 | 0.20 | <0.934 | 0.934 | 1836906 |
| 2-propanol | ppbv | <3.0 | 3.0 | <7.37 | 7.37 | 1836906 |
| 2-Propanone | ppbv | 7.42 | 0.80 | 17.6 | 1.90 | 1836906 |
| 4-ethyltoluene | ppbv | <2.2 | 2.2 | <10.8 | 10.8 | 1836906 |
| Benzene | ppbv | <0.18 | 0.18 | <0.575 | 0.575 | 1836906 |
| Benzyl chloride | ppbv | <1.0 | 1.0 | <5.18 | 5.18 | 1836906 |
| Bromodichloromethane | ppbv | <0.20 | 0.20 | <1.34 | 1.34 | 1836906 |
| Bromoform | ppbv | <0.20 | 0.20 | <2.07 | 2.07 | 1836906 |
| Bromomethane | ppbv | <0.18 | 0.18 | <0.699 | 0.699 | 1836906 |
| Carbon Disulfide | ppbv | <0.50 | 0.50 | <1.56 | 1.56 | 1836906 |
| Carbon Tetrachloride | ppbv | <0.30 | 0.30 | <1.89 | 1.89 | 1836906 |
| Chlorobenzene | ppbv | <0.20 | 0.20 | <0.921 | 0.921 | 1836906 |
| Chloroethane | ppbv | <0.30 | 0.30 | <0.792 | 0.792 | 1836906 |
| Chloroform | ppbv | <0.15 | 0.15 | <0.732 | 0.732 | 1836906 |
| Chloromethane | ppbv | 0.35 | 0.30 | 0.725 | 0.620 | 1836906 |
| cis-1,2-Dichloroethylene | ppbv | <0.19 | 0.19 | <0.753 | 0.753 | 1836906 |
| RDL = Reportable Detection Limit QC Batch = Quality Control Batch | | | | | | |

Maxxam Job #: A963184
 Report Date: 2009/06/08

 Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|-------------------------------------|--------------|--------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7006 | | | | |
| Sampling Date | | 2009/05/19 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY19/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| cis-1,3-Dichloropropene | ppbv | <0.18 | 0.18 | <0.817 | 0.817 | 1836906 |
| Cyclohexane | ppbv | <0.20 | 0.20 | <0.688 | 0.688 | 1836906 |
| Dibromochloromethane | ppbv | <0.20 | 0.20 | <1.70 | 1.70 | 1836906 |
| Dichlorodifluoromethane (FREON 12) | ppbv | 0.51 | 0.20 | 2.51 | 0.989 | 1836906 |
| Ethanol | ppbv | 4.0 | 2.3 | 7.59 | 4.33 | 1836906 |
| Ethyl Acetate | ppbv | <2.2 | 2.2 | <7.93 | 7.93 | 1836906 |
| Ethylbenzene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| Ethylene Dibromide | ppbv | <0.17 | 0.17 | <1.31 | 1.31 | 1836906 |
| Heptane | ppbv | <0.30 | 0.30 | <1.23 | 1.23 | 1836906 |
| Hexachlorobutadiene | ppbv | <3.0 | 3.0 | <32.0 | 32.0 | 1836906 |
| Hexane | ppbv | <0.30 | 0.30 | <1.06 | 1.06 | 1836906 |
| Methyl Butyl Ketone (2-Hexanone) | ppbv | <2.0 | 2.0 | <8.19 | 8.19 | 1836906 |
| Methyl Ethyl Ketone (2-Butanone) | ppbv | <3.0 | 3.0 | <8.85 | 8.85 | 1836906 |
| Methyl Isobutyl Ketone | ppbv | <3.2 | 3.2 | <13.1 | 13.1 | 1836906 |
| Methyl t-butyl ether (MTBE) | ppbv | <0.20 | 0.20 | <0.721 | 0.721 | 1836906 |
| Methylene Chloride(Dichloromethane) | ppbv | 0.44 | 0.30 | 1.54 | 1.04 | 1836906 |
| o-Xylene | ppbv | <0.20 | 0.20 | <0.868 | 0.868 | 1836906 |
| p+m-Xylene | ppbv | <0.37 | 0.37 | <1.61 | 1.61 | 1836906 |
| Propene | ppbv | <0.30 | 0.30 | <0.516 | 0.516 | 1836906 |
| Styrene | ppbv | <0.20 | 0.20 | <0.852 | 0.852 | 1836906 |
| Tetrachloroethylene | ppbv | 3.46 | 0.20 | 23.5 | 1.36 | 1836906 |
| Tetrahydrofuran | ppbv | <0.40 | 0.40 | <1.18 | 1.18 | 1836906 |
| Toluene | ppbv | 1.04 | 0.20 | 3.92 | 0.753 | 1836906 |
| trans-1,2-Dichloroethylene | ppbv | <0.20 | 0.20 | <0.793 | 0.793 | 1836906 |
| trans-1,3-Dichloropropene | ppbv | <0.17 | 0.17 | <0.772 | 0.772 | 1836906 |
| Trichloroethylene | ppbv | <0.30 | 0.30 | <1.61 | 1.61 | 1836906 |
| Trichlorofluoromethane (FREON 11) | ppbv | 0.28 | 0.20 | 1.55 | 1.12 | 1836906 |
| Trichlorotrifluoroethane | ppbv | <0.15 | 0.15 | <1.15 | 1.15 | 1836906 |
| Vinyl Acetate | ppbv | <0.20 | 0.20 | <0.704 | 0.704 | 1836906 |
| Vinyl Bromide | ppbv | <0.20 | 0.20 | <0.875 | 0.875 | 1836906 |
| Vinyl Chloride | ppbv | <0.18 | 0.18 | <0.460 | 0.460 | 1836906 |
| Xylene (Total) | ppbv | <0.60 | 0.60 | <2.61 | 2.61 | 1836906 |
| Surrogate Recovery (%) | | | | | | |
| Bromochloromethane | % | 93 | | N/A | N/A | 1836906 |

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

VOLATILE ORGANICS BY GC/MS (AIR)

| | | | | | | |
|--|--------------|--------------------------|-----------|--------------|-------------------|-----------------|
| Maxxam ID | | CP7006 | | | | |
| Sampling Date | | 2009/05/19 | | | | |
| COC Number | | 1231 | | | | |
| | Units | LICA/CLS/MAY19/09 | DL | ug/m3 | DL (ug/m3) | QC Batch |
| D5-Chlorobenzene | % | 98 | | N/A | N/A | 1836906 |
| Difluorobenzene | % | 98 | | N/A | N/A | 1836906 |
| N/A = Not Applicable QC Batch = Quality Control Batch | | | | | | |

Maxxam Job #: A963184
 Report Date: 2009/06/08

Lakeland Industry and Community Association
 Client Project #: LICA 1
 Project name: Cold Lake South

Test Summary

Maxxam ID CP7003
Sample ID LICA/CLS/MAY1/09
Matrix AIR
Collected 2009/05/01
Shipped
Received 2009/05/28

| Test Description | Instrumentation | Batch | Extracted | Analyzed | Analyst |
|----------------------------------|-----------------|---------|-----------|------------|---------|
| Canister Pressure (TO-15) | PRES | 1836944 | N/A | 2009/06/03 | DBJ |
| Volatile Organics in Air (TO-15) | GC/MS | 1836906 | N/A | 2009/06/03 | DBJ |

Maxxam ID CP7004
Sample ID LICA/CLS/MAY7/09
Matrix AIR
Collected 2009/05/07
Shipped
Received 2009/05/28

| Test Description | Instrumentation | Batch | Extracted | Analyzed | Analyst |
|----------------------------------|-----------------|---------|-----------|------------|---------|
| Canister Pressure (TO-15) | PRES | 1836944 | N/A | 2009/06/03 | DBJ |
| Volatile Organics in Air (TO-15) | GC/MS | 1836906 | N/A | 2009/06/03 | DBJ |

Maxxam ID CP7005
Sample ID LICA/CLS/MAY13/09
Matrix AIR
Collected 2009/05/13
Shipped
Received 2009/05/28

| Test Description | Instrumentation | Batch | Extracted | Analyzed | Analyst |
|----------------------------------|-----------------|---------|-----------|------------|---------|
| Canister Pressure (TO-15) | PRES | 1836944 | N/A | 2009/06/03 | DBJ |
| Volatile Organics in Air (TO-15) | GC/MS | 1836906 | N/A | 2009/06/03 | DBJ |

Maxxam ID CP7006
Sample ID LICA/CLS/MAY19/09
Matrix AIR
Collected 2009/05/19
Shipped
Received 2009/05/28

| Test Description | Instrumentation | Batch | Extracted | Analyzed | Analyst |
|----------------------------------|-----------------|---------|-----------|------------|---------|
| Canister Pressure (TO-15) | PRES | 1836944 | N/A | 2009/06/03 | DBJ |
| Volatile Organics in Air (TO-15) | GC/MS | 1836906 | N/A | 2009/06/03 | DBJ |

Maxxam Job #: A963184
Report Date: 2009/06/08

Lakeland Industry and Community Association
Client Project #: LICA 1
Project name: Cold Lake South

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report

Maxxam Job Number: GA963184

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|-------------|--------------|-------------------------------------|-----------------------------|----------------|-----------|-------|-----------|
| 1836906 DBJ | Spiked Blank | Bromochloromethane | 2009/06/03 | | 102 | % | 60 - 140 |
| | | D5-Chlorobenzene | 2009/06/03 | | 106 | % | 60 - 140 |
| | | Difluorobenzene | 2009/06/03 | | 105 | % | 60 - 140 |
| | | 1,1,1-Trichloroethane | 2009/06/03 | 57.7, RDL=0.30 | 112 | ppbv | 70 - 130 |
| | | 1,1,2,2-Tetrachloroethane | 2009/06/03 | 47.6, RDL=0.20 | 89 | ppbv | 70 - 130 |
| | | 1,1,2-Trichloroethane | 2009/06/03 | 50.4, RDL=0.15 | 96 | ppbv | 70 - 130 |
| | | 1,1-Dichloroethane | 2009/06/03 | 42.4, RDL=0.20 | 84 | ppbv | 70 - 130 |
| | | 1,1-Dichloroethylene | 2009/06/03 | 52.0, RDL=0.25 | 104 | ppbv | 70 - 130 |
| | | 1,2,4-Trichlorobenzene | 2009/06/03 | 57.2, RDL=2.0 | 105 | ppbv | 70 - 130 |
| | | 1,2,4-Trimethylbenzene | 2009/06/03 | 57.2, RDL=0.50 | 105 | ppbv | 70 - 130 |
| | | 1,2-Dichlorobenzene | 2009/06/03 | 57.8, RDL=0.40 | 109 | ppbv | 70 - 130 |
| | | 1,2-Dichloroethane | 2009/06/03 | 53.6, RDL=0.20 | 102 | ppbv | 70 - 130 |
| | | 1,2-Dichloropropane | 2009/06/03 | 41.9, RDL=0.40 | 79 | ppbv | 70 - 130 |
| | | 1,2-Dichlorotetrafluoroethane | 2009/06/03 | 49.9, RDL=0.17 | 104 | ppbv | 70 - 130 |
| | | 1,3,5-Trimethylbenzene | 2009/06/03 | 56.7, RDL=0.50 | 104 | ppbv | 70 - 130 |
| | | 1,3-Butadiene | 2009/06/03 | 88.5, RDL=0.50 | 93 | ppbv | 70 - 130 |
| | | 1,3-Dichlorobenzene | 2009/06/03 | 59.4, RDL=0.40 | 108 | ppbv | 70 - 130 |
| | | 1,4-Dichlorobenzene | 2009/06/03 | 59.4, RDL=0.40 | 110 | ppbv | 70 - 130 |
| | | 1,4-Dioxane | 2009/06/03 | 80.0, RDL=2.0 | 85 | ppbv | 70 - 130 |
| | | 2,2,4-Trimethylpentane | 2009/06/03 | 32.0, RDL=0.20 | 74 | ppbv | 70 - 130 |
| | | 2-propanol | 2009/06/03 | 81.6, RDL=3.0 | 87 | ppbv | 70 - 130 |
| | | 2-Propanone | 2009/06/03 | 106, RDL=0.80 | 110 | ppbv | 70 - 130 |
| | | 4-ethyltoluene | 2009/06/03 | 100, RDL=2.2 | 101 | ppbv | 70 - 130 |
| | | Benzene | 2009/06/03 | 43.6, RDL=0.18 | 83 | ppbv | 70 - 130 |
| | | Benzyl chloride | 2009/06/03 | 95.4, RDL=1.0 | 99 | ppbv | 70 - 130 |
| | | Bromodichloromethane | 2009/06/03 | 103, RDL=0.20 | 109 | ppbv | 70 - 130 |
| | | Bromoform | 2009/06/03 | 105, RDL=0.20 | 108 | ppbv | 70 - 130 |
| | | Bromomethane | 2009/06/03 | 53.4, RDL=0.18 | 109 | ppbv | 70 - 130 |
| | | Carbon Disulfide | 2009/06/03 | 92.8, RDL=0.50 | 98 | ppbv | 70 - 130 |
| | | Carbon Tetrachloride | 2009/06/03 | 61.2, RDL=0.30 | 120 | ppbv | 70 - 130 |
| | | Chlorobenzene | 2009/06/03 | 52.4, RDL=0.20 | 97 | ppbv | 70 - 130 |
| | | Chloroethane | 2009/06/03 | 46.6, RDL=0.30 | 96 | ppbv | 70 - 130 |
| | | Chloroform | 2009/06/03 | 43.2, RDL=0.15 | 95 | ppbv | 70 - 130 |
| | | Chloromethane | 2009/06/03 | 45.6, RDL=0.30 | 94 | ppbv | 70 - 130 |
| | | cis-1,2-Dichloroethylene | 2009/06/03 | 46.5, RDL=0.19 | 87 | ppbv | 70 - 130 |
| | | cis-1,3-Dichloropropene | 2009/06/03 | 47.4, RDL=0.18 | 92 | ppbv | 70 - 130 |
| | | Cyclohexane | 2009/06/03 | 79.8, RDL=0.20 | 83 | ppbv | 70 - 130 |
| | | Dibromochloromethane | 2009/06/03 | 106, RDL=0.20 | 111 | ppbv | 70 - 130 |
| | | Dichlorodifluoromethane (FREON 12) | 2009/06/03 | 49.0, RDL=0.20 | 102 | ppbv | 70 - 130 |
| | | Ethanol | 2009/06/03 | 39.6, RDL=2.3 | 74 | ppbv | 70 - 130 |
| | | Ethyl Acetate | 2009/06/03 | 68.5, RDL=2.2 | 78 | ppbv | 70 - 130 |
| | | Ethylbenzene | 2009/06/03 | 52.4, RDL=0.20 | 97 | ppbv | 70 - 130 |
| | | Ethylene Dibromide | 2009/06/03 | 53.5, RDL=0.17 | 100 | ppbv | 70 - 130 |
| | | Heptane | 2009/06/03 | 73.7, RDL=0.30 | 77 | ppbv | 70 - 130 |
| | | Hexachlorobutadiene | 2009/06/03 | 55.6, RDL=3.0 | 102 | ppbv | 70 - 130 |
| | | Hexane | 2009/06/03 | 73.9, RDL=0.30 | 76 | ppbv | 70 - 130 |
| | | Methyl Butyl Ketone (2-Hexanone) | 2009/06/03 | 74.6, RDL=2.0 | 76 | ppbv | 70 - 130 |
| | | Methyl Ethyl Ketone (2-Butanone) | 2009/06/03 | 76.8, RDL=3.0 | 79 | ppbv | 70 - 130 |
| | | Methyl Isobutyl Ketone | 2009/06/03 | 76.2, RDL=3.2 | 78 | ppbv | 70 - 130 |
| | | Methyl t-butyl ether (MTBE) | 2009/06/03 | 86.2, RDL=0.20 | 88 | ppbv | 70 - 130 |
| | | Methylene Chloride(Dichloromethane) | 2009/06/03 | 49.4, RDL=0.30 | 96 | ppbv | 70 - 130 |
| | | o-Xylene | 2009/06/03 | 54.0, RDL=0.20 | 101 | ppbv | 70 - 130 |
| | | p+m-Xylene | 2009/06/03 | 116, RDL=0.37 | 109 | ppbv | 70 - 130 |
| | | Propene | 2009/06/03 | 62.2, RDL=0.30 | 62 (1) | ppbv | 70 - 130 |
| | | Styrene | 2009/06/03 | 42.5, RDL=0.20 | 78 | ppbv | 70 - 130 |

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report (Continued)

Maxxam Job Number: GA963184

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|------------------------------------|-------------------------------|---------------------|-----------------------------|----------------|-----------|----------|-----------|
| 1836906 DBJ | Spiked Blank | Tetrachloroethylene | 2009/06/03 | 56.2, RDL=0.20 | 107 | ppbv | 70 - 130 |
| | | Tetrahydrofuran | 2009/06/03 | 70.8, RDL=0.40 | 74 | ppbv | 70 - 130 |
| Toluene | | 2009/06/03 | 50.8, RDL=0.20 | 94 | ppbv | 70 - 130 | |
| trans-1,2-Dichloroethylene | | 2009/06/03 | 82.1, RDL=0.20 | 86 | ppbv | 70 - 130 | |
| trans-1,3-Dichloropropene | | 2009/06/03 | 53.4, RDL=0.17 | 97 | ppbv | 70 - 130 | |
| Trichloroethylene | | 2009/06/03 | 51.5, RDL=0.30 | 102 | ppbv | 70 - 130 | |
| Trichlorofluoromethane (FREON 11) | | 2009/06/03 | 54.4, RDL=0.20 | 111 | ppbv | 70 - 130 | |
| Trichlorotrifluoroethane | | 2009/06/03 | 52.4, RDL=0.15 | 108 | ppbv | 70 - 130 | |
| Vinyl Acetate | | 2009/06/03 | 73.0, RDL=0.20 | 77 | ppbv | 70 - 130 | |
| Vinyl Bromide | | 2009/06/03 | 41.9, RDL=0.20 | 98 | ppbv | 70 - 130 | |
| Method Blank | Vinyl Chloride | 2009/06/03 | 46.1, RDL=0.18 | 95 | ppbv | 70 - 130 | |
| | Bromochloromethane | 2009/06/03 | | 89 | % | 60 - 140 | |
| | D5-Chlorobenzene | 2009/06/03 | | 92 | % | 60 - 140 | |
| | Difluorobenzene | 2009/06/03 | | 94 | % | 60 - 140 | |
| | 1,1,1-Trichloroethane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | 1,1,2,2-Tetrachloroethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 1,1,2-Trichloroethane | 2009/06/03 | ND, RDL=0.15 | | ppbv | | |
| | 1,1-Dichloroethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 1,1-Dichloroethylene | 2009/06/03 | ND, RDL=0.25 | | ppbv | | |
| | 1,2,4-Trichlorobenzene | 2009/06/03 | ND, RDL=2.0 | | ppbv | | |
| | 1,2,4-Trimethylbenzene | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | 1,2-Dichlorobenzene | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,2-Dichloroethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 1,2-Dichloropropane | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,2-Dichlorotetrafluoroethane | 2009/06/03 | ND, RDL=0.17 | | ppbv | | |
| | 1,3,5-Trimethylbenzene | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | 1,3-Butadiene | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | 1,3-Dichlorobenzene | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,4-Dichlorobenzene | 2009/06/03 | ND, RDL=0.40 | | ppbv | | |
| | 1,4-Dioxane | 2009/06/03 | ND, RDL=2.0 | | ppbv | | |
| | 2,2,4-Trimethylpentane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | 2-propanol | 2009/06/03 | ND, RDL=3.0 | | ppbv | | |
| | 2-Propanone | 2009/06/03 | ND, RDL=0.80 | | ppbv | | |
| | 4-ethyltoluene | 2009/06/03 | ND, RDL=2.2 | | ppbv | | |
| | Benzene | 2009/06/03 | ND, RDL=0.18 | | ppbv | | |
| | Benzyl chloride | 2009/06/03 | ND, RDL=1.0 | | ppbv | | |
| | Bromodichloromethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | Bromoform | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | Bromomethane | 2009/06/03 | ND, RDL=0.18 | | ppbv | | |
| | Carbon Disulfide | 2009/06/03 | ND, RDL=0.50 | | ppbv | | |
| | Carbon Tetrachloride | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | Chlorobenzene | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| | Chloroethane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | Chloroform | 2009/06/03 | ND, RDL=0.15 | | ppbv | | |
| | Chloromethane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | |
| | cis-1,2-Dichloroethylene | 2009/06/03 | ND, RDL=0.19 | | ppbv | | |
| | cis-1,3-Dichloropropene | 2009/06/03 | ND, RDL=0.18 | | ppbv | | |
| | Cyclohexane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | |
| Dibromochloromethane | 2009/06/03 | ND, RDL=0.20 | | ppbv | | | |
| Dichlorodifluoromethane (FREON 12) | 2009/06/03 | ND, RDL=0.20 | | ppbv | | | |
| Ethanol | 2009/06/03 | ND, RDL=2.3 | | ppbv | | | |
| Ethyl Acetate | 2009/06/03 | ND, RDL=2.2 | | ppbv | | | |
| Ethylbenzene | 2009/06/03 | ND, RDL=0.20 | | ppbv | | | |
| Ethylene Dibromide | 2009/06/03 | ND, RDL=0.17 | | ppbv | | | |
| Heptane | 2009/06/03 | ND, RDL=0.30 | | ppbv | | | |

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report (Continued)
 Maxxam Job Number: GA963184

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|-------------|--------------|-------------------------------------|-----------------------------|----------------|-----------|-------|-----------|
| 1836906 DBJ | Method Blank | Hexachlorobutadiene | 2009/06/03 | ND, RDL=3.0 | | ppbv | |
| | | Hexane | 2009/06/03 | ND, RDL=0.30 | | ppbv | |
| | | Methyl Butyl Ketone (2-Hexanone) | 2009/06/03 | ND, RDL=2.0 | | ppbv | |
| | | Methyl Ethyl Ketone (2-Butanone) | 2009/06/03 | ND, RDL=3.0 | | ppbv | |
| | | Methyl Isobutyl Ketone | 2009/06/03 | ND, RDL=3.2 | | ppbv | |
| | | Methyl t-butyl ether (MTBE) | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Methylene Chloride(Dichloromethane) | 2009/06/03 | 0.41, RDL=0.30 | | ppbv | |
| | | o-Xylene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | p+m-Xylene | 2009/06/03 | ND, RDL=0.37 | | ppbv | |
| | | Propene | 2009/06/03 | ND, RDL=0.30 | | ppbv | |
| | | Styrene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Tetrachloroethylene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Tetrahydrofuran | 2009/06/03 | ND, RDL=0.40 | | ppbv | |
| | | Toluene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | trans-1,2-Dichloroethylene | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | trans-1,3-Dichloropropene | 2009/06/03 | ND, RDL=0.17 | | ppbv | |
| | | Trichloroethylene | 2009/06/03 | ND, RDL=0.30 | | ppbv | |
| | | Trichlorofluoromethane (FREON 11) | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Trichlorotrifluoroethane | 2009/06/03 | ND, RDL=0.15 | | ppbv | |
| | | Vinyl Acetate | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Vinyl Bromide | 2009/06/03 | ND, RDL=0.20 | | ppbv | |
| | | Vinyl Chloride | 2009/06/03 | ND, RDL=0.18 | | ppbv | |
| | | Xylene (Total) | 2009/06/03 | ND, RDL=0.60 | | ppbv | |
| | RPD | 1,1,1-Trichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1,2,2-Tetrachloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1,2-Trichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1-Dichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,1-Dichloroethylene | 2009/06/03 | NC | | % | 25 |
| | | 1,2,4-Trichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,2,4-Trimethylbenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichloroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichloropropane | 2009/06/03 | NC | | % | 25 |
| | | 1,2-Dichlorotetrafluoroethane | 2009/06/03 | NC | | % | 25 |
| | | 1,3,5-Trimethylbenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,3-Butadiene | 2009/06/03 | NC | | % | 25 |
| | | 1,3-Dichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,4-Dichlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | 1,4-Dioxane | 2009/06/03 | NC | | % | 25 |
| | | 2,2,4-Trimethylpentane | 2009/06/03 | NC | | % | 25 |
| | | 2-propanol | 2009/06/03 | NC | | % | 25 |
| | | 2-Propanone | 2009/06/03 | NC | | % | 25 |
| | | 4-ethyltoluene | 2009/06/03 | NC | | % | 25 |
| | | Benzene | 2009/06/03 | NC | | % | 25 |
| | | Benzyl chloride | 2009/06/03 | NC | | % | 25 |
| | | Bromodichloromethane | 2009/06/03 | NC | | % | 25 |
| | | Bromoform | 2009/06/03 | NC | | % | 25 |
| | | Bromomethane | 2009/06/03 | NC | | % | 25 |
| | | Carbon Disulfide | 2009/06/03 | NC | | % | 25 |
| | | Carbon Tetrachloride | 2009/06/03 | NC | | % | 25 |
| | | Chlorobenzene | 2009/06/03 | NC | | % | 25 |
| | | Chloroethane | 2009/06/03 | NC | | % | 25 |
| | | Chloroform | 2009/06/03 | NC | | % | 25 |
| | | Chloromethane | 2009/06/03 | NC | | % | 25 |
| | | cis-1,2-Dichloroethylene | 2009/06/03 | NC | | % | 25 |

Lakeland Industry and Community Association
 Attention: Gail Nielsen
 Client Project #: LICA 1
 P.O. #:
 Project name: Cold Lake South

Quality Assurance Report (Continued)

Maxxam Job Number: GA963184

| QA/QC Batch | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | %Recovery | Units | QC Limits |
|-------------|---------|-------------------------------------|-----------------------------|-------|-----------|-------|-----------|
| 1836906 DBJ | RPD | cis-1,3-Dichloropropene | 2009/06/03 | NC | | % | 25 |
| | | Cyclohexane | 2009/06/03 | NC | | % | 25 |
| | | Dibromochloromethane | 2009/06/03 | NC | | % | 25 |
| | | Dichlorodifluoromethane (FREON 12) | 2009/06/03 | NC | | % | 25 |
| | | Ethanol | 2009/06/03 | NC | | % | 25 |
| | | Ethyl Acetate | 2009/06/03 | NC | | % | 25 |
| | | Ethylbenzene | 2009/06/03 | NC | | % | 25 |
| | | Ethylene Dibromide | 2009/06/03 | NC | | % | 25 |
| | | Heptane | 2009/06/03 | NC | | % | 25 |
| | | Hexachlorobutadiene | 2009/06/03 | NC | | % | 25 |
| | | Hexane | 2009/06/03 | NC | | % | 25 |
| | | Methyl Butyl Ketone (2-Hexanone) | 2009/06/03 | NC | | % | 25 |
| | | Methyl Ethyl Ketone (2-Butanone) | 2009/06/03 | NC | | % | 25 |
| | | Methyl Isobutyl Ketone | 2009/06/03 | NC | | % | 25 |
| | | Methyl t-butyl ether (MTBE) | 2009/06/03 | NC | | % | 25 |
| | | Methylene Chloride(Dichloromethane) | 2009/06/03 | NC | | % | 25 |
| | | o-Xylene | 2009/06/03 | NC | | % | 25 |
| | | p+m-Xylene | 2009/06/03 | NC | | % | 25 |
| | | Propene | 2009/06/03 | NC | | % | 25 |
| | | Styrene | 2009/06/03 | NC | | % | 25 |
| | | Tetrachloroethylene | 2009/06/03 | NC | | % | 25 |
| | | Tetrahydrofuran | 2009/06/03 | NC | | % | 25 |
| | | Toluene | 2009/06/03 | NC | | % | 25 |
| | | trans-1,2-Dichloroethylene | 2009/06/03 | NC | | % | 25 |
| | | trans-1,3-Dichloropropene | 2009/06/03 | NC | | % | 25 |
| | | Trichloroethylene | 2009/06/03 | NC | | % | 25 |
| | | Trichlorofluoromethane (FREON 11) | 2009/06/03 | NC | | % | 25 |
| | | Trichlorotrifluoroethane | 2009/06/03 | NC | | % | 25 |
| | | Vinyl Acetate | 2009/06/03 | NC | | % | 25 |
| | | Vinyl Bromide | 2009/06/03 | NC | | % | 25 |
| | | Vinyl Chloride | 2009/06/03 | NC | | % | 25 |
| | | Xylene (Total) | 2009/06/03 | NC | | % | N/A |

ND = Not detected
 N/A = Not Applicable
 NC = Non-calculable
 RPD = Relative Percent Difference
 SPIKE = Fortified sample
 (1) Please refer to General Comments page for specific clarification.

Lakeland Industry & Community Association

Maskwa Monitoring Site
Ambient Air Monitoring
Data Report
For
June 2009

Prepared By:



July 10, 2009

Lakeland Industry & Community Association

Ambient Air Monitoring

Maskwa

| | Page | | Page |
|---|-------------|----------------------------|-------------|
| Table of Contents | | | |
| Introduction | 3 | Calibration Reports | 84 |
| Calibration Procedure | 4 | • Sulphur Dioxide | 85 |
| Monthly Continuous Summary | 5 | • Hydrogen Sulphide | 88 |
| General Monthly Summary | 6 | • Total Hydrocarbons | 91 |
| Continuous Monitoring | 10 | • Nitrogen Dioxide | 94 |
| • Monthly Summaries, Graphs & Wind Roses | 11 | | |
| • Sulphur Dioxide | 12 | | |
| • Hydrogen Sulphide | 20 | | |
| • Total Hydrocarbons | 28 | | |
| • Nitrogen Dioxide | 36 | | |
| • Nitric Oxide | 44 | | |
| • Oxides of Nitrogen | 51 | | |
| • Temperature | 59 | | |
| • Precipitation | 62 | | |
| • Relative Humidity | 65 | | |
| • Barometric Pressure | 68 | | |
| • Vector Wind Speed | 71 | | |
| • Vector Wind Direction | 78 | | |
| • Standard Deviation Wind Direction | 81 | | |

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: June 2009

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

The monthly analytical report for static & passive monitoring:

- Authorized by Levi Manchak

Calibration Procedure

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

- CAL SOP-00211
- CAL SOP-00209
- CAL SOP-00213
- CAL SOP-00214
- CAL 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 – June 2009

| LICA MASKWA SITE | | | | | | MAXIMUM VALUES | | | | | | | OPERATIONAL TIME (PERCENT) |
|----------------------------------|------|-------|------|-------|---------|----------------|--------|------------------------|--------------------------------|-----------------------|-------|--------------------|----------------------------------|
| | | | | | | OBJECTIVES | | | | EXCEEDENCES | | MONTHLY AVERAGE | |
| PARAMETER | 1-HR | 24-HR | 1-HR | 24-HR | READING | DAY | HOUR | WIND SPEED (KPH) | WIND DIRECTION (DEGREES) | READING | DAY | | |
| SO ₂ (PPB) | 172 | 57 | 0 | 0 | 0.19 | 6 | 22 | 7 | 8.6 | 311(NW) | 1.8 | 22 | 99.4 |
| H ₂ S (PPB) | 10 | 3 | 0 | 0 | 0.02 | 2 | 20, 25 | 5, 6 | 5.2, 6.6 | 73(ENE), 120(ESE) | 0.2 | 20 | 95.3 |
| THC (PPM) | - | - | - | - | 2.10 | 3.0 | 17 | 5,6 | 1.8, 1.4 | 209(SSW), 249(WSW) | 2.3 | 2, 17 | 99.6 |
| NO _x (PPB) | - | - | - | - | 1.43 | 21 | 3 | 6 | 2.3 | 250(WSW) | 5.5 | 22 | 99.6 |
| NO (PPB) | - | - | - | - | 0.17 | 7 | 3, 17 | 6, 6 | 2.3, 1.4 | 250(WSW), 249(WSW) | 1.1 | 22 | 99.6 |
| NO ₂ (PPB) | 212 | 106 | 0 | 0 | 1.02 | 13 | 3 | 6 | 2.3 | 250(WSW) | 3.7 | 22 | 99.6 |
| VECTOR WS (KPH) | - | - | - | - | 5.88 | 17.6 | 20 | 14 | - | 36(NE) | 10.7 | 23 | 99.6 |
| VECTOR WD (DEGREES) | - | - | - | - | 277(W) | - | - | - | - | - | - | - | 99.6 |
| RELATIVE HUMIDITY (%) | - | - | - | - | 61.21 | 95 | 19 | 3, 4 | 5, 5.8 | 220(SW), 216(SW) | 87.7 | 21 | 99.6 |
| TEMPERATURE (DEG C) | - | - | - | - | 14.02 | 29.4 | 14 | 14 | 6.3 | 167(SSE) | 20.3 | 14 | 99.6 |
| BAROMETRIC PRESSURE (MILIBAR) | - | - | - | - | 938.54 | 954 | 2 | 8 | 5.3 | 227(SW) | 949.8 | 2 | 99.4 |
| PRECIPITATION (MM) | - | - | - | - | 0.07 | 4.6 | 21 | 16 | 5.3 | 14(NNE) | 15.7 | 21 | 99.6 |

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 – Maskwa

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100E

No operational issue was observed during this month. The inlet filter was changed before the monthly calibration was started. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated. The span expected value were lost after the software upgrade on June 16th and was reset on June 17th. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model - API 101E

The analyzer failed on June 1st. It was noticed that there were numerous warnings upon the arrival on June 1st. All warnings were cleared, but the UV lamp warning returned. The UV lamp was replaced with a new one and a temporary Maxxam-Supplied UV lamp driver board was installed. A new UV lamp driver board will be installed when the supply is delivered. It was also noticed that the straylight and offset values were getting high. Thus, the UV lamp filter was replaced. A post-repair calibration was performed on June 2nd. As a result, a total of 10 hours of data was invalidated. An alarm test was performed on June 2nd, and proper operation was confirmed. The inlet filter was changed before the monthly calibration was started. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated. The span expected value were lost after the software upgrade on June 16th and was reset on June 17th. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – Maskwa

Total HydroCarbon (PPM)

- Analyzer make / model –TECO 51C-LT

No operational issues observed during this month. A polling computer switch occurred on June 1st, hour of 9. Due to the system switch, the daily calibration on June 2nd ran at 00:00am. The daily calibration schedule was set 23-hour interval on June 3rd. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated. The span expected value were lost after the software upgrade on June 16th and was reset on June 17th. The THC analyzer span gas ran out on June 21st causing the daily span readings to go outside the control range. The gas cylinder was replaced on June 24th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

No operational issues observed during this month. A polling computer switch occurred on June 1st, hour of 9. Due to the system switch, the daily calibration on June 1st ran twice, at 5:00 and 19:00. There was no daily calibration performed on June 2nd. The daily calibration schedule was set 23-hour interval on June 3rd. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated. The span expected value were lost after the software upgrade on June 16th and was reset on June 17th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

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

- System make / model - Climatronics MIII

The wind system is reported as vector wind speed and vector wind direction. The wind system is reported as vector wind speed and vector wind direction. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated.

General Monthly Summary

AQM STATION – LICA – Maskwa

Relative Humidity (PERCENT)

- System make / model - Met One 083

No operational issues observed during the month. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated.

Precipitation (MM)

- System make / model - Met One 387

No operational issues observed during the month. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated.

Barometric Pressure (MILLIBAR)

- System make / model - Met One 092

No operational issues observed during the month. A polling computer switch occurred on June 1st, hour of 9. An hour data is missing after the system switched on June 1st. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated.

Ambient Temperature (DEGC)

- System make / model - Met One 060

No operational issues observed during the month. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated.

General Monthly Summary

AQM STATION – LICA – Maskwa

Trailer Temperature (DEG C)

- System make / model – R&R 61

The sensor will allow monitoring of the trailer temperature. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated.

Standard Deviation Wind Direction (DEG)

- System make / model – Climatronics MIII

Data of standard deviation wind direction started to be recorded on June 3rd, hour of 7.

Datalogger

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

The station is connected to a modem to allow for daily polling of the station. A polling computer switch occurred on June 1st, hour of 9. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused two hours data invalidated.

Trailer

No issues with the station.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

SULPHUR DIOXIDE (SO₂) hourly averages 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 | 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 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | |
| 2 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | |
| 3 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0.3 | 24 | |
| 4 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | |
| 6 | 0 | IZS | 0 | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 1 | 0.0 | 24 |
| 8 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 2 | 0.2 | 24 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 1 | 0.1 | 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 | 0.0 | 24 | |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | IZS | 0 | 1 | 0 | 0 | 2 | 0.4 | 24 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0.0 | 24 |
| 13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 3 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.5 | 24 | |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 24 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | M | 0 | 0 | IZS | 1 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 2 | 0.4 | 23 | |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 1 | M | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.3 | 23 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | IZS | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 24 | |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.3 | 24 |
| 22 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 6 | IZS | 2 | 3 | 4 | 2 | 1 | 0 | 1 | 4 | 4 | 4 | 1 | 0 | 0 | 0 | 0 | 6 | 1.8 | 24 | |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | C | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 25 | 0 | 0 | 0 | 0 | 0 | IZS | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0.3 | 24 | |
| 26 | 0 | 0 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | |
| 27 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 24 | |
| 28 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 | |
| 29 | 0 | IZS | 0 | 0 | 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 |
| 30 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 2 | 0.1 | 24 |
| HOURLY MAX | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 6 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 4 | 4 | 4 | 1 | 2 | 2 | 1 | 1 | | | | |
| HOURLY AVG | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.7 | 0.2 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | | | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

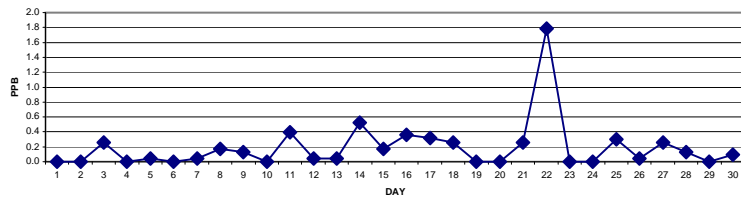
OBJECTIVE LIMIT:

| | | | | | | |
|----------------------|------|-----|-----|-------|----|-----|
| ALBERTA ENVIRONMENT: | 1-HR | 172 | PPB | 24-HR | 57 | PPB |
|----------------------|------|-----|-----|-------|----|-----|

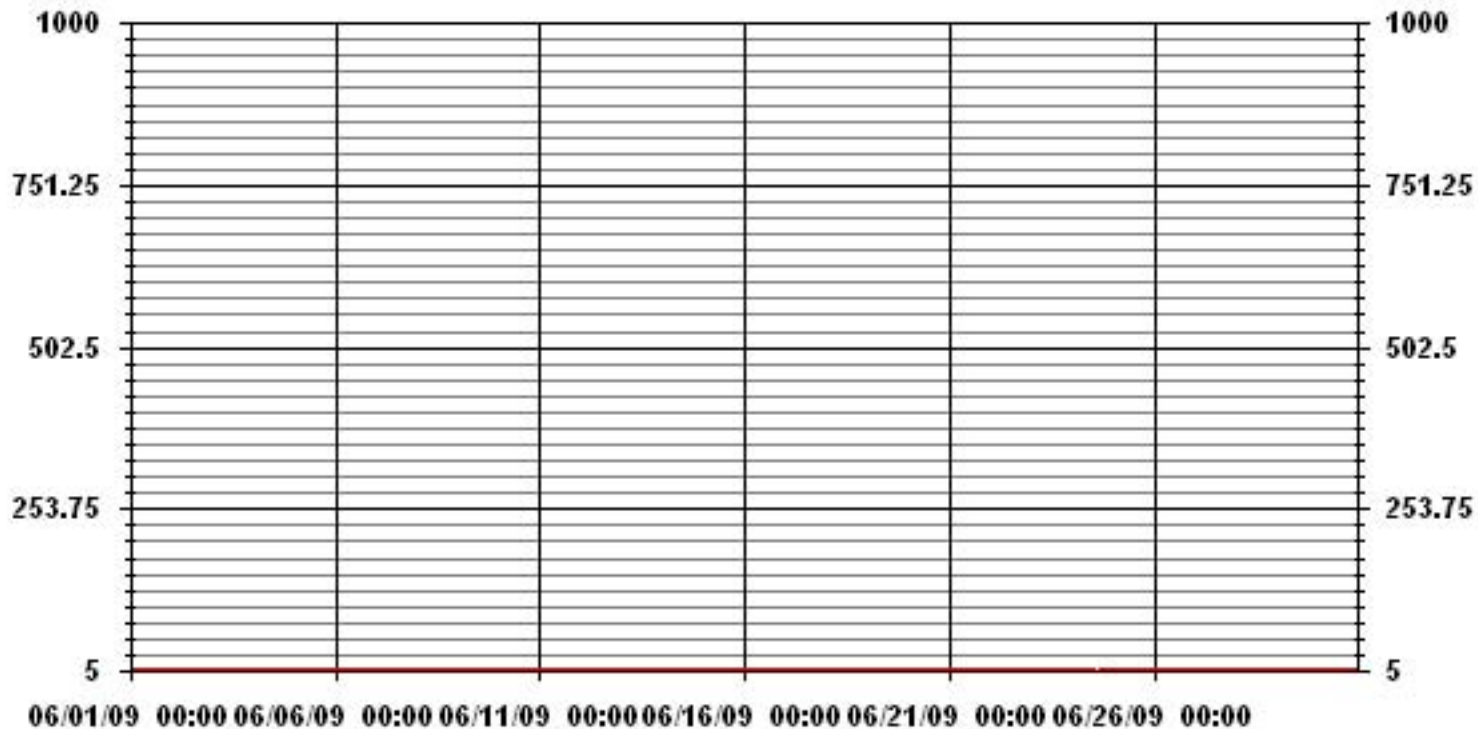
MONTHLY SUMMARY

| | | | |
|------------------------------|--------------------------------|-----------------------|----------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | |
| NUMBER OF NON-ZERO READINGS: | 78 | | |
| MAXIMUM 1-HR AVERAGE: | 6 PPB @ HOUR(S) 7 ON DAY(S) 22 | | |
| MAXIMUM 24-HR AVERAGE: | 1.8 PPB ON DAY(S) 22 | | |
| IZS CALIBRATION TIME: | 32 HRS | OPERATIONAL TIME: | 716 HRS |
| MONTHLY CALIBRATION TIME: | 5 HRS | AMD OPERATION UPTIME: | 99.4 % |
| STANDARD DEVIATION: | 0.64 | MONTHLY AVERAGE: | 0.19 PPB |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



— LICA30 SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

| 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 | IZS | 1 | 0 | 2 | M | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 0.5 | 23 | |
| 2 | | 0 | 0 | 0 | 0 | 0 | IZS | 0 | M | 0 | 2 | M | M | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 1 | 1 | 0 | 0 | 3 | 0.5 | 21 | |
| 3 | | 0 | 0 | 0 | 0 | IZS | 0 | 1 | 5 | 4 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 1 | 0 | 9 | 1.3 | 24 | |
| 4 | | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 4 | 6 | 2 | 0 | 0 | 0 | 0 | 6 | 0.7 | 24 | |
| 6 | | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 24 | |
| 7 | | IZS | 0 | 0 | 0 | 2 | 2 | 1 | 3 | 1 | 4 | 3 | 2 | 1 | 0 | 4 | 1 | 4 | 1 | 3 | 1 | 0 | 0 | 1 | IZS | 4 | 1.5 | 24 | |
| 8 | | 5 | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 1 | 3 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 5 | 1.1 | 24 |
| 9 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | IZS | 0 | 0 | 3 | 0.7 | 24 | |
| 10 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0.0 | 24 | |
| 11 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 2 | 4 | 6 | 4 | 13 | 0 | IZS | 1 | 1 | 1 | 1 | 13 | 2.0 | 24 | |
| 12 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 1 | 1 | 2 | 0.3 | 24 | |
| 13 | | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | IZS | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 0.7 | 24 |
| 14 | | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 9 | 6 | 5 | 1 | 1 | 1 | 2 | 1 | 1 | IZS | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 9 | 1.6 | 24 | |
| 15 | | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 5 | 1 | 1 | 1 | 1 | IZS | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 5 | 1.1 | 24 |
| 16 | | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | M | 1 | 1 | IZS | 2 | 1 | 1 | 1 | 5 | 5 | 1 | 2 | 2 | 5 | 1.3 | 23 | |
| 17 | | 1 | 0 | 1 | 1 | 1 | 1 | M | 8 | 1 | M | 1 | 1 | 1 | IZS | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1.0 | 22 |
| 18 | | 0 | 0 | 3 | 0 | 1 | 3 | 3 | 1 | 2 | 0 | 3 | 7 | IZS | 4 | 4 | 5 | 2 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 7 | 2.0 | 24 | |
| 19 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | IZS | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.4 | 24 | |
| 20 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | |
| 21 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 22 | | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 7 | IZS | 5 | 4 | 7 | 5 | 2 | 1 | 5 | 7 | 8 | 8 | 3 | 0 | 0 | 0 | 0 | 8 | 3.0 | 24 | |
| 23 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 1 | 2 | C | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 24 | |
| 25 | | 0 | 0 | 0 | 0 | 0 | IZS | 4 | 5 | 3 | 0 | 0 | 0 | M | M | 1 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 6 | 1.0 | 22 | |
| 26 | | 0 | 0 | 2 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 | |
| 27 | | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 4 | 6 | 1 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1.2 | 24 | |
| 28 | | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 4 | 2 | 0 | 0 | 0 | 0 | 8 | 0.7 | 24 | |
| 29 | | 0 | IZS | 0 | 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 | |
| 30 | | IZS | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0.8 | 24 | |
| HOURLY MAX | | 5 | 1 | 3 | 1 | 2 | 3 | 6 | 9 | 6 | 6 | 6 | 7 | 6 | 5 | 4 | 10 | 7 | 13 | 8 | 5 | 5 | 9 | 2 | 2 | | | | |
| HOURLY AVG | | 0.4 | 0.1 | 0.3 | 0.2 | 0.2 | 0.3 | 1.0 | 1.6 | 1.0 | 1.3 | 1.3 | 1.2 | 1.1 | 1.1 | 1.1 | 1.4 | 0.9 | 1.5 | 1.2 | 0.7 | 0.5 | 0.6 | 0.3 | 0.1 | | | | |

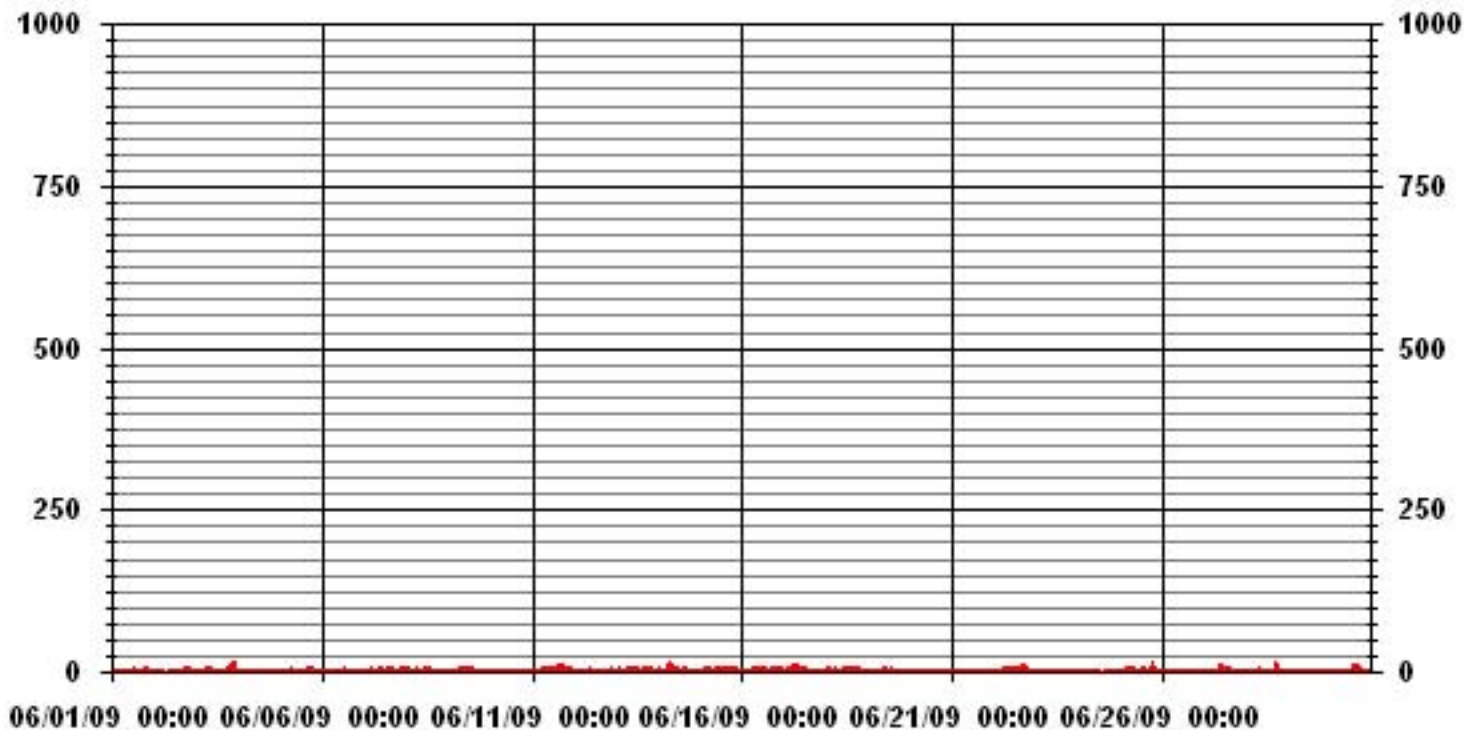
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 231 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 13 | PPB | @ HOUR(S) | 17 | ON DAY(S) | 11 |
| IZS CALIBRATION TIME: | 32 | HRS | OPERATIONAL TIME: | 711 | HRS | |
| MONTHLY CALIBRATION TIME: | 5 | HRS | | | | |
| STANDARD DEVIATION: | 1.64 | | | | | |

01 Hour Averages



— LICA30 SO2MAX PPB

LICA30
 SO2_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 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 | 6.92 | 3.38 | 7.65 | 6.48 | 2.35 | 3.24 | 5.89 | 7.36 | 5.44 | 13.25 | 9.57 | 6.03 | 6.18 | 5.44 | 5.30 | 5.44 | 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 | 6.92 | 3.38 | 7.65 | 6.48 | 2.35 | 3.24 | 5.89 | 7.36 | 5.44 | 13.25 | 9.57 | 6.03 | 6.18 | 5.44 | 5.30 | 5.44 | |

Calm : .00 %

Total # Operational Hours : 679

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 20 | 47 | 23 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 90 | 65 | 41 | 42 | 37 | 36 | 37 | 679 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 110 | | | | | | | | | | | | | | | | | |
| < 170 | | | | | | | | | | | | | | | | | |
| < 340 | | | | | | | | | | | | | | | | | |
| >= 340 | | | | | | | | | | | | | | | | | |
| Totals | 47 | 23 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 90 | 65 | 41 | 42 | 37 | 36 | 37 | |

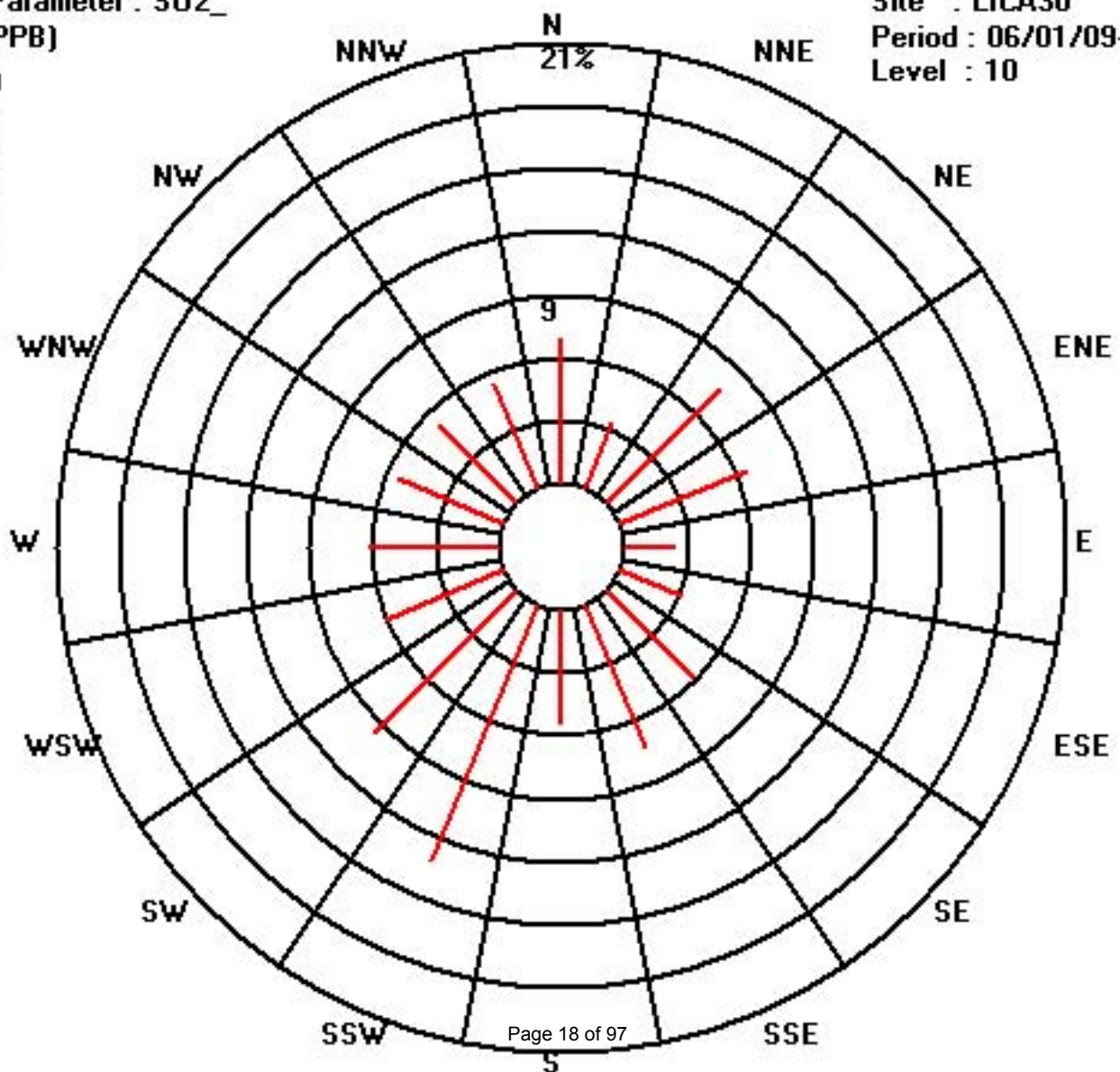
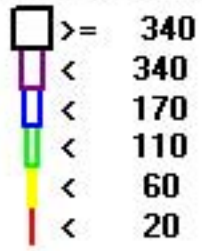
Calm : .00 %

Total # Operational Hours : 679

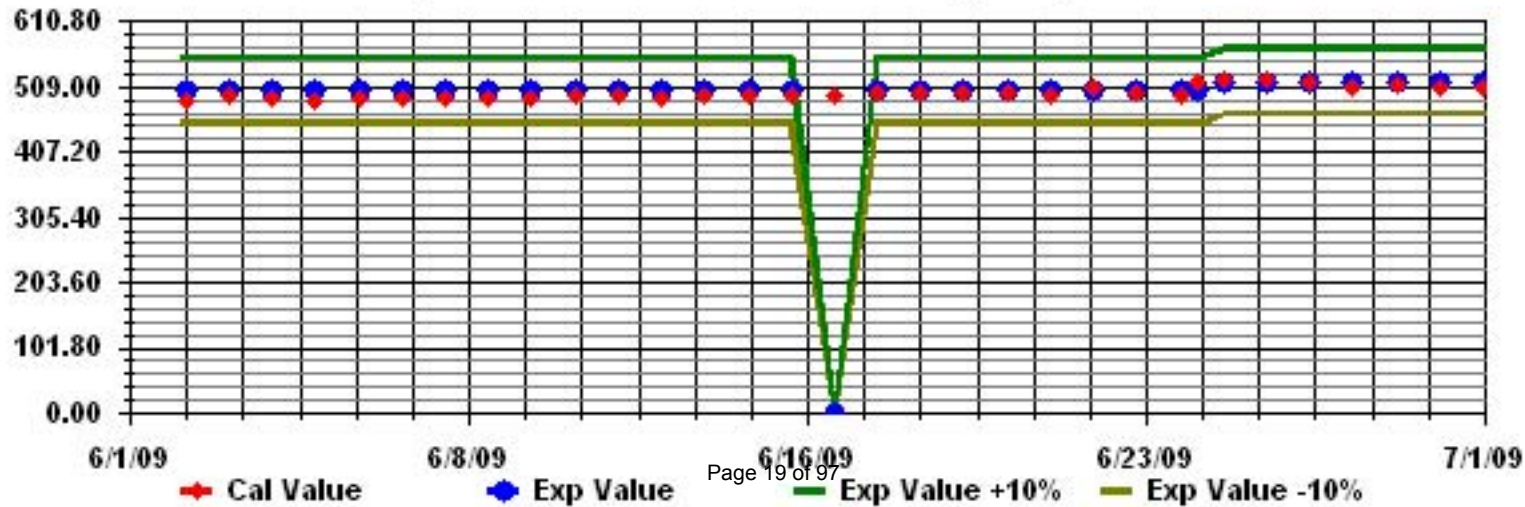
Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10



Calibration Graph for Site: LICA30 Parameter: S02_ Sequence: S02 Phase: SPAll



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

HYDROGEN SULPHIDE (H₂S) hourly averages 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 | 24:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-----|
| 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 | N | N | N | N | N | N | N | N | N | N | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | | |
| 2 | M | M | M | M | M | M | M | M | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | |
| 3 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | |
| 4 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | |
| 5 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | |
| 6 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | |
| 7 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0.0 | |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0.0 | |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0.0 | |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 19 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | |
| 20 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 0.2 | |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 25 | 0 | 0 | 0 | 0 | 0 | IZS | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 0.1 | |
| 26 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 27 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 28 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.0 | |
| 29 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 30 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0.0 |
| HOURLY MAX | NA | 0 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HOURLY AVG | NA | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

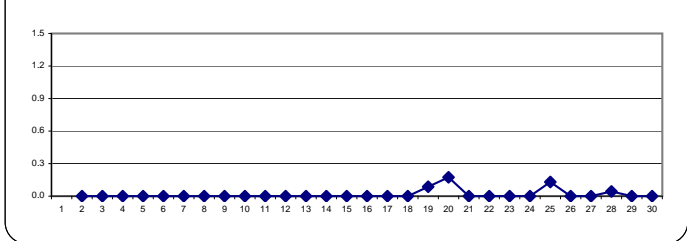
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 10 PPB 24-HR 3 PPB

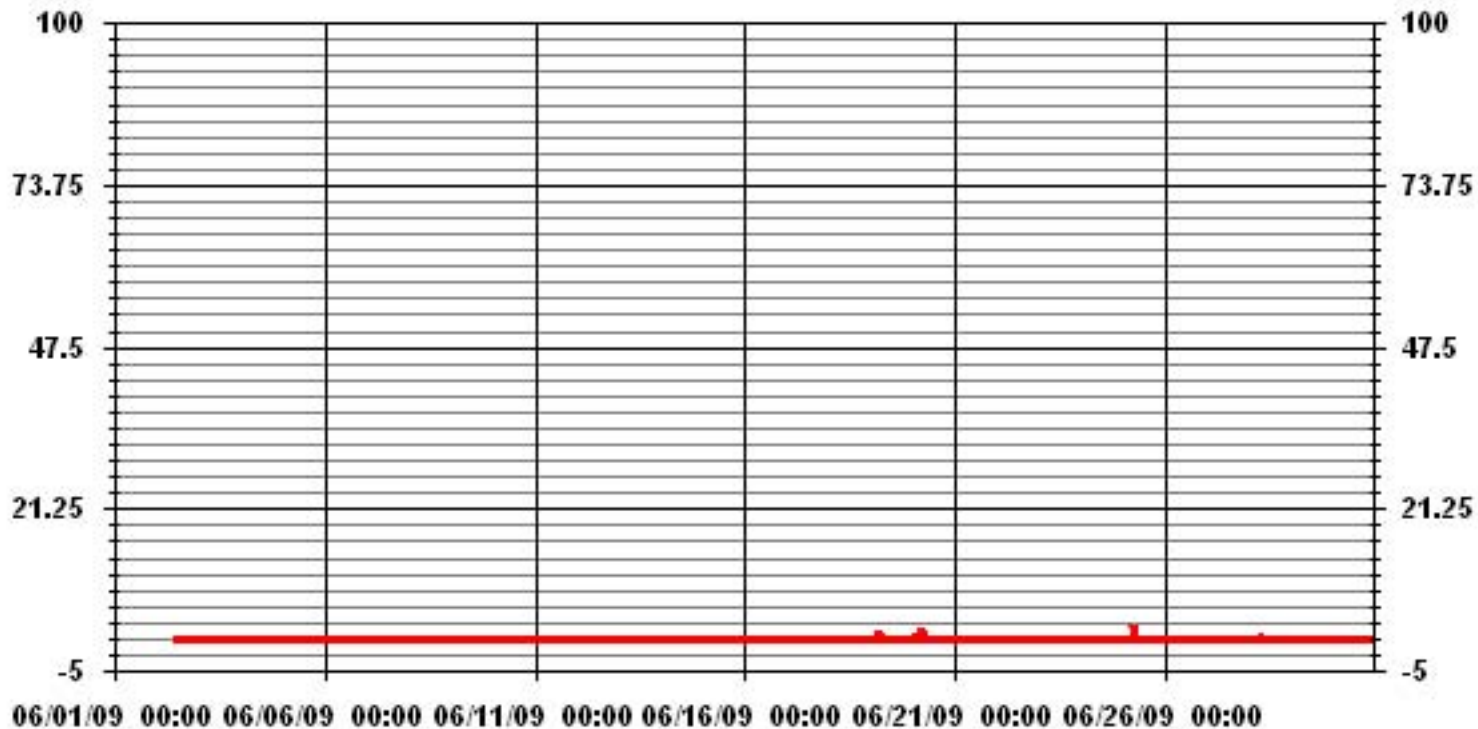
MONTHLY SUMMARY

| | |
|------------------------------|---------------------------------------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 |
| NUMBER OF 24-HR EXCEEDENCES: | 0 |
| NUMBER OF NON-ZERO READINGS: | 8 |
| MAXIMUM 1-HR AVERAGE: | 2 PPB @ HOUR(S) 5, 6 ON DAY(S) 20, 25 |
| MAXIMUM 24-HR AVERAGE: | 0.2 PPB ON DAY(S) 20 VAR-VARIOUS |
| IZS CALIBRATION TIME: | 30 HRS |
| MONTHLY CALIBRATION TIME: | 4 HRS |
| OPERATIONAL TIME: | 686 HRS |
| AMD OPERATION UPTIME: | 95.3 % |
| STANDARD DEVIATION: | 0.15 |
| MONTHLY AVERAGE: | 0.02 PPB |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



— LICA30 H2S_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

HYDROGEN SULPHIDE MAX instantaneous maximum in ppt

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 | DAILY | 24-HOUR | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-----|----|
| 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 | N | N | N | N | N | N | N | N | N | N | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | | | 0 | |
| 2 | M | M | M | M | M | M | M | M | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 16 | |
| 3 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | IZS | 0 | 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 | IZS | 0 | 0 | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | IZS | 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 | IZS | 0 | 0.0 | 24 | |
| 11 | 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 | 1 | 0.0 | 24 | |
| 12 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 | |
| 13 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 15 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 | |
| 16 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 23 | |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | M | 1 | 0 | M | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 22 | |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 19 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 | |
| 20 | 0 | 0 | 3 | 2 | 4 | 4 | 2 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.7 | 24 | |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | |
| 25 | 0 | 0 | 0 | 0 | 0 | IZS | 3 | 2 | 1 | 0 | 0 | 0 | M | M | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.4 | 22 | |
| 26 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 | |
| 29 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | |
| 30 | IZS | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 3 | 0.1 | 24 |
| HOURLY MAX | 1 | 1 | 3 | 2 | 4 | 4 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | |
| HOURLY AVG | 0.0 | 0.0 | 0.2 | 0.1 | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

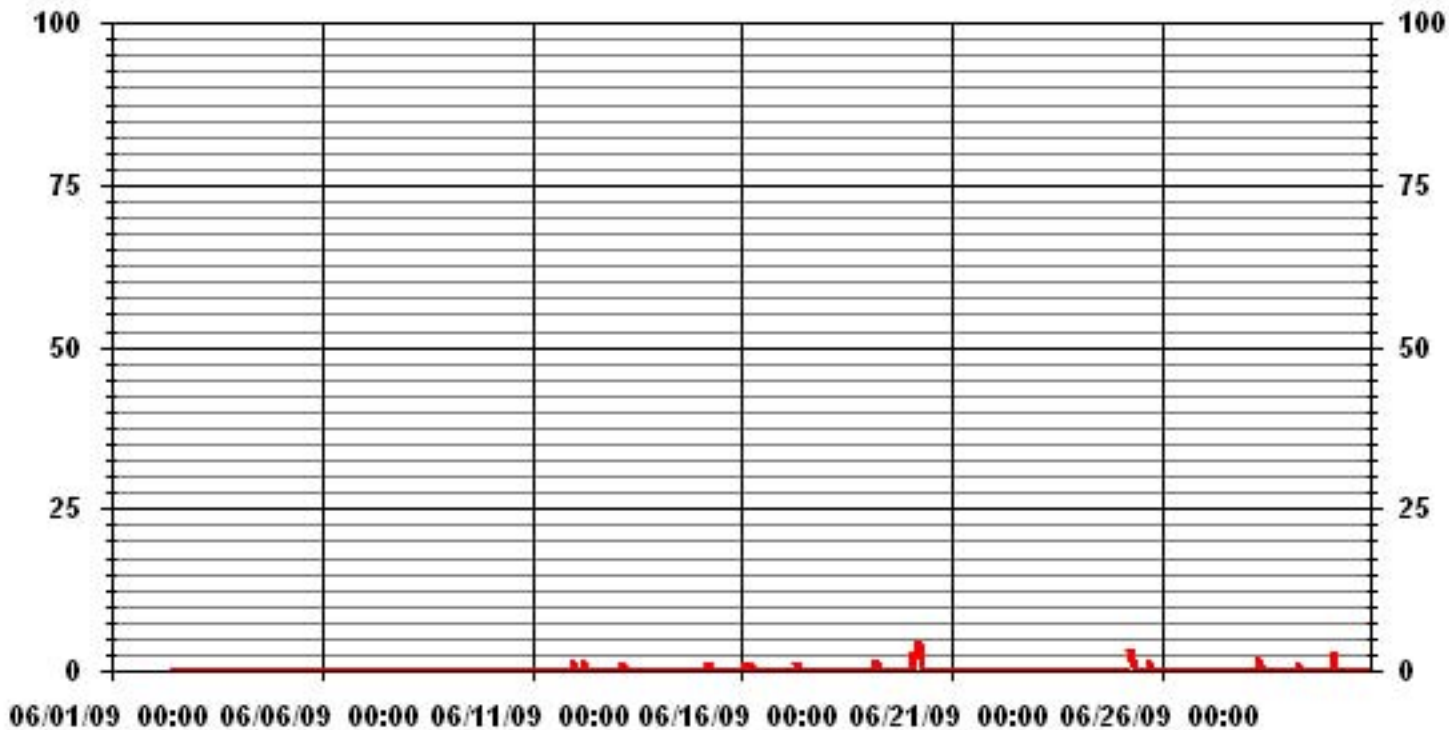
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 27 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 4 | PPB | @ HOUR(S) | 4, 5 | ON DAY(S) | 20 |
| IZS CALIBRATION TIME: | 30 | HRS | OPERATIONAL TIME: | 682 | HRS | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | | | | |
| STANDARD DEVIATION: | 0.37 | | | | | |

01 Hour Averages



— LICA30 H2S MAX PPB

LICA30
H2S_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : H2S_
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 |
| < 3 | 5.52 | 3.37 | 7.82 | 6.74 | 2.45 | 3.37 | 5.98 | 7.66 | 5.52 | 13.80 | 8.89 | 6.44 | 6.44 | 5.82 | 5.36 | 4.75 | 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 | 5.52 | 3.37 | 7.82 | 6.74 | 2.45 | 3.37 | 5.98 | 7.66 | 5.52 | 13.80 | 8.89 | 6.44 | 6.44 | 5.82 | 5.36 | 4.75 | |

Calm : .00 %

Total # Operational Hours : 652

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3 | 36 | 22 | 51 | 44 | 16 | 22 | 39 | 50 | 36 | 90 | 58 | 42 | 42 | 38 | 35 | 31 | 652 |
| < 10 | | | | | | | | | | | | | | | | | |
| < 50 | | | | | | | | | | | | | | | | | |
| >= 50 | | | | | | | | | | | | | | | | | |
| Totals | 36 | 22 | 51 | 44 | 16 | 22 | 39 | 50 | 36 | 90 | 58 | 42 | 42 | 38 | 35 | 31 | |

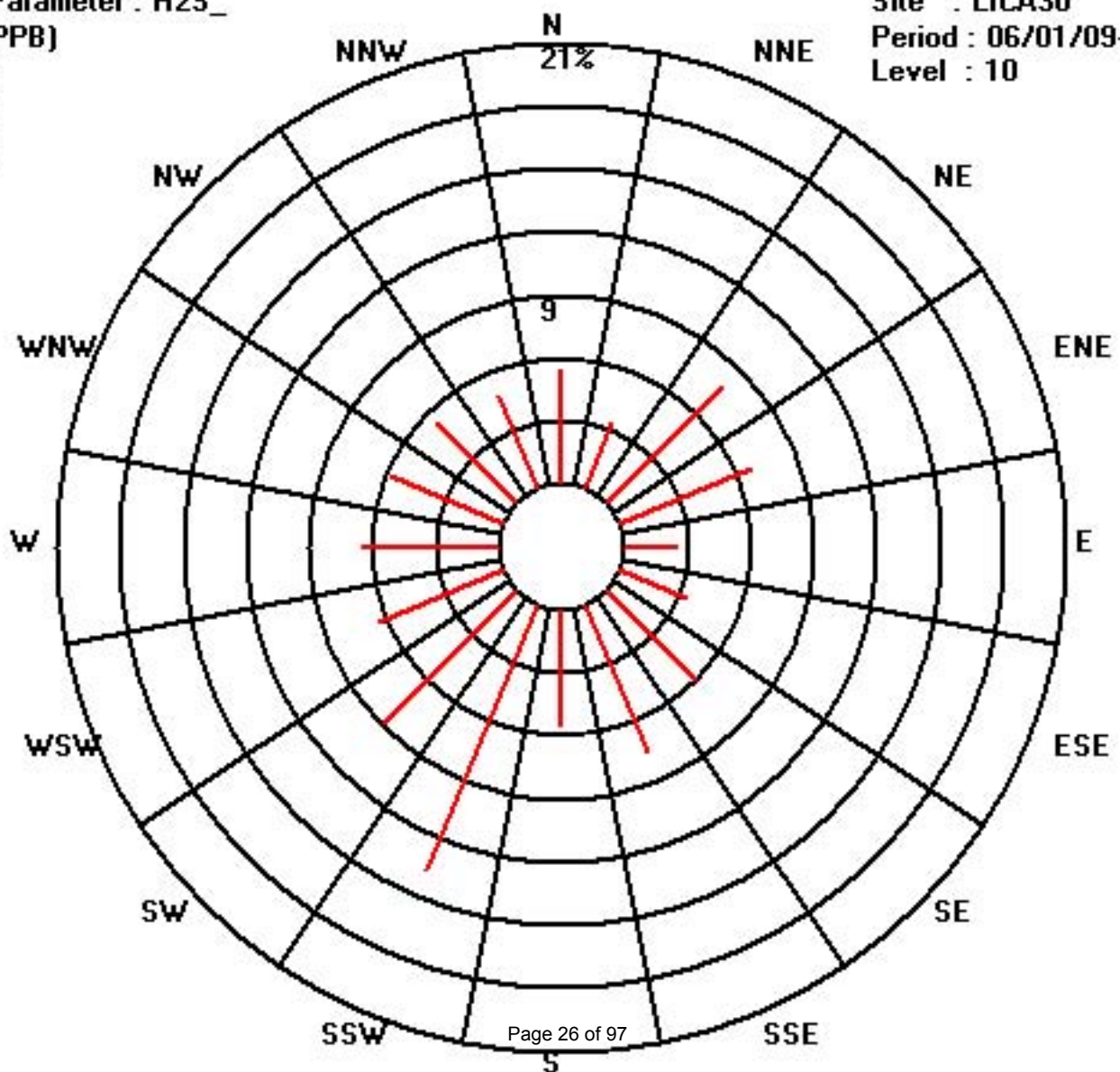
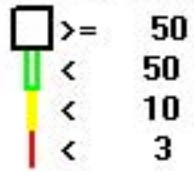
Calm : .00 %

Total # Operational Hours : 652

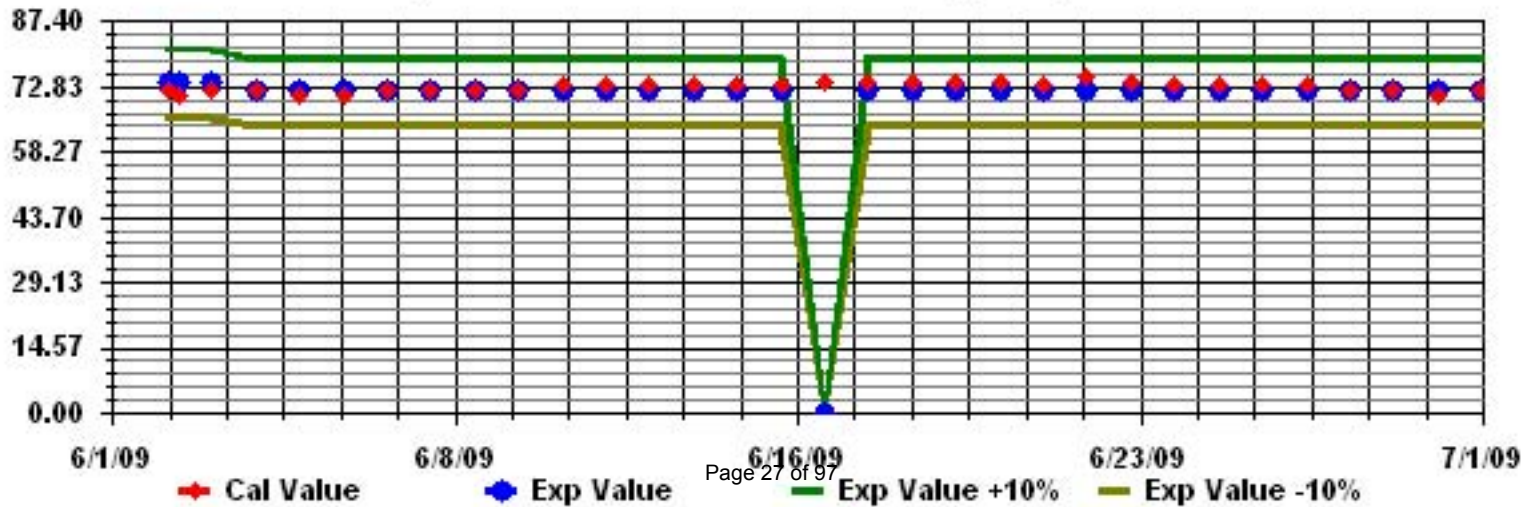
Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10



Calibration Graph for Site: LICA30 Parameter: H2S_ Sequence: H2S Phase: SPAll



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

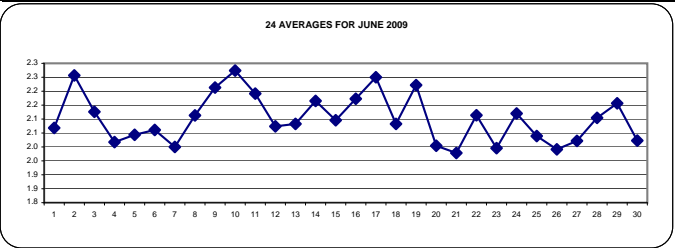
JUNE 2009

TOTAL HYDROCARBONS hourly averages in ppm

| MST | TOTAL HYDROCARBONS hourly averages in ppm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|------|-------|----|
| 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 | DAILY 24-HOUR | | | |
| 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 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | M | 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 | 23 |
| 2 | IZS | 2.4 | 2.6 | 2.5 | 2.8 | 2.9 | 2.6 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.3 | 2.1 | 2.2 | 2.9 | 2.3 | 24 |
| 3 | 2.2 | 2.4 | 2.7 | 2.5 | IZS | 2.5 | 2.4 | 2.2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.7 | 2.1 | 24 |
| 4 | 2 | 2 | 2 | IZS | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.0 | 24 |
| 5 | 2.1 | 2.1 | IZS | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.0 | 24 | |
| 6 | 2.1 | IZS | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 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 |
| 7 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2.0 | 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 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | IZS | 2.3 | 2.3 | 2.1 | 24 | |
| 9 | 2.3 | 2.3 | 2.4 | 2.5 | 2.6 | 2.5 | 2.3 | 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 | IZS | 2.2 | 2.3 | 2.6 | 2.2 | 24 |
| 10 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | 2.2 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | IZS | 2.1 | 2.2 | 2.2 | 2.5 | 2.3 | 24 |
| 11 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.3 | 2.2 | 2.1 | 2 | 2.1 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | IZS | 2.1 | 2.1 | 2.1 | 2.1 | 2.5 | 2.2 | 24 |
| 12 | 2.2 | 2.1 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2.1 | 2 | 2.1 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | IZS | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.1 | 24 |
| 13 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.2 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2 | 1.9 | 1.9 | 2 | IZS | 2 | 2 | 2 | 2 | 2.2 | 2.2 | 2.3 | 2.1 | 24 | |
| 14 | 2.3 | 2.4 | 2.4 | 2.7 | 2.8 | 2.5 | 2.4 | 2.5 | 2.2 | 2.1 | 2.2 | 2 | 2 | 1.9 | 2 | 2 | IZS | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.8 | 2.2 | 24 |
| 15 | 1.9 | 2.1 | 2 | 2.1 | 2.6 | 2.4 | 2.3 | 2.2 | 2.1 | 2.2 | 2.1 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.6 | 2.1 | 24 |
| 16 | 2.2 | 2 | 2.2 | 2.3 | 2.5 | 2.7 | 2.6 | 2.2 | 2 | 2 | 2 | M | 1.9 | 1.9 | IZS | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.5 | 2.3 | 2.7 | 2.2 | 23 | |
| 17 | 2.2 | 2.2 | 2.4 | 2.5 | 2.6 | 3 | 3 | 2.6 | 2.1 | M | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.5 | 3.0 | 2.3 | 23 | |
| 18 | 2.5 | 2.4 | 2.3 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.1 | 2.2 | 2.5 | 2.1 | 24 | |
| 19 | 2.2 | 2.2 | 2.3 | 2.4 | 2.7 | 3 | 3 | 2.7 | 2.4 | 2.1 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 3.0 | 2.2 | 24 | |
| 20 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.0 | 24 | |
| 21 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.1 | 2.0 | 24 |
| 22 | 2 | 1.9 | 2 | 1.9 | 1.9 | 2 | IZS | 2.4 | IZS | 2.4 | 2.4 | 2.4 | 2.2 | 2.1 | 2 | 2.1 | 2.2 | 2.3 | 2.3 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.1 | 24 | |
| 23 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.0 | 24 |
| 24 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | IZS | 2.3 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | C | C | C | 2 | 2 | 2.1 | 2.1 | 2 | 2 | 2.3 | 2.1 | 24 | |
| 25 | 2 | 2.1 | 2.1 | 2.1 | 2.2 | IZS | 2.2 | 2.1 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 1.9 | 2 | 1.9 | 1.9 | 2 | 2 | 1.9 | 2.2 | 2.0 | 2.0 | 24 | |
| 26 | 1.9 | 2 | 2.2 | 2.2 | IZS | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.0 | 24 | |
| 27 | 2 | 2 | 2 | IZS | 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 | 2.2 | 2.0 | 24 |
| 28 | 2.1 | 2.2 | IZS | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2 | 2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.3 | 2.1 | 24 |
| 29 | 2.1 | IZS | 2.5 | 2.5 | 2.3 | 2.4 | 2.4 | 2.3 | 2.5 | 2.5 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.5 | 2.2 | 24 |
| 30 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.2 | IZS | 2.2 | 2.0 | 24 |
| HOURLY MAX | 2.5 | 2.4 | 2.7 | 2.7 | 2.8 | 3.0 | 3.0 | 2.7 | 2.5 | 2.5 | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.3 | 2.3 | 2.1 | 2.2 | 2.3 | 2.5 | 2.5 | | | | |
| HOURLY AVG | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 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 | 2.0 | 2.1 | 2.1 | | | | |

STATUS FLAG CODES

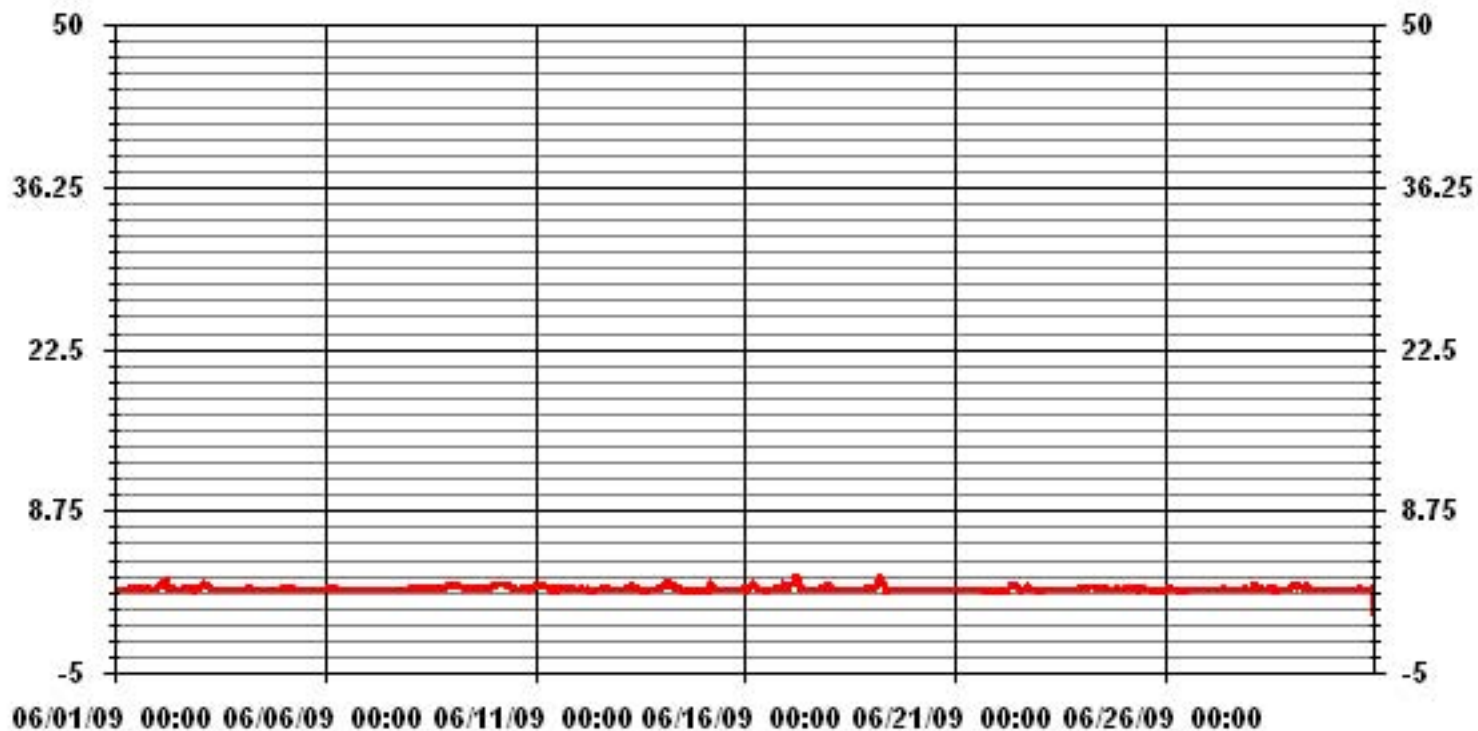
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |



MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|--------------|-------|
| NUMBER OF NON-ZERO READINGS: | 681 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 3.0 | PPM | @ HOUR(S) | 5, 6 | ON DAY(S) | 17 |
| MAXIMUM 24-HR AVERAGE: | 2.3 | PPM | | | ON DAY(S) | 2, 17 |
| | | | | | VAR- VARIOUS | |
| IZS CALIBRATION TIME: | 33 | HRS | OPERATIONAL TIME: | | 717 | HRS |
| MONTHLY CALIBRATION TIME: | 3 | HRS | AMD OPERATION UPTIME: | | 99.6 | % |
| STANDARD DEVIATION: | 0.17 | | MONTHLY AVERAGE: | | 2.10 | PPM |

01 Hour Averages



— LICA30 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

| MST | | | | | | | | | | | | | | | | | | | | | | | | | | DAILY | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|------------|------------|------------|------------|------------|-------|------------|------|-------|-----|----|
| HOURLY MAX | HOURLY AVG | 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 | MAX. | AVG. | RDGS. | | |
| | DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2.1 | 2.3 | 2.4 | 2.1 | 2 | IZS | 2.4 | 2.2 | 2.2 | M | 2.1 | 2.1 | 2.3 | 2.2 | 2.1 | 2.1 | 2.1 | 2.3 | 2.1 | 2.3 | 2.2 | 2.3 | 2.2 | 2.2 | 2.7 | 2.7 | 2.2 | 2.3 | | |
| | 2 | IZS | 3.7 | 3 | 2.7 | 3.2 | 3.3 | 2.9 | M | 2.5 | 2.3 | M | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.5 | 2.3 | 2.3 | 2.6 | 2.2 | 2.4 | 3.7 | 2.5 | 2.2 | 24 | | |
| | 3 | 2.7 | 2.7 | 3.1 | 2.7 | IZS | 2.7 | 2.9 | 2.6 | 2.3 | 2.4 | 2.2 | 2.2 | 2 | 2.1 | 2.2 | 2 | 2 | 2 | 2.1 | 2 | 2 | 2.2 | 2 | 2.4 | 3.1 | 2.3 | 2.4 | 24 | | |
| | 4 | 2 | 2.2 | 2.1 | IZS | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.4 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2.1 | 2.2 | 2.1 | 2.2 | 2.5 | 2.5 | 2.1 | 24 | | |
| | 5 | 2.1 | 2.2 | IZS | 2.2 | 2.2 | 2.1 | 2.5 | 2.7 | 2.1 | 2 | 2.1 | 2.1 | 2.1 | 2.2 | 2 | 2 | 2.3 | 2.1 | 2.5 | 2.2 | 2.2 | 2.4 | 2.1 | 2.3 | 2.7 | 2.2 | 2.4 | 24 | | |
| | 6 | 2.3 | IZS | 2.3 | 2.4 | 2.3 | 2.5 | 2.4 | 2.1 | 2.1 | 2.1 | 2 | 2.3 | 2.1 | 2.2 | 2.5 | 2 | 2 | 2.1 | 2.1 | 2 | 2 | 2.2 | 2 | 2 | 2.5 | 2.2 | 2.4 | 24 | | |
| | 7 | IZS | 2.3 | 2.1 | 2 | 2.1 | 2.1 | 2 | 2 | 2 | 2.1 | 2.2 | 2 | 2.1 | 2.4 | 2.1 | 2 | 2.3 | 2.2 | 2.1 | 2.1 | 2.4 | 2.1 | 2.1 | IZS | 2.4 | 2.1 | 2.4 | 24 | | |
| | 8 | 2.1 | 2.2 | 2.3 | 2.2 | 2.1 | 2.1 | 2.3 | 2.1 | 2.3 | 2 | 2.2 | 2.6 | 2.1 | 2.4 | 2.3 | 2 | 2 | 2.1 | 2 | 2.5 | 2.2 | 2.2 | IZS | 2.3 | 2.6 | 2.2 | 2.4 | 24 | | |
| | 9 | 2.3 | 2.4 | 2.5 | 2.5 | 2.8 | 2.8 | 2.3 | 2.1 | 2.5 | 2.1 | 2.4 | 2.3 | 2 | 2.1 | 2.6 | 2.1 | 2.1 | 2.3 | 2 | 2 | 2.2 | IZS | 2.3 | 2.2 | 2.8 | 2.3 | 2.4 | 24 | | |
| | 10 | 2.5 | 2.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.5 | 2.5 | 2.2 | 2.2 | 2.3 | 2.2 | 2.4 | 2.2 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | IZS | 2.2 | 2.3 | 2.1 | 2.5 | 2.3 | 2.4 | 24 | | |
| | 11 | 2.3 | 2.6 | 2.4 | 2.6 | 2.4 | 2.5 | 2.5 | 2.3 | 2.2 | 2.1 | 2 | 2.3 | 2.3 | 2.5 | 2.4 | 2.3 | 2.1 | 2.4 | 2 | IZS | 2 | 2 | 2.2 | 2.1 | 2.6 | 2.3 | 2.4 | 24 | | |
| | 12 | 2.2 | 2.2 | 2.1 | 2.2 | 2.3 | 2.1 | 2.1 | 2 | 2.2 | 2 | 2 | 2.4 | 2 | 2.3 | 2 | 2 | 2.1 | 2.3 | 2 | IZS | 2 | 2.1 | 2.2 | 2.1 | 2.2 | 2.4 | 2.1 | 2.4 | 24 | |
| | 13 | 2 | 2 | 2.1 | 2.1 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.2 | 2.3 | 2.1 | 2.1 | 2 | 2.2 | IZS | 2.1 | 2 | 2 | 2.1 | 2.3 | 2.2 | 2.4 | 2.2 | 2.4 | 24 | | |
| | 14 | 2.4 | 2.5 | 2.5 | 3.5 | 3.4 | 2.6 | 3 | 2.8 | 2.5 | 2.3 | 2.3 | 2 | 2 | 2 | 2 | 2 | IZS | 2 | 2.3 | 2.2 | 2 | 2.2 | 2.1 | 2 | 3.5 | 2.4 | 2.4 | 24 | | |
| | 15 | 2.2 | 2.8 | 2.1 | 2.5 | 2.8 | 2.6 | 2.6 | 2.6 | 2.2 | 2.4 | 2.1 | 2.2 | 2 | 2.4 | 2 | IZS | 2.2 | 2.1 | 2.2 | 2.2 | 2.3 | 2.6 | 2.1 | 2.2 | 2.8 | 2.3 | 2.4 | 24 | | |
| | 16 | 2.4 | 2.3 | 2.3 | 2.3 | 2.8 | 3.1 | 2.8 | 2.6 | 2.1 | 2.1 | 2.1 | M | 1.9 | 1.9 | IZS | 2.3 | 2.1 | 2.2 | 2.3 | 2.3 | 2.3 | 2.2 | 2.9 | 2.7 | 3.1 | 2.4 | 2.3 | 24 | | |
| | 17 | 2.4 | 2.3 | 2.6 | 2.8 | 3.1 | 4.4 | M | 3.9 | 2.1 | M | 2.1 | 2 | 2 | IZS | 2.2 | 2 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.5 | 3.1 | 4.4 | 2.5 | 2.2 | 24 | |
| | 18 | 2.7 | 3 | 2.6 | 2.5 | 2.4 | 2.3 | 2 | 2 | 2 | 2 | 2.1 | 2.2 | IZS | 2.1 | 2.3 | 2.4 | 2.2 | 2.1 | 2.3 | 2.7 | 2.2 | 2.4 | 2.5 | 2.2 | 3 | 2.3 | 2.4 | 24 | | |
| | 19 | 2.4 | 2.3 | 2.3 | 2.5 | 2.9 | 3.1 | 3.4 | 3.2 | 2.8 | 2.3 | 2.2 | IZS | 2.2 | 2.3 | 2.2 | 2.2 | 2.4 | 2.3 | 2.1 | 2.2 | 2.3 | 2.4 | 2.1 | 2.1 | 3.4 | 2.4 | 2.4 | 24 | | |
| | 20 | 2.6 | 2.2 | 2.1 | 2.1 | 2.3 | 2.1 | 2.2 | 2 | 2 | 2 | IZS | 2.3 | 2 | 2 | 2 | 2.2 | 2 | 2.1 | 2 | 2.2 | 2 | 2.1 | 2.4 | 2.6 | 2.1 | 2.4 | 2.4 | 24 | | |
| | 21 | 2.3 | 2.1 | 2.1 | 2.1 | 2.3 | 2.3 | 2 | 2.1 | 2.3 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.3 | 2 | 2.3 | 1.9 | 1.9 | 2 | 2.2 | 2.3 | 2.1 | 2.4 | 24 | |
| | 22 | 2.2 | 2 | 2.1 | 2.1 | 2.4 | 2.2 | IZS | M | IZS | 2.6 | 2.8 | 2.6 | 2.4 | 2.3 | 2.1 | 2.5 | 2.6 | 2.5 | 2.7 | 2.4 | 2.1 | 2 | 2.3 | 2 | 2.8 | 2.3 | 2.3 | 24 | | |
| | 23 | 2.1 | 2 | 2.5 | 2 | 2.2 | 2 | 2.3 | IZS | 2 | 2.1 | 2.3 | 2.2 | 2.1 | 2.3 | 2.1 | 2.2 | M | 2.2 | 2.1 | 2.3 | 2.5 | 2.1 | 2.2 | 2.3 | 2.5 | 2.2 | 2.3 | 2.4 | 24 | |
| | 24 | 2.4 | 2.2 | 2.3 | 2.2 | 2.5 | 2.3 | IZS | 2.6 | 2.5 | 2.5 | 2.2 | 2.4 | 2.6 | 2.3 | 2.5 | C | C | C | C | 2.3 | 2.1 | 2.2 | 2 | 2 | 2.6 | 2.3 | 2.4 | 24 | | |
| | 25 | 2 | 2.2 | 2.1 | 2.2 | 2.2 | IZS | 2.4 | 2.2 | 2.1 | 2.1 | 2.3 | 2.2 | M | M | 2 | 2.2 | 2.1 | 2 | 2.4 | 1.9 | 2 | 2.2 | 2.2 | 2.7 | 2.7 | 2.2 | 2.2 | 24 | | |
| | 26 | 2.2 | 2 | 2.3 | 2.4 | IZS | 2.1 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.2 | 2 | 2.4 | 2.1 | 2.6 | 2 | 2.3 | 2.2 | 2.1 | 2 | 2 | 2.1 | 2.6 | 2.1 | 2.4 | 24 | | |
| | 27 | 2.2 | 2 | 2.2 | IZS | 2 | 2.2 | 2 | 2 | 2 | 2.6 | 2.2 | 2.2 | 2.1 | 2 | 2 | 2.3 | 2 | 2.7 | 2 | 2.6 | 2.1 | 2.1 | 2.1 | 2.2 | 2.7 | 2.2 | 2.4 | 24 | | |
| | 28 | 2.2 | 2.2 | IZS | 2.4 | 2.4 | 2.4 | 2.4 | 2.2 | 2.5 | 2.1 | 2.1 | 2.1 | 2.3 | 2.2 | 2.2 | 2.1 | 2.2 | 2.5 | 2 | 2.1 | 2 | 2.4 | 2 | 2.2 | 2.5 | 2.2 | 2.4 | 24 | | |
| | 29 | 2.2 | IZS | 2.5 | 2.6 | 2.4 | 2.4 | 2.4 | 2.4 | 2.6 | 3 | 2.3 | 2.3 | 2 | 2.6 | 2 | 2.3 | 2.4 | 2 | 2 | 2 | 2.1 | 2.3 | 2.1 | 2.1 | 2.3 | 3 | 2.3 | 2.4 | 24 | |
| | 30 | IZS | 2 | 2.3 | 2.2 | 2 | 2.3 | 2.4 | 2 | 2.1 | 2.1 | 2.2 | 2.3 | 2.1 | 2.4 | 2 | 2.5 | 2.5 | 2 | 2.2 | 2.1 | 2.3 | 2.3 | 2.4 | IZS | 2.5 | 2.2 | 2.4 | 24 | | |
| | HOURLY MAX | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 24 | |
| | HOURLY AVG | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | 2.4 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 24 |

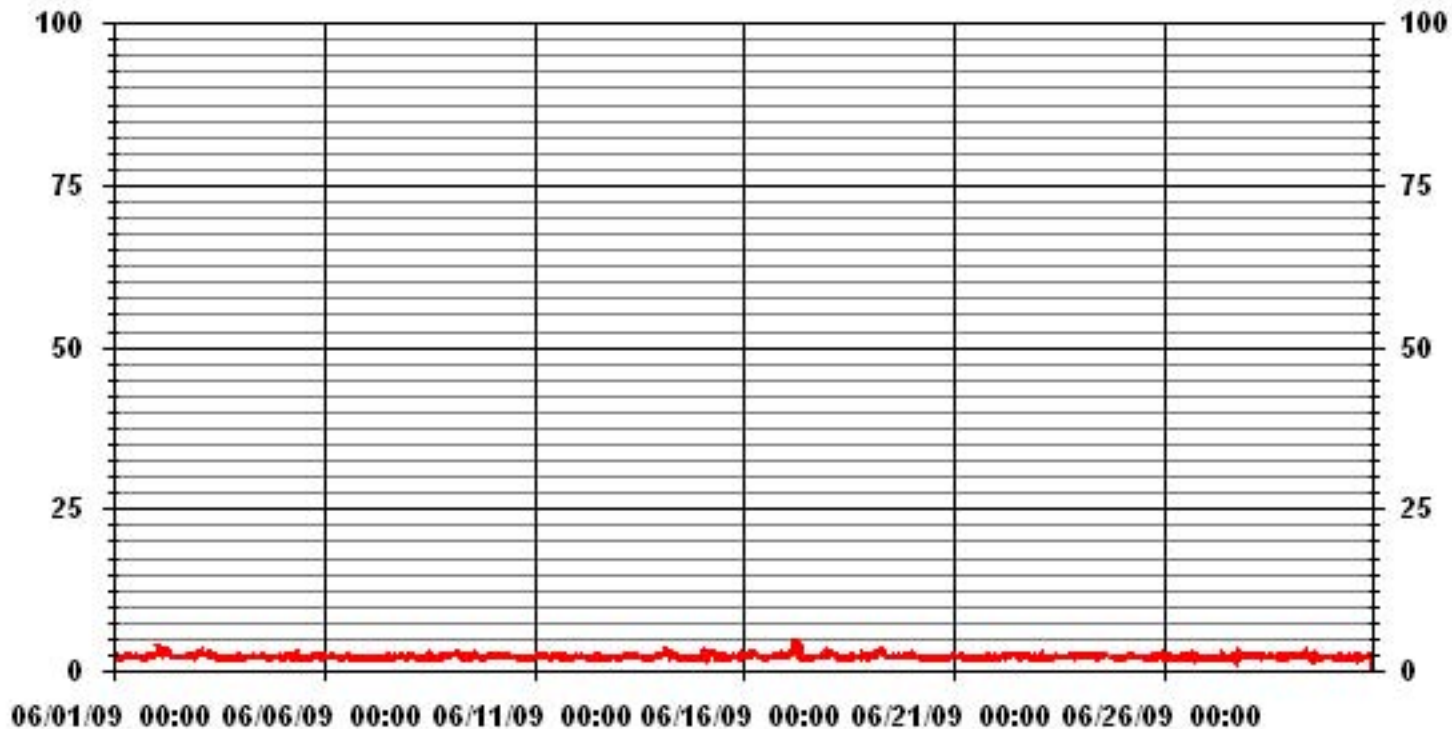
STATUS FLAG CODES

| | |
|----------------------------------|-----------------------------------|
| S - OUT OF SERVICE | IZS - IZS - DAILY ZERO/SPAN CHECK |
| N - INVALID DATA | M - MISSING DATA |
| D - INSTRUMENT DRIFT | P - POWER FAILURE |
| C - CALIBRATION | NA - NOT APPLICABLE |
| BB - BELOW BACKGROUND OF 1.5 PPM | |

MONTHLY SUMMARY

| | |
|------------------------------|----------------------------------|
| NUMBER OF NON-ZERO READINGS: | 673 |
| MAXIMUM INSTANTANEOUS VALUE: | 4.4 PPM @ HOUR(S) 5 ON DAY(S) 17 |
| IZS CALIBRATION TIME: | 33 HRS |
| MONTHLY CALIBRATION TIME: | 4 HRS |
| STANDARD DEVIATION: | 0.27 |
| OPERATIONAL TIME: | 710 HRS |

01 Hour Averages



— LICA30 THCMAX PPM

LICA30
 THC / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : THC
 Units : PPM

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 |
| < 3.0 | 6.90 | 3.37 | 7.63 | 6.46 | 2.34 | 3.23 | 5.87 | 7.34 | 5.43 | 12.77 | 9.39 | 6.02 | 6.16 | 5.72 | 5.28 | 5.43 | 99.41 |
| < 10.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .14 | .14 | .29 | .00 | .00 | .00 | .00 | .58 |
| < 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 | 6.90 | 3.37 | 7.63 | 6.46 | 2.34 | 3.23 | 5.87 | 7.34 | 5.43 | 12.92 | 9.54 | 6.31 | 6.16 | 5.72 | 5.28 | 5.43 | |

Calm : .00 %

Total # Operational Hours : 681

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3.0 | 47 | 23 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 87 | 64 | 41 | 42 | 39 | 36 | 37 | 677 |
| < 10.0 | | | | | | | | | | 1 | 1 | 2 | | | | | 4 |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 47 | 23 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 88 | 65 | 43 | 42 | 39 | 36 | 37 | |

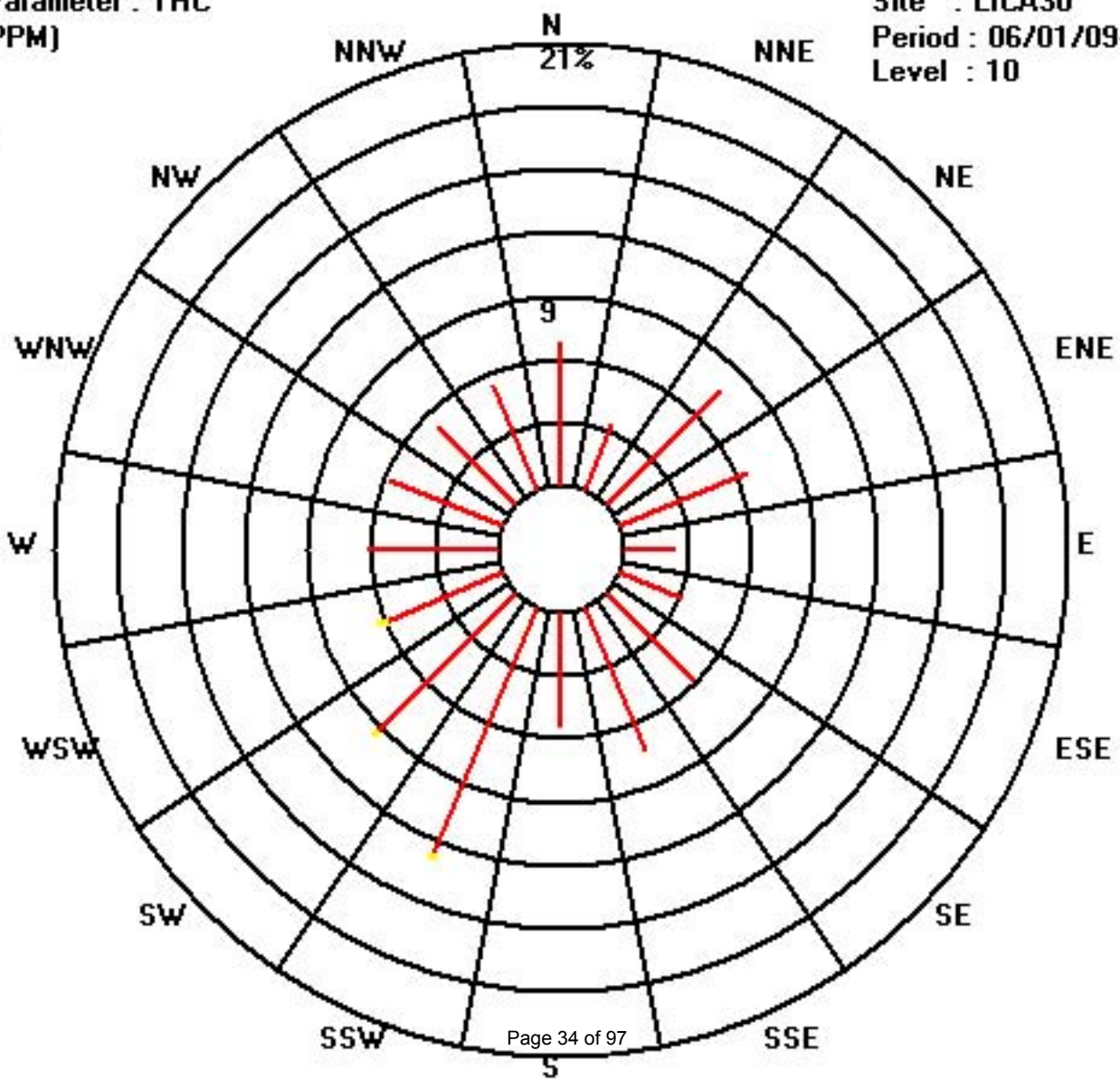
Calm : .00 %

Total # Operational Hours : 681

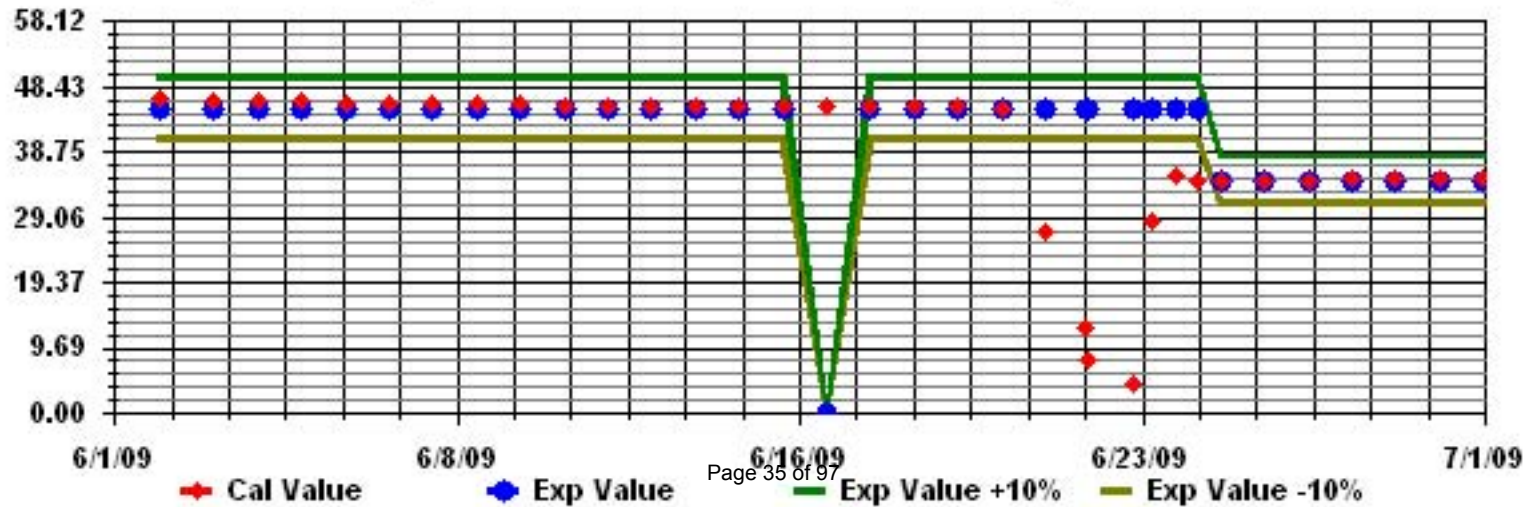
Class Limits (PPM)

Period : 06/01/09-06/30/09

Level : 10



Calibration Graph for Site: LICA30 Parameter: THC Sequence: THC Phase: SPAll



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

NITROGEN DIOXIDE hourly averages 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 | DAILY | 24-HOUR | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-----|----|
| 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 | 1 | 0 | 0 | 0 | 0 | IZS | 2 | 1 | 1 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 2 | 0.2 | 23 | | |
| 2 | 0 | 1 | 1 | 1 | 2 | 2 | 6 | 3 | 1 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 4 | 3 | 3 | 0 | 1 | 6 | 1.7 | 24 | | |
| 3 | 1 | 0 | 2 | 4 | IZS | 4 | 13 | 10 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 13 | 2.0 | 24 | | |
| 4 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 24 | | |
| 6 | 0 | IZS | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | |
| 7 | IZS | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | IZS | 2 | 0.5 | 24 | | |
| 8 | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 5 | 0.4 | 24 | |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 1 | 3 | 2 | 1 | 4 | 2 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | IZS | 1 | 2 | 4 | 1.2 | 24 | |
| 10 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 1 | 1 | 1 | 4 | 1.5 | 24 |
| 11 | 2 | 2 | 3 | 3 | 4 | 7 | 6 | 5 | 5 | 1 | 1 | 1 | 2 | 1 | 3 | 2 | 1 | 3 | 0 | IZS | 0 | 0 | 0 | 0 | 7 | 2.3 | 24 | | |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 1 | 0.0 | 24 | |
| 13 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 1.0 | 24 | | |
| 14 | 1 | 0 | 0 | 0 | 1 | 3 | 3 | 9 | 8 | 6 | 2 | 0 | 0 | 0 | 1 | 0 | IZS | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 9 | 1.7 | 24 | | |
| 15 | 1 | 1 | 1 | 1 | 9 | 5 | 3 | 3 | 3 | 4 | 5 | 2 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 2.1 | 24 | | |
| 16 | 2 | 1 | 2 | 3 | 3 | 2 | 8 | 4 | 1 | 1 | 4 | M | 1 | 2 | IZS | 2 | 0 | 0 | 0 | 1 | 1 | 3 | 5 | 6 | 3 | 8 | 2.5 | 23 | |
| 17 | 0 | 1 | 1 | 1 | 1 | 2 | 7 | 5 | 2 | M | 0 | 0 | 0 | IZS | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 1.0 | 23 | | |
| 18 | 0 | 0 | 4 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | 1 | 3 | IZS | 3 | 3 | 4 | 3 | 3 | 2 | 0 | 1 | 3 | 3 | 1 | 4 | 1.7 | 24 | | |
| 19 | 0 | 0 | 0 | 1 | 3 | 4 | 4 | 3 | 3 | 2 | 1 | IZS | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 1.1 | 24 | | | |
| 20 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 3 | 6 | 0 | IZS | 2 | 3 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1.1 | 24 | | |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | | |
| 22 | 0 | 0 | 1 | 0 | 0 | 1 | 6 | 11 | IZS | 5 | 8 | 9 | 5 | 6 | 3 | 3 | 8 | 7 | 8 | 2 | 1 | 0 | 0 | 0 | 11 | 3.7 | 24 | | |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | | |
| 24 | 0 | 0 | 1 | 1 | 1 | 3 | IZS | 5 | 2 | 1 | 1 | 0 | C | C | C | C | C | C | C | C | 0 | 1 | 0 | 0 | 5 | 1.0 | 24 | | |
| 25 | 0 | 0 | 0 | 0 | 0 | IZS | 3 | 7 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 7 | 1.0 | 24 | | |
| 26 | 0 | 0 | 3 | 2 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 24 | | |
| 27 | 0 | 0 | 0 | IZS | 0 | 1 | 1 | 1 | 0 | 4 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.5 | 24 | | |
| 28 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0.3 | 24 | | |
| 29 | 0 | IZS | 0 | 0 | 1 | 2 | 3 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.6 | 24 | | |
| 30 | IZS | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 4 | 0.5 | 24 | | |
| HOURLY MAX | 5 | 2 | 4 | 4 | 9 | 7 | 13 | 11 | 8 | 6 | 8 | 9 | 5 | 6 | 3 | 4 | 8 | 7 | 8 | 4 | 3 | 5 | 6 | 3 | | | | | |
| HOURLY AVG | 0.6 | 0.4 | 0.9 | 0.8 | 1.2 | 1.6 | 2.8 | 3.0 | 1.6 | 1.5 | 1.3 | 0.9 | 0.7 | 0.9 | 0.7 | 0.9 | 0.8 | 0.7 | 0.8 | 0.3 | 0.5 | 0.7 | 0.5 | 0.4 | | | | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

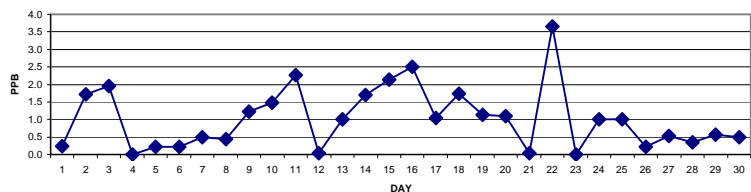
OBJECTIVE LIMIT:

| ALBERTA ENVIRONMENT: | 1-HR | 24-HR |
|----------------------|---------|---------|
| | 212 PPB | 106 PPB |

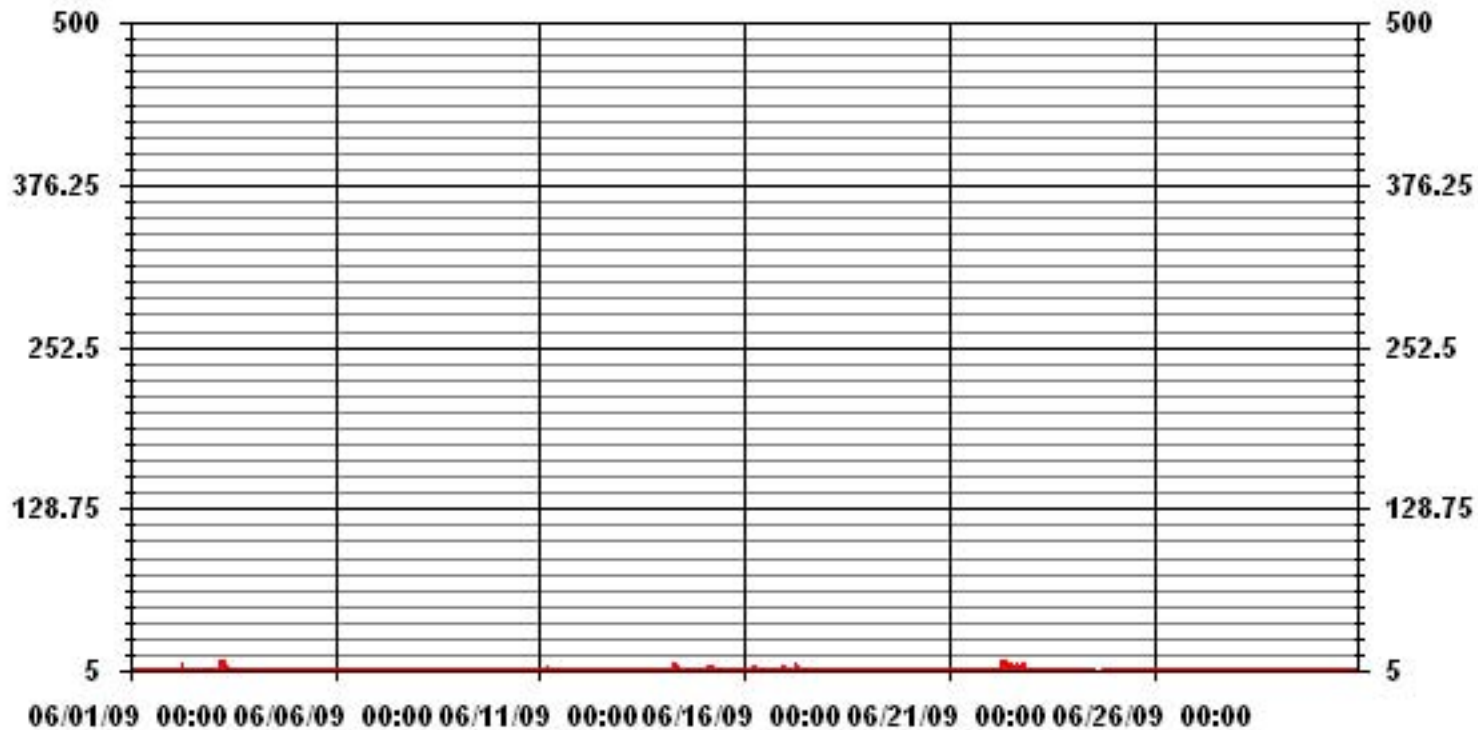
MONTHLY SUMMARY

| | | | |
|------------------------------|--------------------------------|-----------------------|----------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | |
| NUMBER OF NON-ZERO READINGS: | 291 | | |
| MAXIMUM 1-HR AVERAGE: | 13 PPB @ HOUR(S) 6 ON DAY(S) 3 | | |
| MAXIMUM 24-HR AVERAGE: | 3.7 PPB ON DAY(S) 22 | | |
| IZS CALIBRATION TIME: | 32 HRS | OPERATIONAL TIME: | 717 HRS |
| MONTHLY CALIBRATION TIME: | 7 HRS | AMD OPERATION UPTIME: | 99.6 % |
| STANDARD DEVIATION: | 1.75 | MONTHLY AVERAGE: | 1.02 PPB |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

NITROGEN DIOXIDE 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----|
| 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 | 2 | 0 | 0 | 0 | 0 | IZS | 5 | 4 | 7 | M | 2 | 0 | 3 | 2 | 0 | 2 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 1 | 7 | 1.3 | 23 | |
| 2 | 1 | 1 | 2 | 2 | 3 | 4 | 19 | M | 2 | 8 | M | 12 | 8 | 10 | 3 | 4 | 4 | 0 | 9 | 9 | 4 | 6 | 1 | 2 | 19 | 5.2 | 22 | |
| 3 | 3 | 1 | 4 | 5 | IZS | 11 | 26 | 20 | 9 | 7 | 7 | 12 | 2 | 1 | 0 | 1 | 1 | 1 | 1 | 5 | 15 | 2 | 0 | 26 | 5.9 | 24 | | |
| 4 | 1 | 1 | 0 | IZS | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.5 | 24 | |
| 5 | 0 | 0 | IZS | 0 | 3 | 1 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 5 | 9 | 5 | 0 | 0 | 0 | 0 | 9 | 1.4 | 24 | |
| 6 | 0 | IZS | 1 | 1 | 5 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 3 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1.1 | 24 | |
| 7 | IZS | 0 | 1 | 0 | 5 | 5 | 2 | 6 | 3 | 7 | 5 | 2 | 2 | 0 | 5 | 3 | 7 | 1 | 5 | 2 | 1 | 0 | 1 | IZS | 7 | 2.9 | 24 | |
| 8 | 10 | 2 | 0 | 1 | 0 | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 8 | 8 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | IZS | 0 | 10 | 2.0 | 24 | |
| 9 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 7 | 5 | 2 | 4 | 4 | 3 | 7 | 4 | 4 | 3 | 2 | 1 | 1 | 0 | IZS | 2 | 3 | 7 | 2.6 | 24 | |
| 10 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 5 | 4 | 17 | 3 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 2 | 17 | 3.0 | 24 | |
| 11 | 2 | 3 | 3 | 4 | 13 | 12 | 1 | 11 | 11 | 5 | 3 | 5 | 8 | 4 | 7 | 11 | 6 | 18 | 0 | IZS | 0 | 1 | 1 | 1 | 18 | 5.7 | 24 | |
| 12 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | IZS | 1 | 1 | 1 | 0 | 2 | 3 | 0.9 | 24 | |
| 13 | 3 | 2 | 1 | 1 | 2 | 1 | 2 | 10 | 3 | 3 | 2 | 2 | 2 | 1 | 3 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 10 | 2.0 | 24 | |
| 14 | 1 | 1 | 1 | 2 | 2 | 9 | 5 | 12 | 10 | 8 | 5 | 1 | 2 | 3 | 2 | 1 | IZS | 1 | 1 | 1 | 2 | 8 | 8 | 2 | 12 | 3.8 | 24 | |
| 15 | 2 | 1 | 2 | 5 | 12 | 7 | 5 | 5 | 5 | 5 | 9 | 3 | 2 | 4 | 3 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 12 | 3.7 | 24 | |
| 16 | 2 | 2 | 3 | 9 | 5 | 4 | 14 | 8 | 2 | 2 | 6 | M | 1 | 5 | IZS | 6 | 1 | 3 | 3 | 8 | 8 | 6 | 11 | 8 | 14 | 5.3 | 23 | |
| 17 | 1 | 2 | 1 | 4 | 3 | 4 | M | 22 | 5 | M | 2 | 0 | 1 | IZS | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 22 | 2.9 | 22 | |
| 18 | 1 | 4 | 7 | 2 | 7 | 7 | 8 | 2 | 4 | 1 | 5 | 16 | IZS | 9 | 8 | 17 | 14 | 10 | 10 | 4 | 4 | 4 | 4 | 3 | 17 | 6.6 | 24 | |
| 19 | 1 | 1 | 1 | 3 | 4 | 6 | 4 | 5 | 6 | 15 | 2 | IZS | 13 | 3 | 4 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 15 | 3.3 | 24 | |
| 20 | 1 | 1 | 1 | 0 | 1 | 5 | 11 | 29 | 27 | 8 | IZS | 7 | 12 | 3 | 4 | 2 | 30 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 6.3 | 24 | |
| 21 | 0 | 0 | 0 | 0 | 0 | 17 | 9 | 1 | 1 | IZS | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 1.5 | 24 | |
| 22 | 1 | 1 | 3 | 3 | 1 | 3 | 12 | 14 | IZS | 10 | 12 | 14 | 14 | 9 | 7 | 13 | 13 | 15 | 14 | 8 | 8 | 0 | 2 | 0 | 15 | 7.7 | 24 | |
| 23 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.4 | 24 | |
| 24 | 0 | 0 | 2 | 1 | 1 | 7 | IZS | 46 | 4 | 3 | 3 | 4 | C | C | C | C | C | C | C | C | 64 | 3 | 1 | 0 | 0 | 64 | 8.7 | 24 |
| 25 | 0 | 0 | 1 | 1 | 1 | IZS | 8 | 15 | 4 | 1 | 3 | 1 | M | M | 2 | 3 | 5 | 4 | 13 | 2 | 0 | 2 | 4 | 1 | 15 | 3.4 | 22 | |
| 26 | 0 | 1 | 5 | 4 | IZS | 3 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 1.2 | 24 | |
| 27 | 0 | 0 | 0 | IZS | 1 | 5 | 4 | 2 | 2 | 7 | 8 | 6 | 7 | 2 | 3 | 5 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 8 | 2.7 | 24 | |
| 28 | 1 | 1 | IZS | 0 | 0 | 0 | 1 | 4 | 2 | 0 | 2 | 1 | 4 | 1 | 1 | 3 | 1 | 10 | 5 | 2 | 0 | 0 | 0 | 0 | 10 | 1.7 | 24 | |
| 29 | 0 | IZS | 2 | 2 | 5 | 3 | 6 | 4 | 5 | 5 | 4 | 3 | 13 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 13 | 2.9 | 24 | |
| 30 | IZS | 0 | 12 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 3 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 3 | IZS | 13 | 2.4 | 24 | |
| HOURLY MAX | 10 | 4 | 12 | 13 | 13 | 17 | 26 | 46 | 27 | 17 | 12 | 16 | 14 | 10 | 8 | 17 | 30 | 18 | 14 | 64 | 8 | 15 | 11 | 8 | | | | |
| HOURLY AVG | 1.4 | 1.1 | 2.0 | 2.4 | 2.8 | 4.5 | 5.6 | 8.5 | 4.3 | 4.4 | 3.3 | 4.3 | 4.1 | 3.2 | 2.6 | 3.7 | 3.7 | 2.9 | 2.9 | 4.3 | 1.5 | 1.8 | 1.7 | 1.2 | | | | |

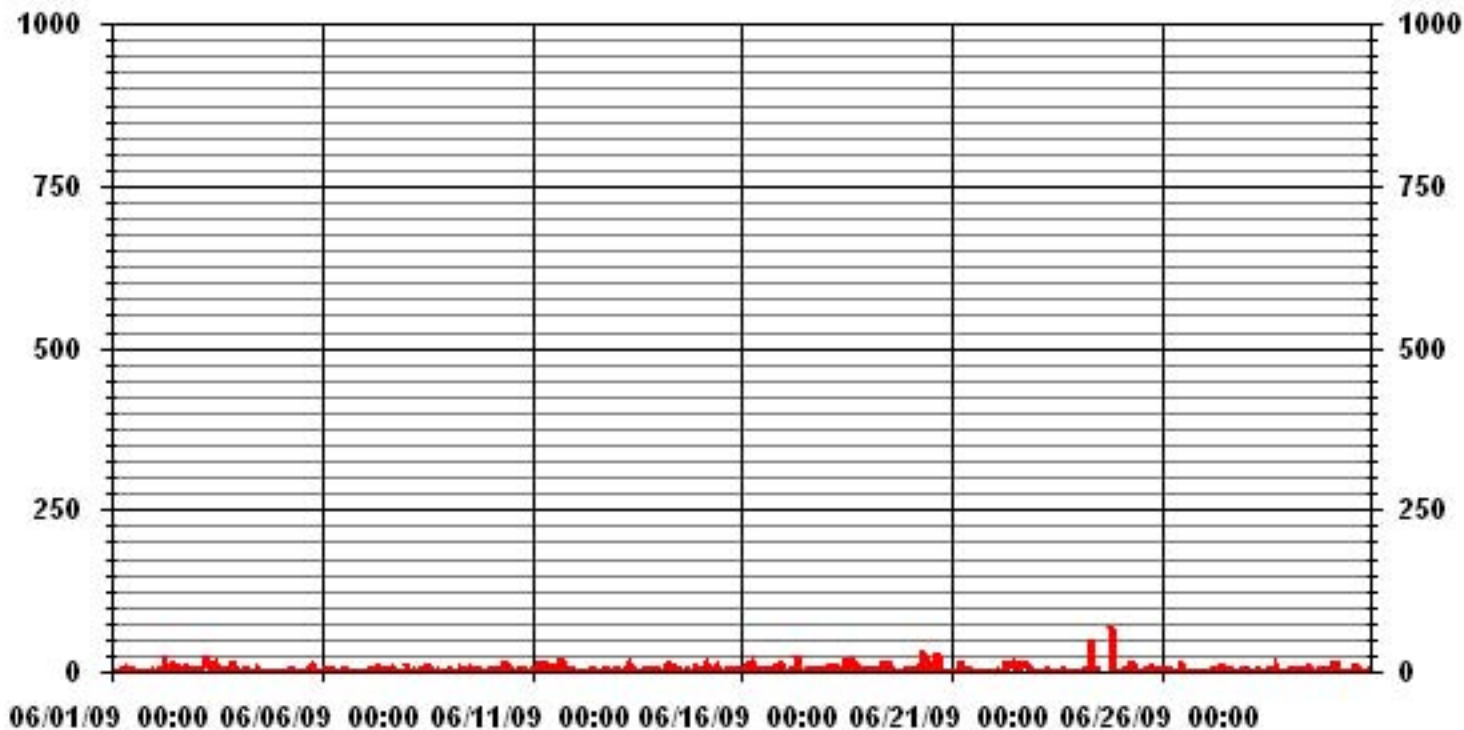
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 497 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 64 | PPB | @ HOUR(S) | 19 | ON DAY(S) | 24 |
| IZS CALIBRATION TIME: | 32 | HRS | OPERATIONAL TIME: | 712 | HRS | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | | | | |
| STANDARD DEVIATION: | 5.08 | | | | | |

01 Hour Averages



— LICA30 NO2MAX PPB

LICA30
NO2_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
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 | 6.93 | 3.24 | 7.66 | 6.48 | 2.35 | 3.24 | 5.89 | 7.37 | 5.45 | 12.97 | 9.58 | 6.19 | 6.19 | 5.60 | 5.30 | 5.45 | 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 | 6.93 | 3.24 | 7.66 | 6.48 | 2.35 | 3.24 | 5.89 | 7.37 | 5.45 | 12.97 | 9.58 | 6.19 | 6.19 | 5.60 | 5.30 | 5.45 | |

Calm : .00 %

Total # Operational Hours : 678

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 47 | 22 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 88 | 65 | 42 | 42 | 38 | 36 | 37 | 678 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 47 | 22 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 88 | 65 | 42 | 42 | 38 | 36 | 37 | |

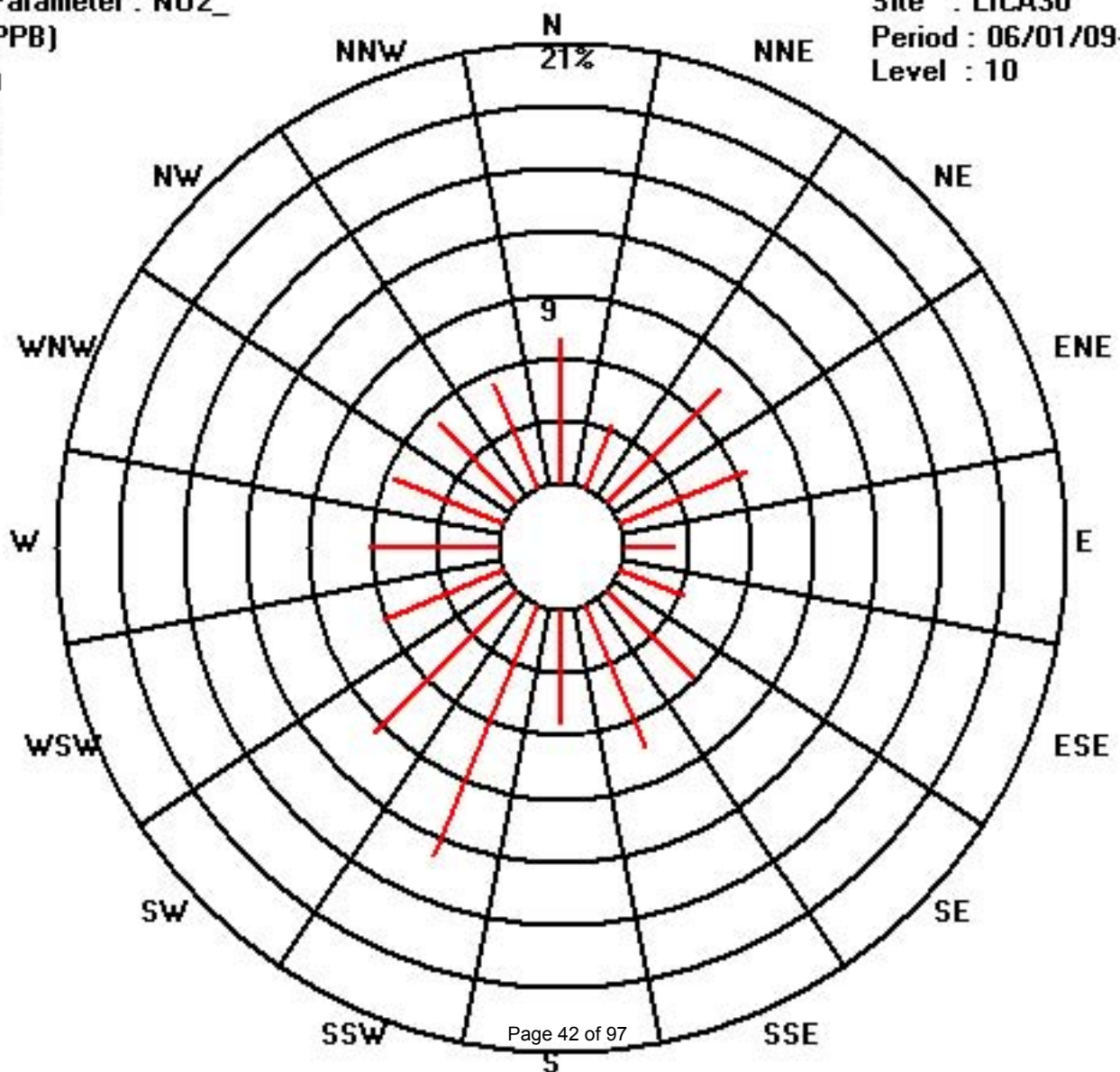
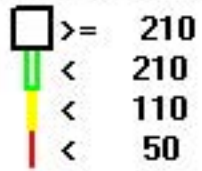
Calm : .00 %

Total # Operational Hours : 678

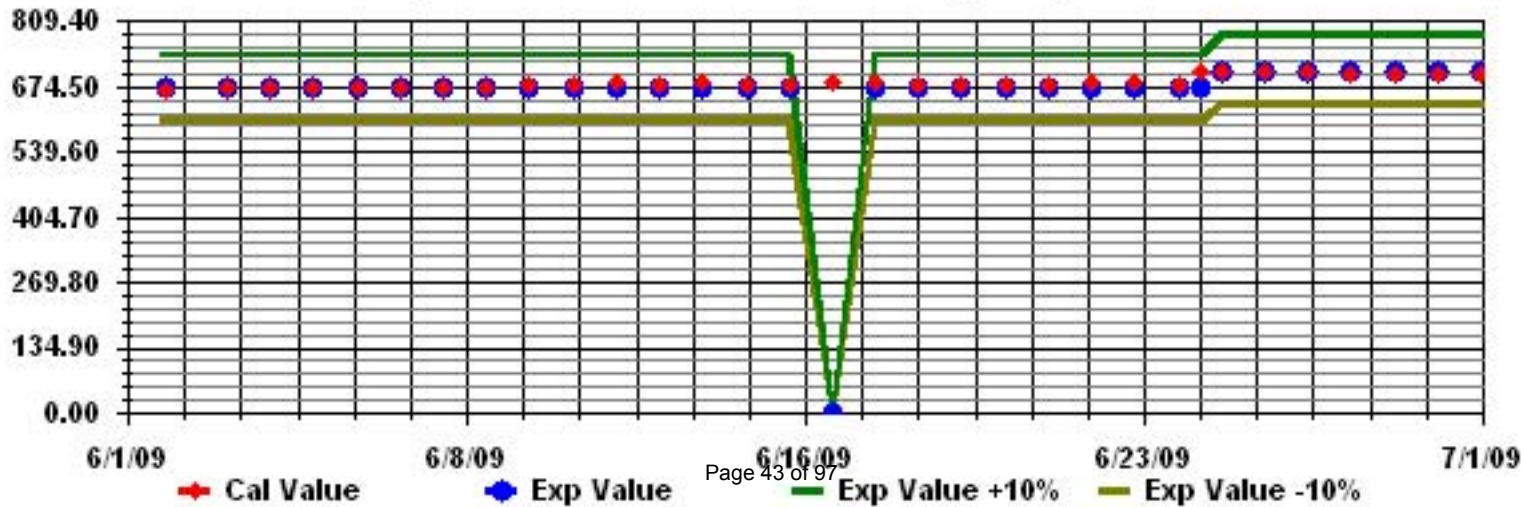
Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10



Calibration Graph for Site: LICA30 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

NITRIC OXIDE hourly averages 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 | DAILY 24-HOUR | | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|------|-------|-----|----|
| 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 | IZS | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 | |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.3 | 24 |
| 3 | 0 | 0 | 0 | 0 | IZS | 0 | 7 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0.5 | 24 |
| 4 | 0 | 0 | 0 | IZS | 0 | 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 | IZS | 0 | 0 | 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 | IZS | 0 | 0 | 0 | 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 | IZS | 0 | 0 | 0 | 0 | 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 | 0.0 | 24 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 1 | 0.1 | 24 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 1 | 0.0 | 24 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 12 | 0 | 0 | 0 | 0 | 0 | 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 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.3 | 24 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | M | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 23 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 2 | 0 | M | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0.4 | 23 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 |
| 19 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 2 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.3 | 24 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | IZS | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.6 | 24 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | 0 | 3 | 5 | IZS | 2 | 3 | 4 | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1.1 | 24 | |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 2 | 1 | 1 | 0 | 0 | C | C | C | C | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 24 | |
| 25 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 | |
| 26 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.4 | 24 | |
| 28 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | |
| 29 | 0 | IZS | 0 | 0 | 0 | 0 | 3 | 2 | 3 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.5 | 24 | |
| 30 | IZS | 0 | 0 | 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 | |
| HOURLY MAX | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 5 | 4 | 5 | 3 | 4 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| HOURLY AVG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.9 | 0.4 | 0.5 | 0.2 | 0.3 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

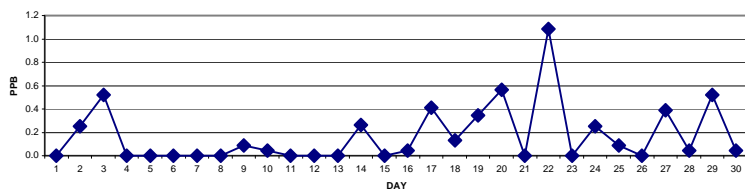
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

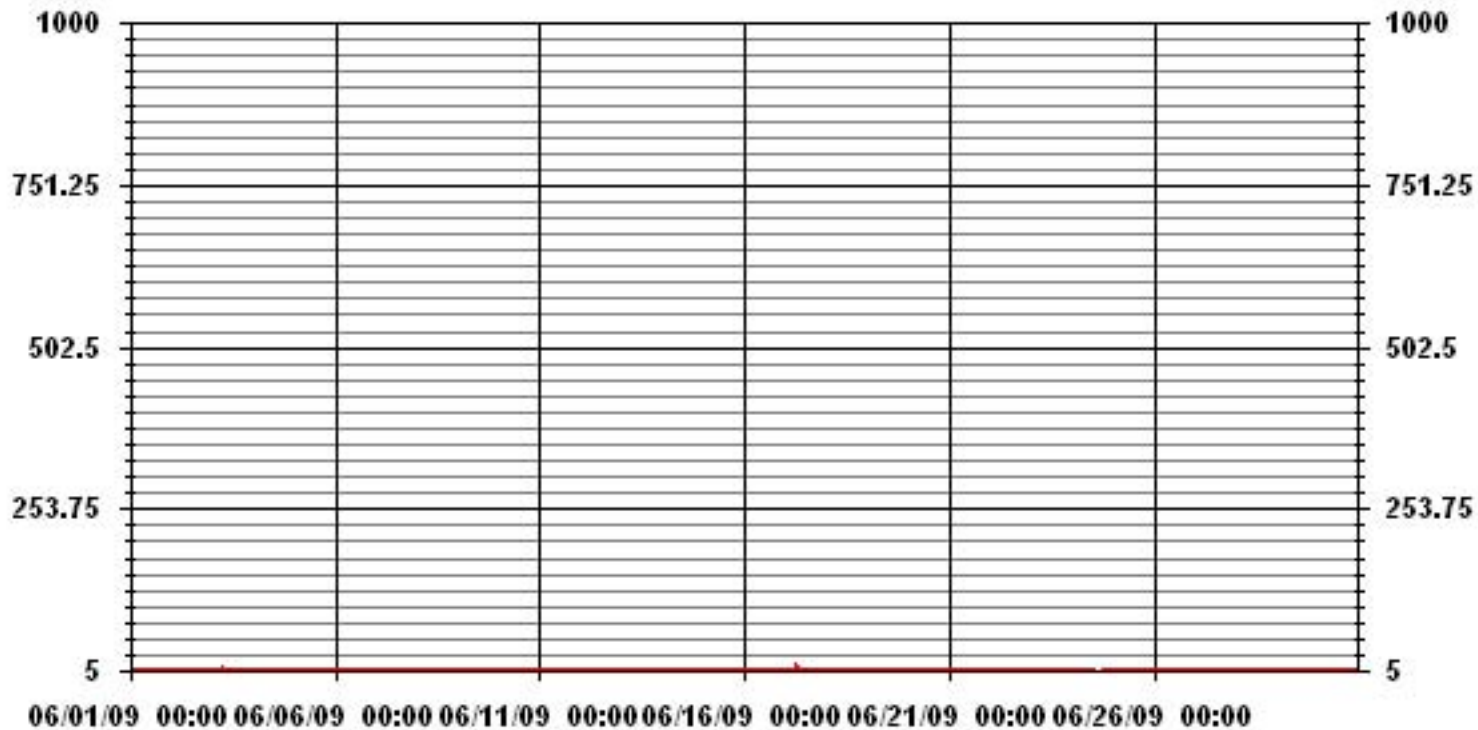
MONTHLY SUMMARY

| | | | |
|------------------------------|------|---------------|------------------------------|
| NUMBER OF NON-ZERO READINGS: | 51 | | |
| MAXIMUM 1-HR AVERAGE: | 7 | PPB @ HOUR(S) | 6, 6 ON DAY(S) 3, 17 |
| MAXIMUM 24-HR AVERAGE: | 1.1 | PPB | ON DAY(S) 22 |
| IZS CALIBRATION TIME: | 32 | HRS | OPERATIONAL TIME: 717 HRS |
| MONTHLY CALIBRATION TIME: | 7 | HRS | AMD OPERATION UPTIME: 99.6 % |
| STANDARD DEVIATION: | 0.73 | | MONTHLY AVERAGE: 0.17 PPB |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



— LICA30 NO_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

NITRIC OXIDE 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 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| 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 | IZS | 2 | 1 | 3 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 3 | 0.3 | 23 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | M | 0 | 24 | M | 19 | 3 | 12 | 1 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 4.4 | 22 |
| 3 | 0 | 0 | 0 | 0 | IZS | 3 | 30 | 25 | 4 | 3 | 2 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 30 | 3.4 | 24 |
| 4 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 24 |
| 5 | 0 | 0 | IZS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 |
| 6 | 0 | IZS | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 | 24 |
| 7 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.4 | 24 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.3 | 24 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.4 | 24 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 32 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 1.5 | 24 |
| 11 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 3 | 1 | 0 | 2 | 2 | 1 | 2 | 4 | 1 | 8 | 0 | IZS | 0 | 0 | 0 | 0 | 8 | 1.3 | 24 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0.7 | 24 |
| 14 | 0 | 0 | 0 | 0 | 0 | 7 | 1 | 6 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0.9 | 24 |
| 15 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 24 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | M | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.2 | 23 |
| 17 | 0 | 0 | 0 | 1 | 0 | 2 | M | 23 | 1 | M | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 1.3 | 22 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 14 | IZS | 13 | 5 | 39 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 4.1 | 24 |
| 19 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 5 | 7 | 0 | IZS | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1.5 | 24 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 49 | 47 | 7 | IZS | 8 | 24 | 2 | 2 | 1 | 25 | 1 | 0 | 0 | 0 | 0 | 0 | 49 | 7.4 | 24 | |
| 21 | 0 | 0 | 0 | 0 | 0 | 18 | 6 | 1 | 0 | IZS | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 1.1 | 24 |
| 22 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 7 | IZS | 5 | 6 | 15 | 16 | 2 | 1 | 5 | 5 | 3 | 1 | 0 | 0 | 1 | 0 | 16 | 3.5 | 24 | |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 15 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 1.6 | 24 | |
| 24 | 0 | 0 | 0 | 0 | 0 | 2 | IZS | 15 | 3 | 2 | 2 | 2 | C | C | C | C | C | C | C | 29 | 0 | 0 | 0 | 29 | 3.4 | 24 | |
| 25 | 0 | 0 | 0 | 0 | 1 | IZS | 2 | 6 | 2 | 1 | 3 | 0 | M | M | 1 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 6 | 1.0 | 22 | |
| 26 | 0 | 0 | 0 | 0 | IZS | 2 | 0 | 1 | 1 | 1 | 1 | 4 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0.7 | 24 |
| 27 | 0 | 0 | 0 | IZS | 0 | 1 | 2 | 1 | 1 | 8 | 7 | 6 | 5 | 1 | 1 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 1.9 | 24 |
| 28 | 0 | 0 | IZS | 0 | 0 | 0 | 2 | 3 | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 8 | 2 | 1 | 0 | 0 | 0 | 0 | 8 | 1.0 | 24 |
| 29 | 0 | IZS | 0 | 0 | 2 | 2 | 5 | 4 | 5 | 5 | 3 | 3 | 7 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 7 | 1.8 | 24 | |
| 30 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.5 | 24 |
| HOURLY MAX | 0 | 0 | 0 | 1 | 2 | 18 | 32 | 49 | 47 | 32 | 7 | 19 | 24 | 13 | 5 | 39 | 25 | 8 | 3 | 29 | 1 | 1 | 1 | 1 | | | |
| HOURLY AVG | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 1.6 | 3.7 | 6.2 | 2.9 | 3.7 | 1.2 | 3.2 | 2.7 | 1.7 | 0.7 | 2.9 | 2.9 | 1.0 | 0.3 | 1.2 | 0.0 | 0.1 | 0.0 | 0.0 | | | |

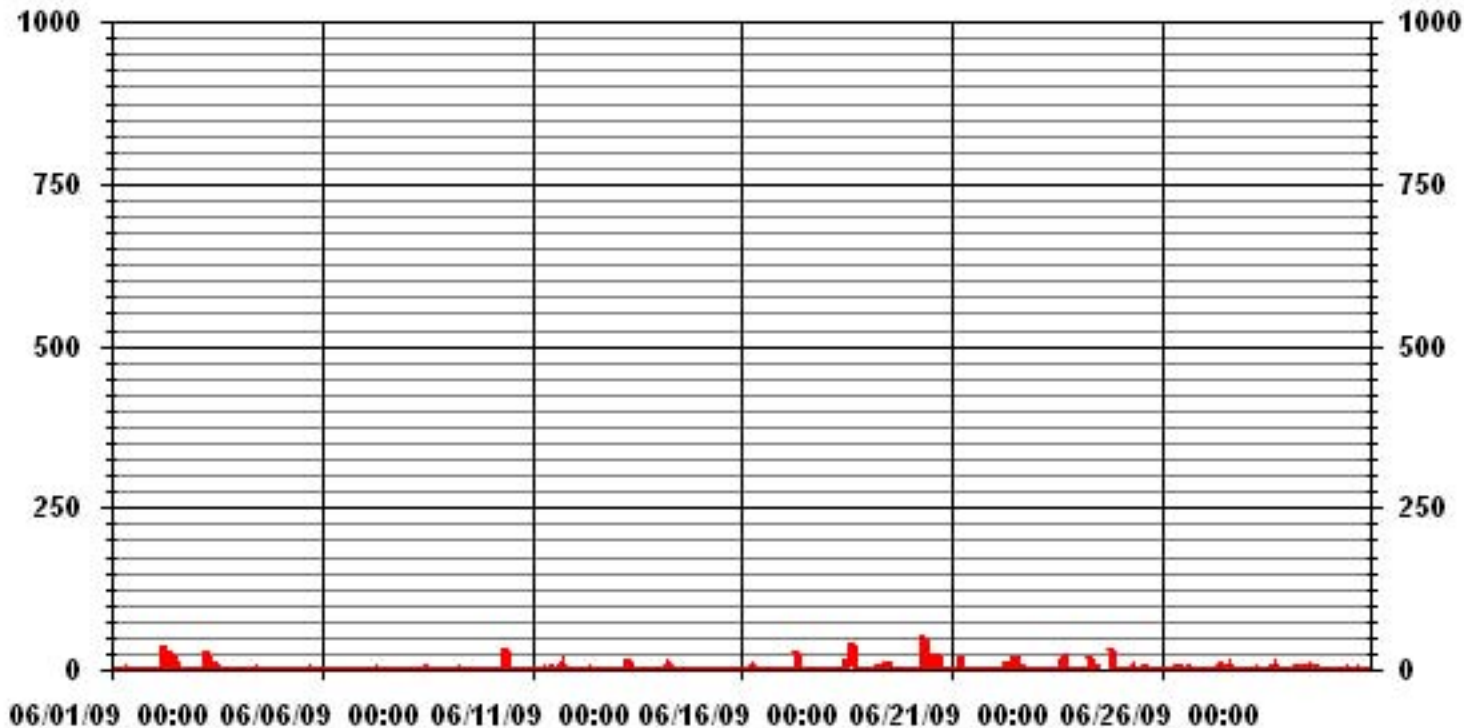
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | |
|------------------------------|---------------------------------|
| NUMBER OF NON-ZERO READINGS: | 199 |
| MAXIMUM INSTANTANEOUS VALUE: | 49 PPB @ HOUR(S) 7 ON DAY(S) 20 |
| IZS CALIBRATION TIME: | 32 HRS |
| MONTHLY CALIBRATION TIME: | 7 HRS |
| STANDARD DEVIATION: | 4.93 |
| OPERATIONAL TIME: | 712 HRS |

01 Hour Averages



LICA30
 NO_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NO_
 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 | 6.93 | 3.24 | 7.66 | 6.48 | 2.35 | 3.24 | 5.89 | 7.37 | 5.45 | 12.97 | 9.58 | 6.19 | 6.19 | 5.60 | 5.30 | 5.45 | 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 | 6.93 | 3.24 | 7.66 | 6.48 | 2.35 | 3.24 | 5.89 | 7.37 | 5.45 | 12.97 | 9.58 | 6.19 | 6.19 | 5.60 | 5.30 | 5.45 | |

Calm : .00 %

Total # Operational Hours : 678

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 47 | 22 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 88 | 65 | 42 | 42 | 38 | 36 | 37 | 678 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 47 | 22 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 88 | 65 | 42 | 42 | 38 | 36 | 37 | |

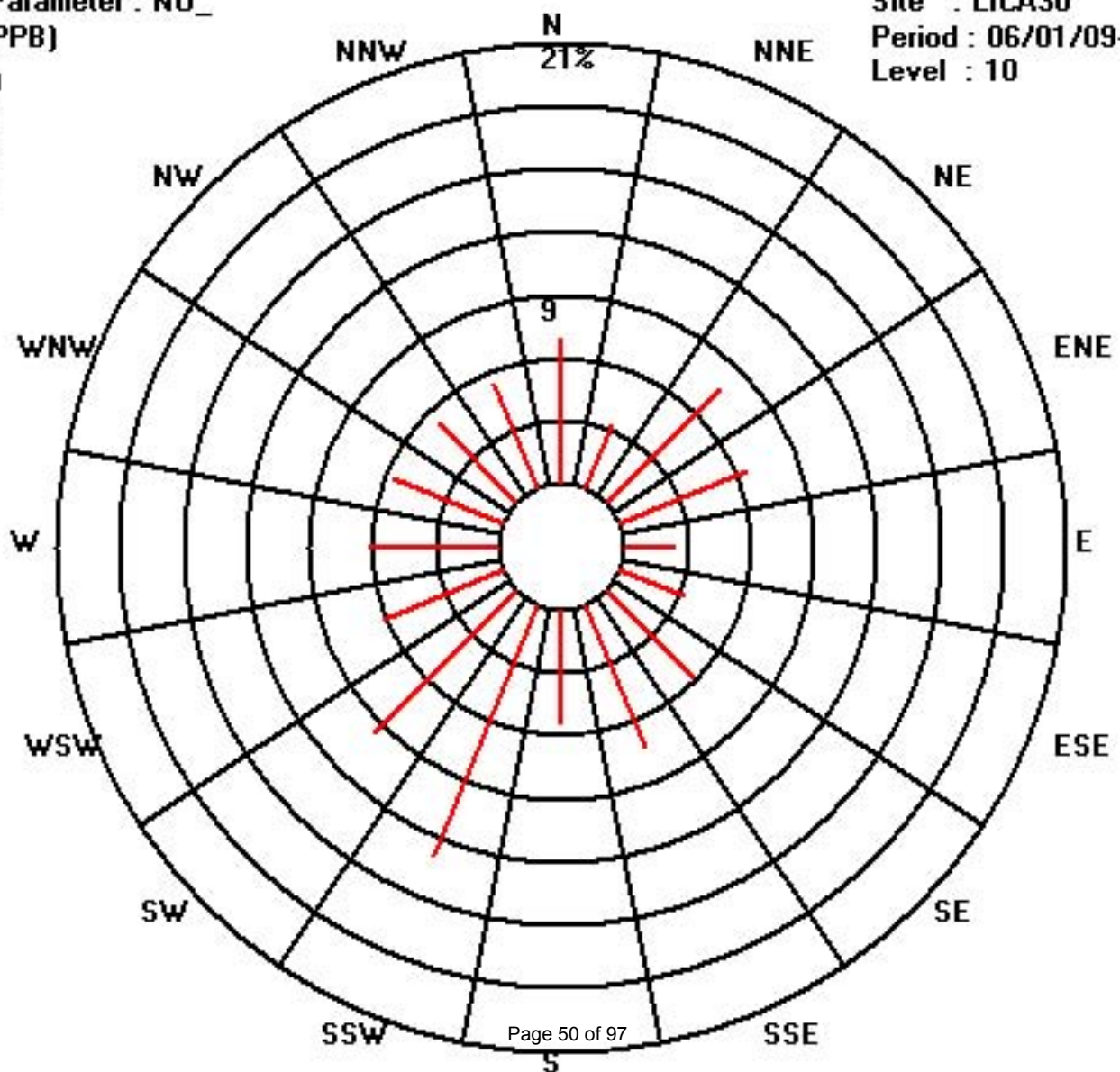
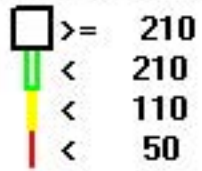
Calm : .00 %

Total # Operational Hours : 678

Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

OXIDES OF NITROGEN hourly averages in ppb

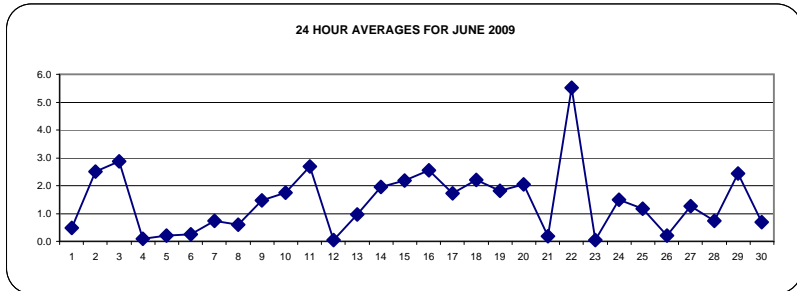
| HOUR START | 0:00 | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | 7:00 | 8:00 | 9:00 | 10:00 | 11:00 | 12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | 23:00 | DAILY 24-HOUR | RDGS. | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|----|
| 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 | MAX. | AVG. | | |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 0 | 0 | 0 | 0 | IZS | 3 | 2 | 2 | M | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 3 | 0.5 | 23 | |
| 2 | 1 | 1 | 1 | 1 | 2 | 2 | 12 | 6 | 2 | 7 | 4 | 1 | 2 | 2 | 1 | 2 | 1 | 0 | 1 | 4 | 3 | 3 | 0 | 1 | 12 | 2.5 | 24 | |
| 3 | 1 | 0 | 2 | 3 | IZS | 4 | 21 | 17 | 5 | 3 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 21 | 2.9 | 24 | |
| 4 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 |
| 5 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 24 | |
| 6 | 0 | IZS | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 24 | |
| 7 | IZS | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 2 | 3 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | IZS | 3 | 0.7 | 24 | |
| 8 | 5 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 5 | 0.6 | 24 | |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 2 | 1 | 3 | 3 | 1 | 5 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | IZS | 2 | 2 | 5 | 1.5 | 24 | |
| 10 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 5 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | IZS | 1 | 1 | 1 | 5 | 1.7 | 24 | |
| 11 | 1 | 2 | 3 | 3 | 4 | 9 | 7 | 7 | 6 | 2 | 1 | 1 | 3 | 1 | 4 | 3 | 1 | 4 | 0 | IZS | 0 | 0 | 0 | 0 | 9 | 2.7 | 24 | |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 1 | 0.0 | 24 |
| 13 | 2 | 1 | 0 | 0 | 1 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 1 | IZS | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1.0 | 24 | |
| 14 | 0 | 0 | 0 | 0 | 1 | 5 | 3 | 13 | 10 | 7 | 2 | 0 | 0 | 0 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 13 | 2.0 | 24 | |
| 15 | 1 | 1 | 0 | 1 | 10 | 5 | 3 | 4 | 3 | 4 | 5 | 2 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | 2.2 | 24 | |
| 16 | 1 | 1 | 2 | 3 | 2 | 2 | 10 | 4 | 1 | 1 | 4 | M | 1 | 3 | IZS | 2 | 0 | 0 | 1 | 1 | 3 | 5 | 6 | 3 | 10 | 2.5 | 23 | |
| 17 | 0 | 0 | 1 | 2 | 1 | 3 | 16 | 9 | 2 | M | 1 | 0 | 0 | IZS | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 1.7 | 23 | |
| 18 | 0 | 0 | 4 | 0 | 3 | 1 | 1 | 0 | 2 | 0 | 1 | 5 | IZS | 4 | 6 | 7 | 4 | 3 | 2 | 0 | 1 | 3 | 3 | 1 | 7 | 2.2 | 24 | |
| 19 | 0 | 0 | 0 | 1 | 3 | 7 | 8 | 7 | 7 | 4 | 1 | IZS | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 1.8 | 24 | |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 6 | 12 | 1 | IZS | 4 | 7 | 1 | 2 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 2.0 | 24 | | |
| 21 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 24 | |
| 22 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 16 | IZS | 8 | 12 | 15 | 8 | 9 | 4 | 5 | 12 | 11 | 11 | 3 | 2 | 0 | 0 | 16 | 5.5 | 24 | | |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 | | |
| 24 | 0 | 0 | 0 | 0 | 1 | 4 | IZS | 8 | 4 | 3 | 2 | 1 | C | C | C | C | C | C | C | C | 0 | 1 | 0 | 0 | 8 | 1.5 | 24 | |
| 25 | 0 | 0 | 0 | 0 | 0 | IZS | 4 | 9 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 9 | 1.2 | 24 | | |
| 26 | 0 | 0 | 3 | 1 | IZS | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 24 | | |
| 27 | 0 | 0 | 0 | IZS | 0 | 2 | 2 | 1 | 1 | 10 | 4 | 2 | 3 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 1.3 | 24 | | |
| 28 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 6 | 0.7 | 24 | | |
| 29 | 2 | IZS | 2 | 1 | 3 | 4 | 8 | 6 | 7 | 6 | 4 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 2.4 | 24 | | |
| 30 | IZS | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.7 | 24 | | |
| HOURLY MAX | NA | 2 | 4 | 3 | 10 | 9 | 21 | 17 | 12 | 10 | 12 | 15 | 8 | 9 | 6 | 7 | 12 | 11 | 11 | 4 | 3 | 5 | 6 | 3 | | | | |
| HOURLY AVG | NA | 0.3 | 0.9 | 0.8 | 1.3 | 2.1 | 4.4 | 4.7 | 2.6 | 2.5 | 1.9 | 1.5 | 1.3 | 1.3 | 1.1 | 1.3 | 1.1 | 1.1 | 1.0 | 0.4 | 0.5 | 0.7 | 0.5 | 0.4 | | | | |

STATUS FLAG CODES

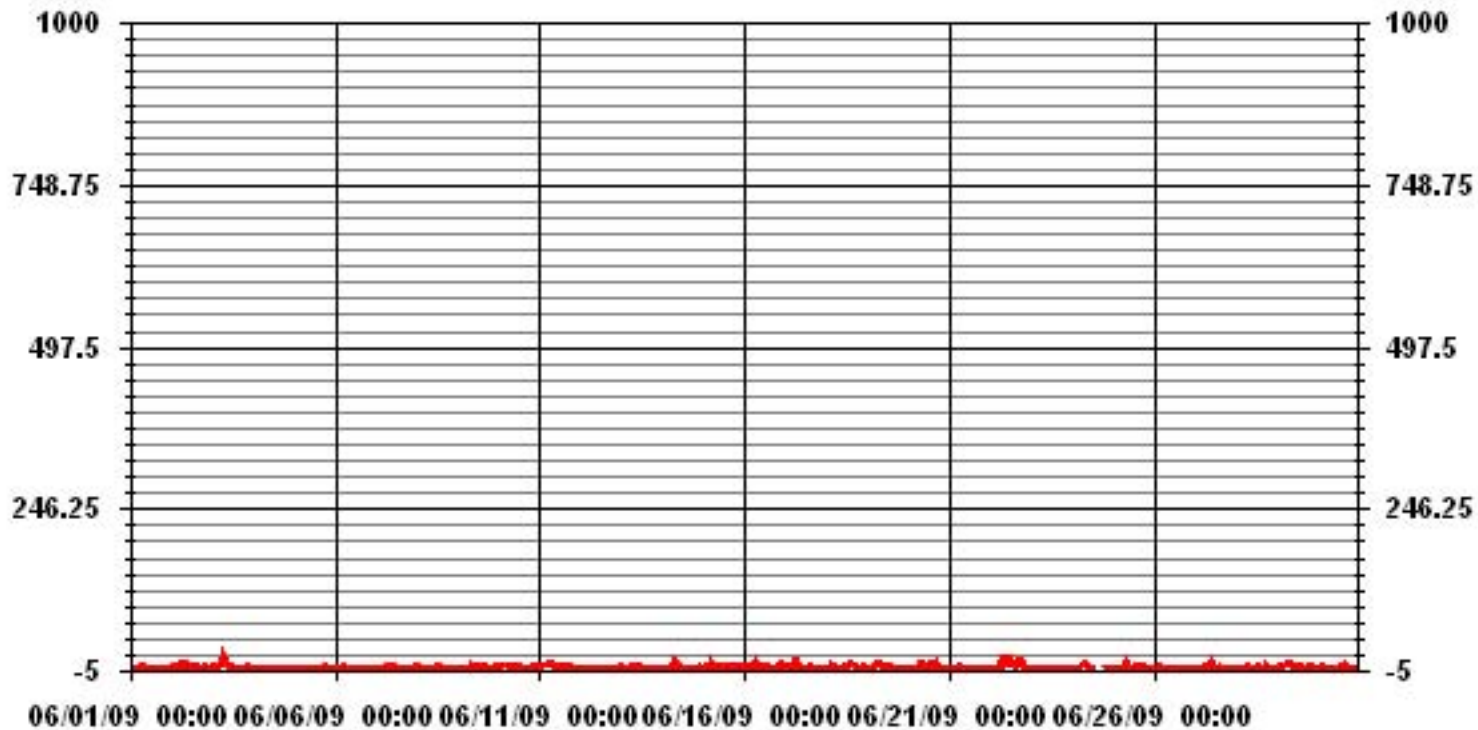
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | |
|------------------------------|-----------------------------------|
| NUMBER OF NON-ZERO READINGS: | 321 |
| MAXIMUM 1-HR AVERAGE: | 21 PPB @ HOUR(S) 6 ON DAY(S) 3 |
| MAXIMUM 24-HR AVERAGE: | 5.5 PPB ON DAY(S) 22 |
| IZS CALIBRATION TIME: | 32 HRS OPERATIONAL TIME: 717 HRS |
| MONTHLY CALIBRATION TIME: | 7 HRS AMD OPERATION UPTIME 99.6 % |
| STANDARD DEVIATION: | 2.59 MONTHLY AVERAGE 1.43 PPB |



01 Hour Averages



— LICA30 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

OXIDES OF NITROGEN MAX 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 | 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 | | 2 | 0 | 0 | 0 | 0 | IZS | 7 | 5 | 11 | M | 3 | 0 | 5 | 3 | 1 | 3 | 1 | 0 | 0 | IZS | 1 | 0 | 1 | 1 | 11 | 2.1 | 23 | |
| 2 | | 1 | 2 | 2 | 2 | 3 | 4 | 41 | M | 4 | 26 | M | 30 | 11 | 20 | 5 | 7 | 6 | 1 | 9 | 9 | 4 | 7 | 1 | 2 | 41 | 9.0 | 22 | |
| 3 | | 2 | 1 | 4 | 5 | IZS | 15 | 50 | 45 | 14 | 10 | 9 | 21 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 6 | 16 | 2 | 0 | 50 | 9.0 | 24 | |
| 4 | | 1 | 0 | 0 | IZS | 1 | 1 | 1 | 4 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0.8 | 24 | |
| 5 | | 0 | 0 | IZS | 1 | 4 | 0 | 1 | 5 | 3 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 2 | 7 | 11 | 7 | 0 | 0 | 0 | 0 | 11 | 2.0 | 24 | |
| 6 | | 0 | IZS | 1 | 0 | 6 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 3 | 8 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1.3 | 24 | |
| 7 | | IZS | 1 | 0 | 0 | 5 | 6 | 2 | 8 | 5 | 10 | 6 | 3 | 4 | 0 | 7 | 4 | 9 | 1 | 7 | 3 | 1 | 0 | 1 | IZS | 10 | 3.8 | 24 | |
| 8 | | 11 | 2 | 0 | 0 | 0 | 2 | 5 | 1 | 1 | 1 | 1 | 3 | 13 | 13 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | IZS | 0 | 13 | 2.4 | 24 | |
| 9 | | 1 | 1 | 1 | 1 | 0 | 1 | 3 | 12 | 8 | 3 | 5 | 4 | 4 | 9 | 6 | 5 | 3 | 3 | 1 | 0 | 0 | IZS | 2 | 3 | 12 | 3.3 | 24 | |
| 10 | | 3 | 3 | 3 | 4 | 3 | 6 | 4 | 6 | 6 | 49 | 4 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 2 | 49 | 4.7 | 24 | |
| 11 | | 2 | 3 | 3 | 4 | 14 | 13 | 9 | 15 | 15 | 6 | 4 | 8 | 11 | 5 | 9 | 16 | 7 | 26 | 0 | IZS | 1 | 1 | 1 | 0 | 26 | 7.5 | 24 | |
| 12 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | IZS | 1 | 1 | 1 | 0 | 2 | 5 | 1.0 | 24 | |
| 13 | | 3 | 2 | 1 | 1 | 2 | 1 | 3 | 26 | 3 | 4 | 2 | 2 | 2 | 1 | 3 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 26 | 2.8 | 24 | |
| 14 | | 1 | 1 | 1 | 1 | 2 | 17 | 7 | 18 | 13 | 10 | 5 | 2 | 2 | 3 | 3 | 1 | IZS | 1 | 1 | 1 | 1 | 3 | 8 | 8 | 1 | 18 | 4.8 | 24 |
| 15 | | 2 | 1 | 2 | 5 | 16 | 7 | 5 | 5 | 6 | 6 | 11 | 4 | 2 | 4 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 16 | 4.1 | 24 | |
| 16 | | 2 | 1 | 3 | 10 | 6 | 4 | 20 | 10 | 2 | 3 | 6 | M | 2 | 5 | IZS | 7 | 1 | 3 | 4 | 8 | 8 | 6 | 11 | 8 | 20 | 5.9 | 23 | |
| 17 | | 1 | 1 | 1 | 6 | 3 | 7 | M | 42 | 7 | M | 2 | 1 | 1 | IZS | 6 | 4 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 42 | 4.1 | 22 | |
| 18 | | 1 | 4 | 8 | 1 | 7 | 8 | 9 | 2 | 5 | 2 | 7 | 32 | IZS | 23 | 14 | 57 | 35 | 11 | 11 | 5 | 4 | 4 | 4 | 2 | 57 | 11.1 | 24 | |
| 19 | | 1 | 0 | 0 | 3 | 4 | 11 | 10 | 9 | 13 | 21 | 3 | IZS | 24 | 5 | 5 | 1 | 1 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 24 | 5.1 | 24 | |
| 20 | | 1 | 0 | 1 | 0 | 1 | 4 | 17 | 79 | 71 | 17 | IZS | 16 | 34 | 5 | 7 | 3 | 52 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 79 | 13.6 | 24 | |
| 21 | | 0 | 0 | 0 | 0 | 0 | 35 | 15 | 2 | 0 | IZS | 4 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 2.7 | 24 | |
| 22 | | 1 | 1 | 3 | 2 | 0 | 4 | 20 | 21 | IZS | 16 | 19 | 28 | 30 | 12 | 9 | 20 | 20 | 21 | 18 | 10 | 9 | 1 | 5 | 1 | 30 | 11.8 | 24 | |
| 23 | | 0 | 0 | 1 | 1 | 1 | 2 | 2 | IZS | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 15 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 2.0 | 24 | |
| 24 | | 0 | 0 | 1 | 1 | 1 | 9 | IZS | 60 | 7 | 5 | 6 | 6 | C | C | C | C | C | C | C | 93 | 3 | 1 | 0 | 0 | 93 | 12.1 | 24 | |
| 25 | | 0 | 1 | 1 | 1 | 1 | IZS | 10 | 21 | 6 | 2 | 5 | 1 | M | M | 2 | 3 | 5 | 4 | 15 | 2 | 1 | 2 | 4 | 0 | 21 | 4.1 | 22 | |
| 26 | | 0 | 1 | 5 | 4 | IZS | 6 | 2 | 2 | 1 | 0 | 0 | 18 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 18 | 1.9 | 24 | |
| 27 | | 0 | 0 | 0 | IZS | 0 | 6 | 5 | 3 | 2 | 14 | 15 | 12 | 13 | 3 | 4 | 12 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 15 | 4.1 | 24 | |
| 28 | | 0 | 0 | IZS | 0 | 0 | 0 | 3 | 8 | 3 | 0 | 4 | 2 | 6 | 2 | 3 | 4 | 1 | 19 | 7 | 4 | 1 | 0 | 0 | 0 | 19 | 2.9 | 24 | |
| 29 | | 0 | IZS | 3 | 2 | 8 | 6 | 13 | 9 | 11 | 11 | 7 | 6 | 21 | 2 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 21 | 5.0 | 24 | |
| 30 | | IZS | 1 | 12 | 14 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 6 | 4 | 15 | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | IZS | 15 | 3.3 | 24 | |
| HOURLY MAX | | 11 | 4 | 12 | 14 | 16 | 35 | 50 | 79 | 71 | 49 | 19 | 32 | 34 | 23 | 14 | 57 | 52 | 26 | 18 | 93 | 9 | 16 | 11 | 8 | | | | |
| HOURLY AVG | | 1.3 | 1.0 | 2.0 | 2.5 | 3.1 | 6.4 | 9.5 | 15.0 | 7.5 | 8.2 | 4.8 | 7.7 | 7.3 | 5.0 | 3.8 | 6.7 | 6.3 | 4.0 | 3.4 | 5.5 | 1.7 | 1.9 | 1.7 | 1.0 | | | | |

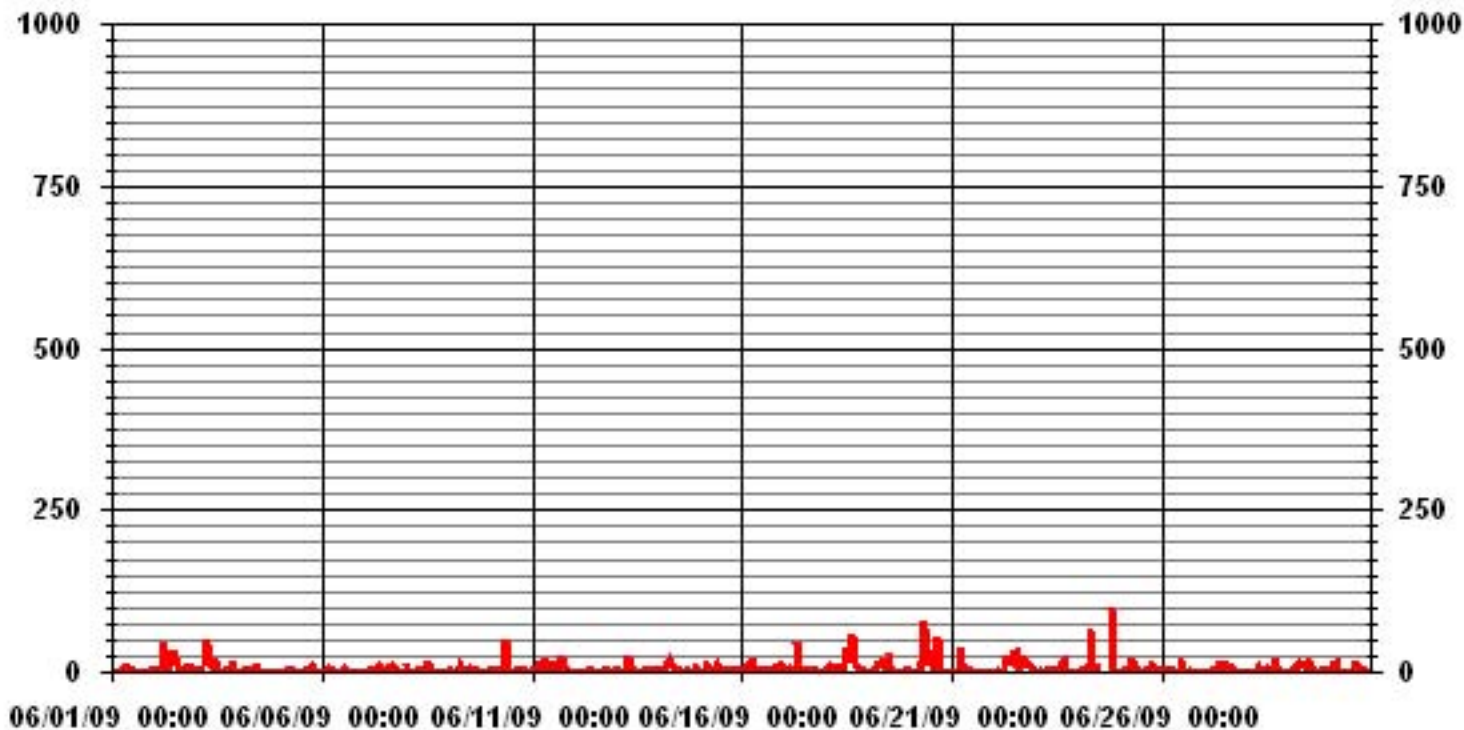
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | |
|------------------------------|------|-----|-------------------|-----|--------------|
| NUMBER OF NON-ZERO READINGS: | 508 | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 93 | PPB | @ HOUR(S) | 19 | ON DAY(S) 24 |
| IZS CALIBRATION TIME: | 32 | HRS | OPERATIONAL TIME: | 712 | HRS |
| MONTHLY CALIBRATION TIME: | 7 | HRS | | | |
| STANDARD DEVIATION: | 9.13 | | | | |

01 Hour Averages



— LICA30 NOxMAX PPB

LICA30
NOX_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : NOX_
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 | 6.93 | 3.24 | 7.66 | 6.48 | 2.35 | 3.24 | 5.89 | 7.37 | 5.45 | 12.97 | 9.58 | 6.19 | 6.19 | 5.60 | 5.30 | 5.45 | 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 | 6.93 | 3.24 | 7.66 | 6.48 | 2.35 | 3.24 | 5.89 | 7.37 | 5.45 | 12.97 | 9.58 | 6.19 | 6.19 | 5.60 | 5.30 | 5.45 | |

Calm : .00 %

Total # Operational Hours : 678

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 47 | 22 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 88 | 65 | 42 | 42 | 38 | 36 | 37 | 678 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 47 | 22 | 52 | 44 | 16 | 22 | 40 | 50 | 37 | 88 | 65 | 42 | 42 | 38 | 36 | 37 | |

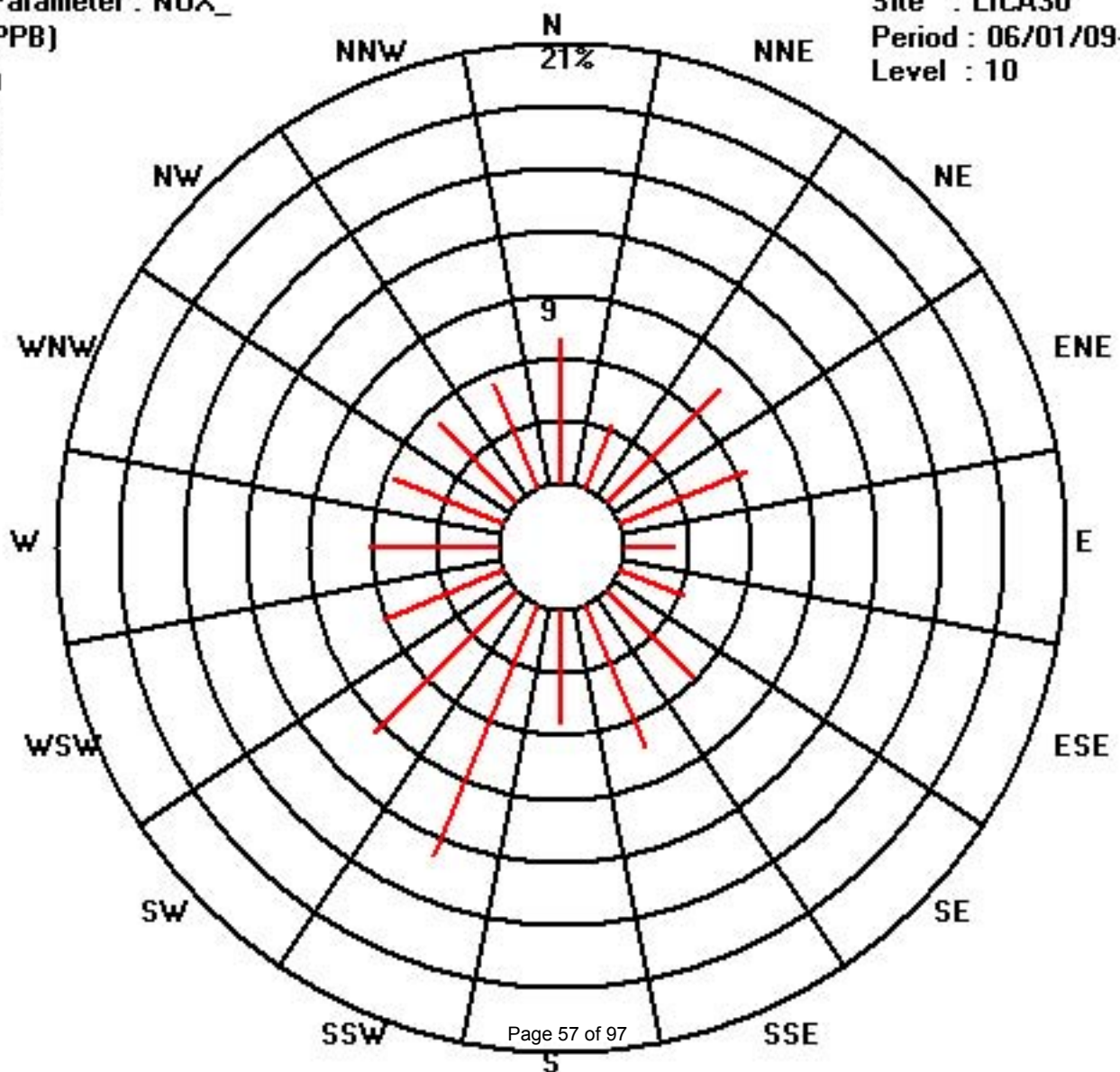
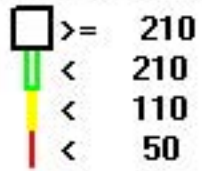
Calm : .00 %

Total # Operational Hours : 678

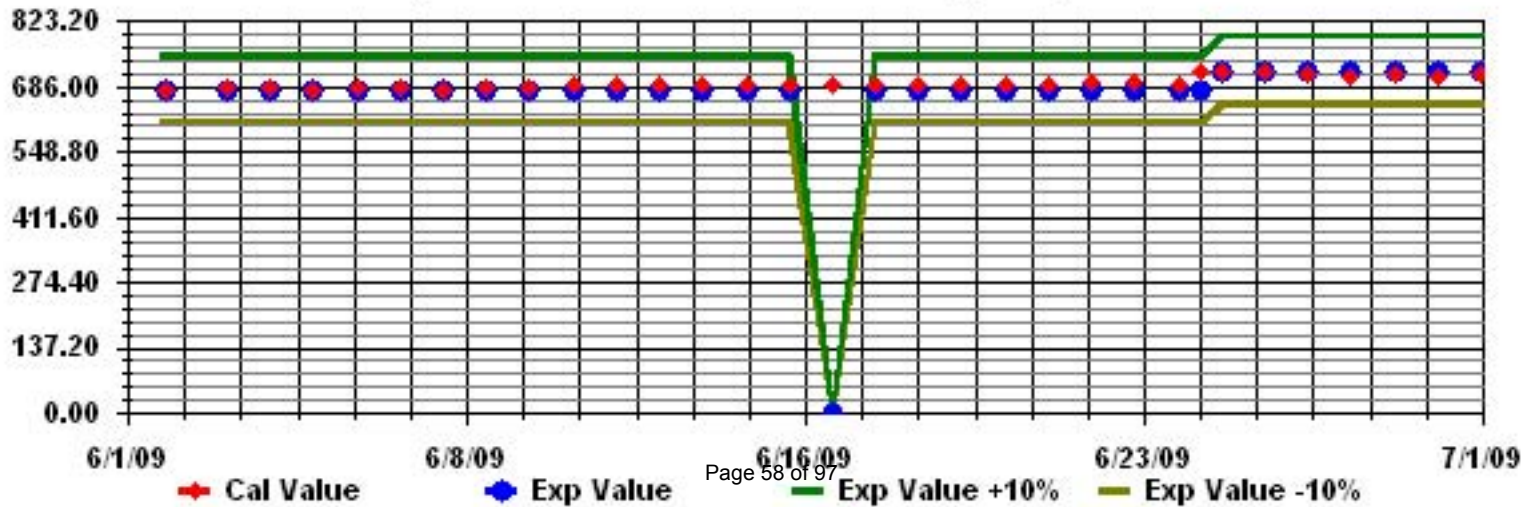
Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10

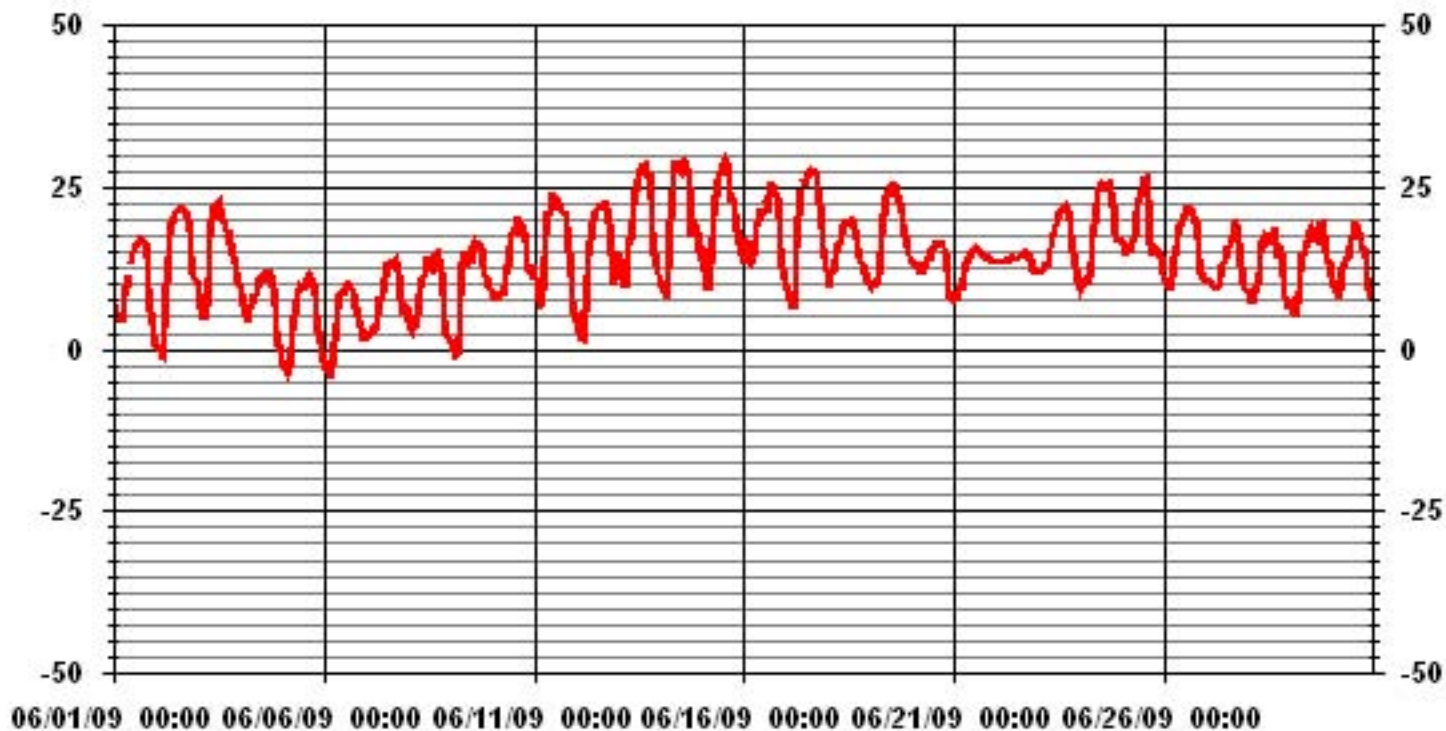


Calibration Graph for Site: LICA30 Parameter: NOX_ Sequence: NO2 Phase: SPAll



Temperature

01 Hour Averages



Precipitation

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

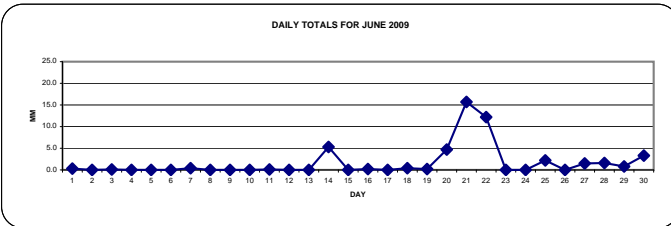
JUNE 2009

PRECIPITATION hourly averages (mm)

| 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. | DAILY TOTAL | 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 | | 0.1 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.3 | 23 | |
| 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 | 0.1 | 0 | 0 | 0 | 0.1 | 0.1 | 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 | 0.1 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.4 | 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 | 0.0 | 0.0 | 24 | |
| 11 | | 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 | 0.1 | 0.1 | 24 | |
| 12 | | 0 | 0 | 0 | 0 | 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 | |
| 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 | 0.5 | 1.3 | 0.8 | 0 | 2.7 | 0 | 0 | 2.7 | 5.3 | 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 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.2 | 23 | |
| 17 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 23 | |
| 18 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.4 | 24 | |
| 19 | | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0.1 | 0.2 | 24 | |
| 20 | | 0.4 | 0 | 0 | 0.1 | 0.9 | 1.4 | 0.9 | 0.9 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 4.7 | 24 | |
| 21 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 4.6 | 4.1 | 1.8 | 1.1 | 0.1 | 0.4 | 1.7 | 0.4 | 4.6 | 15.7 | 24 | | |
| 22 | | 0.2 | 0.1 | 2.3 | 2.1 | 1.2 | 0.8 | 1.1 | 0.8 | 0.9 | 0.7 | 1.1 | 0.7 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.3 | 12.2 | 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 | 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 | 0.2 | 0.7 | 0.3 | 0.1 | 0 | 0 | 0 | 0 | 0.4 | 0.5 | 0.7 | 2.2 | 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 | 0.3 | 0.2 | 0.2 | 0 | 0 | 0.6 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 1.5 | 24 | |
| 28 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.3 | 0 | 0.3 | 0 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 1.6 | 24 | |
| 29 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0.8 | 0.8 | 24 | |
| 30 | | 2.8 | 0.3 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.8 | 3.3 | 24 | |
| HOURLY MAX | | 2.8 | 0.3 | 2.3 | 2.1 | 1.2 | 1.4 | 1.1 | 0.9 | 0.9 | 0.7 | 1.1 | 0.7 | 0.2 | 0.3 | 0.0 | 1.5 | 4.6 | 4.1 | 1.8 | 1.1 | 0.1 | 2.7 | 1.7 | 0.8 | | | | |

STATUS FLAG CODES

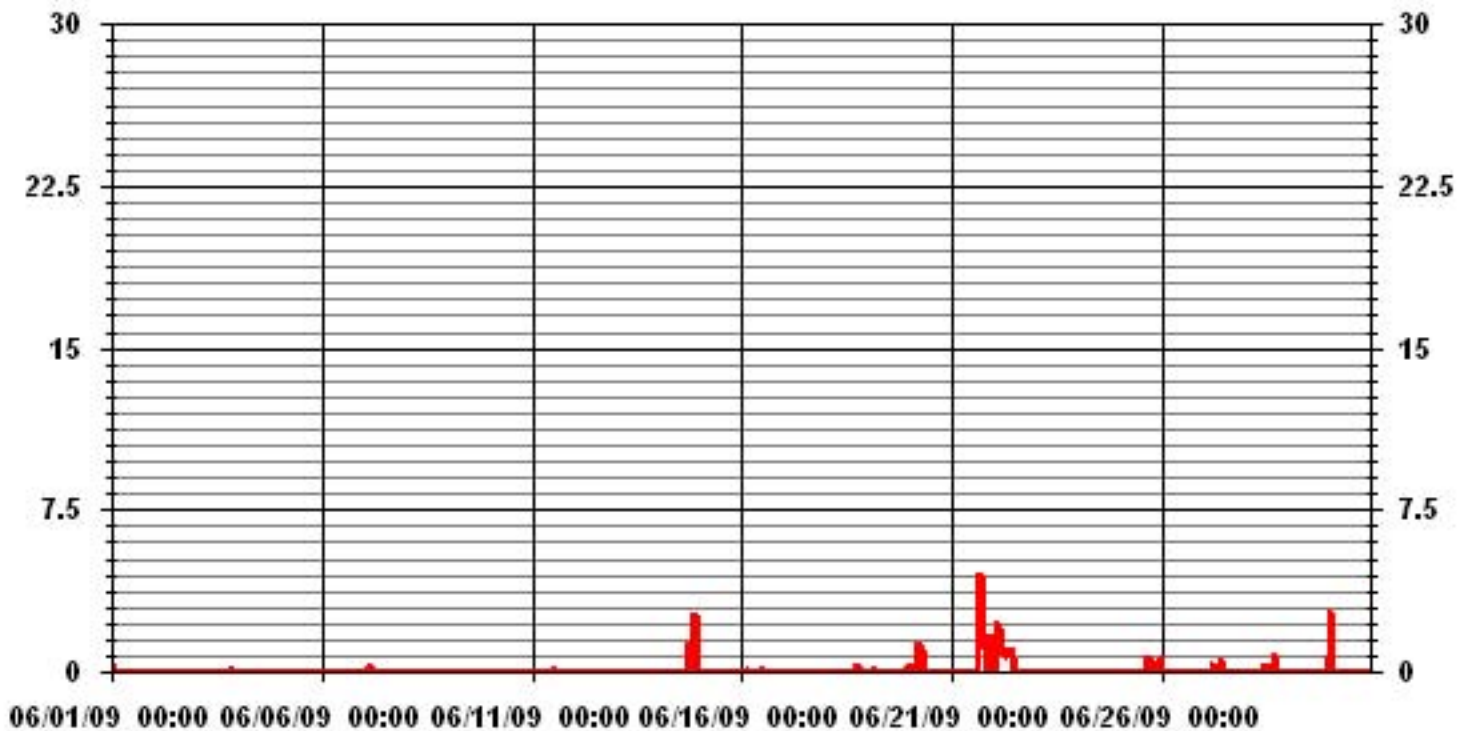
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | MD | -MISSING DATA |



MONTHLY SUMMARY

| | | | | | | |
|-----------------------|------|-----|-----------------------|------|-----------|----|
| MAXIMUM 1-HR AVERAGE: | 4.6 | MM | HOUR(S) | 16 | ON DAY(S) | 21 |
| MAXIMUM DAILY TOTAL | 15.7 | MM | | | ON DAY(S) | 21 |
| MONTHLY TOTAL | 49.0 | MM | | | | |
| CALIBRATION TIME: | 0 | HRS | OPERATIONAL TIME: | 717 | HRS | |
| STANDARD DEVIATION: | 0.35 | | AMD OPERATION UPTIME: | 99.6 | % | |
| | | | MONTHLY AVERAGE: | 0.07 | MM | |

01 Hour Averages



— LICA30 PRECIP MM

Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

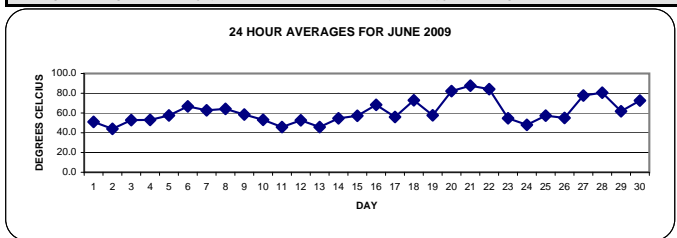
JUNE 2009

RELATIVE HUMIDITY hourly averages (%)

| 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 | 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. | |
| 1 | | 83 | 87 | 87 | 85 | 86 | 82 | 73 | 64 | 55 | M | 30 | 25 | 22 | 21 | 22 | 22 | 20 | 21 | 23 | 28 | 42 | 55 | 65 | 76 | 87 | 51.0 | 23 | |
| 2 | | 79 | 81 | 89 | 87 | 87 | 76 | 52 | 37 | 32 | 24 | 20 | 23 | 21 | 20 | 21 | 20 | 20 | 19 | 20 | 26 | 39 | 48 | 54 | 60 | 89 | 44.0 | 24 | |
| 3 | | 65 | 73 | 77 | 82 | 80 | 75 | 64 | 42 | 35 | 31 | 31 | 30 | 28 | 31 | 39 | 40 | 44 | 49 | 46 | 49 | 57 | 60 | 67 | 73 | 82 | 52.8 | 24 | |
| 4 | | 74 | 65 | 59 | 62 | 64 | 61 | 59 | 59 | 54 | 51 | 47 | 43 | 40 | 39 | 39 | 37 | 36 | 37 | 35 | 39 | 49 | 65 | 75 | 83 | 83 | 53.0 | 24 | |
| 5 | | 85 | 88 | 89 | 89 | 90 | 79 | 72 | 66 | 55 | 46 | 40 | 40 | 43 | 41 | 35 | 34 | 33 | 34 | 35 | 39 | 49 | 60 | 66 | 73 | 90 | 57.5 | 24 | |
| 6 | | 81 | 87 | 88 | 89 | 89 | 87 | 79 | 67 | 55 | 42 | 40 | 40 | 41 | 40 | 41 | 44 | 49 | 56 | 70 | 76 | 78 | 82 | 89 | 91 | 91 | 66.7 | 24 | |
| 7 | | 91 | 91 | 92 | 90 | 90 | 90 | 87 | 83 | 72 | 68 | 63 | 54 | 41 | 39 | 37 | 34 | 36 | 30 | 32 | 36 | 50 | 61 | 66 | 72 | 92 | 62.7 | 24 | |
| 8 | | 81 | 85 | 89 | 89 | 88 | 85 | 73 | 66 | 62 | 58 | 52 | 43 | 47 | 49 | 48 | 45 | 36 | 37 | 44 | 46 | 62 | 80 | 88 | 88 | 89 | 64.2 | 24 | |
| 9 | | 91 | 92 | 92 | 92 | 92 | 91 | 71 | 53 | 44 | 45 | 48 | 45 | 46 | 39 | 36 | 35 | 36 | 35 | 37 | 46 | 52 | 55 | 63 | 67 | 92 | 58.5 | 24 | |
| 10 | | 69 | 73 | 75 | 75 | 74 | 73 | 76 | 72 | 61 | 57 | 48 | 37 | 33 | 34 | 34 | 28 | 31 | 32 | 35 | 40 | 52 | 56 | 56 | 54 | 76 | 53.1 | 24 | |
| 11 | | 60 | 61 | 61 | 68 | 76 | 68 | 53 | 45 | 35 | 35 | 29 | 26 | 29 | 35 | 34 | 32 | 27 | 26 | 24 | 28 | 42 | 55 | 71 | 78 | 78 | 45.8 | 24 | |
| 12 | | 82 | 85 | 89 | 92 | 92 | 84 | 64 | 56 | 48 | 38 | 33 | 30 | 30 | 31 | 30 | 28 | 28 | 27 | 28 | 35 | 53 | 69 | 62 | 49 | 92 | 52.6 | 24 | |
| 13 | | 49 | 49 | 55 | 61 | 68 | 68 | 50 | 48 | 44 | 43 | 39 | 35 | 31 | 27 | 24 | 22 | 23 | 25 | 24 | 37 | 56 | 67 | 74 | 80 | 80 | 45.8 | 24 | |
| 14 | | 86 | 88 | 91 | 93 | 93 | 85 | 56 | 43 | 36 | 28 | 32 | 25 | 23 | 24 | 22 | 26 | 29 | 35 | 77 | 54 | 55 | 59 | 71 | 80 | 93 | 54.6 | 24 | |
| 15 | | 68 | 87 | 91 | 93 | 93 | 82 | 67 | 57 | 47 | 38 | 31 | 31 | 23 | 19 | 20 | 25 | 45 | 47 | 46 | 58 | 66 | 75 | 81 | 83 | 93 | 57.2 | 24 | |
| 16 | | 88 | 71 | 74 | 88 | 90 | 88 | 80 | 66 | 65 | 59 | 62 | M | 58 | 70 | 56 | 44 | 44 | 51 | 48 | 50 | 61 | 77 | 88 | 92 | 92 | 68.3 | 23 | |
| 17 | | 94 | 94 | 94 | 94 | 94 | 94 | 73 | 53 | 37 | M | 28 | 29 | 26 | 25 | 24 | 26 | 25 | 26 | 34 | 45 | 55 | 68 | 70 | 80 | 94 | 56.0 | 23 | |
| 18 | | 88 | 87 | 76 | 75 | 72 | 70 | 68 | 67 | 64 | 60 | 57 | 55 | 57 | 63 | 58 | 58 | 66 | 72 | 83 | 86 | 88 | 92 | 93 | 94 | 94 | 72.9 | 24 | |
| 19 | | 94 | 94 | 94 | 95 | 95 | 94 | 83 | 72 | 61 | 39 | 30 | 31 | 27 | 27 | 25 | 25 | 25 | 29 | 36 | 48 | 52 | 58 | 72 | 78 | 95 | 57.7 | 24 | |
| 20 | | 83 | 81 | 83 | 81 | 90 | 91 | 92 | 91 | 89 | 87 | 85 | 77 | 74 | 72 | 68 | 69 | 73 | 70 | 74 | 77 | 85 | 92 | 94 | 94 | 94 | 82.2 | 24 | |
| 21 | | 94 | 94 | 94 | 94 | 94 | 93 | 90 | 83 | 77 | 77 | 75 | 73 | 76 | 80 | 82 | 88 | 91 | 92 | 92 | 93 | 93 | 93 | 93 | 93 | 94 | 87.7 | 24 | |
| 22 | | 93 | 93 | 93 | 93 | 93 | 93 | 92 | 92 | 91 | 91 | 90 | 89 | 88 | 86 | 84 | 80 | 71 | 68 | 66 | 69 | 68 | 75 | 78 | 84 | 93 | 84.2 | 24 | |
| 23 | | 83 | 82 | 79 | 71 | 68 | 70 | 70 | 63 | 56 | 55 | 46 | 40 | 37 | 35 | 33 | 32 | 32 | 32 | 32 | 36 | 43 | 53 | 60 | 64 | 72 | 83 | 54.7 | 24 |
| 24 | | 80 | 77 | 74 | 77 | 79 | 80 | 73 | 59 | 55 | 45 | 30 | 25 | 29 | 24 | 23 | 24 | 24 | 24 | 25 | 24 | 32 | 48 | 49 | 48 | 80 | 48.0 | 24 | |
| 25 | | 51 | 52 | 55 | 54 | 54 | 56 | 56 | 56 | 48 | 46 | 43 | 42 | 42 | 39 | 38 | 46 | 74 | 81 | 72 | 77 | 75 | 73 | 67 | 79 | 81 | 57.3 | 24 | |
| 26 | | 80 | 79 | 83 | 81 | 80 | 71 | 62 | 58 | 53 | 46 | 41 | 36 | 34 | 33 | 31 | 33 | 33 | 37 | 40 | 46 | 55 | 64 | 71 | 73 | 83 | 55.0 | 24 | |
| 27 | | 74 | 73 | 73 | 74 | 77 | 86 | 89 | 91 | 89 | 87 | 87 | 85 | 78 | 71 | 70 | 65 | 56 | 54 | 54 | 68 | 85 | 92 | 93 | 94 | 94 | 77.7 | 24 | |
| 28 | | 94 | 94 | 94 | 94 | 94 | 93 | 89 | 79 | 69 | 66 | 72 | 68 | 78 | 78 | 72 | 59 | 78 | 72 | 65 | 66 | 80 | 92 | 93 | 94 | 94 | 80.5 | 24 | |
| 29 | | 94 | 94 | 94 | 94 | 94 | 91 | 76 | 66 | 62 | 56 | 46 | 37 | 37 | 39 | 43 | 44 | 38 | 38 | 36 | 46 | 56 | 63 | 65 | 73 | 94 | 61.8 | 24 | |
| 30 | | 91 | 87 | 85 | 85 | 89 | 86 | 76 | 71 | 69 | 68 | 64 | 60 | 58 | 53 | 59 | 55 | 58 | 58 | 58 | 63 | 83 | 90 | 92 | 87 | 92 | 72.6 | 24 | |
| HOURLY MAX | | 94 | 94 | 94 | 95 | 95 | 94 | 92 | 92 | 91 | 91 | 90 | 89 | 88 | 86 | 84 | 88 | 91 | 92 | 92 | 93 | 93 | 93 | 94 | 94 | | | | |
| HOURLY AVG | | 80.8 | 81.5 | 82.3 | 83.2 | 84.2 | 81.4 | 72.2 | 64.2 | 57.3 | 53.1 | 48.0 | 43.9 | 43.2 | 42.8 | 41.6 | 40.7 | 42.6 | 43.8 | 46.5 | 51.5 | 61.3 | 69.5 | 74.3 | 78.1 | | | | |

STATUS FLAG CODES

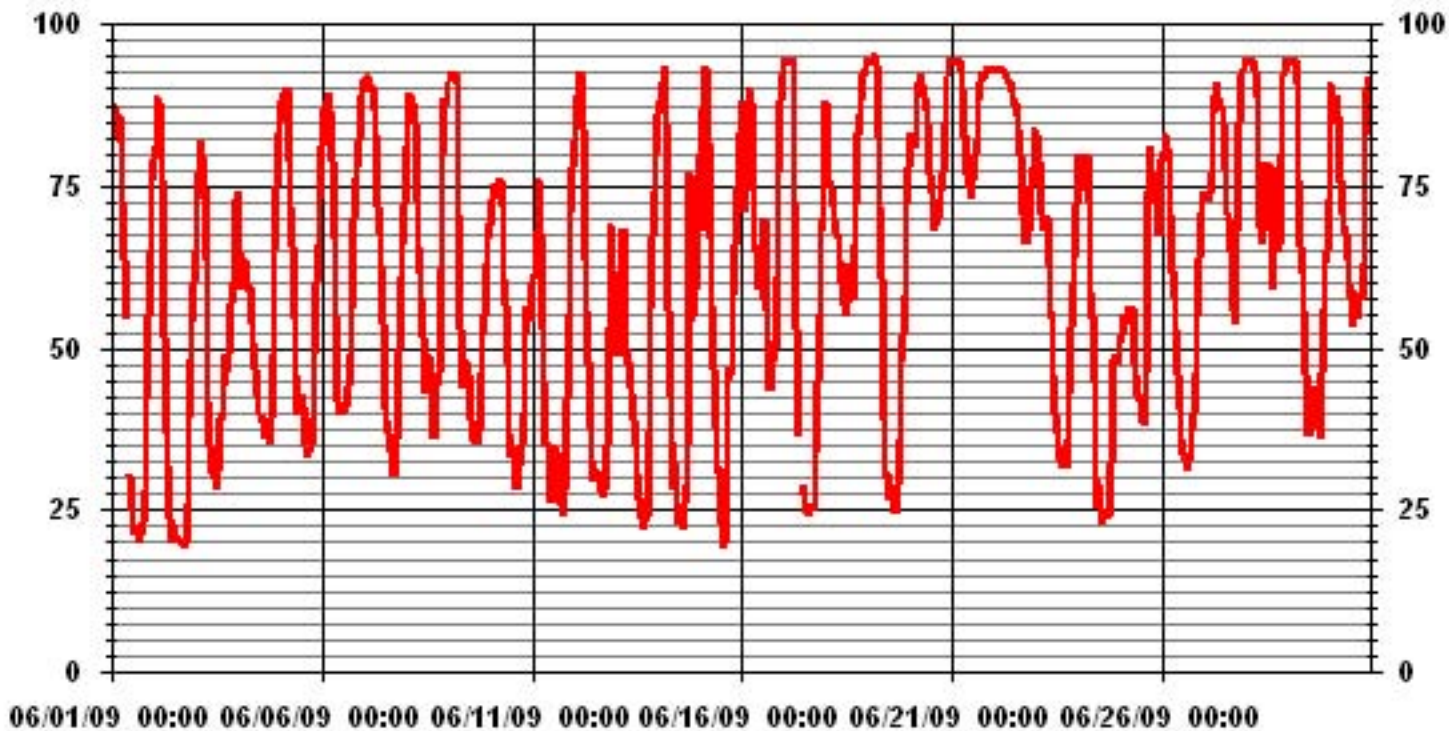
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |



MONTHLY SUMMARY

| | | | | | | |
|------------------------|-------|-----|-----------------------|-------|-------------|----|
| MAXIMUM 1-HR AVERAGE: | 95 | % | @ HOUR(S) | 3, 4 | ON DAY(S) | 19 |
| MAXIMUM 24-HR AVERAGE: | 87.7 | % | | | ON DAY(S) | 21 |
| | | | | | VAR-VARIOUS | |
| CALIBRATION TIME: | 0 | HRS | OPERATIONAL TIME: | 717 | HRS | |
| STANDARD DEVIATION: | 22.55 | | AMD OPERATION UPTIME: | 99.6 | % | |
| | | | MONTHLY AVERAGE: | 61.21 | % | |

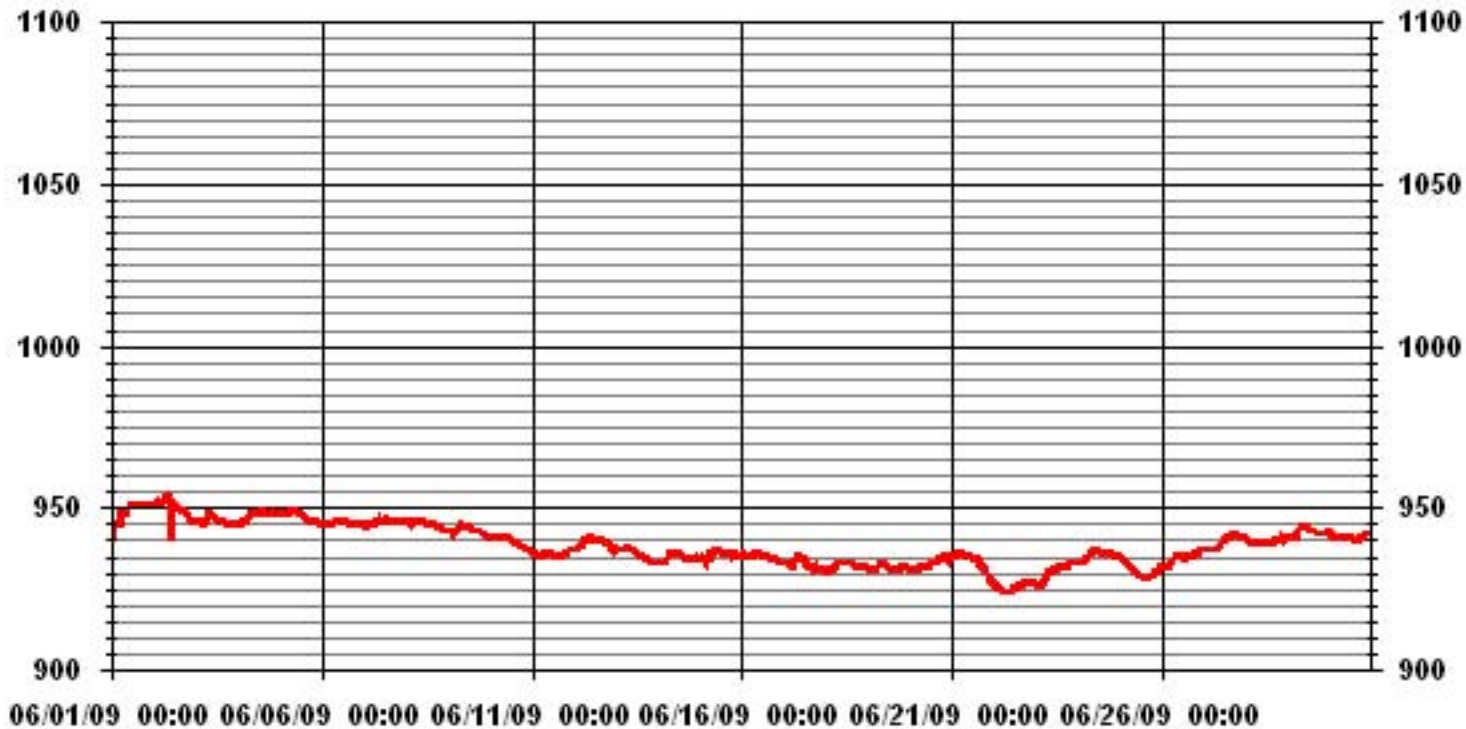
01 Hour Averages



— LICA30 RH %FS

Barometric Pressure

01 Hour Averages



— LICA30 BP MB

Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

WIND SPEED hourly averages (km/hr)

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 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| 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 | 7.6 | 8.3 | 8.7 | 7.5 | 6.4 | 6.2 | 6.3 | 6.1 | 9.1 | M | 11.4 | 11.2 | 9.7 | 13.4 | 9.4 | 9.9 | 11.5 | 9.9 | 8.4 | 9.5 | 2.7 | 1 | 1.2 | 1.6 | 13.4 | 7.2 | 23 |
| 2 | 1.2 | 1.8 | 1.2 | 0.3 | 0.3 | 0.2 | 3 | 5.8 | 5.3 | 6.3 | 7.7 | 6.8 | 7.8 | 7.3 | 7.3 | 8.5 | 9.1 | 6.6 | 6.2 | 4.2 | 0.4 | 0.7 | 2 | 1.3 | 9.1 | 3.5 | 24 |
| 3 | 2.2 | 1.1 | 2.1 | 2.8 | 2.3 | 1.1 | 2.3 | 3.5 | 7.1 | 9.5 | 10.1 | 9.6 | 10.6 | 13.4 | 15.4 | 13.9 | 14 | 9.5 | 9.4 | 10.7 | 8 | 6.3 | 4.9 | 4.8 | 15.4 | 5.8 | 24 |
| 4 | 8.2 | 7.5 | 7.1 | 6 | 6.7 | 9.3 | 13 | 13.7 | 13 | 16.1 | 15.4 | 13.2 | 14.9 | 14.7 | 12.6 | 14.1 | 12.1 | 12.9 | 9.2 | 10 | 4.9 | 3.2 | 1.8 | 2 | 16.1 | 9.7 | 24 |
| 5 | 1.3 | 0.6 | 0.2 | 0.1 | 0.4 | 3.6 | 4.4 | 5.1 | 4.6 | 6.5 | 7.8 | 8.3 | 8 | 8.6 | 9.2 | 8.7 | 8.7 | 8.5 | 7.4 | 6.1 | 4.8 | 4.3 | 4.9 | 1.9 | 9.2 | 4.9 | 24 |
| 6 | 1.1 | 0.2 | 0.2 | 0.5 | 0.6 | 1.2 | 0.3 | 2.1 | 4.1 | 4.9 | 3.9 | 4.7 | 2.8 | 3.6 | 3.5 | 6.1 | 6.7 | 8.2 | 8 | 5.1 | 4.4 | 4.4 | 1.7 | 1.9 | 8.2 | 2.8 | 24 |
| 7 | 2.4 | 2.2 | 3.2 | 5.6 | 3.7 | 3.7 | 3.3 | 4.6 | 6.6 | 5.4 | 4.7 | 6.3 | 9.2 | 10.2 | 9 | 8.3 | 6.1 | 5.4 | 4.6 | 5.5 | 2.6 | 4.6 | 7.7 | 5.4 | 10.2 | 4.8 | 24 |
| 8 | 3.8 | 2 | 3.3 | 2.8 | 2.7 | 3.5 | 3.7 | 6 | 6.8 | 8 | 6.4 | 10.4 | 7.4 | 7.8 | 13.1 | 8.8 | 8.4 | 6.8 | 6.6 | 4.7 | 3.4 | 1.7 | 1.2 | 1.5 | 13.1 | 4.8 | 24 |
| 9 | 1.2 | 1.5 | 1 | 1.1 | 0.7 | 0.2 | 1.1 | 3.1 | 2.8 | 2.7 | 5.3 | 3.5 | 4.3 | 1.5 | 1.3 | 1.6 | 1.3 | 2.2 | 5 | 4.9 | 4.6 | 5.5 | 6.5 | 5.7 | 6.5 | 1.4 | 24 |
| 10 | 6.1 | 4.8 | 3.8 | 4.9 | 4.7 | 3.6 | 3 | 3.4 | 4.7 | 5.9 | 8.4 | 11.9 | 9 | 8.7 | 9.4 | 9 | 12.7 | 11.1 | 8.6 | 5.3 | 2.2 | 3.5 | 4.5 | 6.5 | 12.7 | 5.9 | 24 |
| 11 | 5.1 | 6.2 | 4.7 | 2.9 | 3.3 | 2.8 | 3.3 | 4.1 | 4.7 | 7.7 | 6.2 | 10.9 | 9.7 | 9.6 | 12.6 | 12.3 | 11.5 | 10.1 | 10.1 | 7.2 | 4.7 | 4.1 | 1.8 | 0.9 | 12.6 | 4 | 24 |
| 12 | 0.3 | 1.8 | 0.1 | 0.3 | 0.2 | 3 | 4.7 | 6.6 | 7.1 | 5.4 | 4.9 | 3.6 | 3.7 | 7.6 | 7.2 | 6.7 | 6.4 | 5.1 | 5.6 | 4.4 | 3.5 | 2.5 | 6 | 8.6 | 8.6 | 3 | 24 |
| 13 | 10 | 10.4 | 5.2 | 3.7 | 2.6 | 2.4 | 4.5 | 5.7 | 5.8 | 8.7 | 9.3 | 9.8 | 10.5 | 12.1 | 11.7 | 10.8 | 9.2 | 8.1 | 7.7 | 3.4 | 0.9 | 0.1 | 0.4 | 0.3 | 12.1 | 5.7 | 24 |
| 14 | 0.3 | 0.6 | 1.6 | 1.8 | 1.8 | 0.5 | 1.2 | 2 | 2 | 4.7 | 10 | 6.1 | 5.2 | 4.7 | 6.3 | 4 | 8.1 | 4.7 | 4.3 | 7.8 | 6.1 | 2.7 | 6 | 5 | 10 | 3 | 24 |
| 15 | 5.5 | 1.5 | 1.1 | 2.1 | 1.7 | 5.1 | 6 | 3.5 | 2.4 | 1.8 | 3.7 | 7 | 5.2 | 6.7 | 4.4 | 2.7 | 2.7 | 6.8 | 5.1 | 0.9 | 2.3 | 0.4 | 1.6 | 0.8 | 7 | 2.8 | 24 |
| 16 | 2.4 | 7.7 | 5.9 | 1.1 | 0.7 | 0.6 | 1.6 | 3.9 | 4.9 | 2.3 | 3.6 | M | 1.9 | 3.8 | 3.5 | 2.7 | 5.2 | 5.2 | 4.5 | 6.1 | 4.6 | 1.6 | 0.9 | 0.8 | 7.7 | 0.8 | 23 |
| 17 | 3 | 1.9 | 0.9 | 1.1 | 1.3 | 1.8 | 1.4 | 2 | 1 | M | 6 | 8.4 | 5.3 | 3 | 6.4 | 6.9 | 5.7 | 3.4 | 4.3 | 1.9 | 1.2 | 1.2 | 1.4 | 0.6 | 8.4 | 2.3 | 23 |
| 18 | 1.7 | 1.1 | 3 | 4.5 | 5.8 | 5.9 | 5.7 | 7.6 | 8.5 | 6.7 | 7.4 | 8.6 | 8 | 9.6 | 11.9 | 10.2 | 4.8 | 6.4 | 3.5 | 4 | 0.9 | 2.2 | 2.2 | 2.2 | 11.9 | 4.5 | 24 |
| 19 | 1.4 | 2.1 | 2.9 | 5 | 5.8 | 3.2 | 4.5 | 4.4 | 3.4 | 4.2 | 3.9 | 5.3 | 4.8 | 5.7 | 4 | 6.5 | 7.2 | 6.2 | 3.9 | 9.1 | 4.6 | 2.6 | 2.1 | 3.5 | 9.1 | 3.2 | 24 |
| 20 | 2.5 | 4.8 | 3.7 | 4.3 | 3.4 | 5.2 | 3.1 | 3.3 | 6.4 | 7.5 | 9.5 | 8.4 | 11 | 15.5 | 17.6 | 13.6 | 9.1 | 6.6 | 6.5 | 6.6 | 3 | 2.4 | 1.5 | 1.8 | 17.6 | 5.4 | 24 |
| 21 | 1.1 | 2 | 1.7 | 1.8 | 4.1 | 6.2 | 7 | 10.3 | 11.6 | 12.2 | 12.9 | 12.1 | 11.3 | 9.2 | 10.3 | 8.9 | 5.3 | 6.8 | 8.4 | 7.5 | 7.8 | 8 | 8.6 | 7.8 | 12.9 | 7.2 | 24 |
| 22 | 6.6 | 6.6 | 6 | 6.9 | 5.7 | 7 | 8.8 | 8.6 | 8.2 | 9.6 | 11.1 | 11.2 | 12.7 | 10.4 | 11.4 | 13.8 | 16.3 | 14.6 | 15.3 | 10.1 | 9.9 | 5.6 | 5.7 | 6.8 | 16.3 | 8.9 | 24 |
| 23 | 7.9 | 8 | 11.4 | 15.5 | 13.6 | 12.5 | 11 | 12 | 14.7 | 15.5 | 15.6 | 15 | 14.5 | 15.4 | 15.3 | 12.7 | 11.5 | 11.7 | 9.1 | 4.7 | 4.1 | 4 | 3.9 | 3.5 | 15.6 | 10.7 | 24 |
| 24 | 2.9 | 3.5 | 4.4 | 3.5 | 0.9 | 2.4 | 2.9 | 3.4 | 4.1 | 3.8 | 3.7 | 6.7 | 5.7 | 2.3 | 2.9 | 3.3 | 6.9 | 9.8 | 8 | 5.7 | 4.5 | 6.3 | 7 | 8.1 | 9.8 | 3.2 | 24 |
| 25 | 9.2 | 9.4 | 9.1 | 9.3 | 8 | 6.6 | 6.5 | 6.7 | 7.6 | 9.1 | 11.5 | 10.2 | 8.6 | 8.8 | 5.2 | 4.9 | 9.2 | 6.7 | 5.2 | 4.9 | 5.7 | 6 | 13.7 | 7.3 | 13.7 | 5.5 | 24 |
| 26 | 5.2 | 7.1 | 8.7 | 6.7 | 4.2 | 6.7 | 6.9 | 7.4 | 8 | 9.7 | 10.8 | 13.4 | 13.2 | 11.3 | 11.1 | 9.7 | 9.9 | 9.2 | 11.1 | 12.1 | 11 | 10.4 | 9.7 | 8.4 | 13.4 | 8.8 | 24 |
| 27 | 7 | 6.8 | 6 | 5.4 | 5.6 | 6.3 | 5.8 | 5.9 | 4.6 | 6 | 6.3 | 8 | 6.3 | 8.4 | 5.4 | 4.2 | 3.8 | 5.6 | 3.4 | 2.4 | 2.2 | 1.8 | 2.4 | 1.3 | 8.4 | 3.5 | 24 |
| 28 | 0.8 | 0.8 | 1 | 0.6 | 0.5 | 2.4 | 2.7 | 4.3 | 6 | 4.6 | 2.5 | 3.1 | 1.6 | 3.1 | 4.1 | 6.5 | 7.5 | 9.6 | 8.7 | 5.3 | 1.5 | 3.3 | 3.4 | 3.8 | 9.6 | 1.1 | 24 |
| 29 | 3.2 | 3.3 | 2.5 | 3.1 | 5 | 6.4 | 4.7 | 5.5 | 8.3 | 9.8 | 9.8 | 9.8 | 9.8 | 9.5 | 8.5 | 7.9 | 8.5 | 6 | 5.5 | 2 | 5.8 | 7.7 | 8.9 | 11.8 | 11.8 | 6.2 | 24 |
| 30 | 12.8 | 17.2 | 10.3 | 6.3 | 2.6 | 1.8 | 5.8 | 5.1 | 5.5 | 5.1 | 3.5 | 2.3 | 1.7 | 4 | 5 | 2.1 | 8.4 | 7.1 | 5.8 | 3.7 | 2.6 | 2.6 | 1 | 3.2 | 17.2 | 2.2 | 24 |
| HOURLY MAX | 12.8 | 17.2 | 11.4 | 15.5 | 13.6 | 12.5 | 13.0 | 13.7 | 14.7 | 16.1 | 15.6 | 15.0 | 14.9 | 15.5 | 17.6 | 14.1 | 16.3 | 14.6 | 15.3 | 12.1 | 11.0 | 10.4 | 13.7 | 11.8 | | | |
| HOURLY AVG | 4.1 | 4.4 | 4.0 | 3.9 | 3.5 | 4.0 | 4.6 | 5.5 | 6.3 | 7.1 | 7.8 | 8.5 | 7.8 | 8.3 | 8.5 | 8.0 | 8.3 | 7.7 | 7.0 | 5.9 | 4.2 | 3.7 | 4.2 | 4.0 | | | |

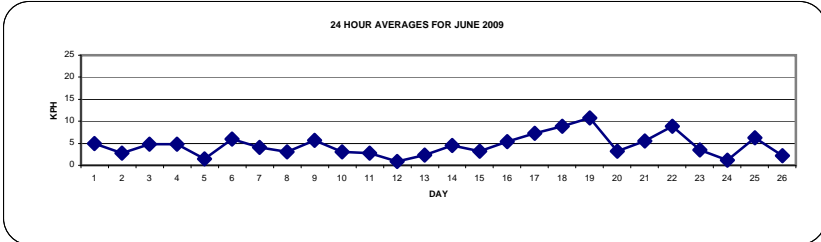
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

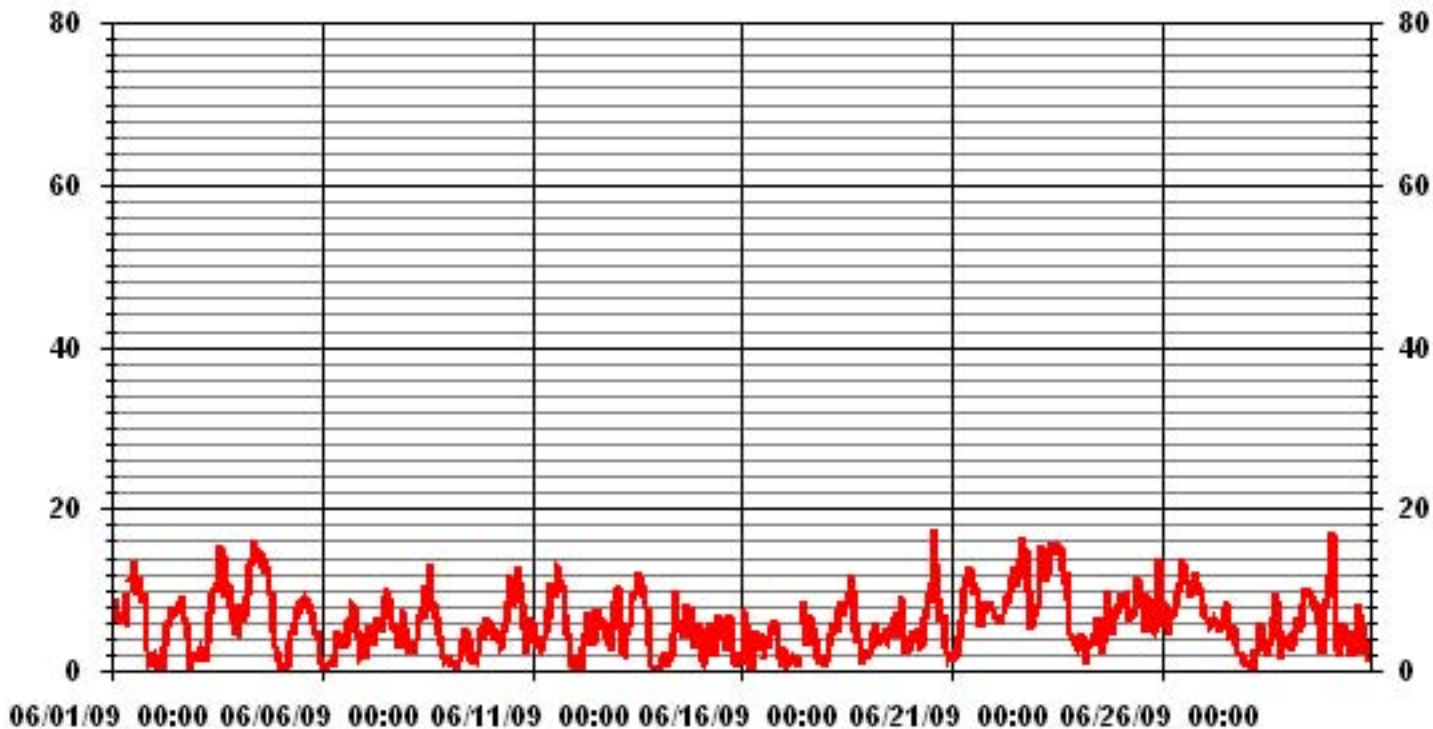
LAST CALIBRATION: November 7, 2007

MONTHLY SUMMARY

| | | | | | |
|---------------------------|----------|----------------------|------|-----------|----|
| MAXIMUM 1-HR AVERAGE: | 17.6 KPH | @ HOUR(S) | 14 | ON DAY(S) | 20 |
| MAXIMUM 24-HR AVERAGE: | 10.7 KPH | | | ON DAY(S) | 23 |
| CALMS (≤ 1 KPH) | 4.84 % | OPERATIONAL TIME: | 717 | HRS | |
| MONTHLY CALIBRATION TIME: | 0 HRS | AMD OPERATION UPTIME | 99.6 | % | |
| STANDARD DEVIATION | 3.68 | MONTHLY AVERAGE | 5.88 | KPH | |



01 Hour Averages



— LICA30 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

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 |
|------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|-------------|
| 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. |
| DAY | 1 | 26.9 | 18.5 | 19.1 | 16.4 | 16.6 | 18.2 | 16.9 | 18.1 | 22.8 | M | 36.2 | 32.5 | 26.9 | 30.2 | 26.8 | 28 | 39.9 | 28.4 | 21.3 | 20.7 | 8.7 | 4.8 | 4.4 | 4.2 | 39.9 |
| | 2 | 3.4 | 5.5 | 3.5 | 0.5 | 2.7 | 2.3 | 12.1 | M | 13.4 | 21.2 | M | 22.4 | 21.9 | 24.6 | 24.2 | 22.9 | 22.4 | 22.6 | 16.8 | 12.5 | 2.2 | 4.2 | 4.8 | 7.9 | 24.6 |
| | 3 | 7.3 | 3.7 | 4 | 4.8 | 5.9 | 5.6 | 8.4 | 10.6 | 19.1 | 28.8 | 26.3 | 23.8 | 29.7 | 32.9 | 32.6 | 25.6 | 36.6 | 20.8 | 25.1 | 27.8 | 25.3 | 16.7 | 13.7 | 11.7 | 36.6 |
| | 4 | 18.8 | 16.7 | 15.4 | 13.4 | 16.1 | 22 | 27.8 | 28.4 | 30.5 | 33.3 | 35 | 31.6 | 34.7 | 40.5 | 32.7 | 30.4 | 26.2 | 28.6 | 23.3 | 18.7 | 11.4 | 6.4 | 4.7 | 6.6 | 40.5 |
| | 5 | 4.3 | 3.1 | 1.9 | 0.5 | 3.7 | 7.5 | 10.6 | 11 | 12.1 | 20.7 | 18.9 | 18.1 | 22.7 | 19.2 | 24.8 | 24.5 | 30.5 | 21.9 | 17.9 | 16.4 | 11 | 10.8 | 9.8 | 8.3 | 30.5 |
| | 6 | 5.3 | 0.7 | 0.4 | 2.8 | 7.3 | 3.4 | 4.7 | 4.9 | 12.2 | 16.7 | 15.1 | 16.1 | 14.3 | 16.9 | 17.2 | 19.2 | 21.7 | 20.9 | 23.9 | 18 | 8.5 | 8.1 | 4 | 4.4 | 23.9 |
| | 7 | 5.8 | 6.2 | 10.7 | 12.8 | 10.2 | 9 | 8.9 | 12.2 | 18.6 | 15.3 | 13.5 | 18.6 | 25.3 | 25.5 | 25.4 | 23.9 | 19.3 | 22.6 | 12.6 | 14.2 | 5.8 | 13.3 | 19.1 | 15.7 | 25.5 |
| | 8 | 10.6 | 6 | 6 | 5.7 | 8.1 | 8 | 9.8 | 14.8 | 17.7 | 20.9 | 18 | 28.8 | 24.8 | 23.4 | 31.5 | 20.4 | 21.6 | 18.2 | 17 | 12.8 | 6.9 | 5.6 | 8.2 | 10.4 | 31.5 |
| | 9 | 4.5 | 4.2 | 3.2 | 3.4 | 3.1 | 2.8 | 3.6 | 10.9 | 9.5 | 12.5 | 10.6 | 11.4 | 12 | 10.4 | 8 | 10.7 | 13.8 | 13.6 | 12.1 | 7.8 | 11.9 | 12.6 | 12.7 | 13.8 | 13.8 |
| | 10 | 9.9 | 8.8 | 7.4 | 9.4 | 9.2 | 8 | 11.1 | 7.2 | 10 | 12.2 | 21.3 | 22.3 | 22.8 | 22.3 | 21.1 | 22.7 | 23.8 | 25.8 | 20.3 | 11.7 | 9.7 | 8.2 | 9.7 | 10.9 | 25.8 |
| | 11 | 10.4 | 12.4 | 11.2 | 7.8 | 7.3 | 6.5 | 9.7 | 10.4 | 18.9 | 30 | 41.4 | 31.8 | 26 | 34.5 | 38.6 | 31.2 | 31.6 | 25.1 | 24.4 | 17.2 | 15.5 | 10.1 | 5 | 3.4 | 41.4 |
| | 12 | 0.4 | 5.8 | 2.8 | 0.4 | 2.5 | 5.4 | 11.2 | 13.1 | 17.7 | 17.7 | 18.3 | 20.2 | 20.1 | 19.3 | 17.9 | 19 | 16.9 | 13.9 | 13.7 | 11.9 | 6.2 | 6.5 | 14.4 | 15.9 | 20.2 |
| | 13 | 20 | 21 | 16.1 | 10.2 | 6.9 | 5.2 | 13.7 | 12.9 | 12.5 | 18.3 | 20.4 | 23.5 | 24.9 | 25.4 | 24.8 | 25.2 | 20.2 | 20.8 | 16 | 8.4 | 4.3 | 5.5 | 4.9 | 0.4 | 25.4 |
| | 14 | 0.4 | 3.4 | 4 | 4 | 3.6 | 3.1 | 5.7 | 5.3 | 8.3 | 16.7 | 24 | 20.9 | 17.4 | 20.6 | 18.8 | 12.4 | 25.8 | 19 | 15.2 | 20.6 | 11.3 | 32.7 | 12.2 | 9.8 | 32.7 |
| | 15 | 10.9 | 5.8 | 4.6 | 4.9 | 6 | 14.1 | 12.2 | 11.1 | 8.3 | 6.4 | 11.9 | 14.7 | 14.9 | 17.8 | 14.5 | 8 | 6.5 | 17.6 | 13.5 | 6.1 | 13.2 | 4.2 | 6.1 | 6.9 | 17.8 |
| | 16 | 8 | 20.3 | 14.7 | 7.1 | 7.2 | 5.5 | 6.3 | 13 | 12.9 | 10.7 | 12.2 | M | 10.9 | 7.7 | 12 | 14.5 | 15.6 | 17.8 | 15.5 | 18.9 | 18.1 | 7.6 | 4.8 | 4.3 | 20.3 |
| | 17 | 5.3 | 4.4 | 3.2 | 11.8 | 4.2 | 3.9 | M | 6 | 7.7 | M | 16 | 18.2 | 17 | 14 | 17.7 | 17.8 | 16.8 | 11.2 | 7.9 | 6.6 | 5.8 | 3.4 | 4.4 | 4.2 | 18.2 |
| | 18 | 5.8 | 11.5 | 11.1 | 12.1 | 15.5 | 18.5 | 21.4 | 22.4 | 21.5 | 17.9 | 18.9 | 22.6 | 22.2 | 26.5 | 28.1 | 24.6 | 16.4 | 23.2 | 13.4 | 14.2 | 8.5 | 4.4 | 6.4 | 5.7 | 28.1 |
| | 19 | 5.2 | 7.2 | 8.1 | 9.3 | 10.4 | 8.7 | 10.9 | 9.1 | 10.5 | 14.4 | 15.9 | 20.8 | 19.9 | 17.7 | 15.6 | 20.9 | 17.1 | 17 | 12.1 | 25.8 | 18 | 8.9 | 9.3 | 14.8 | 25.8 |
| | 20 | 15.4 | 9.3 | 16.8 | 15.3 | 11.6 | 13 | 8.2 | 7.5 | 14.1 | 16.1 | 18.7 | 18 | 26.2 | 31.3 | 33.4 | 31.8 | 18.7 | 16.7 | 17.6 | 17.5 | 11.3 | 6.7 | 5.6 | 6.1 | 33.4 |
| | 21 | 4.2 | 7.6 | 6.2 | 5.7 | 8.5 | 11.6 | 17.8 | 19.5 | 21.7 | 27.7 | 32.9 | 27.6 | 25.3 | 19 | 21.6 | 21.1 | 12 | 17.8 | 22 | 17.8 | 17.9 | 20.2 | 19 | 19.6 | 32.9 |
| | 22 | 14.9 | 17.8 | 15.7 | 18.8 | 19.5 | 19.7 | 22.1 | 23.4 | 21.1 | 22.5 | 25 | 29.1 | 30.3 | 32.6 | 27.6 | 41.3 | 37.7 | 33.6 | 46.3 | 27.3 | 29 | 14.9 | 16.7 | 18.2 | 46.3 |
| | 23 | 20.1 | 22.1 | 32 | 33.3 | 38.8 | 29.8 | 28.3 | 37.2 | 35.5 | 46.1 | 35.8 | 37.2 | 35.7 | 40.1 | 37.4 | 32 | 28.5 | 29.3 | 27.2 | 16.6 | 9.6 | 9.4 | 9.5 | 6.5 | 46.1 |
| | 24 | 6 | 8.1 | 9 | 6.9 | 5 | 6 | 6.4 | 7.7 | 9.8 | 10.9 | 16.1 | 25.2 | 17 | 21.2 | 13.1 | 18.4 | 18.4 | 20 | 15.7 | 10.3 | 8.6 | 11.7 | 14.6 | 15 | 25.2 |
| | 25 | 17.8 | 19.3 | 19.3 | 22.2 | 16.8 | 19.3 | 17 | 21.4 | 22.6 | 20.1 | 25.2 | 23.7 | M | M | 15.1 | 19.3 | 28.2 | 20.4 | 19.8 | 11.4 | 15.1 | 13.8 | 46.3 | 36.7 | 46.3 |
| | 26 | 12.8 | 16.2 | 18.2 | 18.3 | M | 18 | 20 | 21.7 | 25.1 | 25.6 | 33.3 | 34.1 | 32.7 | 29.7 | 33.2 | 30.2 | 31.8 | 26.4 | 28.9 | 29 | 28.2 | 28 | 29.2 | 21.4 | 34.1 |
| | 27 | 22.9 | 23.6 | 22.4 | 14.1 | 14.7 | 16 | 14.7 | 13.6 | 15.4 | 17.4 | 17 | 19.9 | 17.6 | 23.7 | 15.4 | 11.4 | 12.3 | 12.8 | 11.5 | 6 | 4.9 | 3.9 | 4 | 3.7 | 23.7 |
| | 28 | 3 | 3 | 4.8 | 5.4 | 2.6 | 5.1 | 5.5 | 10.9 | 15 | 20.7 | 7.9 | 9.6 | 7.7 | 9.2 | 11.5 | 16.2 | 28.7 | 27.3 | 25.9 | 15.2 | 6.8 | 5.7 | 6.3 | 7.7 | 28.7 |
| | 29 | 7.7 | 7.3 | 6.4 | 8.5 | 12 | 13.2 | 12.9 | 12 | 16.6 | 19.3 | 22.7 | 28.3 | 23.6 | 23.2 | 18.4 | 21.6 | 21.5 | 17.4 | 16.8 | 8.9 | 13.3 | 15.8 | 29.5 | 29.9 | 29.9 |
| | 30 | 27.1 | 34.9 | 40.2 | 17.1 | 11.8 | 7.4 | 13.5 | 12.6 | 14.7 | 12.3 | 13.1 | 14.4 | 11.7 | 15.3 | 13.7 | 23.4 | 26.3 | 16.6 | 14.2 | 9.4 | 8.3 | 7.5 | 6.9 | 11.3 | 40.2 |
| PEAK | | 27.1 | 34.9 | 40.2 | 33.3 | 38.8 | 29.8 | 28.3 | 37.2 | 35.5 | 46.1 | 41.4 | 37.2 | 35.7 | 40.5 | 38.6 | 41.3 | 39.9 | 33.6 | 46.3 | 29.0 | 29.0 | 32.7 | 46.3 | 36.7 | |

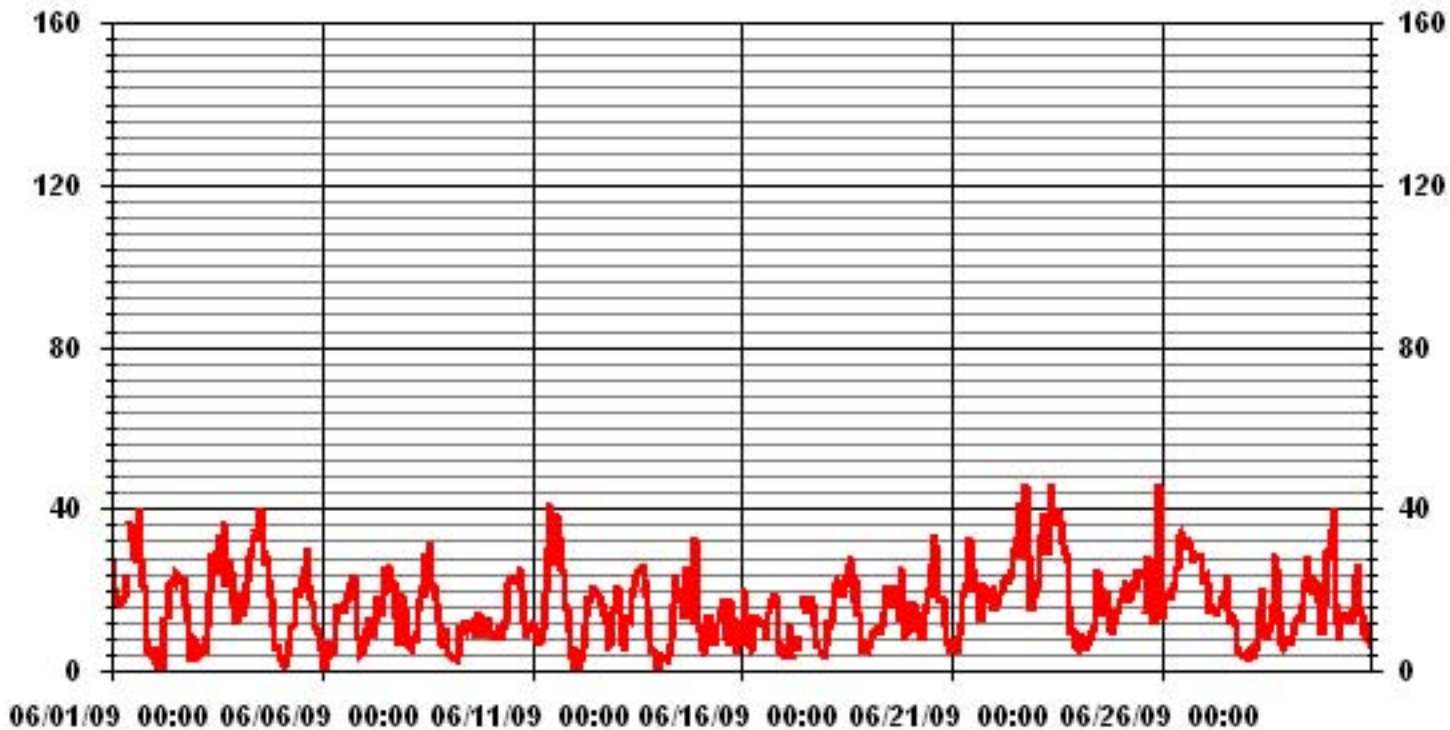
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | |
|-------------------------------|------|-----|-----------|----|
| MAXIMUM INSTANTANEOUS READING | 46.3 | KPH | @ HOUR(S) | 18 |
| | | | ON DAY(S) | 22 |

01 Hour Averages



— LICA30 WSMAX KPH

LICA30
WSP / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : WSP
Units : KPH

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 |
| < 6.0 | 1.53 | 1.11 | 4.04 | 5.02 | 1.81 | 2.51 | 2.64 | 4.04 | 3.48 | 9.06 | 7.67 | 3.62 | 2.51 | 1.39 | 2.37 | 1.81 | 54.67 |
| < 12.0 | 4.04 | 1.11 | 2.51 | 1.53 | .55 | .69 | 2.92 | 3.06 | 1.67 | 4.32 | 1.95 | 2.37 | 2.92 | 2.51 | 2.64 | 3.34 | 38.21 |
| < 20.0 | 1.11 | 1.11 | .97 | .00 | .00 | .00 | .13 | .27 | .13 | .13 | .00 | .27 | .55 | 1.67 | .55 | .13 | 7.11 |
| < 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 | 6.69 | 3.34 | 7.53 | 6.55 | 2.37 | 3.20 | 5.71 | 7.39 | 5.29 | 13.52 | 9.62 | 6.27 | 5.99 | 5.57 | 5.57 | 5.29 | |

Calm : .00 %

Total # Operational Hours : 717

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|---------|-----------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 6.0 | 11 | 8 | 29 | 36 | 13 | 18 | 19 | 29 | 25 | 65 | 55 | 26 | 18 | 10 | 17 | 13 | 392 |
| < 12.0 | 29 | 8 | 18 | 11 | 4 | 5 | 21 | 22 | 12 | 31 | 14 | 17 | 21 | 18 | 19 | 24 | 274 |
| < 20.0 | 8 | 8 | 7 | | | | 1 | 2 | 1 | 1 | | 2 | 4 | 12 | 4 | 1 | 51 |
| < 29.0 | | | | | | | | | | | | | | | | | |
| < 39.0 | | | | | | | | | | | | | | | | | |
| >= 39.0 | | | | | | | | | | | | | | | | | |
| Totals | 48 | 24 | 54 | 47 | 17 | 23 | 41 | 53 | 38 | 97 | 69 | 45 | 43 | 40 | 40 | 38 | |

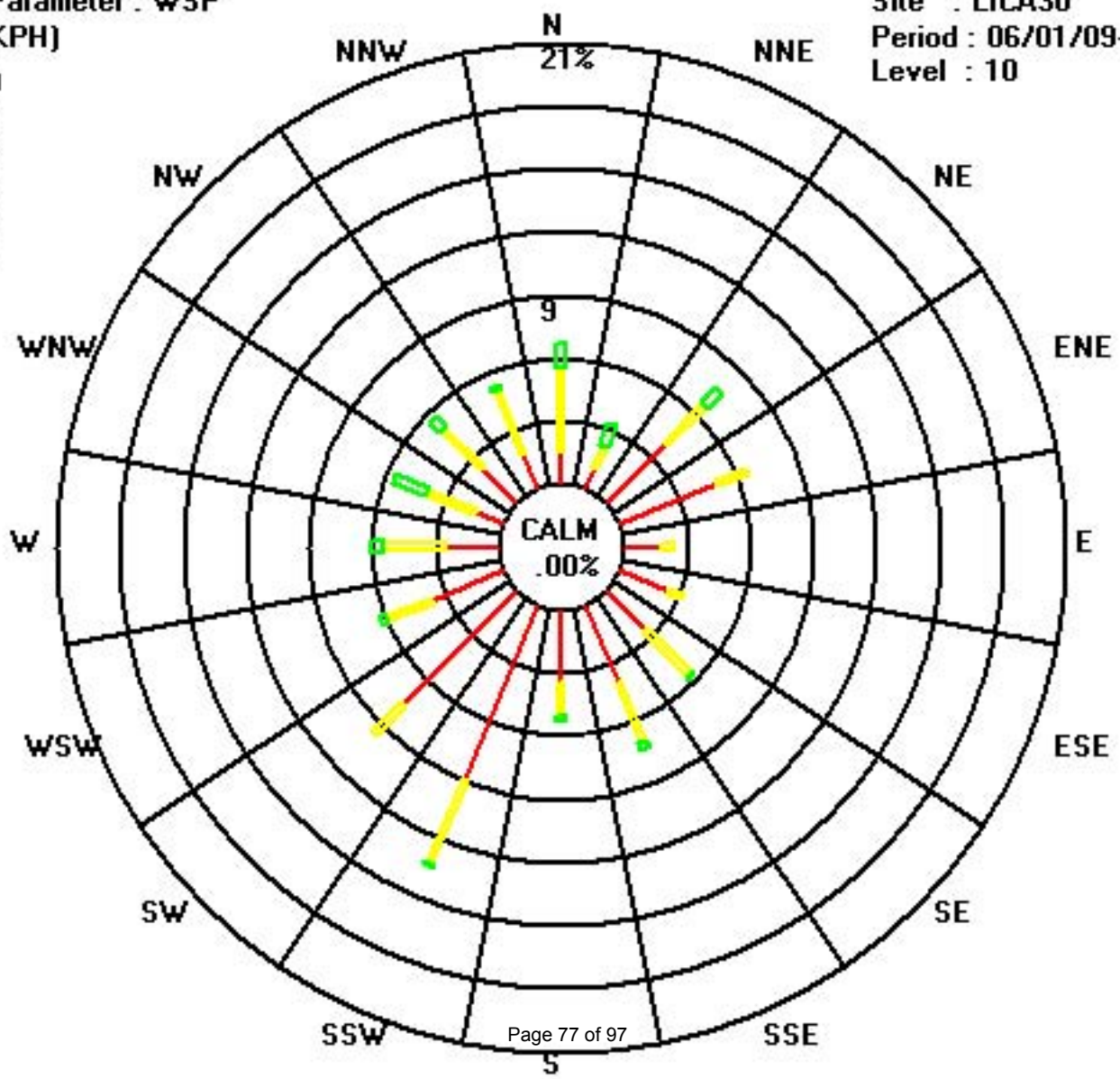
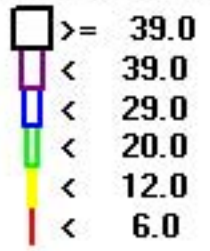
Calm : .00 %

Total # Operational Hours : 717

Class Limits (KPH)

Period : 06/01/09-06/30/09

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

WIND DIRECTION hourly averages in degrees

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 | 24-HOUR | 24-HOUR AVG | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------------|-------|
| 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 | AVG. | QUADRANT | RDGS. |
| DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 348 | 1 | 4 | 2 | 359 | 345 | 344 | 333 | 338 | M | 359 | 355 | 348 | 10 | 6 | 348 | 5 | 356 | 355 | 27 | 34 | 131 | 211 | 230 | 357 | N | 23 |
| 2 | 197 | 221 | 184 | 220 | 221 | 254 | 230 | 222 | 227 | 308 | 316 | 302 | 261 | 256 | 248 | 246 | 231 | 262 | 275 | 297 | 246 | 215 | 209 | 227 | 258 | WSW | 24 |
| 3 | 223 | 229 | 212 | 215 | 236 | 275 | 250 | 299 | 319 | 336 | 339 | 345 | 351 | 6 | 37 | 22 | 8 | 19 | 354 | 350 | 327 | 334 | 336 | 344 | 351 | N | 24 |
| 4 | 2 | 8 | 9 | 6 | 3 | 8 | 10 | 10 | 358 | 16 | 11 | 11 | 13 | 17 | 19 | 27 | 29 | 31 | 39 | 29 | 48 | 74 | 89 | 89 | 17 | NNE | 24 |
| 5 | 50 | 121 | 198 | 159 | 93 | 54 | 58 | 61 | 62 | 61 | 72 | 67 | 80 | 78 | 61 | 56 | 78 | 93 | 93 | 94 | 63 | 47 | 49 | 69 | 70 | ENE | 24 |
| 6 | 97 | 207 | 128 | 112 | 37 | 138 | 19 | 13 | 28 | 8 | 7 | 352 | 357 | 10 | 356 | 26 | 53 | 45 | 59 | 63 | 54 | 37 | 89 | 95 | 35 | NE | 24 |
| 7 | 76 | 68 | 113 | 146 | 114 | 95 | 118 | 120 | 119 | 136 | 60 | 66 | 139 | 150 | 142 | 148 | 119 | 75 | 105 | 97 | 136 | 132 | 132 | 113 | 119 | ESE | 24 |
| 8 | 93 | 40 | 78 | 86 | 67 | 75 | 119 | 142 | 140 | 153 | 144 | 149 | 169 | 142 | 165 | 144 | 160 | 138 | 144 | 145 | 180 | 188 | 166 | 138 | 141 | SE | 24 |
| 9 | 226 | 236 | 196 | 150 | 161 | 301 | 50 | 323 | 334 | 68 | 151 | 188 | 47 | 203 | 78 | 338 | 54 | 186 | 172 | 155 | 164 | 166 | 196 | 204 | 172 | S | 24 |
| 10 | 211 | 202 | 212 | 213 | 211 | 212 | 78 | 170 | 202 | 199 | 206 | 204 | 208 | 199 | 199 | 216 | 198 | 194 | 190 | 163 | 60 | 152 | 177 | 203 | 197 | SSW | 24 |
| 11 | 209 | 212 | 219 | 224 | 223 | 219 | 239 | 249 | 270 | 343 | 314 | 299 | 329 | 332 | 317 | 337 | 337 | 334 | 353 | 18 | 39 | 68 | 52 | 46 | 319 | NW | 24 |
| 12 | 170 | 184 | 208 | 197 | 118 | 36 | 47 | 53 | 51 | 118 | 111 | 34 | 189 | 155 | 158 | 140 | 153 | 161 | 169 | 158 | 148 | 126 | 162 | 162 | 133 | SE | 24 |
| 13 | 164 | 160 | 143 | 149 | 45 | 63 | 161 | 185 | 188 | 187 | 200 | 204 | 196 | 191 | 199 | 208 | 208 | 204 | 197 | 190 | 206 | 197 | 147 | 220 | 187 | S | 24 |
| 14 | 196 | 259 | 211 | 172 | 152 | 212 | 323 | 295 | 234 | 201 | 203 | 245 | 270 | 1 | 167 | 194 | 205 | 211 | 164 | 174 | 180 | 183 | 154 | 200 | 199 | SSW | 24 |
| 15 | 200 | 228 | 211 | 202 | 223 | 212 | 219 | 261 | 262 | 292 | 194 | 191 | 170 | 154 | 165 | 201 | 214 | 204 | 212 | 148 | 150 | 132 | 105 | 191 | 198 | SSW | 24 |
| 16 | 132 | 174 | 193 | 117 | 271 | 131 | 245 | 18 | 35 | 79 | 167 | M | 350 | 195 | 311 | 260 | 245 | 304 | 318 | 321 | 304 | 242 | 221 | 161 | 261 | W | 23 |
| 17 | 202 | 219 | 143 | 67 | 261 | 209 | 249 | 310 | 307 | M | 194 | 174 | 173 | 97 | 179 | 157 | 176 | 206 | 193 | 198 | 78 | 173 | 208 | 176 | 182 | S | 23 |
| 18 | 95 | 272 | 317 | 11 | 354 | 333 | 347 | 331 | 320 | 332 | 325 | 323 | 303 | 290 | 309 | 303 | 278 | 284 | 329 | 24 | 281 | 211 | 205 | 190 | 317 | NW | 24 |
| 19 | 192 | 219 | 200 | 220 | 216 | 238 | 228 | 216 | 254 | 336 | 305 | 311 | 339 | 317 | 294 | 242 | 240 | 229 | 237 | 237 | 256 | 228 | 160 | 156 | 247 | WSW | 24 |
| 20 | 215 | 136 | 150 | 133 | 111 | 126 | 73 | 45 | 35 | 41 | 49 | 47 | 41 | 41 | 36 | 41 | 47 | 66 | 65 | 71 | 54 | 20 | 77 | 65 | 56 | NE | 24 |
| 21 | 65 | 64 | 35 | 47 | 44 | 29 | 33 | 43 | 41 | 44 | 41 | 46 | 46 | 54 | 41 | 38 | 14 | 8 | 13 | 6 | 4 | 2 | 0 | 353 | 30 | NNE | 24 |
| 22 | 351 | 347 | 337 | 325 | 331 | 324 | 316 | 311 | 308 | 299 | 303 | 306 | 302 | 295 | 283 | 297 | 305 | 304 | 308 | 286 | 284 | 261 | 256 | 262 | 303 | WNW | 24 |
| 23 | 281 | 278 | 278 | 289 | 287 | 286 | 281 | 279 | 283 | 286 | 290 | 283 | 282 | 281 | 287 | 279 | 279 | 285 | 283 | 265 | 243 | 237 | 231 | 217 | 280 | W | 24 |
| 24 | 215 | 217 | 214 | 218 | 217 | 207 | 219 | 237 | 229 | 230 | 313 | 270 | 326 | 252 | 292 | 210 | 213 | 192 | 197 | 173 | 153 | 153 | 151 | 146 | 206 | SSW | 24 |
| 25 | 144 | 145 | 141 | 142 | 139 | 131 | 120 | 114 | 135 | 151 | 183 | 172 | 201 | 192 | 196 | 272 | 154 | 191 | 274 | 223 | 242 | 239 | 251 | 245 | 176 | S | 24 |
| 26 | 256 | 226 | 226 | 249 | 249 | 267 | 244 | 249 | 257 | 264 | 258 | 266 | 252 | 260 | 261 | 271 | 276 | 281 | 290 | 289 | 285 | 287 | 284 | 274 | 265 | W | 24 |
| 27 | 273 | 274 | 258 | 244 | 241 | 234 | 232 | 233 | 262 | 306 | 327 | 321 | 330 | 359 | 344 | 325 | 315 | 325 | 334 | 235 | 214 | 207 | 208 | 222 | 285 | WNW | 24 |
| 28 | 216 | 198 | 78 | 118 | 245 | 51 | 68 | 113 | 139 | 144 | 207 | 154 | 250 | 192 | 206 | 228 | 275 | 307 | 323 | 333 | 248 | 197 | 199 | 210 | 231 | SW | 24 |
| 29 | 211 | 214 | 214 | 214 | 209 | 214 | 222 | 213 | 210 | 213 | 220 | 244 | 230 | 214 | 212 | 222 | 225 | 240 | 259 | 203 | 151 | 161 | 204 | 168 | 212 | SSW | 24 |
| 30 | 159 | 140 | 128 | 103 | 47 | 59 | 59 | 66 | 63 | 73 | 44 | 61 | 299 | 116 | 78 | 286 | 330 | 357 | 7 | 31 | 209 | 210 | 301 | 215 | 89 | E | 24 |
| HOURLY AVG | 351 | 347 | 337 | 325 | 359 | 345 | 347 | 333 | 358 | 343 | 359 | 355 | 357 | 359 | 356 | 348 | 337 | 357 | 355 | 350 | 327 | 334 | 336 | 353 | | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

LAST CALIBRATION:

November 7, 2007

DECLINATION :

19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME: 0 HRS

OPERATIONAL TIME:

717 HRS

STANDARD DEVIATION

97.83

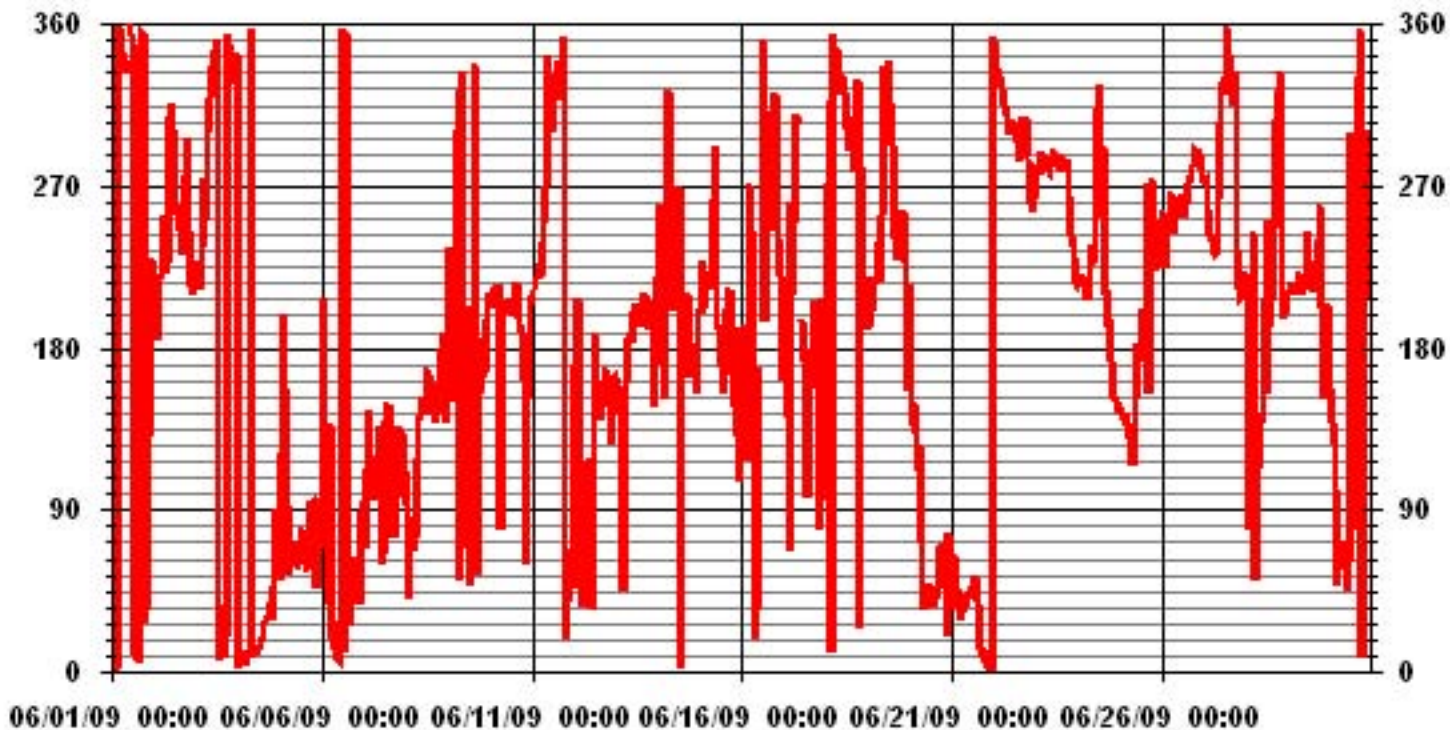
AMD OPERATION UPTIME

99.6 %

MONTHLY AVERAGE

277 DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JUNE 2009

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

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 |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 17 | 16 | 15 | 13 | 16 | 16 | 18 | 18 | 23 | 17 | 20 | 25 | 20 | 23 | 27 | 18 | 27 | 12 | 19 | 13 | 12 | 17 | 32 | 25 |
| 5 | 42 | 53 | 51 | 62 | 54 | 14 | 17 | 25 | 43 | 35 | 32 | 27 | 34 | 29 | 36 | 33 | 32 | 32 | 26 | 24 | 21 | 13 | 14 | 45 |
| 6 | 40 | 44 | 29 | 42 | 17 | 34 | 51 | 36 | 29 | 42 | 49 | 45 | 51 | 55 | 42 | 54 | 33 | 22 | 22 | 27 | 15 | 14 | 27 | 37 |
| 7 | 28 | 46 | 19 | 17 | 30 | 25 | 35 | 34 | 29 | 36 | 30 | 34 | 36 | 34 | 28 | 34 | 33 | 44 | 33 | 24 | 17 | 13 | 21 | 23 |
| 8 | 23 | 37 | 15 | 19 | 24 | 21 | 33 | 35 | 31 | 26 | 33 | 28 | 32 | 29 | 21 | 28 | 35 | 33 | 24 | 17 | 9 | 23 | 54 | 55 |
| 9 | 26 | 28 | 25 | 26 | 23 | 28 | 15 | 44 | 58 | 32 | 25 | 51 | 46 | 55 | 60 | 64 | 55 | 60 | 33 | 14 | 10 | 11 | 11 | 12 |
| 10 | 10 | 10 | 11 | 11 | 12 | 35 | 16 | 16 | 23 | 23 | 23 | 21 | 33 | 26 | 21 | 35 | 17 | 18 | 21 | 19 | 28 | 16 | 12 | 10 |
| 11 | 19 | 14 | 12 | 18 | 14 | 16 | 24 | 32 | 38 | 26 | 39 | 30 | 31 | 30 | 28 | 29 | 28 | 28 | 25 | 19 | 16 | 13 | 34 | 20 |
| 12 | 33 | 35 | 53 | 11 | 24 | 11 | 17 | 22 | 30 | 45 | 52 | 61 | 49 | 44 | 36 | 41 | 35 | 43 | 24 | 14 | 9 | 19 | 11 | 12 |
| 13 | 12 | 12 | 23 | 38 | 33 | 13 | 22 | 26 | 26 | 21 | 23 | 27 | 24 | 24 | 23 | 22 | 17 | 16 | 15 | 16 | 13 | 18 | 37 | 27 |
| 14 | 27 | 17 | 27 | 28 | 14 | 20 | 31 | 28 | 65 | 54 | 22 | 28 | 34 | 44 | 29 | 48 | 14 | 19 | 32 | 16 | 12 | 33 | 15 | 21 |
| 15 | 21 | 28 | 31 | 20 | 39 | 12 | 18 | 32 | 45 | 52 | 43 | 21 | 39 | 34 | 35 | 32 | 7 | 13 | 20 | 24 | 23 | 42 | 53 | 39 |
| 16 | 18 | 12 | 18 | 42 | 38 | 35 | 29 | 33 | 44 | 47 | 52 | M | 38 | 17 | 44 | 64 | 43 | 34 | 30 | 28 | 25 | 19 | 40 | 39 |
| 17 | 15 | 10 | 21 | 50 | 24 | 17 | M | 38 | 75 | M | 45 | 24 | 52 | 63 | 35 | 31 | 45 | 40 | 13 | 24 | 29 | 25 | 26 | 58 |
| 18 | 19 | 51 | 44 | 26 | 28 | 31 | 34 | 32 | 30 | 31 | 35 | 31 | 29 | 25 | 24 | 27 | 31 | 27 | 41 | 28 | 35 | 12 | 25 | 37 |
| 19 | 30 | 34 | 15 | 11 | 12 | 23 | 22 | 22 | 40 | 41 | 52 | 50 | 52 | 39 | 51 | 38 | 28 | 23 | 28 | 22 | 34 | 27 | 25 | 27 |
| 20 | 38 | 15 | 38 | 14 | 20 | 26 | 21 | 17 | 16 | 16 | 18 | 21 | 18 | 15 | 13 | 18 | 20 | 43 | 28 | 23 | 18 | 34 | 31 | 22 |
| 21 | 30 | 26 | 34 | 23 | 16 | 13 | 15 | 16 | 12 | 15 | 14 | 15 | 17 | 18 | 15 | 13 | 21 | 20 | 17 | 19 | 17 | 19 | 21 | 23 |
| 22 | 24 | 27 | 29 | 33 | 34 | 32 | 26 | 23 | 23 | 24 | 21 | 25 | 21 | 25 | 23 | 24 | 20 | 22 | 23 | 24 | 24 | 23 | 24 | 26 |
| 23 | 22 | 24 | 23 | 21 | 22 | 22 | 28 | 27 | 23 | 23 | 23 | 25 | 25 | 27 | 25 | 27 | 29 | 26 | 25 | 29 | 18 | 17 | 16 | 12 |
| 24 | 13 | 12 | 9 | 13 | 58 | 32 | 19 | 27 | 25 | 36 | 42 | 43 | 34 | 49 | 53 | 66 | 39 | 18 | 14 | 12 | 9 | 10 | 11 | 12 |
| 25 | 13 | 14 | 13 | 15 | 19 | 21 | 25 | 33 | 30 | 25 | 22 | 28 | 25 | 29 | 33 | 38 | 22 | 34 | 31 | 14 | 23 | 24 | 26 | 26 |
| 26 | 25 | 15 | 13 | 26 | 25 | 25 | 25 | 27 | 30 | 31 | 31 | 30 | 27 | 33 | 35 | 30 | 34 | 33 | 26 | 23 | 25 | 25 | 27 | 29 |
| 27 | 27 | 33 | 29 | 26 | 27 | 21 | 22 | 22 | 30 | 30 | 30 | 26 | 36 | 26 | 31 | 41 | 41 | 29 | 40 | 22 | 12 | 22 | 16 | 14 |
| 28 | 11 | 13 | 44 | 45 | 43 | 25 | 22 | 29 | 24 | 27 | 26 | 37 | 47 | 31 | 34 | 30 | 26 | 28 | 31 | 33 | 22 | 7 | 7 | 11 |
| 29 | 27 | 17 | 11 | 17 | 11 | 15 | 17 | 20 | 16 | 19 | 23 | 29 | 27 | 22 | 19 | 21 | 24 | 33 | 33 | 29 | 14 | 18 | 24 | 13 |
| 30 | 11 | 17 | 37 | 23 | 32 | 51 | 22 | 32 | 33 | 32 | 59 | 72 | 53 | 54 | 36 | 38 | 34 | 28 | 27 | 35 | 13 | 45 | 47 | 31 |

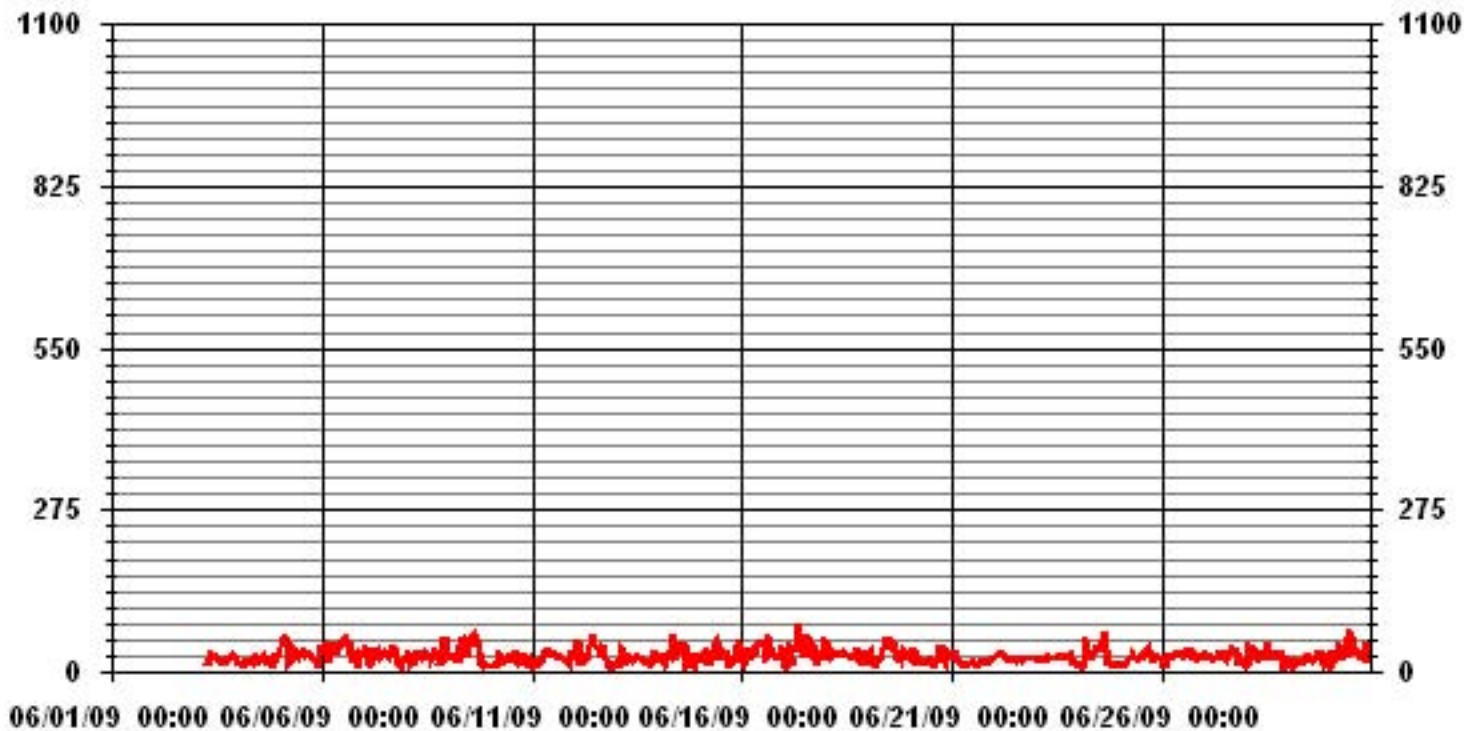
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

LAST CALIBRATION: November 07, 2007

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 662 HRS

01 Hour Averages



— LICA30 STDWDIR DEG

Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|--------------|
| Calibration Date | June 24, 2009 | Previous Calibration | May 20, 2009 |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | Cold Lake - Maskwa | | |
| Start Time (MST) | 12:30 | End Time (MST) | 16:15 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 27.98 inHg | Station Temperature | 20 Deg C |
| Cal Gas | 51.4 ppm | Cal Gas Expiry date | 12/19/2010 |
| DAS Output Voltage | 0 - 1 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|----------|-------|--------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 508 | Method: | Fluorescent |
| Converter Make / Model: | - | S/N : | - | | |
| Calibrator Make / Model: | API 700 | S/N : | 690 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO 791 | | |
| Flow Meter: | API 700 | S/N : | 690 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|--------------------|--------------------|--|
| Concentration Range | 0 - 1000 | ppb | |
| Sample Flow / Box Temp | 612 ccm 33.1 Deg C | 606 ccm 33 Deg C | |
| HVPS / Lamp Setting | 522 2645 | 522 2635 | |
| PMT / RxCell Temp | 7.7 Deg C 50 Deg C | 7.7 Deg C 50 Deg C | |
| Converter / IZS Temp | NA Deg C 45 Deg C | NA Deg C 45 Deg C | |
| Offset / Slope | 61 1.001 | 63 1.056 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4000.0 | 0 | 0 | 1 | N/A |
| 4000.0 | 0 | 0 | 0 | N/A |
| 3938.0 | 62.3 | 800 | 799 | 1.0019 |
| 3938.0 | 62.3 | 800 | 802 | 0.9981 |
| 3969.0 | 31.1 | 400 | 397 | 1.0066 |
| 3984.0 | 15.6 | 200 | 199 | 1.0074 |
| 4000.0 | 0 | 0 | 2 | N/A |
| Sum of Least Squares | | | | 1.0002 |
| New Correction Factor | | | | 0.9981 |

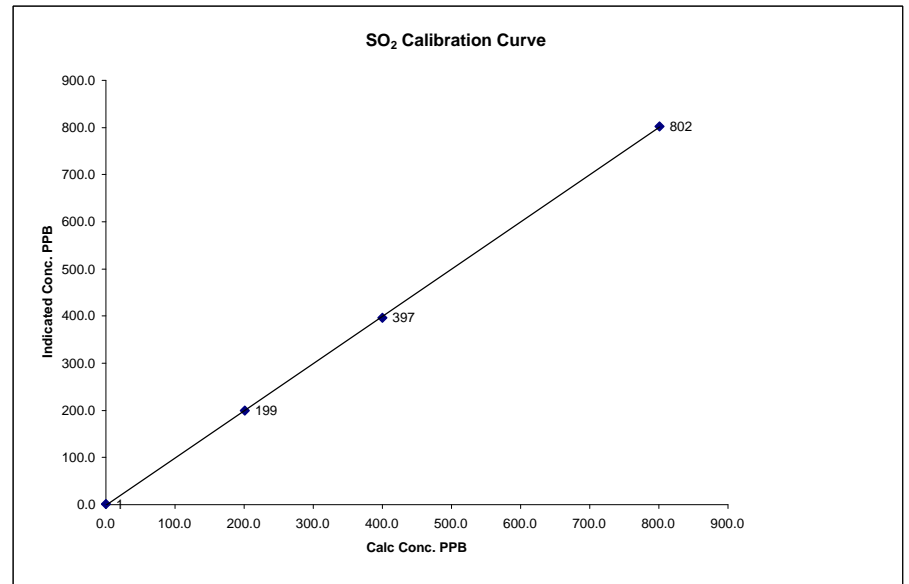
| | Before Calibration | After Calibration |
|--|--------------------|-------------------|
| Auto Zero | 1.4 | 0.3 |
| Auto Span | 496.0 | 518.0 |
| Sample Lines Connected | | YES |
| Percent Change from Previous Calibration | | -0.5% |

Calibration Performed by: Shane Taylor

SO₂ Calibration Curve

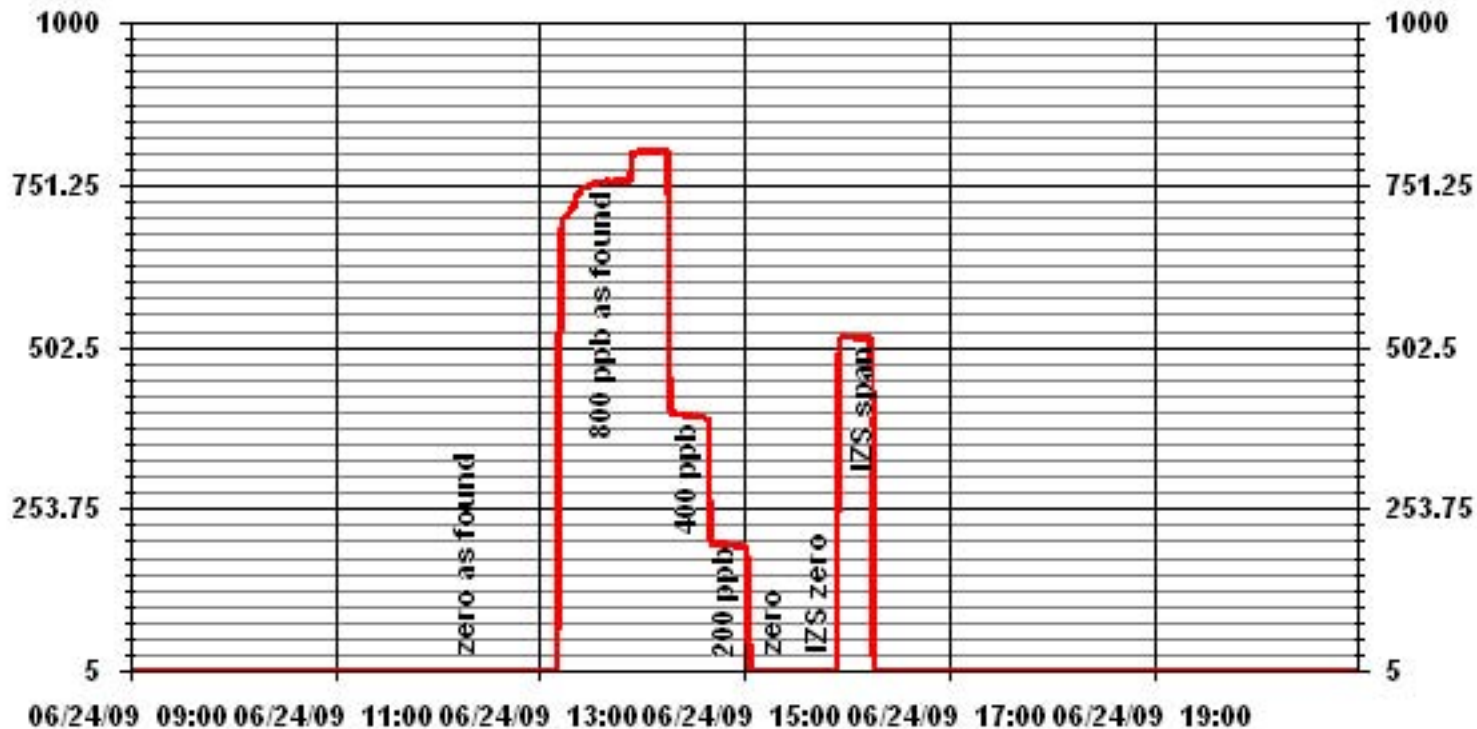
| | |
|------------------|---|
| Calibration Date | June 24, 2009 |
| Company | Lakeland Industry & Community Association |
| Plant / Location | Cold Lake - Maskwa |
| Start Time (MST) | 12:30 |
| End Time (MST) | 16:15 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999968 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|-----------|
| 0 | 1 | n/a | Intercept | (± 3% F.S.) | -0.819150 |
| 200 | 199 | 1.0074 | | | |
| 400 | 397 | 1.0066 | | | |
| 800 | 802 | 0.9981 | | | |



Notes:

01 Minute Averages



Hydrogen Sulphide

H₂S Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|--------------|
| Calibration Date | June 2, 2009 | Previous Calibration | May 19, 2009 |
| Company | Lakelnad Industry & Community Association | | |
| Plant / Location | Cold Lake - Maskwa | | |
| Start Time (MST) | 8:35 | End Time (MST) | 11:51 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 954.1 mBar | Station Temperature | 24 Deg C |
| Cal Gas | 10.6 ppm | Cal Gas Expiry date | 04/03/2009 |
| DAS Output Voltage | 0 - 1 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|----------|-------|--------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 511 | Method: | Fluorescent |
| Converter Make / Model: | Internal | S/N : | N/A | | |
| Calibrator Make / Model: | API 700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | AO 791 | | |
| Flow Meter: | API 700 | S/N : | 831 | | |

Analyzer Settings

| | | Before Calibration | | After Calibration | |
|------------------------|-------------|--------------------|-------------|-------------------|-------|
| Concentration Range | | 0 - 100 | | ppb | |
| Sample Flow / Box Temp | 536 ccm | 36.5 Deg C | 538 | 34.8 | Deg C |
| HVPS / Lamp Setting | 524 | 3599 | 524 | 3603 | |
| PMT / RxCell Temp | 7.9 Deg C | 49.9 Deg C | 7.9 Deg C | 50 Deg C | |
| Converter / IZS Temp | 314.5 Deg C | 45 Deg C | 315.2 Deg C | 45 Deg C | |
| Offset / Slope | 27.8 | 1.028 | 27.8 | 1.014 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 4999 | 0 | 0 | 0 | N/A |
| 4962 | 37.8 | 80 | 81 | 0.9894 |
| 4962 | 37.8 | 80 | 80 | 1.0017 |
| 4978 | 21.2 | 45 | 45 | 0.9989 |
| 4988 | 11.8 | 25 | 25 | 1.0007 |
| 4999 | 0 | 0 | 0 | N/A |
| Sum of Least Squares | | | | 1.0010 |
| New Correction Factor | | | | 1.0017 |

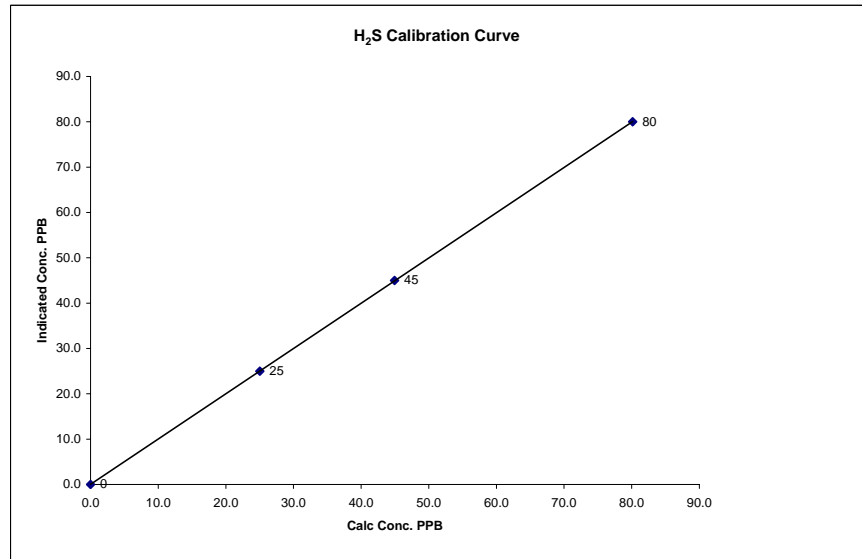
| | | Before Calibration | After Calibration |
|--|--|--------------------|-------------------|
| Auto Zero | | 0.1 | 0.1 |
| Auto Span | | 73.0 | 72.0 |
| Sample Lines Connected | | | YES |
| Percent Change from Previous Calibration | | | - |

Calibration Performed by: Shea Beaton

H₂S Calibration Curve

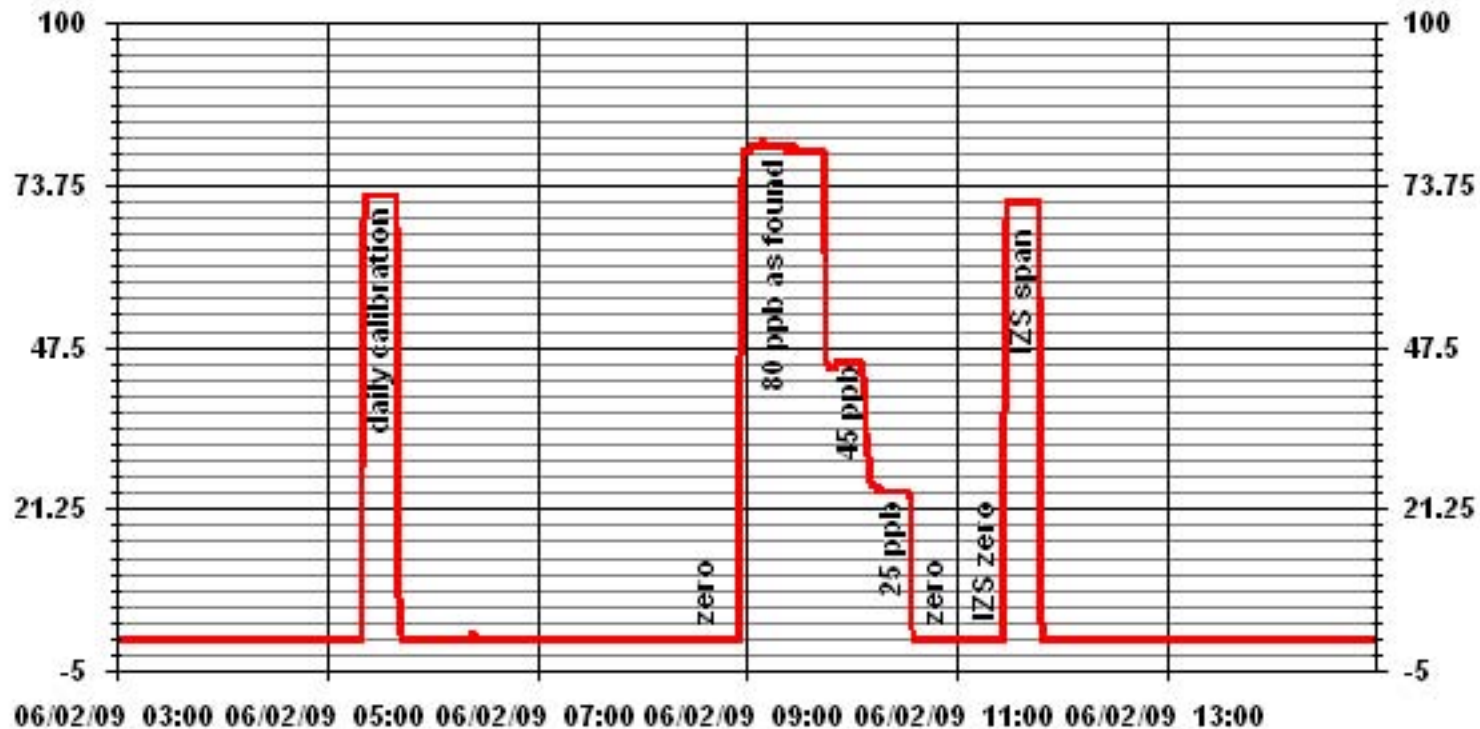
| | |
|------------------|---|
| Calibration Date | June 2, 2009 |
| Company | Lakelnad Industry & Community Association |
| Plant / Location | Cold Lake - Maskwa |
| Start Time (MST) | 8:35 |
| End Time (MST) | 11:51 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999997 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|----------|
| 0 | 0 | n/a | Intercept | (± 3% F.S.) | 0.031661 |
| 25 | 25 | 1.0007 | | | |
| 45 | 45 | 0.9989 | | | |
| 80 | 80 | 1.0017 | | | |



Notes: UV lamp, UV lamp Driver Board and UV filter all replaced yesterday.

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

| Station Information | | | |
|------------------------|---|----------------------|--------------------------------------|
| Calibration Date: | June 24, 2009 | Previous Calibration | May 20, 2009 |
| Company: | Lakeland Industry & Community Association | | |
| Plant / Location: | Cold Lake - Maskwa | | |
| : | (MST) 15:00 | End Time | (MST) 18:00 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure: | 27.98 inHg | Station Temperature: | 20 Deg C |
| Calibrator: | API 700 | S/N: | 831 |
| Cal Gas Concentration: | 299 Prop/ 1019 Meth | ppm | Cal Gas Expiry Date: August 21, 2011 |
| DAS make & Model: | ESC 8832 | S/N : | AO 791 |
| Output Voltage Range: | 0 - 10 VDC | | |

Analyzer Information

| | | | | | |
|--------------|-------------|-------|-----------|--------|------------------|
| Make / Model | TECO 51C-LT | S/N : | 436609738 | Method | Flame Ionization |
|--------------|-------------|-------|-----------|--------|------------------|

Analyzer Settings

| | Before Calibration | | After Calibration | |
|---------------------|--------------------|-----|-------------------|-----|
| Concentration Range | 0 -50 | ppm | 0 - 50 | ppm |
| Sample Pressure | 7.5 | psi | 7.5 | psi |
| Hydrogen Pressure | 7 | psi | 7 | psi |
| Air Pressure | 20 | psi | 20 | psi |

Calibration Data

| Dilution Flow | Source Gas Flow | Calculated Concentration | Indicated Concentration | Correction Factor |
|--------------------|-----------------|--------------------------|-------------------------|-------------------|
| 3000 | 0.0 | 0.0 | 0.1 | N/A |
| 3000 | 65.0 | 39.0 | 39.7 | 0.9824 |
| 3000 | 65.0 | 39.0 | 39.2 | 0.9949 |
| 3000 | 35.0 | 21.2 | 21.3 | 0.9953 |
| 3000 | 20.0 | 12.2 | 12.2 | 1.0000 |
| 3000 | 0 | 0.0 | 0.0 | N/A |
| Correction Factor: | | | | 0.9949 |

| | |
|---|--------|
| Previous Calibration Correction Factor: | 0.9975 |
| Current Correction Factor Before Span Adjust: | 0.9949 |
| Percent Change: | 1.54% |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | 0.0 | 0.1 |
| Auto Span | 35.3 | 34.6 |
| Sample Lines Connected | | YES |

Cylinder Pressures

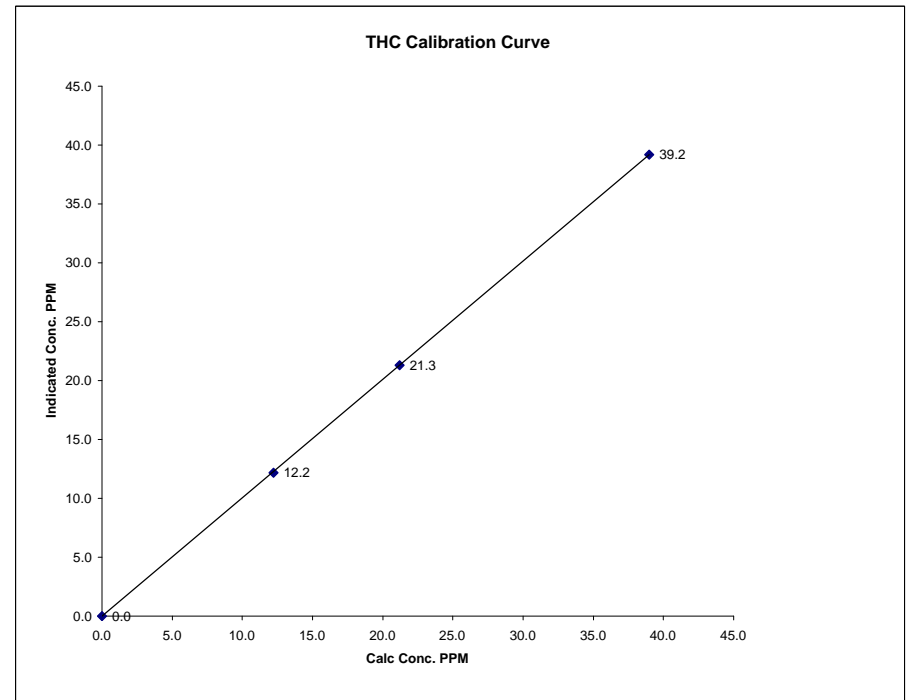
| | |
|----------|----------|
| Span | 1000 psi |
| Hydrogen | 400 psi |
| Zero Air | 200 psi |

Calibration Performed by: Shane Taylor

THC Calibration Curve

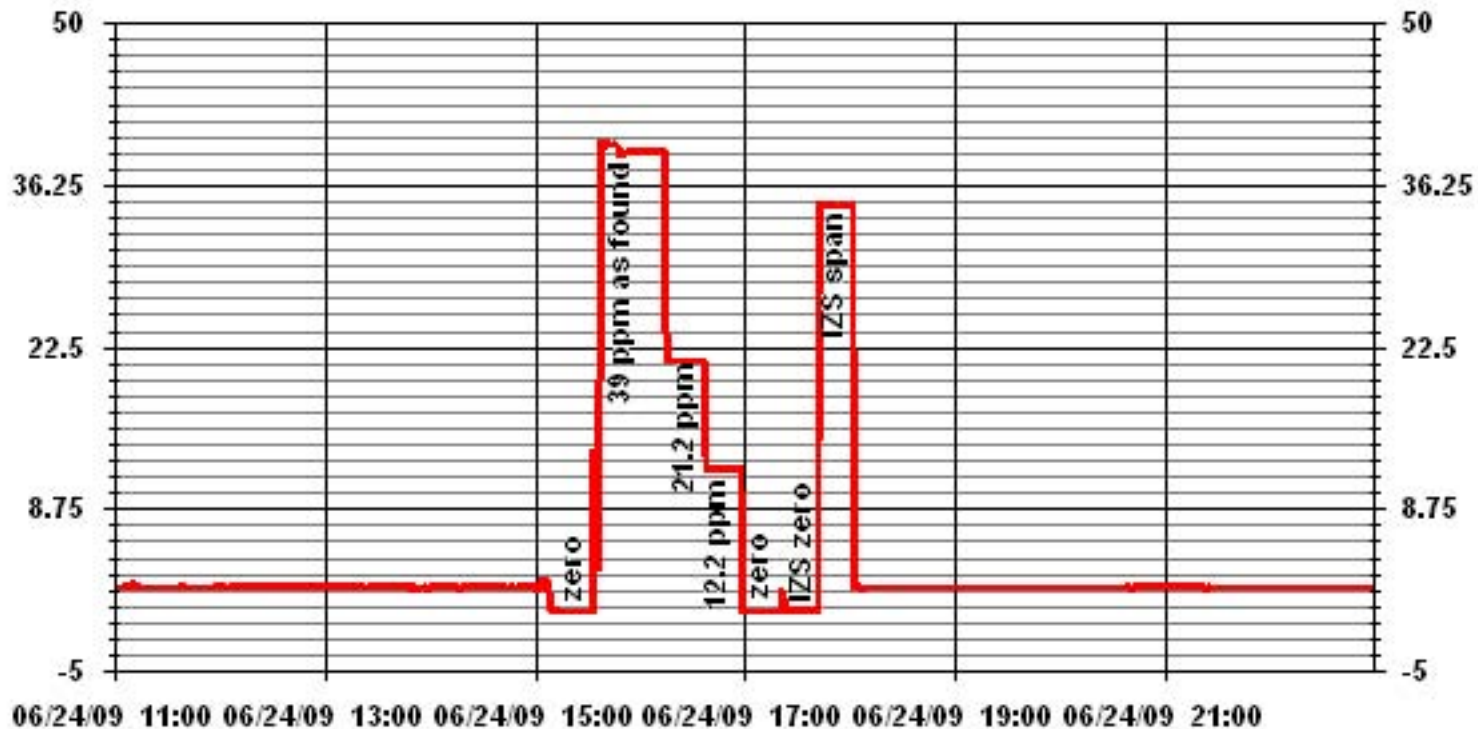
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | June 24, 2009 | | |
| Company | Lakeland Industry & Community Association | | |
| Plant / Location | Cold Lake - Maskwa | | |
| Start Time (MST) | 15:00 | End Time (MST) | 18:00 |

| Calculated Conc. ppm | Indicated Response ppm | Correction Factor | Correlation Coefficient (≥ 0.995) | Slope (0.85 to 1.15) | Intercept (± 3% F.S.) |
|----------------------|------------------------|-------------------|-----------------------------------|----------------------|-----------------------|
| 0.0 | 0.0 | | 0.999997 | 1.005551 | -0.025476 |
| 12.2 | 12.2 | 1.0000 | | | |
| 21.2 | 21.3 | 0.9953 | | | |
| 39.0 | 39.2 | 0.9949 | | | |



Notes: Regulator closed on first point.

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|---------------------|----------------------|--------------------|
| Calibration Date | June 24, 2009 | Previous Calibration | May 20, 2009 |
| Company | LICA | Plant/Location | Cold Lake - Maskwa |
| Start Time (MST) | 12:30 | End Time (MST) | 18:55 |
| Reason: | Monthly Calibration | | |
| Barometric Pressure | 27.98 inHg | Station Temperature | 20.0 Deg C |
| Cal Gas Concentration | NOx 51.5 ppm | NO | 51.3 ppm |
| DAS Output Voltage | 0 - 1 Volts | Cal Gas Expiry date | 12/19/2010 |

Equipment Information

| | | | | | |
|--------------------------|----------|-------|--------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 594 | Method: | Chemiluminescent |
| Calibrator Make / Model: | API 700 | S/N: | 690 | | |
| DAS Make / Model: | ESC 8832 | S/N : | AO 791 | | |
| Flow Meter: | API 700 | S/N : | 690 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|--------------------------|--------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0 - 1000 ppb | | | | | | |
| Sample Flow/Conv. Temp | 463 ccm | 315.4 Deg C | | 461 ccm | 315.2 Deg C | | |
| Ozone Flow / Vacuum HVPS | 76 ccm | 4.2 *Hg-A | | 76 ccm | 4.1 *Hg-A | | |
| | 767 Volts | | | 767 Volts | | | |
| Rx/ Temp / PMT Temp | 50 Deg C | 6.6 Deg C | | 50 Deg C | 6.6 Deg C | | |
| Box Temp / IZS Temp | 34.1 Deg C | 45.2 Deg C | | 33.7 Deg C | 45.2 Deg C | | |
| Offset | 0.1 NOx | 0 NO | | 0.1 NOx | 0 NO | | |
| Slope | 1.111 NOx | 1.105 NO | | 1.157 NOx | 1.148 NO | | |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | Indicated Concentration | | | Correction Factor | |
|--------------------------------------|------------------|--------------|--------------------------|-----|-------------------------|-----|-----|------------------------------|--------|
| | | | NOx | NO | NOx | NO | NO2 | NOx | NO |
| 4000.0 | 0 | N/A | 0 | 0 | -1 | -1 | -1 | N/A | N/A |
| 3938.0 | 62.3 | N/A | 802 | 799 | 770 | 768 | 2 | 1.0416 | 1.0403 |
| 3938.0 | 62.3 | N/A | 802 | 799 | 805 | 800 | 5 | 0.9963 | 0.9987 |
| 3969.0 | 31.1 | N/A | 400 | 399 | 399 | 396 | 3 | 1.0035 | 1.0072 |
| 3984.0 | 15.6 | N/A | 201 | 200 | 200 | 199 | 1 | N/A | N/A |
| 4000.0 | 0 | N/A | 0 | 0 | 0 | 0 | -1 | | |
| Converter Efficiency | | | | | | | | | |
| 3938.0 | 62.4 | N/A | 803 | 800 | 805 | 799 | 6 | N/A | |
| 3938.0 | 62.4 | 600 | 803 | N/A | 802 | 222 | 580 | 99% | |
| 3938.0 | 62.4 | 400 | 803 | N/A | 803 | 408 | 394 | 99% | |
| 3938.0 | 62.4 | 200 | 803 | N/A | 807 | 607 | 198 | 100% | |
| 3938.0 | 62.4 | N/A | 803 | 800 | 808 | 802 | 6 | N/A | |
| Correction Factor | | | | | | | | | |
| 4000.0 | 0 | N/A | 0 | 0 | 0 | 0 | -1 | N/A | N/A |
| Linearity OK? Yes No | | | | | | | | | |
| Flows Checked on-site? Yes No | | | | | | | | | |
| | | | | | | | | Sum of Least Squares | |
| | | | | | | | | 0.9981 | |
| | | | | | | | | 1.0006 | |
| | | | | | | | | New Correction Factor | |
| | | | | | | | | 0.9963 | |
| | | | | | | | | 0.9987 | |
| | | | | | | | | Average Converter Efficiency | |
| | | | | | | | | 100% | |

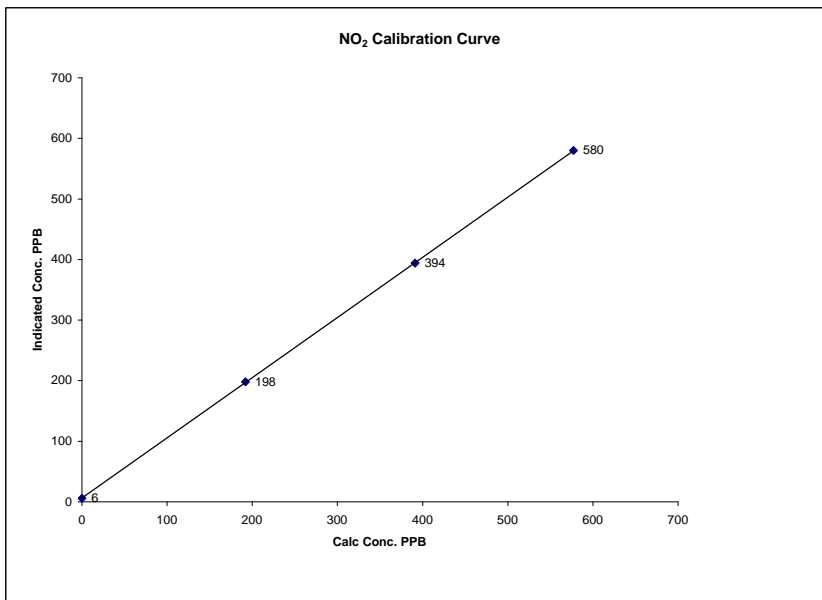
| Before Calibration | | | | After Calibration | | | | |
|--|-----------|-----------|----|-------------------|-----------|--|-------|--|
| Auto Zero | -0.6 NOx | -0.4 NO2 | | -0.3 NOx | -0.3 NO2 | | | |
| Auto Span | 690.0 NOx | 680.0 NO2 | | 720.0 NOx | 709.0 NO2 | | | |
| Sample Lines Connected | | | | | | | YES | |
| Percent Change from Previous Calibration | NOx | -4.0% | NO | | | | -3.7% | |

Calibration Performed by: Shane Taylor

NO2 Calibration Curve

| | |
|------------------|--------------------|
| Calibration Date | June 24, 2009 |
| Company | LICA |
| Plant / Location | Cold Lake - Maskwa |
| Start Time (MST) | 12:30 |
| End Time (MST) | 18:55 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 6 | N/A | | 0.999991 |
| 192 | 198 | 0.9697 | | 0.993751 |
| 391 | 394 | 0.9924 | | |
| 577 | 580 | 0.9948 | | 6.312169 |

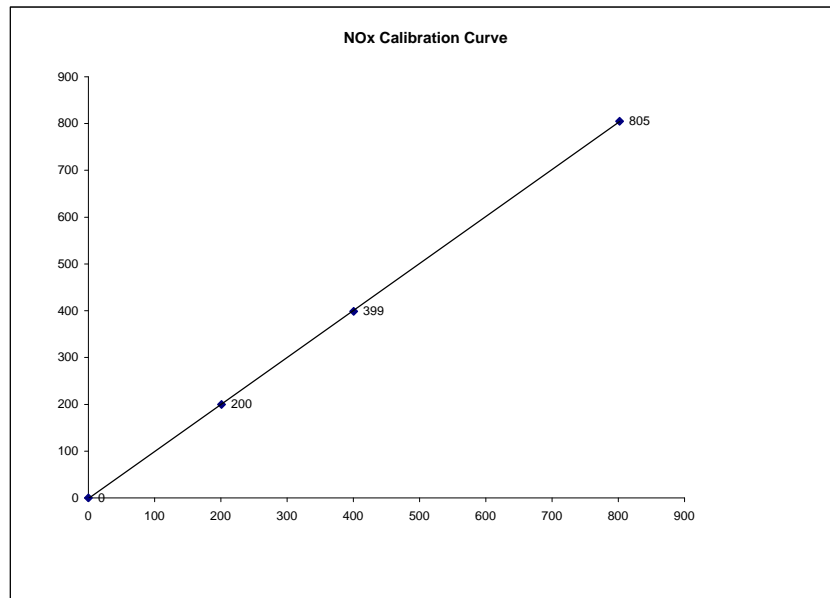


Notes:

NOx Calibration Curve

| | | | |
|------------------|--------------------|----------------|-------|
| Calibration Date | June 24, 2009 | | |
| Company | LICA | | |
| Plant / Location | Cold Lake - Maskwa | | |
| Start Time (MST) | 12:30 | End Time (MST) | 18:55 |

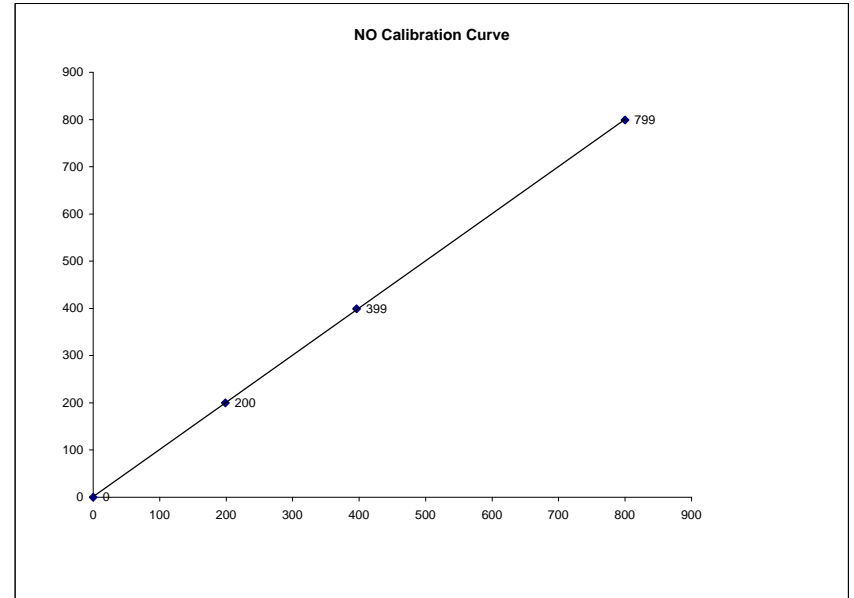
| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient | (≥ 0.995) | 0.999984 |
|----------------------|------------------------|-------------------|-------------------------|-------------------|-----------|
| 0 | 0 | N/A | Slope | (0.85 to 1.15) | 1.003956 |
| 201 | 200 | 1.0044 | Intercept | ($\pm 3\%$ F.S.) | -1.219076 |
| 400 | 399 | 1.0035 | | | |
| 802 | 805 | 0.9963 | | | |



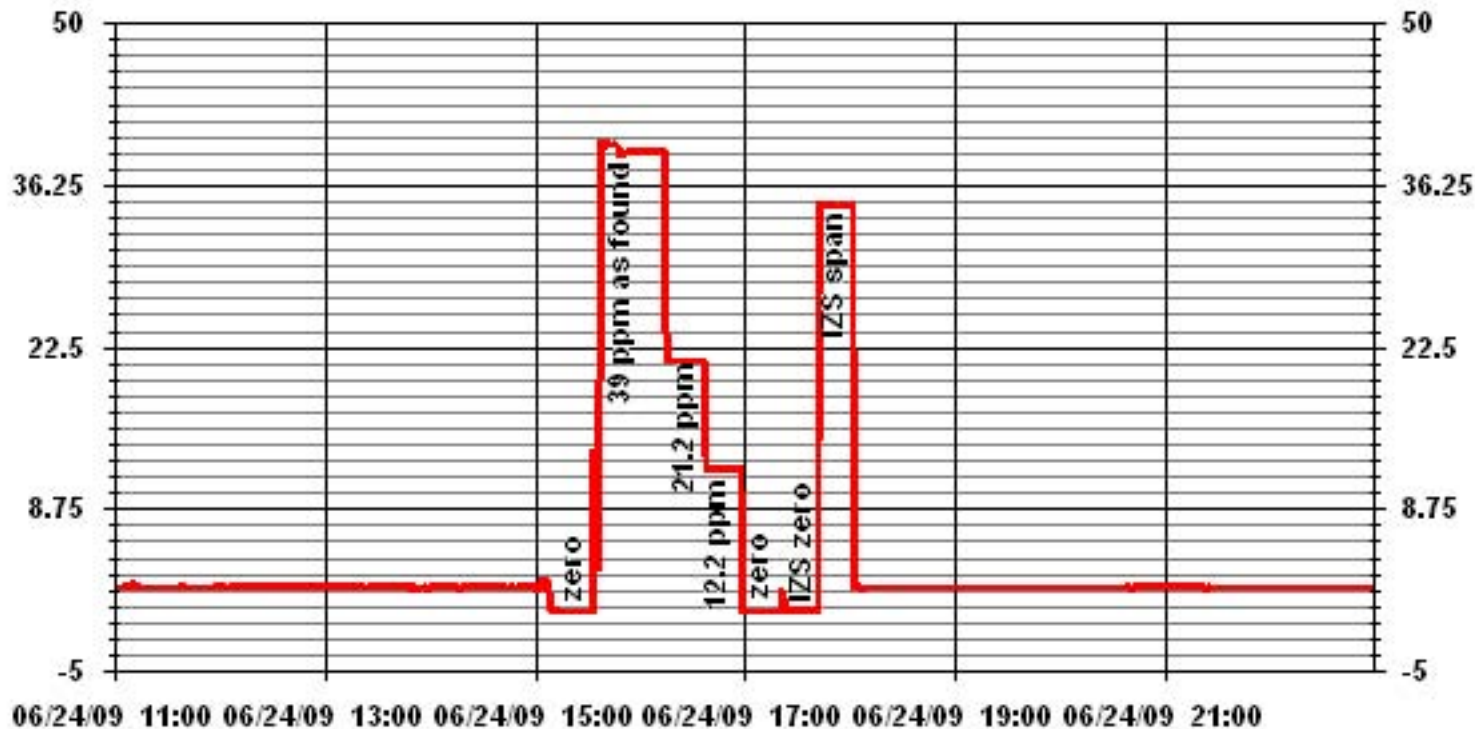
NO Calibration Curve

| | | | |
|------------------|--------------------|----------------|-------|
| Calibration Date | June 24, 2009 | | |
| Company | LICA | | |
| Plant / Location | Cold Lake - Maskwa | | |
| Start Time (MST) | 12:30 | End Time (MST) | 18:55 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient | (≥ 0.995) | 0.999978 |
|----------------------|------------------------|-------------------|-------------------------|-------------------|-----------|
| 0 | 0 | N/A | Slope | (0.85 to 1.15) | 1.001432 |
| 200 | 199 | 1.0055 | Intercept | ($\pm 3\%$ F.S.) | -1.219331 |
| 399 | 396 | 1.0072 | | | |
| 799 | 800 | 0.9987 | | | |



01 Minute Averages



Lakeland Industry & Community Association

St. Lina Monitoring Site
Ambient Air Monitoring
Data Report
For
June 2009

Prepared By:



July 21, 2009

Lakeland Industry & Community Association

St. Lina

Ambient Air Monitoring

| | Page | | Page |
|---|------|----------------------------|------|
| Table of Contents | | | |
| Introduction | 3 | Calibration Reports | 66 |
| Calibration Procedure | 4 | • Sulphur Dioxide | 67 |
| Monthly Continuous Summary | 5 | • Hydrogen Sulphide | 70 |
| General Monthly Summary | 6 | • Total Hydrocarbons | 75 |
| Continuous Monitoring | 9 | • Nitrogen Dioxide | 78 |
| • Monthly Summaries, Graphs & Wind Roses | 10 | | |
| • Sulphur Dioxide | 11 | | |
| • Hydrogen Sulphide | 19 | | |
| • Total Hydrocarbons | 27 | | |
| • Nitrogen Dioxide | 35 | | |
| • Nitric Oxide | 43 | | |
| • Oxides of Nitrogen | 50 | | |
| • Vector Wind Speed | 58 | | |
| • Vector Wind Direction | 63 | | |

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: St. Lina
Data Period: June 2009

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

The monthly analytical report for static & 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.

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

- CAL SOP-00211
- CAL SOP-00209
- CAL SOP-00213
- CAL SOP-00214
- CAL 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 – ST. LINA

Continuous Ambient Monitoring – June 2009

| LICA ST. LINA 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 | 57 | 0 | 0 | 0.06 | 2 | 13, 15 | VAR | VAR | VAR | 0.5 | 15 | 99.4 |
| H2S (PPB) | 10 | 3 | 0 | 0 | 0.08 | 4 | 15 | 5 | 9.5 | 209(SSW) | 0.4 | 19 | 76.8 |
| THC (PPM) | - | - | - | - | 1.99 | 2.5 | 13 | VAR | VAR | VAR | 2.1 | 12, 13 | 94.0 |
| NOx (PPB) | - | - | - | - | 0.89 | 7 | 19 | 5, 6 | 8.7, 8.2 | 210(SSW), 214(SSW) | 2.7 | 19 | 99.3 |
| NO (PPB) | - | - | - | - | 0.14 | 3 | 19 | 5, 6 | 8.7, 8.2 | 210(SSW), 214(SSW) | 0.4 | 19 | 99.3 |
| NO ₂ (PPB) | 212 | 106 | 0 | 0 | 0.46 | 5 | 19, 24 | VAR | VAR | VAR | 1.8 | 19 | 99.3 |
| VECTOR WS (KPH) | - | - | - | - | 11.55 | 31.1 | 26 | 13 | - | 254(WSW) | 19.4 | 22 | 99.3 |
| VECTOR WD (DEGREES) | - | - | - | - | 269(W) | - | - | - | - | - | - | - | 99.3 |

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

No operational issue was observed during this month. The analyzer was installed on June 11th. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused three hours of data invalidated. There was a 99.4% data collection during the period of monitoring time in this month. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model - API 101E

The analyzer was installed on June 11th, and an installation calibration was performed on June 12th. The H₂S expected span value was adjusted on June 16th. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused three hours of data invalidated. A maintenance check calibration on the analyzer was performed on June 26th, and no issue was discovered. After the calibration on June 26th, the sample inlet line was left disconnected and sample air was collected from inside the trailer. This issue was noticed and corrected on July 15th. The data was invalidated after the calibration on June 26th till June 30th. 101 hours data was invalidated during this month. There was a 76.8% data collection during the period of monitoring time in this month. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

Total HydroCarbon (PPM)

- Analyzer make / model –TECO 51C

The analyzer was installed on June 11th, and an installation calibration was performed on the same day. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused three hours of data invalidated. The THC analyzer Hydrogen gas ran out on June 25th, the gas cylinder was replaced on June 26th. Due to this issue, 22 hours of data were invalidated. There was a 94.0% data collection during the period of monitoring time in this month. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

No operational issues observed during this month. The analyzer was installed on June 11th, and an installation calibration was performed on June 12th. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused three hours of data invalidated. There was a 99.3% data collection during the period of monitoring time in this month. Data was corrected using daily zero information.

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

- System make / model - Climatronics MIII

The wind system is reported as vector wind speed and vector wind direction. The wind system is reported as vector wind speed and vector wind direction. The wind system was installed on June 12th. The field check during the installation indicated that the wind system is slightly different between the input and its expected. Will investigate when other wind system arrives. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused three hours of data invalidated. There was a 99.3% data collection during the period of monitoring time in this month.

General Monthly Summary

AQM STATION – LICA – St. Lina

Datalogger

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

The station is connected to a modem to allow for daily polling of the station. A hardware modification and software upgrade were performed on June 16th and June 17th, which caused three hours of data invalidated.

Trailer

The trailer was installed on June 11th.

Three passive shelters were installed on the Met tower on June 12th.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

SULPHUR DIOXIDE (SO₂) hourly averages 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | C | C | C | C | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0.0 | 11 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 2 | 0.2 | 24 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 |
| 15 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.5 | 24 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 23 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | M | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 22 | |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.0 | 24 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 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 | 1 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.3 | 24 |
| 26 | 0 | 0 | 0 | 0 | 0 | 1 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 24 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 |
| 29 | 0 | 0 | 0 | IZS | 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 |
| 30 | 0 | 0 | IZS | 0 | 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 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | |
| HOURLY AVG | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | | | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

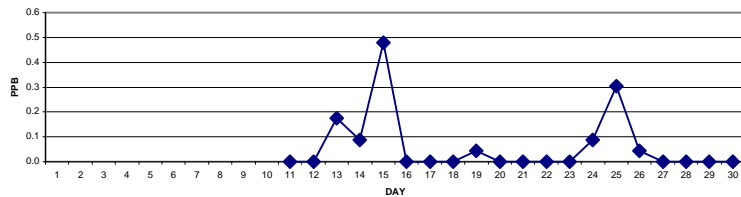
OBJECTIVE LIMIT:

| | | | | | | |
|----------------------|------|-----|-----|-------|----|-----|
| ALBERTA ENVIRONMENT: | 1-HR | 172 | PPB | 24-HR | 57 | PPB |
|----------------------|------|-----|-----|-------|----|-----|

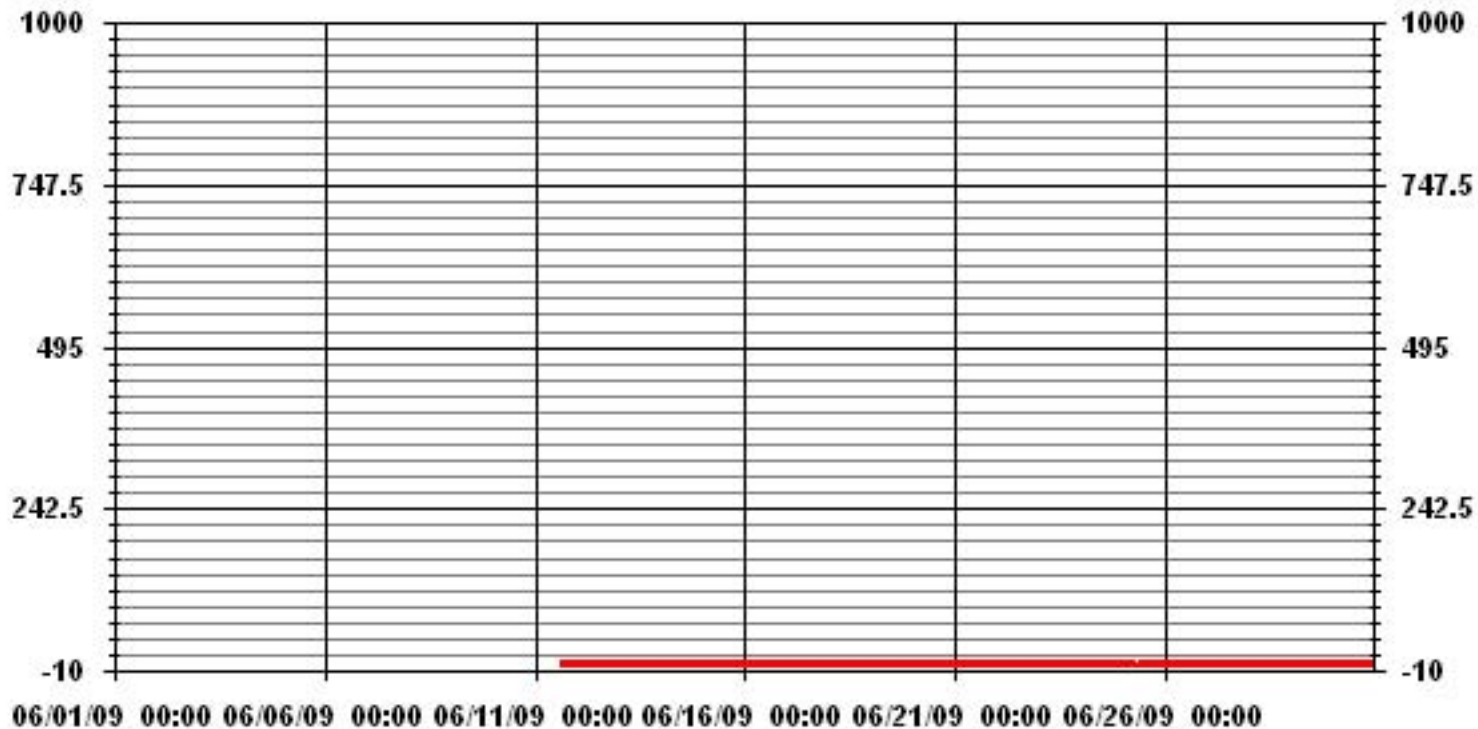
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|----------|-----------|--------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 25 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 2 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 13, 15 |
| MAXIMUM 24-HR AVERAGE: | 0.5 | PPB | | | ON DAY(S) | 15 |
| IZS CALIBRATION TIME: | 20 | HRS | OPERATIONAL TIME: | 464 HRS | | |
| MONTHLY CALIBRATION TIME: | 4 | HRS | AMD OPERATION UPTIME: | 99.4 % | | |
| STANDARD DEVIATION: | 0.27 | | MONTHLY AVERAGE: | 0.06 PPB | | |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

| MST | | | | | | | | | | | | | | | | | | | | | | | | DAILY | 24-HOUR | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|------|-------|----|
| 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 | MAX. | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | C | C | C | C | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1.0 | 11 | |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1.0 | 24 |
| 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 4 | 1.2 | 24 | |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | IZS | 1 | 1 | P | 1 | 1 | 2 | 1.1 | 23 | |
| 15 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 1 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1.8 | 24 | |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | M | P | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 22 | |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | M | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 23 | |
| 18 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 19 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1.1 | 24 | |
| 20 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 21 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 22 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 23 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1.0 | 24 | |
| 24 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.2 | 24 | |
| 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | P | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.2 | 23 | |
| 26 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | C | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 27 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 28 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 29 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 30 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| HOURLY MAX | 1 | 1 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | | | | |
| HOURLY AVG | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.1 | 1.1 | 1.3 | 1.4 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | | | | |

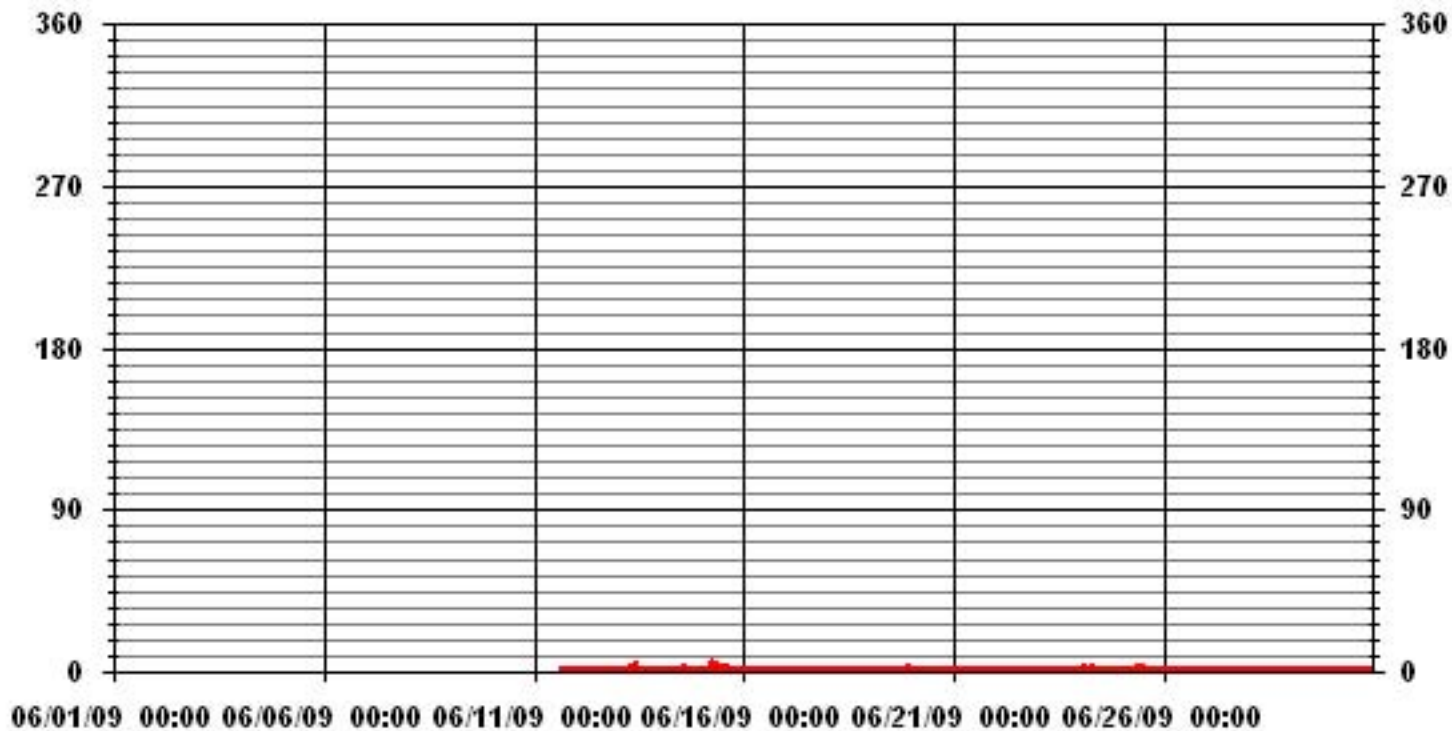
STATUS FLAG CODES

| | |
|----------------------|-----------------------------------|
| S - OUT OF SERVICE | IZS - IZS - DAILY ZERO/SPAN CHECK |
| N - INVALID DATA | M - MISSING DATA |
| D - INSTRUMENT DRIFT | P - POWER FAILURE |
| C - CALIBRATION | NA - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-----|-----------|--------|
| NUMBER OF NON-ZERO READINGS: | 437 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 4 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 13, 15 |
| IZS CALIBRATION TIME: | 20 | HRS | OPERATIONAL TIME: | 462 | HRS | |
| MONTHLY CALIBRATION TIME: | 5 | HRS | | | | |
| STANDARD DEVIATION: | 0.38 | | | | | |

01 Hour Averages



— LICA31 SO2MAX PPB

LICA31
 SO2_ / WDR Joint Frequency Distribution (Percent)

June 2009

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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | 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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | |

Calm : .00 %

Total # Operational Hours : 419

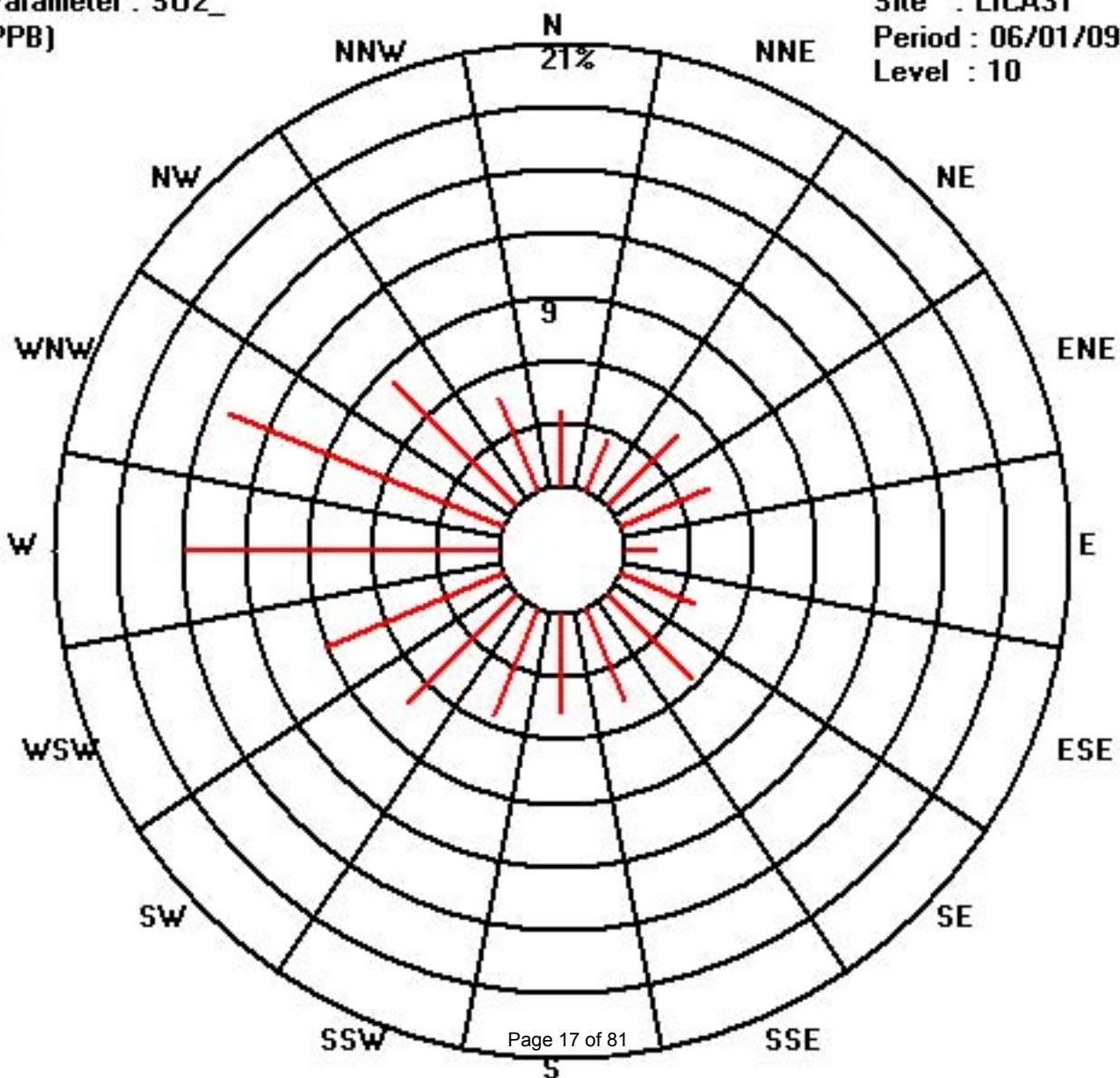
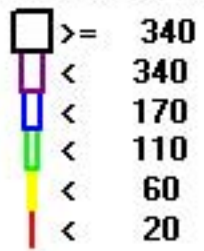
Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 20 | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | 419 |
| < 60 | | | | | | | | | | | | | | | | | |
| < 110 | | | | | | | | | | | | | | | | | |
| < 170 | | | | | | | | | | | | | | | | | |
| < 340 | | | | | | | | | | | | | | | | | |
| >= 340 | | | | | | | | | | | | | | | | | |
| Totals | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | |

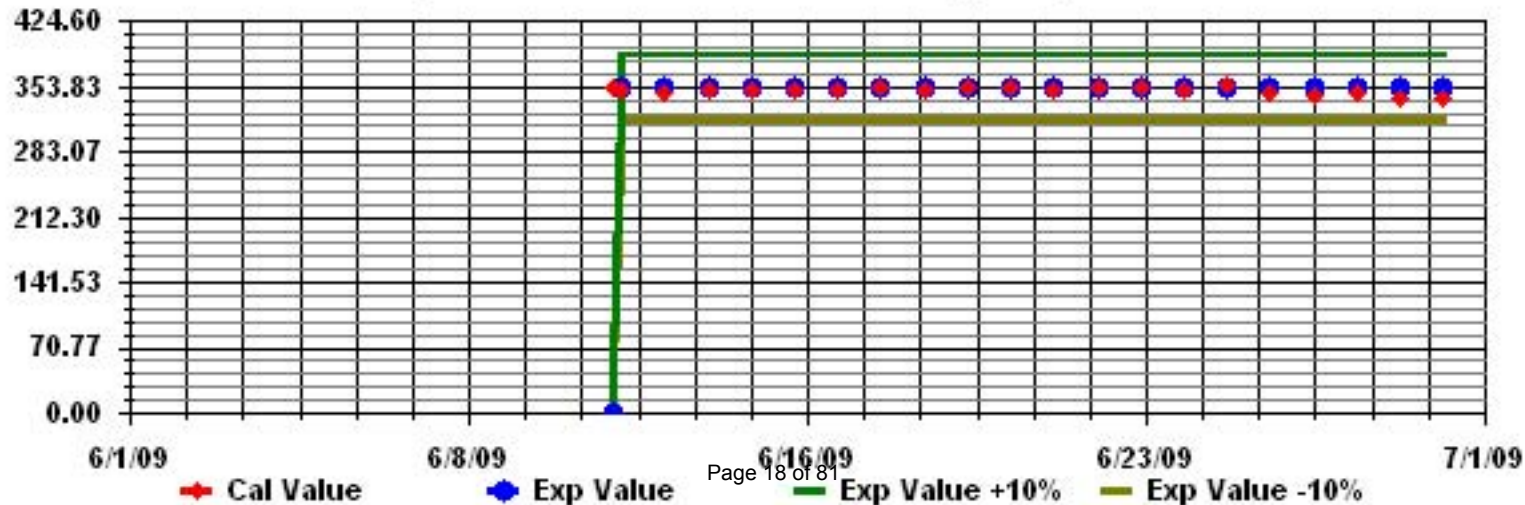
Calm : .00 %

Total # Operational Hours : 419

Class Limits (PPB)



Calibration Graph for Site: LICA31 Parameter: S02_ Sequence: S02 Phase: SPAll



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSCOIATION - ST. LINA

JUNE 2009

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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | 16 | |
| | 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 | 2 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.3 | 24 | |
| | 16 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 23 | |
| | 17 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 22 | |
| | 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 | 1 | 1 | 0.0 | 24 |
| | 19 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0.4 | 24 |
| | 20 | 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 |
| | 21 | 0 | 0 | 0 | 0 | 0 | 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 |
| | 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 | 1 | 1 | 0.0 | 24 |
| | 24 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 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 | 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 | 24 |
| | 27 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | 28 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | 29 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | 30 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| HOURLY MAX | | NA | 1 | 1 | 1 | 2 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | |
| HOURLY AVG | | NA | 0.1 | 0.2 | 0.1 | 0.4 | 0.4 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | | | | |

STATUS FLAG CODES

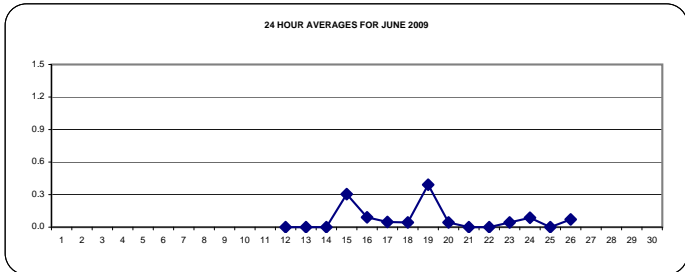
| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

OBJECTIVE LIMIT:

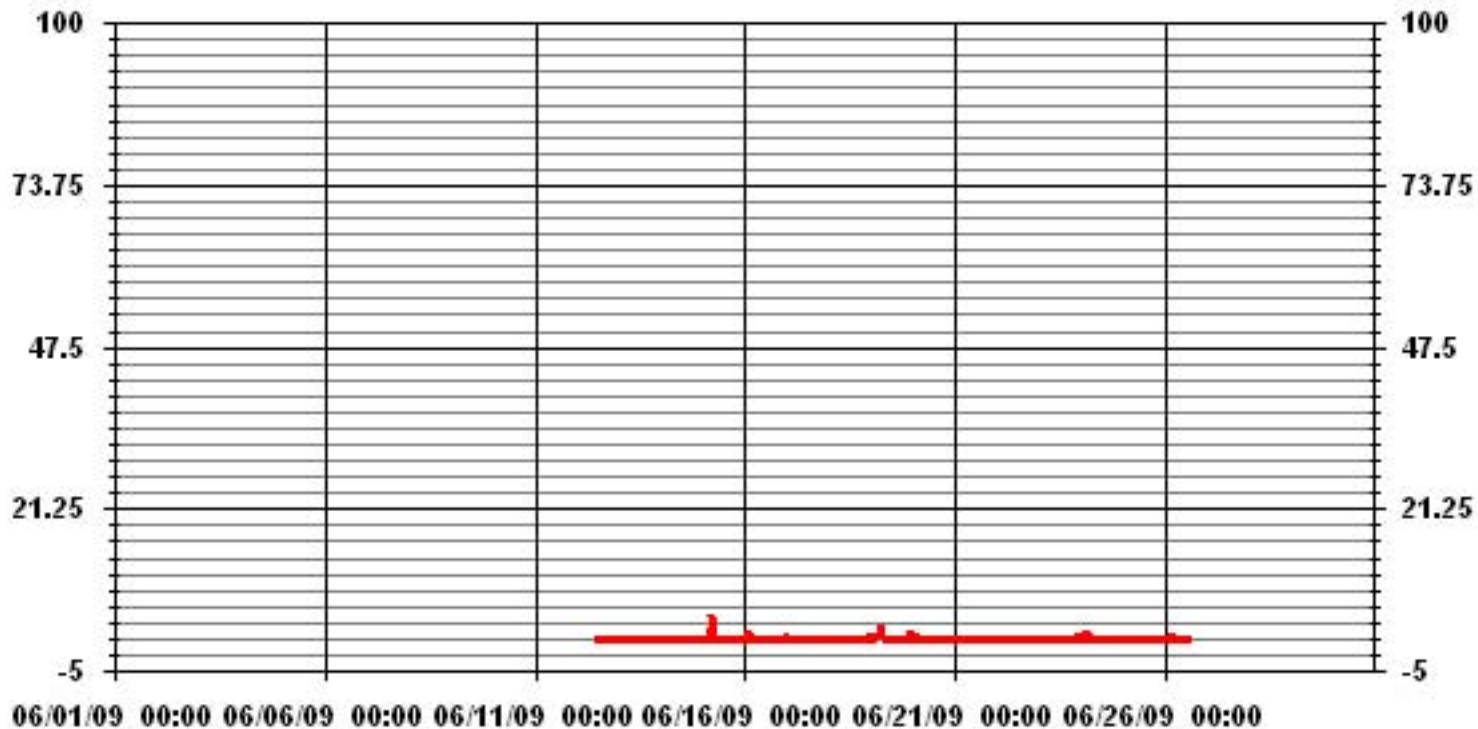
ALBERTA ENVIRONMENT: 1-HR 10 PPB 24-HR 3 PPB

MONTHLY SUMMARY

| | |
|------------------------------|--------------------------------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 |
| NUMBER OF 24-HR EXCEEDENCES: | 0 |
| NUMBER OF NON-ZERO READINGS: | 19 |
| MAXIMUM 1-HR AVERAGE: | 4 PPB @ HOUR(S) 5 ON DAY(S) 15 |
| MAXIMUM 24-HR AVERAGE: | 0.4 PPB ON DAY(S) 19 |
| | VAR-VARIOUS |
| IZS CALIBRATION TIME: | 15 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| OPERATIONAL TIME: | 344 HRS |
| AMD OPERATION UPTIME: | 76.8 % |
| STANDARD DEVIATION: | 0.36 |
| MONTHLY AVERAGE: | 0.08 PPB |



01 Hour Averages



— LICA31 H2S_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

HYDROGEN SULPHIDE MAX instantaneous maximum in ppt

| MST | | | | | | | | | | | | | | | | | | | | | | | | DAILY | 24-HOUR | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|------|-------|----|
| 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 | MAX. | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 16 |
| 14 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 24 |
| 15 | 0 | 0 | 0 | 1 | 5 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 23 |
| 16 | 0 | 0 | 0 | 1 | 5 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 24 |
| 17 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | M | P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 22 |
| 18 | 4 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 23 |
| 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 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 24 |
| 21 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 24 |
| 22 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 24 |
| 23 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 24 |
| 24 | 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 | 0.3 | 24 |
| 25 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 24 |
| 26 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 23 |
| 27 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 20 |
| 28 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | | |
| 29 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | | |
| 30 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | | |
| HOURLY MAX | 4 | 1 | 2 | 2 | 5 | 8 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | | | |
| HOURLY AVG | 0.6 | 0.4 | 0.6 | 0.6 | 1.4 | 1.6 | 0.7 | 0.5 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.0 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.5 | 0.8 | | | | |

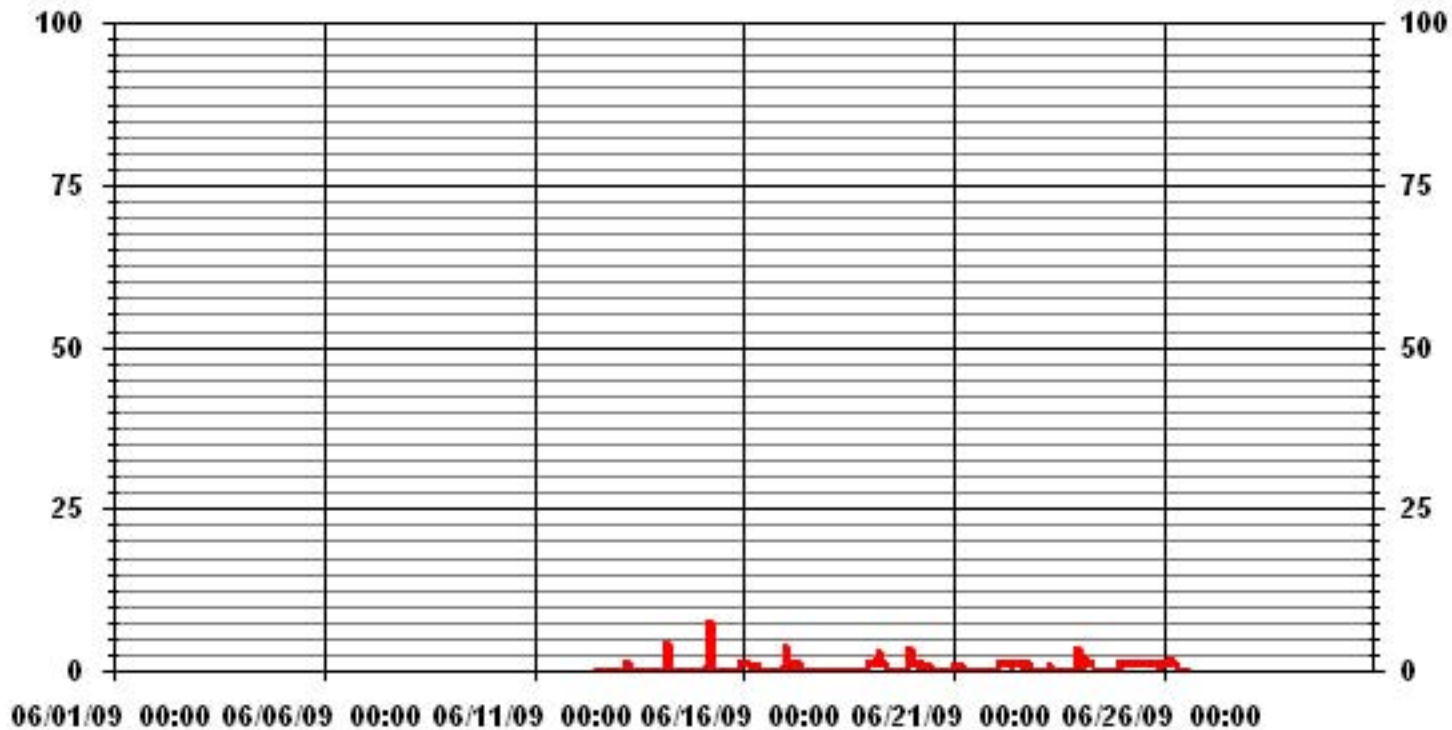
STATUS FLAG CODES

| | |
|----------------------|-----------------------------------|
| S - OUT OF SERVICE | IZS - IZS - DAILY ZERO/SPAN CHECK |
| N - INVALID DATA | M - MISSING DATA |
| D - INSTRUMENT DRIFT | P - POWER FAILURE |
| C - CALIBRATION | NA - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|-----|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 97 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 8 | PPB | @ HOUR(S) | 5 | ON DAY(S) | 15 |
| IZS CALIBRATION TIME: | 15 | HRS | OPERATIONAL TIME: | 343 | HRS | |
| MONTHLY CALIBRATION TIME: | 9 | HRS | | | | |
| STANDARD DEVIATION: | 0.85 | | | | | |

01 Hour Averages



— LICA31 H2S MAX PPB

LICA31
H2S_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : H2S_
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 |
| < 3 | 4.07 | 3.44 | 5.95 | 4.38 | 1.25 | 4.38 | 5.01 | 5.01 | 3.13 | 6.26 | 8.15 | 9.09 | 14.10 | 14.10 | 6.89 | 4.38 | 99.68 |
| < 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .31 | .00 | .00 | .00 | .00 | .00 | .00 | .31 |
| < 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 | 4.07 | 3.44 | 5.95 | 4.38 | 1.25 | 4.38 | 5.01 | 5.01 | 3.13 | 6.58 | 8.15 | 9.09 | 14.10 | 14.10 | 6.89 | 4.38 | |

Calm : .00 %

Total # Operational Hours : 319

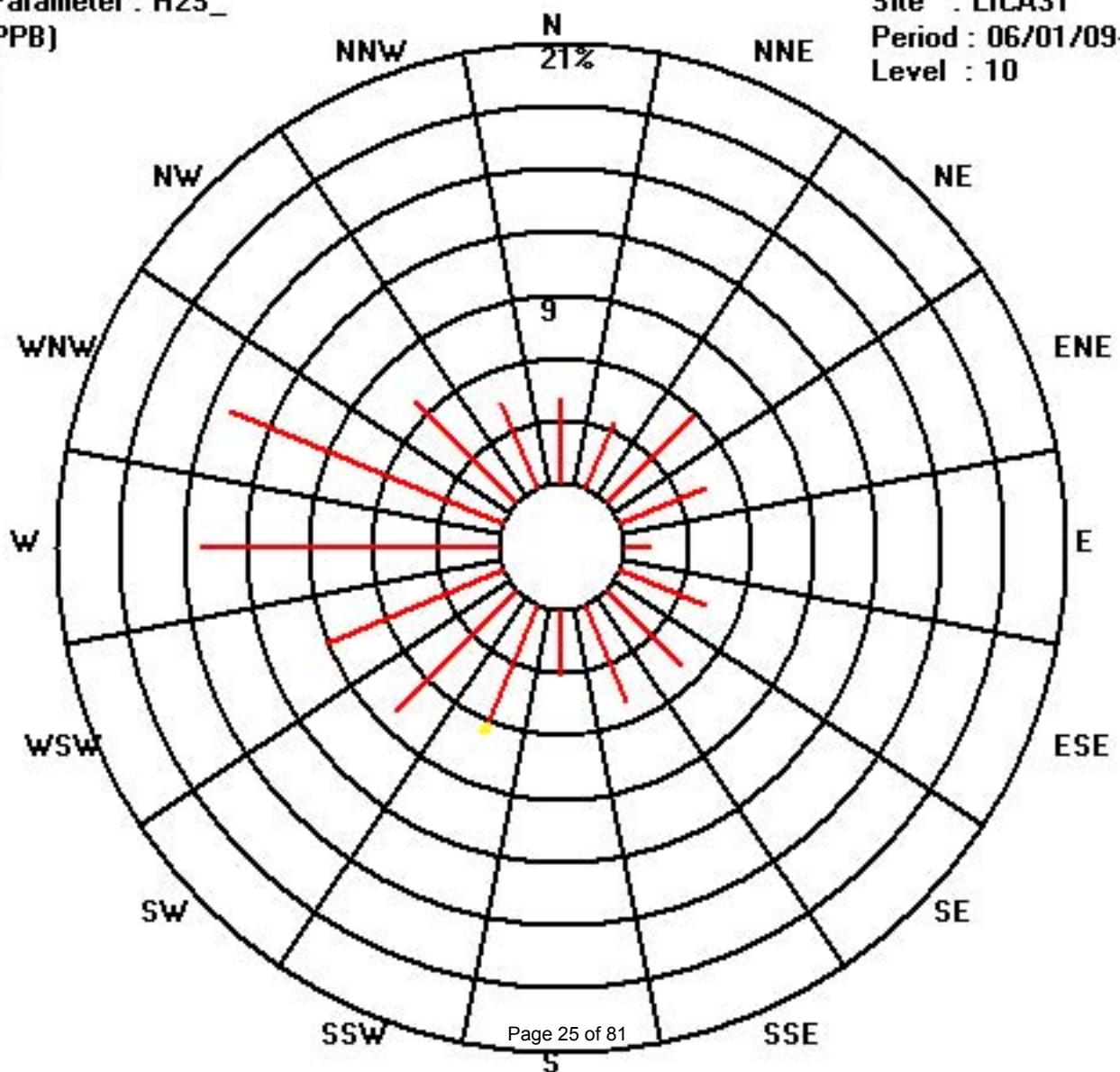
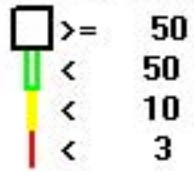
Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3 | 13 | 11 | 19 | 14 | 4 | 14 | 16 | 16 | 10 | 20 | 26 | 29 | 45 | 45 | 22 | 14 | 318 |
| < 10 | | | | | | | | | | 1 | | | | | | | 1 |
| < 50 | | | | | | | | | | | | | | | | | |
| >= 50 | | | | | | | | | | | | | | | | | |
| Totals | 13 | 11 | 19 | 14 | 4 | 14 | 16 | 16 | 10 | 21 | 26 | 29 | 45 | 45 | 22 | 14 | |

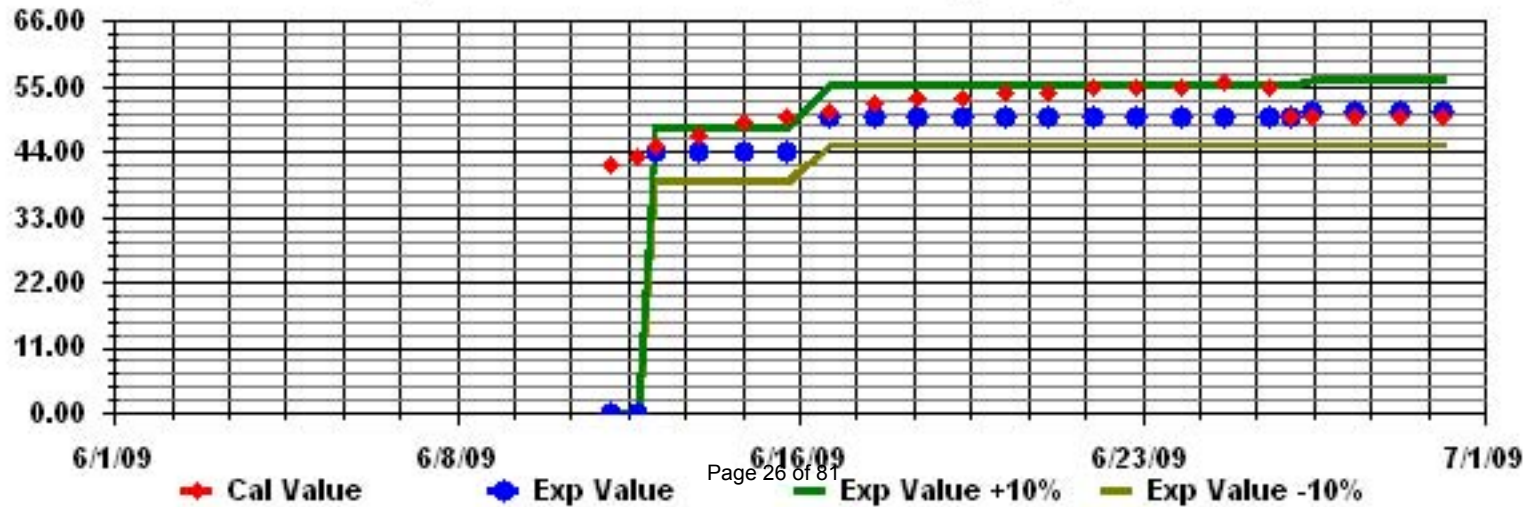
Calm : .00 %

Total # Operational Hours : 319

Class Limits (PPB)

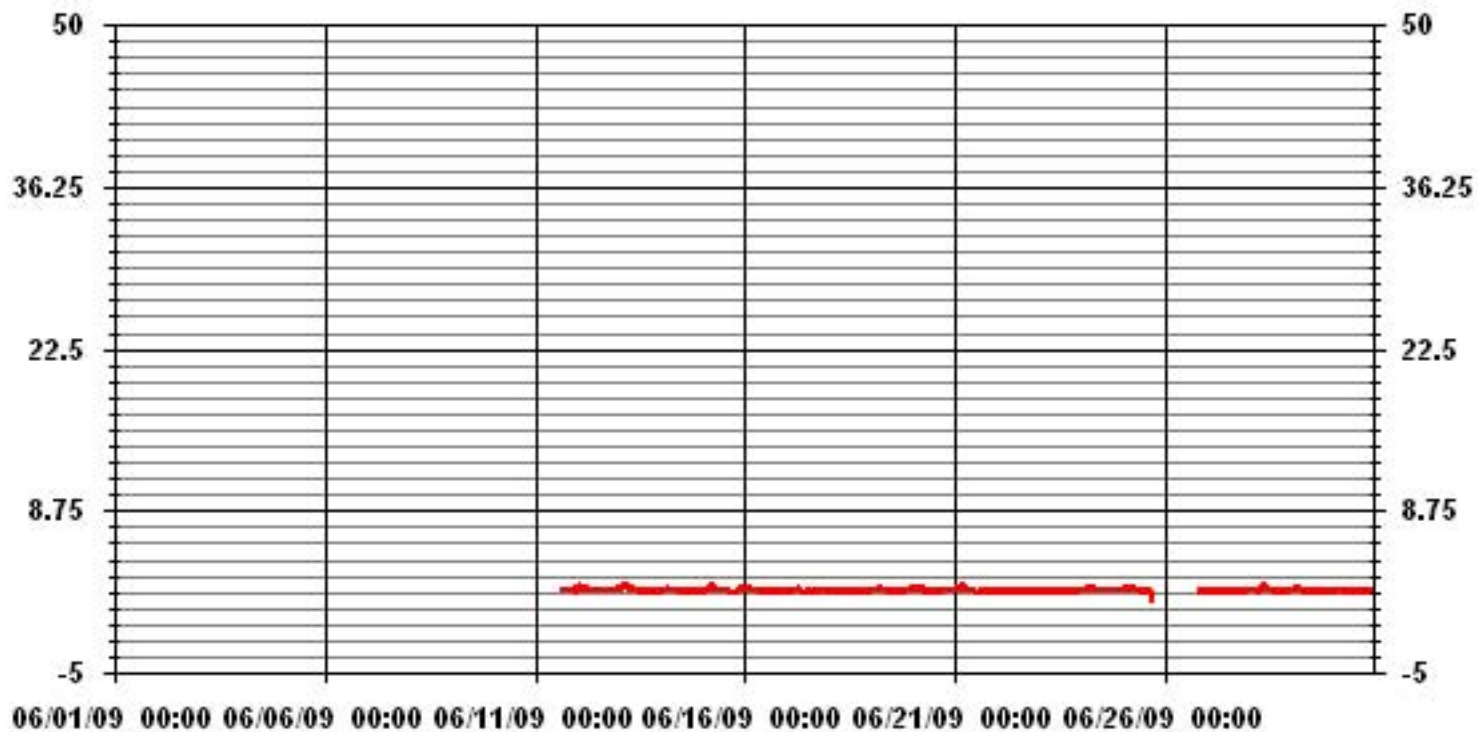


Calibration Graph for Site: LICA31 Parameter: H2S_ Sequence: H2S Phase: SPAll



Total Hydrocarbons

01 Hour Averages



— LICA31 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

| 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 | DAILY | 24-HOUR | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 2.4 | 2.4 | 2.3 | 2.2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2.1 | C | C | C | C | 2 | 2 | 2.1 | 2.2 | IZS | 3.7 | 2.1 | 3.7 | 2.4 | 11 | |
| 13 | 2.2 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.2 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 2 | 2 | IZS | 2.3 | 2.2 | 2.2 | 2 | 2.5 | 2.2 | 24 | |
| 14 | 2.6 | 2.5 | 2 | 2.4 | 2.4 | 2.4 | 2.2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2 | 2 | 1.9 | 2 | IZS | 2 | 2.2 | P | 2.1 | 2 | 2.6 | 2.1 | 23 | |
| 15 | 2.1 | 2.2 | 2.3 | 2.3 | 2.6 | 3.1 | 2.1 | 2 | 2.1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | IZS | 2 | 2 | 2 | 2.5 | 2.6 | 2.3 | 3.1 | 2.2 | 24 | |
| 16 | 2.1 | 2.4 | 2.3 | 2.3 | 2.3 | 2 | 2.5 | 2.1 | 2.1 | 2.1 | 2 | 1.9 | 2 | M | P | 1.9 | IZS | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.5 | 2.1 | 22 | |
| 17 | 2.5 | 1.9 | 2 | 2 | 2.1 | 2.2 | 2.1 | 2.1 | 2 | 2 | 2 | M | 2 | 2 | 2 | IZS | 1.9 | 1.9 | 2.3 | 2.1 | 2 | 2 | 2 | 2.1 | 2.5 | 2.1 | 23 | |
| 18 | 2 | 1.9 | 2 | 2.2 | 2.1 | 2 | 2.3 | 2 | 2.1 | 2 | 1.9 | 1.9 | 2 | 2 | IZS | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 1.9 | 2.2 | 2.3 | 2.0 | 24 | |
| 19 | 2.1 | 2.1 | 2.1 | 2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.1 | 2 | 2 | 2 | 2.1 | IZS | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 1.9 | 2.6 | 2.3 | 2.4 | 2.7 | 2.7 | 2.1 | 24 | |
| 20 | 2.3 | 2.7 | 2.4 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2 | 2 | 2.1 | 2.7 | 2.1 | 24 | |
| 21 | 2.1 | 2.1 | 2.2 | 2.3 | 2.5 | 2.5 | 2.3 | 2.1 | 2 | 2 | 2 | IZS | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 2 | 2.1 | 2 | 1.9 | 1.9 | 2.5 | 2.1 | 24 | |
| 22 | 1.9 | 2 | 2 | 2 | 2.1 | 1.9 | 2 | 2 | 1.9 | 1.9 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1.9 | 2 | 2.1 | 1.9 | 1.9 | 1.9 | 2.1 | 2.0 | 24 | |
| 23 | 2.1 | 1.9 | 2 | 1.9 | 1.9 | 2 | 2 | 2.2 | 1.9 | IZS | 1.9 | 1.9 | 2 | 1.9 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2 | 2 | 2.3 | 2.3 | 2.0 | 24 | |
| 24 | 2 | 2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | IZS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2.1 | 2.1 | 2.2 | 2.0 | 24 |
| 25 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | IZS | 2 | 2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 2 | N | N | N | N | N | N | N | N | N | 2.2 | 2.1 | 16 |
| 26 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | M | C | M | 2 | M | C | 2 | 2 | 2 | 2 | 2 | 2 | 7 | |
| 27 | 2 | 1.9 | 1.9 | 2 | 2 | IZS | 2.1 | 1.9 | 2 | 1.9 | 1.9 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2.1 | 3.1 | 2 | 2 | 3.1 | 2.0 | 24 | |
| 28 | 2 | 2 | 2 | 2 | IZS | 2 | 2.1 | 2.3 | 2.4 | 2.4 | 2.1 | 2.2 | 2.3 | 2.2 | 2 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.1 | 2 | 2 | 2.4 | 2.1 | 24 |
| 29 | 2.1 | 2 | 2.1 | IZS | 2.1 | 2.1 | 2.2 | 2.1 | 2 | 1.9 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2.1 | 2.9 | 2 | 1.9 | 1.9 | 2.9 | 2.0 | 24 | |
| 30 | 1.9 | 2 | IZS | 2.2 | 2.1 | 2.1 | 2 | 2 | 2 | 1.9 | 1.9 | 2 | 1.9 | 1.9 | 1.9 | 1.9 | 2 | 2 | 1.9 | 1.9 | 2 | 2.2 | 2.1 | 2.5 | 2.5 | 2.0 | 24 | |
| HOURLY MAX | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 3 | | | |
| HOURLY AVG | 2.1 | 2.1 | 2.1 | 2.2 | 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 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.1 | | | | |

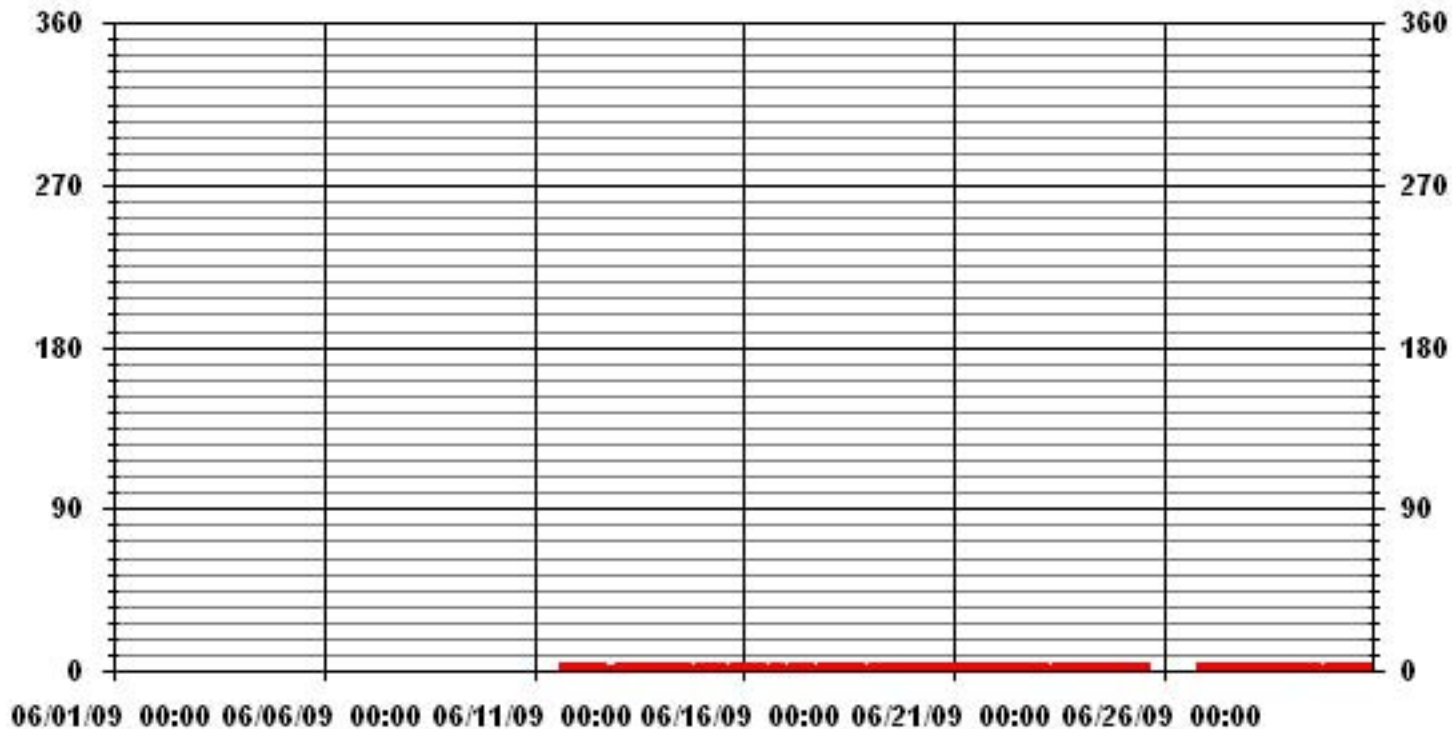
STATUS FLAG CODES

| | | | |
|----|-------------------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |
| BB | - BELOW BACKGROUND OF 1.5 PPM | | |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|-------|-----|-------------------|---------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 413 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 3.7 | PPM | @ HOUR(S) | 22 | ON DAY(S) | 11 |
| IZS CALIBRATION TIME: | 19 | HRS | OPERATIONAL TIME: | 438 HRS | | |
| MONTHLY CALIBRATION TIME: | 6 HRS | | | | | |
| STANDARD DEVIATION: | 0.19 | | | | | |

01 Hour Averages



— LICA31 THCMAX PPM

LICA31
 THC / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

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 |
| < 3.0 | 3.81 | 2.79 | 5.08 | 4.83 | 1.27 | 4.07 | 6.10 | 5.08 | 5.08 | 5.85 | 7.12 | 7.12 | 13.99 | 13.99 | 8.65 | 5.08 | 100.00 |
| < 10.0 | .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 |
| >= 50.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Totals | 3.81 | 2.79 | 5.08 | 4.83 | 1.27 | 4.07 | 6.10 | 5.08 | 5.08 | 5.85 | 7.12 | 7.12 | 13.99 | 13.99 | 8.65 | 5.08 | |

Calm : .00 %

Total # Operational Hours : 393

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|---------|-----------|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 3.0 | 15 | 11 | 20 | 19 | 5 | 16 | 24 | 20 | 20 | 23 | 28 | 28 | 55 | 55 | 34 | 20 | 393 |
| < 10.0 | | | | | | | | | | | | | | | | | |
| < 50.0 | | | | | | | | | | | | | | | | | |
| >= 50.0 | | | | | | | | | | | | | | | | | |
| Totals | 15 | 11 | 20 | 19 | 5 | 16 | 24 | 20 | 20 | 23 | 28 | 28 | 55 | 55 | 34 | 20 | |

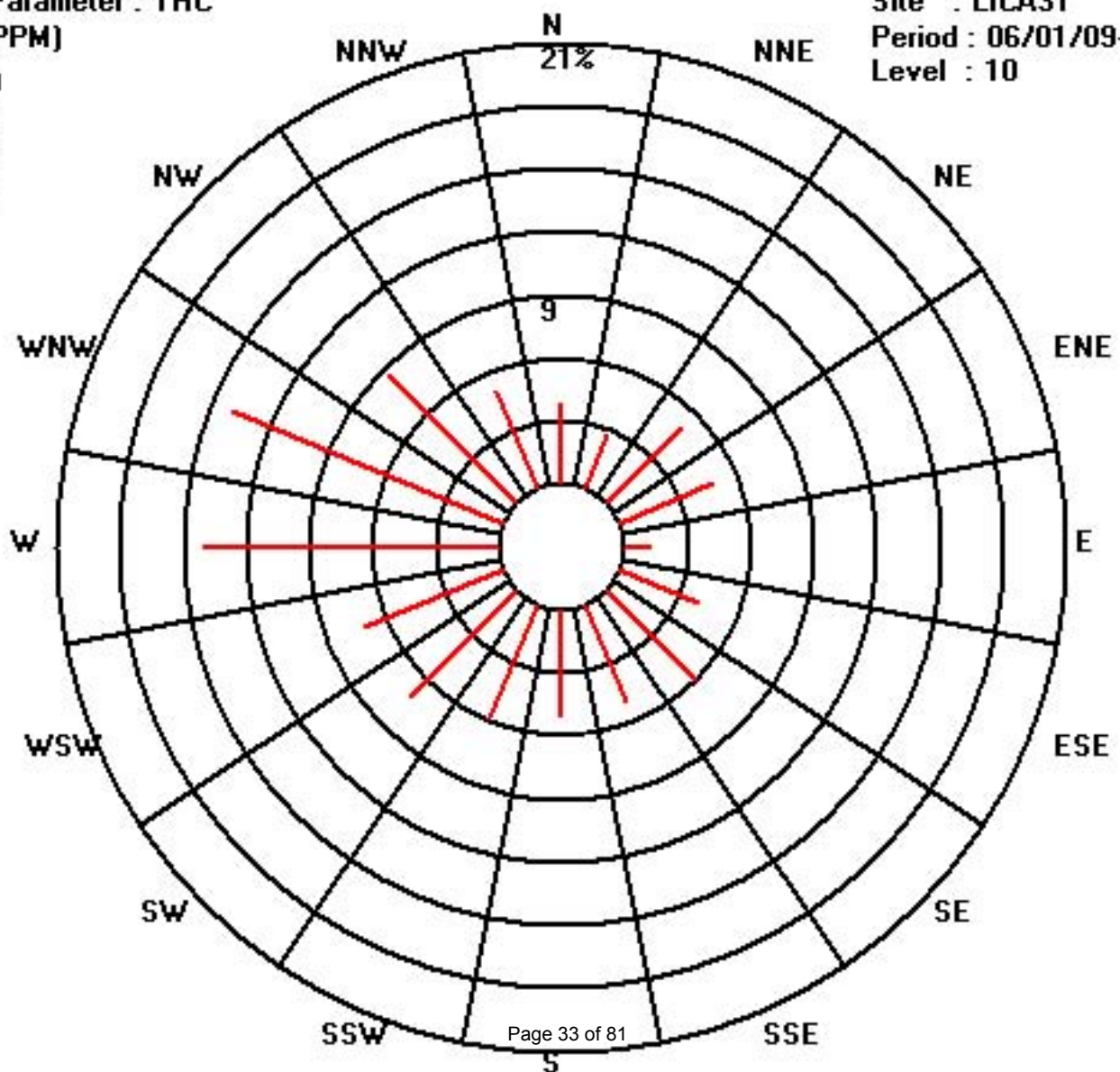
Calm : .00 %

Total # Operational Hours : 393

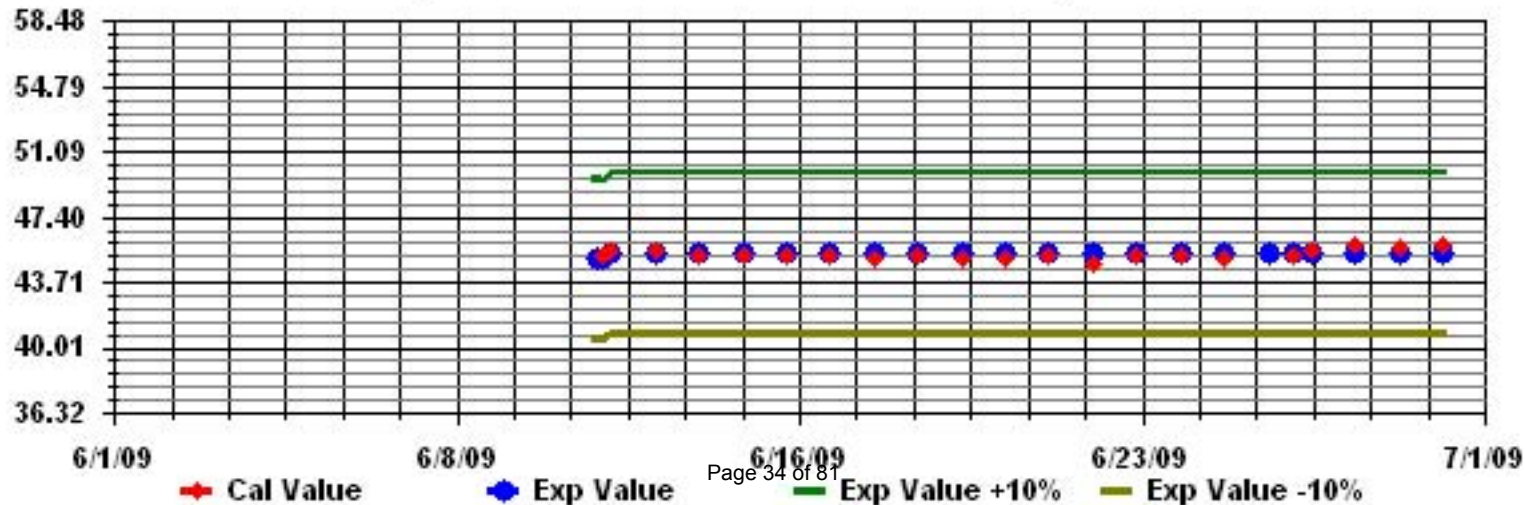
Class Limits (PPM)

Period : 06/01/09-06/30/09

Level : 10



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



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

NITROGEN DIOXIDE hourly averages 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 | DAILY | 24-HOUR | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-----|----|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | C | C | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 16 | |
| 13 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.9 | 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 | 1 | 1 | 0.0 | 24 |
| 15 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0.7 | 24 |
| 16 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 23 | |
| 17 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | M | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 22 | |
| 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 | 1 | 1 | 0.0 | 24 |
| 19 | 3 | 4 | 4 | 5 | 5 | 4 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 2 | 1 | 5 | 1.8 | 24 | | |
| 20 | 3 | 4 | 3 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 0.9 | 24 | |
| 21 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.5 | 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 | 1 | 1 | 0.0 | 24 |
| 24 | 2 | 2 | 2 | 4 | 5 | 5 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 5 | 1.3 | 24 | |
| 25 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.7 | 24 | |
| 26 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 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 | 1 | 1 | 0.0 | 24 |
| 28 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.4 | 24 | |
| 29 | 1 | 1 | 3 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0.4 | 24 | |
| 30 | 0 | 0 | 0 | 0 | 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 | 3 | 4 | 4 | 5 | 5 | 5 | 4 | 3 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | | | | | |
| HOURLY AVG | 0.8 | 1.1 | 1.2 | 1.2 | 1.4 | 1.4 | 1.1 | 0.8 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | | | | | |

STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

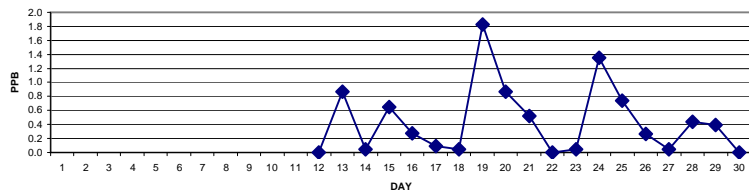
OBJECTIVE LIMIT:

| | | | | | | |
|----------------------|------|-----|-----|-------|-----|-----|
| ALBERTA ENVIRONMENT: | 1-HR | 212 | PPB | 24-HR | 106 | PPB |
|----------------------|------|-----|-----|-------|-----|-----|

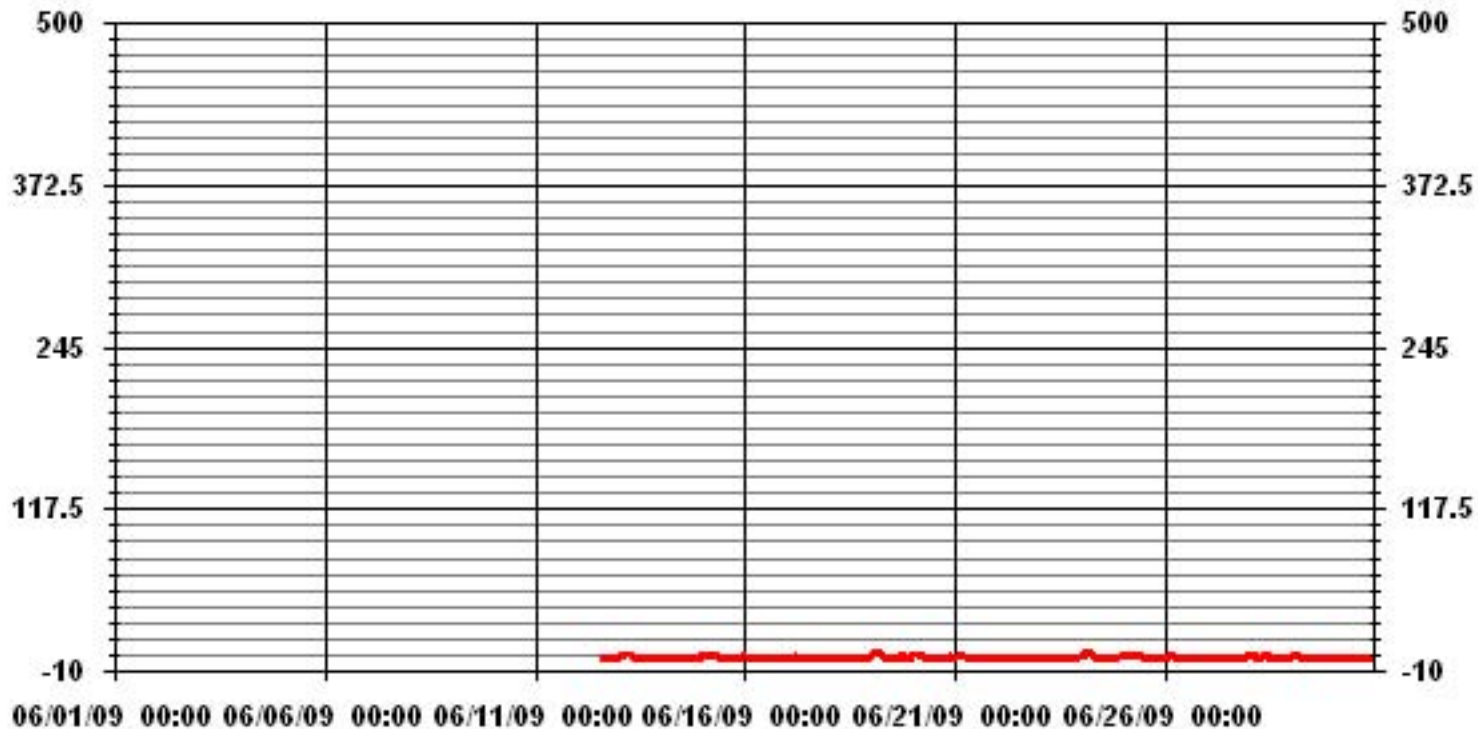
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|----------|-----------|--------|
| NUMBER OF 1-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF 24-HR EXCEEDENCES: | 0 | | | | | |
| NUMBER OF NON-ZERO READINGS: | 107 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 5 | PPB | @ HOUR(S) | VAR | ON DAY(S) | 19, 24 |
| MAXIMUM 24-HR AVERAGE: | 1.8 | PPB | | | ON DAY(S) | 19 |
| IZS CALIBRATION TIME: | 19 | HRS | OPERATIONAL TIME: | 445 HRS | | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | AMD OPERATION UPTIME: | 99.3 % | | |
| STANDARD DEVIATION: | 0.97 | | MONTHLY AVERAGE: | 0.46 PPB | | |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



— LICA31 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST.LINA

JUNE 2009

NITROGEN DIOXIDE 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 | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|---------|----|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | C | C | C | C | C | C | C | C | 0 | 0 | 0 | 0 | IZS | 1 | 0 | 0 | 0 | 1 | 0.1 | 16 |
| 13 | 0 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | IZS | 1 | 0 | 0 | 0 | 4 | 1.3 | 24 |
| 14 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 1 | P | 2 | 2 | 2 | 0.3 | 23 |
| 15 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 1.6 | 24 |
| 16 | 2 | 2 | 4 | 4 | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | M | P | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.8 | 22 | |
| 17 | 0 | 0 | 0 | 0 | 4 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 0.6 | 23 |
| 18 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 9 | 1 | 1 | 1 | IZS | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 1 | 2 | 9 | 1.4 | 24 | |
| 19 | 4 | 5 | 5 | 6 | 6 | 5 | 5 | 4 | 3 | 1 | 1 | 2 | 1 | IZS | 0 | 1 | 2 | 3 | 3 | 2 | 4 | 2 | 9 | 2 | 9 | 3.3 | 24 | |
| 20 | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | IZS | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 5 | 1.7 | 24 | |
| 21 | 4 | 3 | 2 | 2 | 4 | 3 | 3 | 2 | 2 | 1 | 1 | IZS | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1.2 | 24 | |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 24 | |
| 23 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | IZS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 2 | 0.3 | 24 | |
| 24 | 2 | 2 | 3 | 5 | 5 | 6 | 5 | 8 | IZS | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 8 | 2.0 | 24 | |
| 25 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | IZS | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | P | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 3 | 1.5 | 23 | |
| 26 | 0 | 1 | 1 | 2 | 2 | 3 | IZS | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.4 | 24 | |
| 27 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 2 | 3 | 0.7 | 24 | |
| 28 | 2 | 2 | 2 | 2 | IZS | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 1 | 3 | 1.3 | 24 | |
| 29 | 2 | 2 | 4 | IZS | 3 | 3 | 2 | 1 | 0 | 8 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 8 | 1.5 | 24 | |
| 30 | 0 | 0 | IZS | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0.4 | 24 | |
| HOURLY MAX | 5 | 5 | 5 | 6 | 6 | 6 | 5 | 8 | 4 | 8 | 9 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 4 | 4 | 9 | 2 | | | | |
| HOURLY AVG | 1.5 | 1.7 | 1.9 | 2.0 | 2.4 | 2.2 | 1.7 | 1.6 | 1.2 | 1.3 | 1.3 | 0.6 | 0.5 | 0.4 | 0.2 | 0.4 | 0.3 | 0.3 | 0.4 | 0.7 | 1.2 | 1.1 | 1.2 | 0.9 | | | | |

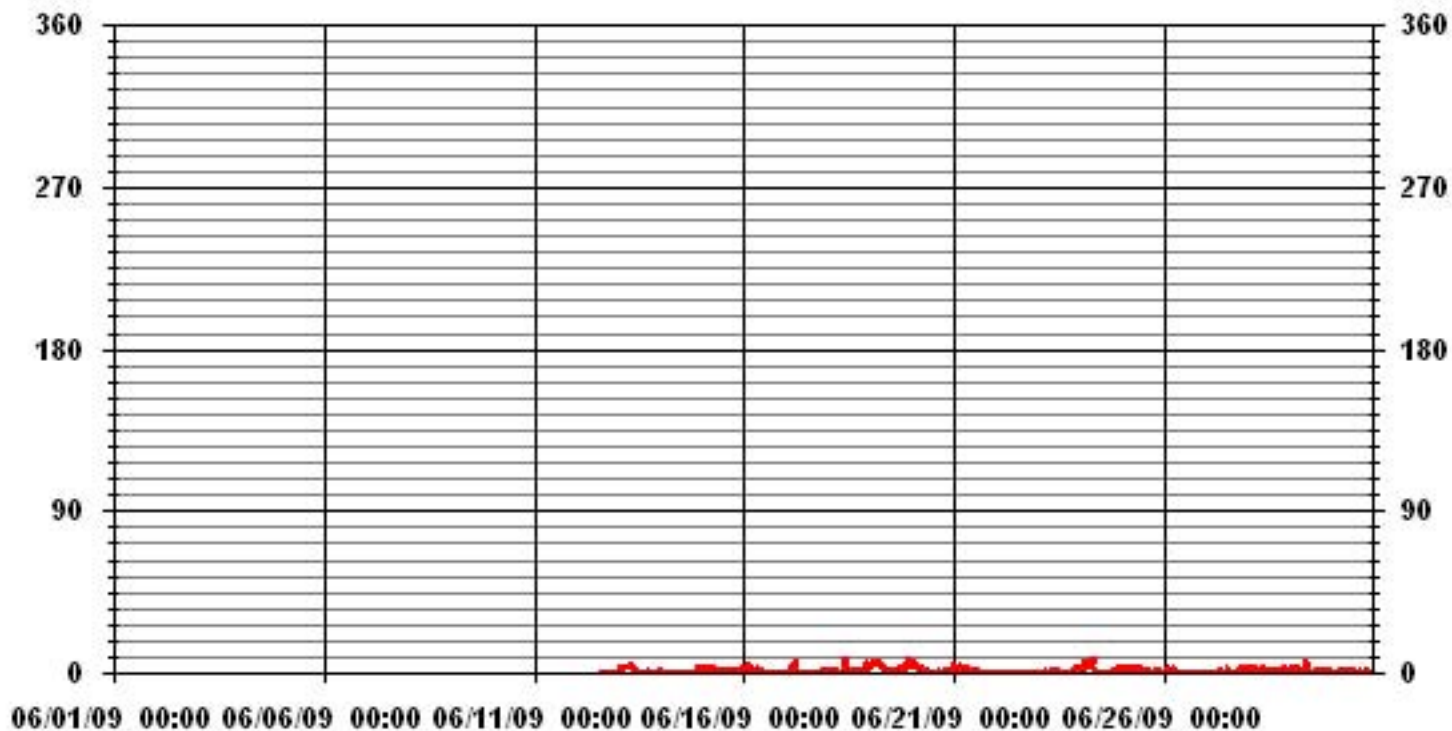
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-------------------|--------|-----------|--------|
| NUMBER OF NON-ZERO READINGS: | 225 | | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 9 | PPB | @ HOUR(S) | 10, 22 | ON DAY(S) | 18, 19 |
| IZS CALIBRATION TIME: | 19 | HRS | OPERATIONAL TIME: | 443 | HRS | |
| MONTHLY CALIBRATION TIME: | 8 | HRS | | | | |
| STANDARD DEVIATION: | 1.50 | | | | | |

01 Hour Averages



— LICA31 NO2MAX PPB

LICA31
 NO2_ / WDR Joint Frequency Distribution (Percent)

June 2009

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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | 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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | |

Calm : .00 %

Total # Operational Hours : 419

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | 419 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | |

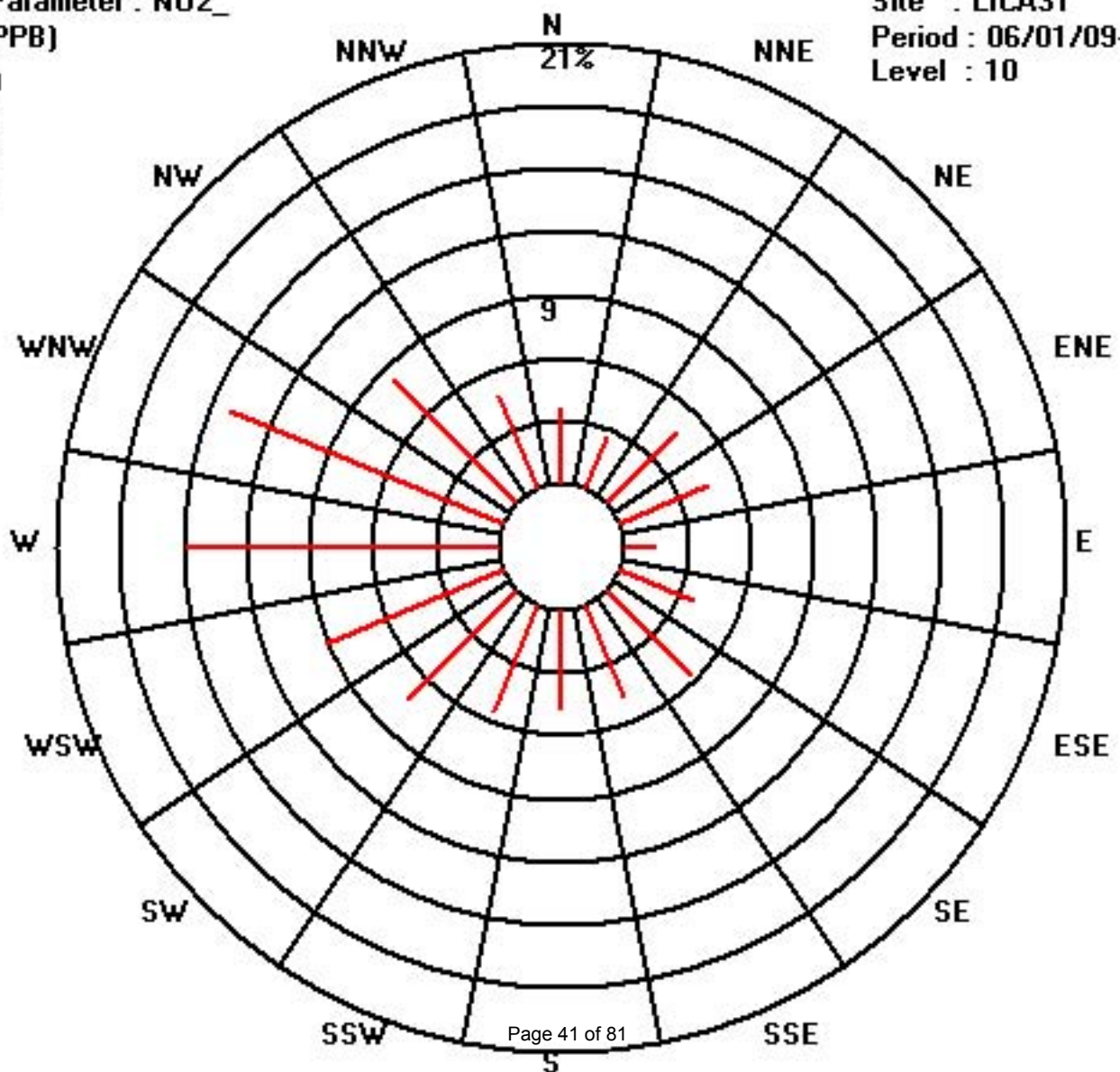
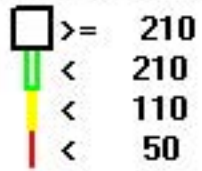
Calm : .00 %

Total # Operational Hours : 419

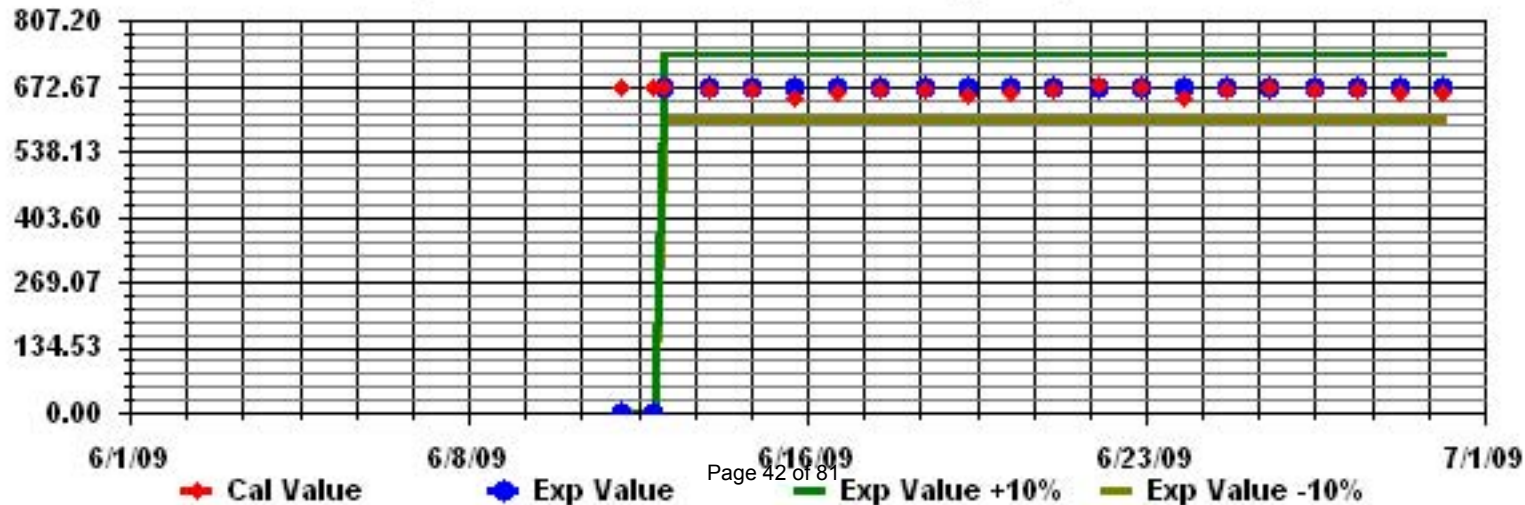
Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10



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



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

NITRIC OXIDE hourly averages 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 | DAILY 24-HOUR | | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|------|-------|-----|----|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | C | C | C | C | C | C | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 16 | |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 24 | |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 23 | |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | M | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 22 |
| 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 | 1 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.4 | 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 | 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 |
| 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 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.3 | 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 | 1 | 0.0 | 24 |
| 26 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.3 | 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 | 1 | 0.3 | 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 | 1 | 0.4 | 24 |
| 29 | 0 | 0 | 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 | 0.3 | 24 |
| 30 | 0 | 0 | 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 | 0.3 | 24 |
| HOURLY MAX | 0 | 0 | 0 | 1 | 1 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| HOURLY AVG | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.5 | 0.6 | 0.6 | 0.4 | 0.2 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

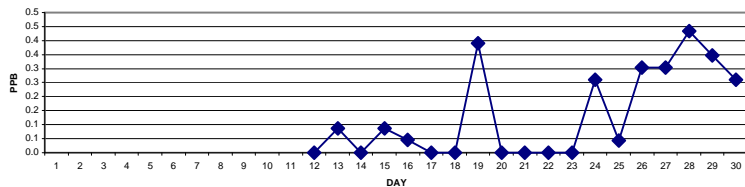
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

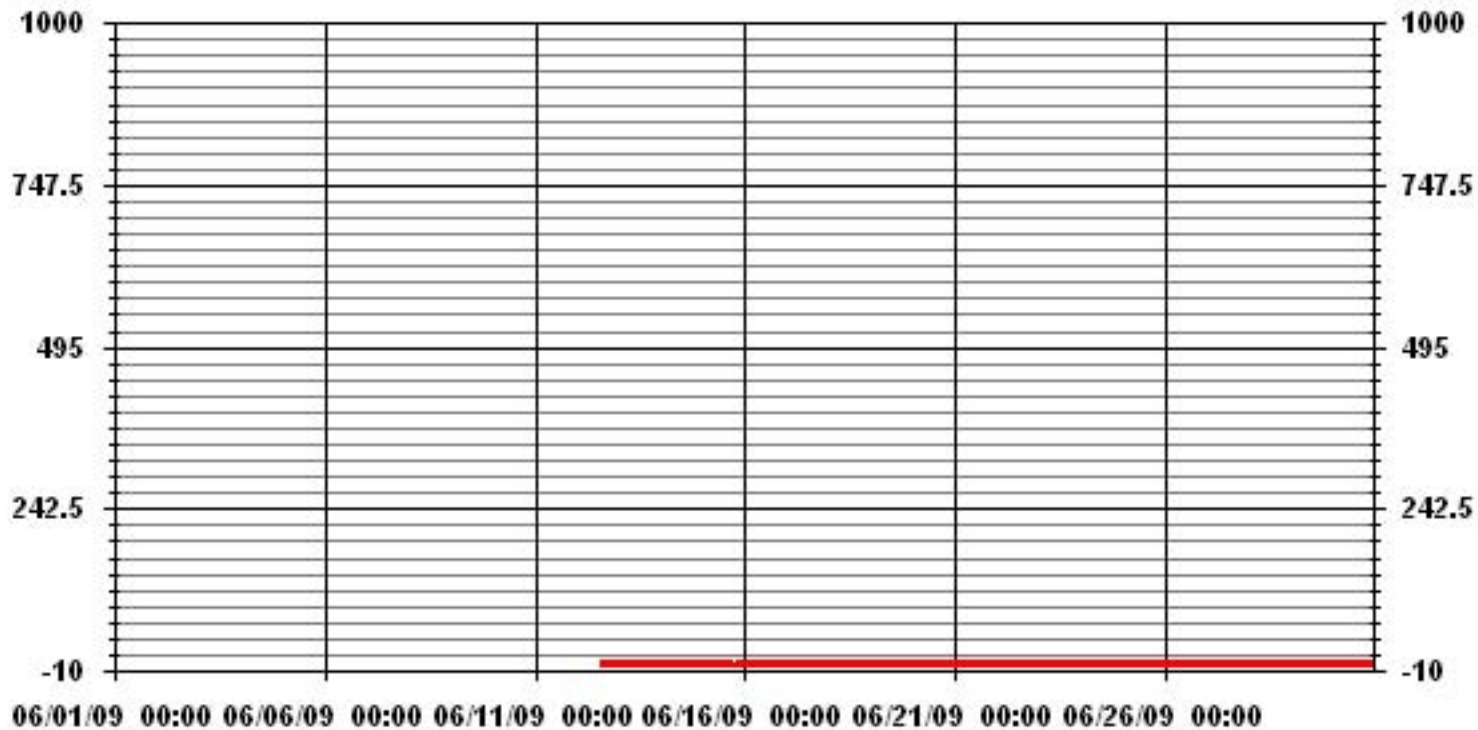
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|-----------------------|------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 51 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 3 | PPB | @ HOUR(S) | 5, 6 | ON DAY(S) | 19 |
| MAXIMUM 24-HR AVERAGE: | 0.4 | PPB | | | ON DAY(S) | 19 |
| IZS CALIBRATION TIME: | 19 | HRS | OPERATIONAL TIME: | 445 | HRS | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | AMD OPERATION UPTIME: | 99.3 | % | |
| STANDARD DEVIATION: | 0.41 | | MONTHLY AVERAGE: | 0.14 | PPB | |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



— LICA31 NO_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

NITRIC OXIDE 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 | 23:00 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | C | C | C | C | C | C | C | 0 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 1 | 0.1 | 16 | |
| 13 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 2 | 0.4 | 24 | |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | IZS | 1 | 0 | P | 1 | 1 | 1 | 0.2 | 23 | |
| 15 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 24 | |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | M | P | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 22 | |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | M | 1 | 1 | 1 | IZS | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 0.9 | 23 | |
| 18 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 0 | 3 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 5 | 1.0 | 24 |
| 19 | 1 | 1 | 1 | 1 | 3 | 5 | 5 | 3 | 2 | 1 | 1 | 3 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 5 | 1.7 | 24 | |
| 20 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.7 | 24 |
| 21 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0.8 | 24 |
| 22 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0.7 | 24 |
| 23 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 0 | 1 | 2 | 1.0 | 24 | |
| 24 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 13 | IZS | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 13 | 1.5 | 24 | |
| 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | IZS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | P | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 | 23 | |
| 26 | 1 | 2 | 1 | 1 | 1 | 2 | IZS | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.2 | 24 |
| 27 | 1 | 1 | 1 | 1 | 1 | IZS | 2 | 2 | 6 | 1 | 2 | 1 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1.7 | 24 | |
| 28 | 1 | 1 | 1 | 1 | IZS | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.1 | 24 |
| 29 | 1 | 1 | 1 | IZS | 2 | 3 | 3 | 2 | 1 | 13 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 13 | 1.8 | 24 | |
| 30 | 1 | 1 | IZS | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.2 | 24 | |
| HOURLY MAX | 1 | 2 | 1 | 2 | 3 | 5 | 5 | 13 | 6 | 13 | 5 | 3 | 9 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | | | |
| HOURLY AVG | 0.8 | 0.7 | 0.8 | 0.9 | 1.1 | 1.4 | 1.5 | 2.2 | 1.3 | 1.8 | 1.3 | 1.2 | 1.5 | 0.8 | 1.0 | 0.8 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 0.8 | 0.7 | | | | |

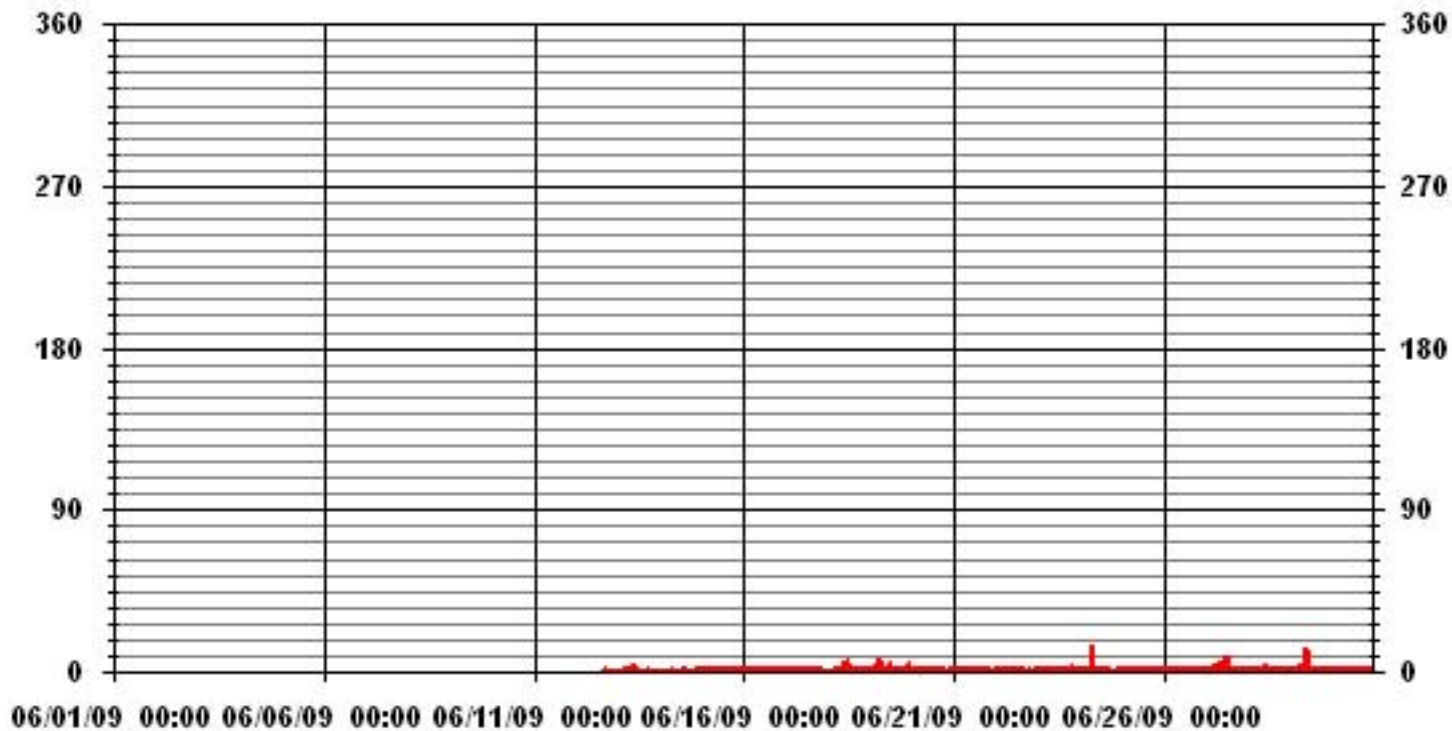
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | | | | | |
|------------------------------|------|-----|-------------------|-----|--------------|
| NUMBER OF NON-ZERO READINGS: | 342 | | | | |
| MAXIMUM INSTANTANEOUS VALUE: | 13 | PPB | @ HOUR(S) | 7 | ON DAY(S) 24 |
| IZS CALIBRATION TIME: | 19 | HRS | OPERATIONAL TIME: | 443 | HRS |
| MONTHLY CALIBRATION TIME: | 8 | HRS | | | |
| STANDARD DEVIATION: | 1.16 | | | | |

01 Hour Averages



LICA31
 NO_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : NO_
 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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | 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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | |

Calm : .00 %

Total # Operational Hours : 419

Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | 419 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | |

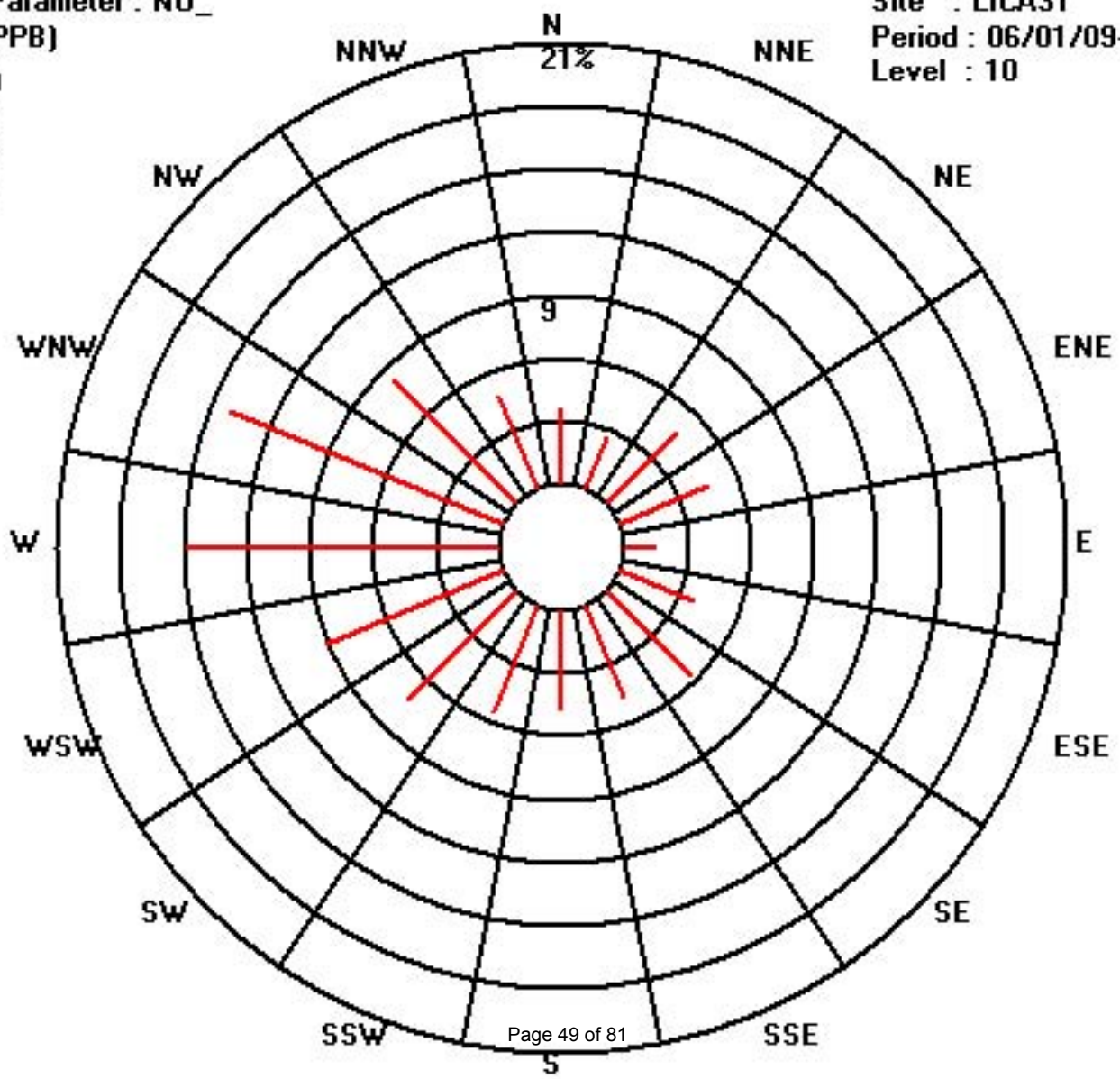
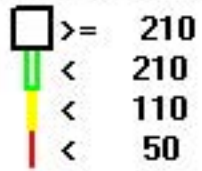
Calm : .00 %

Total # Operational Hours : 419

Class Limits (PPB)

Period : 06/01/09-06/30/09

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

OXIDES OF NITROGEN hourly averages in ppb

| 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 | 23:00 | DAILY 24-HOUR | | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-----|----|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0 | 1 | 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 |
| 15 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 16 | 3 | 3 | 4 | 3 | 1 | 1 | 1 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | M | 0 | 0 | IZS | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 1.7 | 24 |
| 17 | 1 | 0 | 0 | 0 | 1 | 3 | 2 | 1 | 1 | 0 | 0 | M | M | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 22 |
| 18 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0.3 | 24 | |
| 19 | 4 | 4 | 5 | 6 | 6 | 7 | 7 | 6 | 2 | 1 | 0 | 1 | 0 | IZS | 0 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | 1 | 7 | 2.7 | 24 | | |
| 20 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1.3 | 24 | |
| 21 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.8 | 24 | |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | IZS | 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 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0.1 | 24 | |
| 24 | 2 | 2 | 2 | 4 | 5 | 6 | 6 | 5 | IZS | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 6 | 1.6 | 24 | |
| 25 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | IZS | 2 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1.1 | 24 | | |
| 26 | 0 | 1 | 1 | 2 | 3 | 3 | IZS | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0.5 | 24 | | |
| 27 | 0 | 0 | 0 | 0 | 0 | IZS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0.1 | 24 | |
| 28 | 2 | 1 | 2 | 2 | IZS | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 1.1 | 24 | | |
| 29 | 2 | 2 | 3 | IZS | 3 | 3 | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 3 | 1.0 | 24 | | |
| 30 | 0 | 0 | IZS | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 24 | | |
| HOURLY MAX | NA | 4 | 5 | 6 | 6 | 7 | 7 | 6 | 5 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | | | | | | |
| HOURLY AVG | NA | 1.3 | 1.8 | 1.7 | 1.9 | 2.3 | 2.0 | 1.8 | 1.1 | 0.9 | 0.6 | 0.4 | 0.3 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.4 | 0.5 | 0.6 | 0.4 | 0.5 | 0.8 | | | | | |

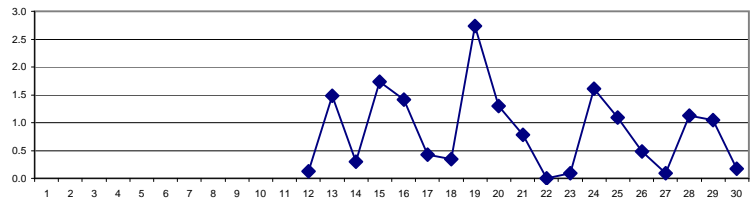
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

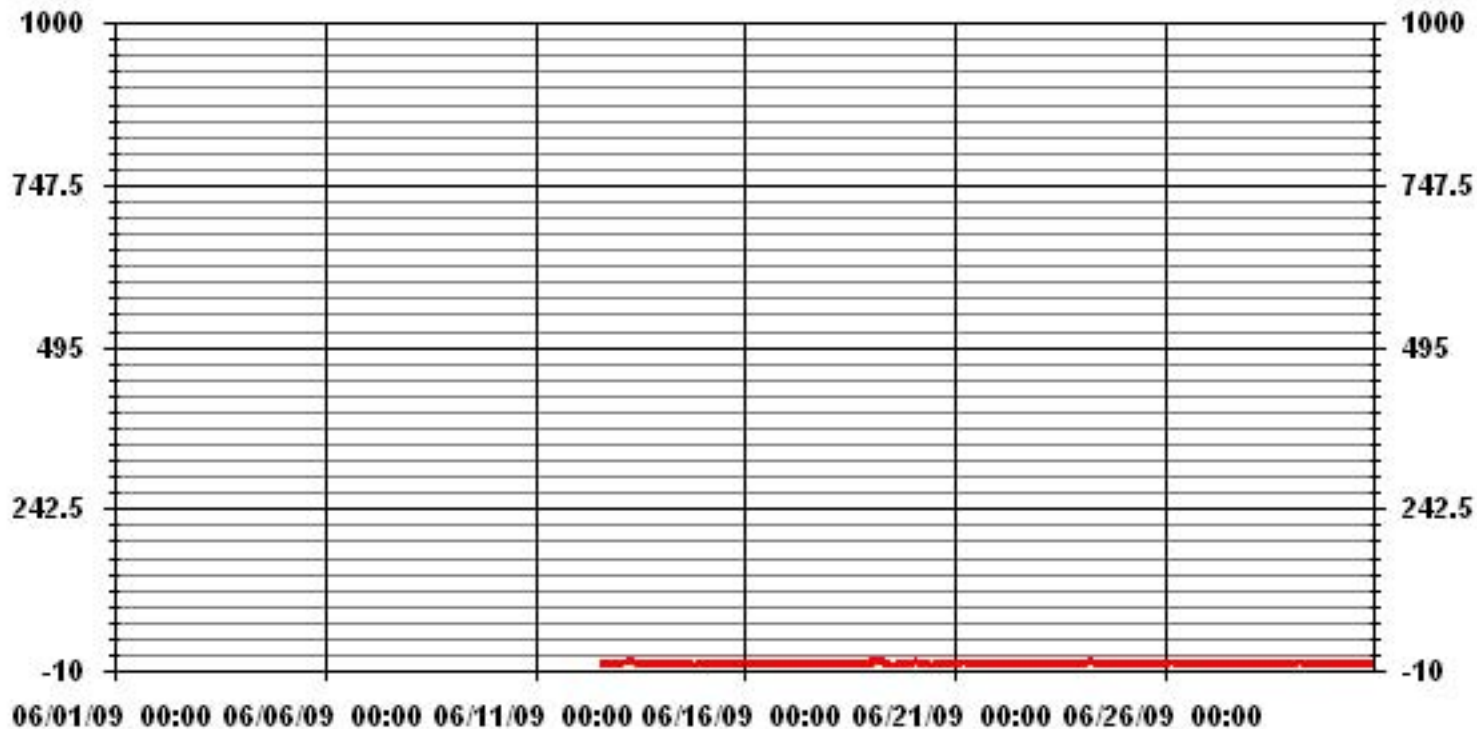
MONTHLY SUMMARY

| | | | | | | |
|------------------------------|------|-----|----------------------|------|-----------|----|
| NUMBER OF NON-ZERO READINGS: | 188 | | | | | |
| MAXIMUM 1-HR AVERAGE: | 7 | PPB | @ HOUR(S) | 5, 6 | ON DAY(S) | 19 |
| MAXIMUM 24-HR AVERAGE: | 2.7 | PPB | | | ON DAY(S) | 19 |
| IZS CALIBRATION TIME: | 19 | HRS | OPERATIONAL TIME: | 445 | HRS | |
| MONTHLY CALIBRATION TIME: | 7 | HRS | AMD OPERATION UPTIME | 99.3 | % | |
| STANDARD DEVIATION | 1.32 | | MONTHLY AVERAGE | 0.89 | PPB | |

24 HOUR AVERAGES FOR JUNE 2009



01 Hour Averages



— LICA31 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

OXIDES OF NITROGEN MAX hourly averages 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 | DAILY | 24-HOUR | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HOURLY MAX | 5 | 6 | 6 | 7 | 9 | 9 | 9 | 15 | 9 | 21 | 13 | 4 | 10 | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 4 | 5 | 12 | 3 | | | |
| HOURLY AVG | 2.0 | 2.2 | 2.4 | 2.6 | 3.1 | 3.2 | 2.9 | 3.1 | 2.3 | 2.7 | 2.2 | 1.6 | 1.6 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 | 1.1 | 1.8 | 1.4 | 1.9 | 1.4 | | | |

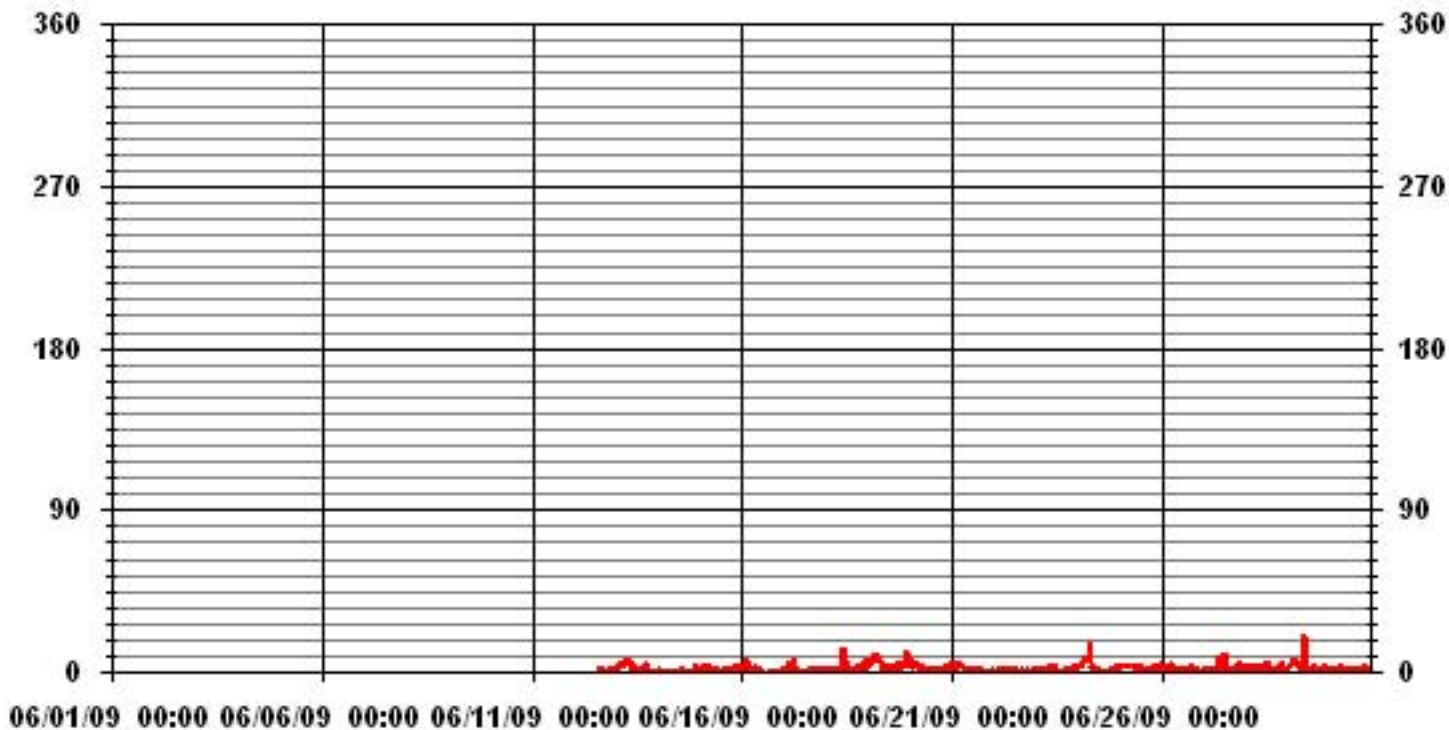
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MISSING DATA |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

MONTHLY SUMMARY

| | |
|------------------------------|---------------------------------|
| NUMBER OF NON-ZERO READINGS: | 342 |
| MAXIMUM INSTANTANEOUS VALUE: | 21 PPB @ HOUR(S) 9 ON DAY(S) 29 |
| IZS CALIBRATION TIME: | 19 HRS |
| MONTHLY CALIBRATION TIME: | 8 HRS |
| OPERATIONAL TIME: | 443 HRS |
| STANDARD DEVIATION: | 2.16 |

01 Hour Averages



— LICA31 NOXMAX PPB

LICA31
 NOX_ / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : NOX_
 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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | 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 | 3.57 | 2.62 | 4.77 | 4.53 | 1.43 | 3.81 | 5.72 | 4.77 | 4.77 | 5.48 | 7.39 | 9.06 | 14.79 | 14.08 | 8.35 | 4.77 | |

Calm : .00 %

Total # Operational Hours : 419

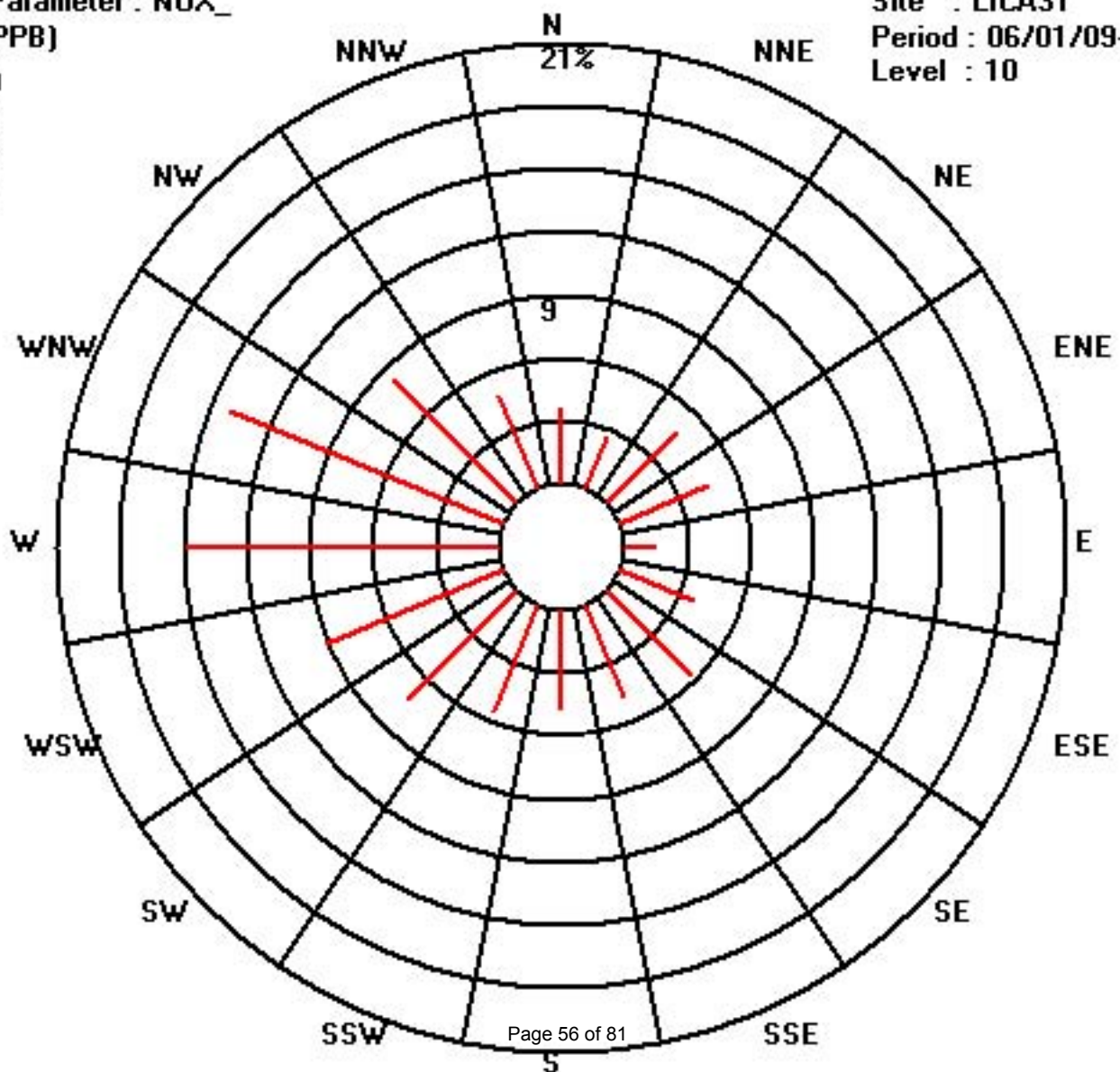
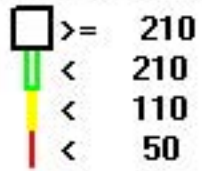
Distribution By Samples

| | Direction | | | | | | | | | | | | | | | | |
|--------|-----------|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq |
| < 50 | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | 419 |
| < 110 | | | | | | | | | | | | | | | | | |
| < 210 | | | | | | | | | | | | | | | | | |
| >= 210 | | | | | | | | | | | | | | | | | |
| Totals | 15 | 11 | 20 | 19 | 6 | 16 | 24 | 20 | 20 | 23 | 31 | 38 | 62 | 59 | 35 | 20 | |

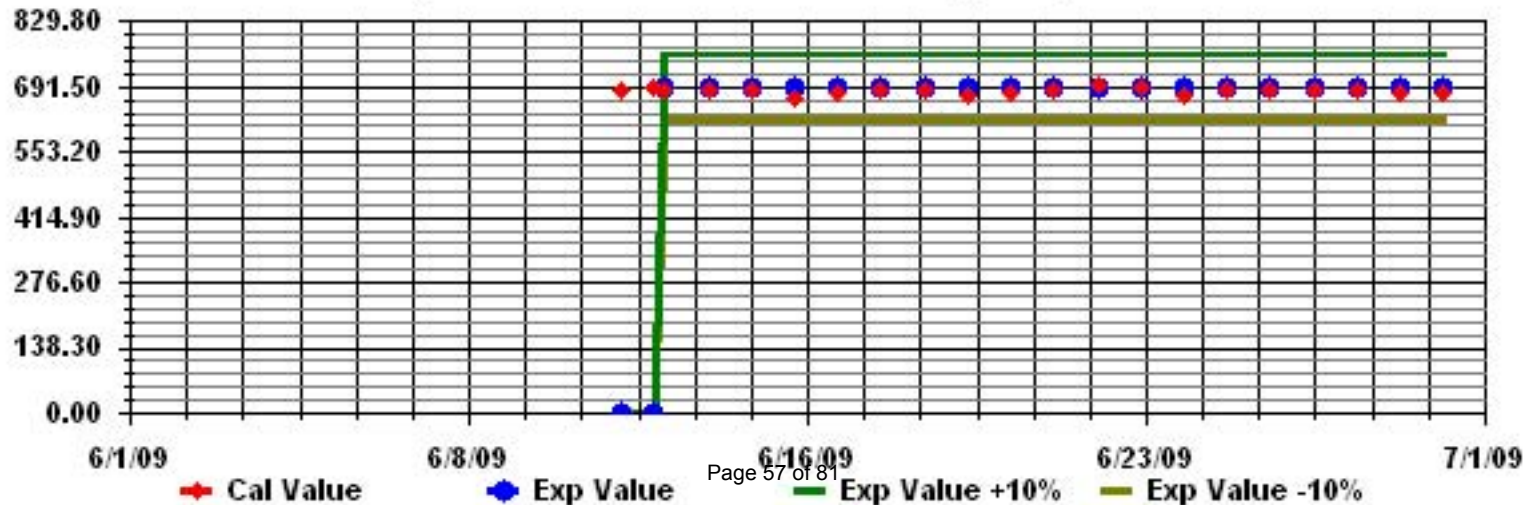
Calm : .00 %

Total # Operational Hours : 419

Class Limits (PPB)



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



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JUNE 2009

WIND SPEED hourly averages (km/hr)

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 | DAILY | 24-HOUR | | |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|----------|----------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------------|-------|---|
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | 6.3 | 5.8 | 6 | 7.5 | 8.9 | 12 | 14.4 | 13.8 | 13.6 | 14.4 | 7.2 | 9 |
| 13 | 13 | 13.6 | 12.6 | 11.6 | 13.7 | 14.8 | 11 | 12.6 | 11.2 | 13.4 | 12.4 | 13 | 10.8 | 10.1 | 10.1 | 8.5 | 9.9 | 5.1 | 5.9 | 6.2 | 6.1 | 8.1 | 10 | 10 | 14.8 | 6.9 | 24 | |
| 14 | 10.5 | 10.8 | 12.9 | 12.9 | 9.4 | 9.1 | 7.4 | 4.2 | 6.4 | 8.1 | 7.4 | 6.8 | 3.8 | 11.4 | 12.4 | 10.7 | 11 | 6.6 | 5.9 | 10.5 | 12.8 | 10.4 | 16.5 | 11 | 16.5 | 7.8 | 24 | |
| 15 | 8.3 | 15.1 | 16.8 | 0.4 | 9.1 | 9.5 | 6.4 | 10 | 7.7 | 5.2 | 5.5 | 5.2 | 4.2 | 4.5 | 1.3 | 17 | 16.7 | 13 | 9.2 | 7.5 | 9.2 | 7.1 | 7.4 | 6.1 | 17 | 2 | 24 | |
| 16 | 7.2 | 5.9 | 7.9 | 8.5 | 2.3 | 7 | 4.2 | 2.6 | 10.2 | 6.6 | 7.5 | 7.4 | 8 | M | 3.7 | 5.9 | 10 | 9 | 10.6 | 9.8 | 7.6 | 8.8 | 8.7 | 0.3 | 10.6 | 3.9 | 23 | |
| 17 | 8.4 | 3.8 | 8.5 | 8.9 | 9.4 | 8.9 | 3.5 | 4.3 | 1.6 | 5.9 | 4.9 | M | M | 6.9 | 9.6 | 8.2 | 9.6 | 9.3 | 8.5 | 9 | 9.8 | 10.4 | 10.2 | 15.7 | 15.7 | 5.5 | 22 | |
| 18 | 19.3 | 16.9 | 14.8 | 14.3 | 11.9 | 9.9 | 10.4 | 12.8 | 13.7 | 12.9 | 8.7 | 10.9 | 10.9 | 9.9 | 5.8 | 3.9 | 4.9 | 7.5 | 8 | 7.5 | 8.7 | 7.4 | 5.4 | 8.7 | 19.3 | 8.7 | 24 | |
| 19 | 9.5 | 8.4 | 7.2 | 8.4 | 8.4 | 8.7 | 8.2 | 4.7 | 6.1 | 9.1 | 6.6 | 8 | 9.9 | 7.9 | 9.1 | 8.4 | 13.6 | 19.6 | 13.2 | 5.7 | 6.5 | 6.3 | 4.8 | 7.3 | 19.6 | 5.1 | 24 | |
| 20 | 6.2 | 5.5 | 9.7 | 8.9 | 9 | 10.5 | 9.8 | 11.4 | 6.6 | 6 | 8.8 | 8.5 | 11.4 | 10.3 | 11 | 10.9 | 11.8 | 13.4 | 12.5 | 14.8 | 10.1 | 8.7 | 8.5 | 11.1 | 14.8 | 8.4 | 24 | |
| 21 | 14.6 | 8.1 | 8.1 | 10.6 | 8.7 | 9.4 | 10.5 | 10.3 | 11.6 | 11.3 | 11.2 | 10.2 | 9.3 | 9.4 | 9.8 | 10.7 | 11 | 10.1 | 11.8 | 13.7 | 15 | 15.4 | 16.5 | 18.3 | 18.3 | 9.8 | 24 | |
| 22 | 17 | 18 | 18.4 | 20.9 | 23.1 | 22.5 | 21.7 | 22 | 21 | 20.7 | 20.8 | 21.7 | 23.7 | 21.6 | 23.6 | 23.6 | 19.6 | 21.6 | 19.9 | 18.4 | 15.4 | 15 | 15.2 | 15.7 | 23.7 | 19.4 | 24 | |
| 23 | 18.7 | 18 | 16.4 | 17.1 | 16.3 | 19.1 | 20.1 | 22.4 | 21.3 | 22.7 | 27.7 | 25.4 | 25.2 | 26.1 | 21.6 | 18.4 | 19 | 16.2 | 13.7 | 11.2 | 8.3 | 8.2 | 8.5 | 11.5 | 27.7 | 17.7 | 24 | |
| 24 | 11.9 | 10.5 | 10.6 | 10.9 | 11.5 | 11.7 | 13.3 | 11.7 | 9.3 | 6.6 | 6.6 | 8 | 8.6 | 5.8 | 8.1 | 7.1 | 7.9 | 9.3 | 8.5 | 9.9 | 12.6 | 14.9 | 15 | 15.8 | 15.8 | 5.3 | 24 | |
| 25 | 17.6 | 14.4 | 14.2 | 13.2 | 14 | 14.2 | 14.2 | 13.4 | 11.5 | 9.1 | 7.8 | 7.9 | 7.7 | 8.4 | 8.5 | 8.1 | 3.3 | 13.4 | 12.2 | 10.2 | 16.8 | 19.1 | 8.6 | 11 | 19.1 | 5 | 24 | |
| 26 | 11.2 | 11.5 | 13 | 18.7 | 13.5 | 14.3 | 13.2 | 15.9 | 17.3 | 19.3 | 21.2 | 25 | 30 | 31.1 | 28.3 | 22.5 | 19.4 | 21.3 | 21.8 | 20.5 | 19.4 | 20.8 | 20.3 | 17.8 | 31.1 | 18.5 | 24 | |
| 27 | 19.1 | 20.8 | 20.2 | 16.5 | 17 | 13.7 | 14.4 | 15.9 | 18.2 | 14.1 | 16.3 | 16.3 | 16.5 | 12.7 | 12.5 | 13.3 | 10.3 | 10.6 | 8.3 | 5.8 | 4.6 | 4.2 | 8.5 | 9.2 | 20.8 | 10.5 | 24 | |
| 28 | 8.1 | 9.3 | 10.3 | 11.4 | 10.8 | 11.8 | 11.7 | 11.9 | 11.1 | 8.9 | 5.3 | 3.3 | 3.8 | 1.2 | 18.6 | 22.1 | 16.9 | 14.2 | 12.9 | 6.6 | 1 | 6.5 | 8.9 | 9.8 | 22.1 | 2.1 | 24 | |
| 29 | 8.8 | 9 | 8.7 | 10.8 | 11.4 | 9.4 | 10.5 | 9.4 | 16.8 | 16.7 | 21 | 20.2 | 11.4 | 11.4 | 16 | 14.4 | 12.4 | 9.7 | 3.5 | 2.3 | 6.6 | 12.1 | 15.3 | 16.1 | 21 | 9.4 | 24 | |
| 30 | 16.3 | 16 | 14.2 | 12.6 | 11.3 | 9.4 | 8 | 8.4 | 4.7 | 2.8 | 4.3 | 5.6 | 6.7 | 17.6 | 18.3 | 11.6 | 10.7 | 9.5 | 7.9 | 9.5 | 6.7 | 9.8 | 11.9 | 11.5 | 18.3 | 2.7 | 24 | |
| HOURLY MAX | 19.3 | 20.8 | 20.2 | 20.9 | 23.1 | 22.5 | 21.7 | 22.4 | 21.3 | 22.7 | 27.7 | 25.4 | 30.0 | 31.1 | 28.3 | 23.6 | 19.6 | 21.6 | 21.8 | 20.5 | 19.4 | 20.8 | 20.3 | 18.3 | | | | |
| HOURLY AVG | 12.5 | 12.0 | 12.5 | 12.0 | 11.7 | 11.9 | 11.0 | 11.3 | 11.5 | 11.1 | 11.3 | 12.0 | 11.9 | 12.1 | 12.7 | 12.2 | 11.8 | 11.9 | 10.6 | 9.9 | 10.0 | 10.9 | 11.3 | 11.6 | | | | |

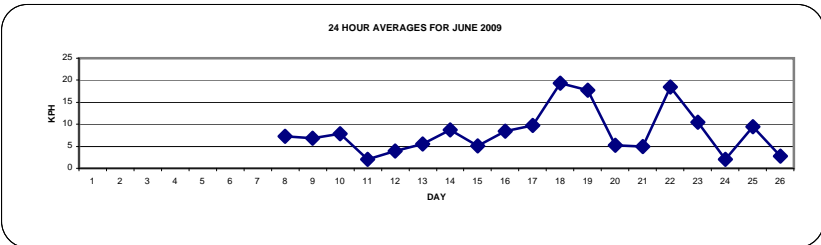
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

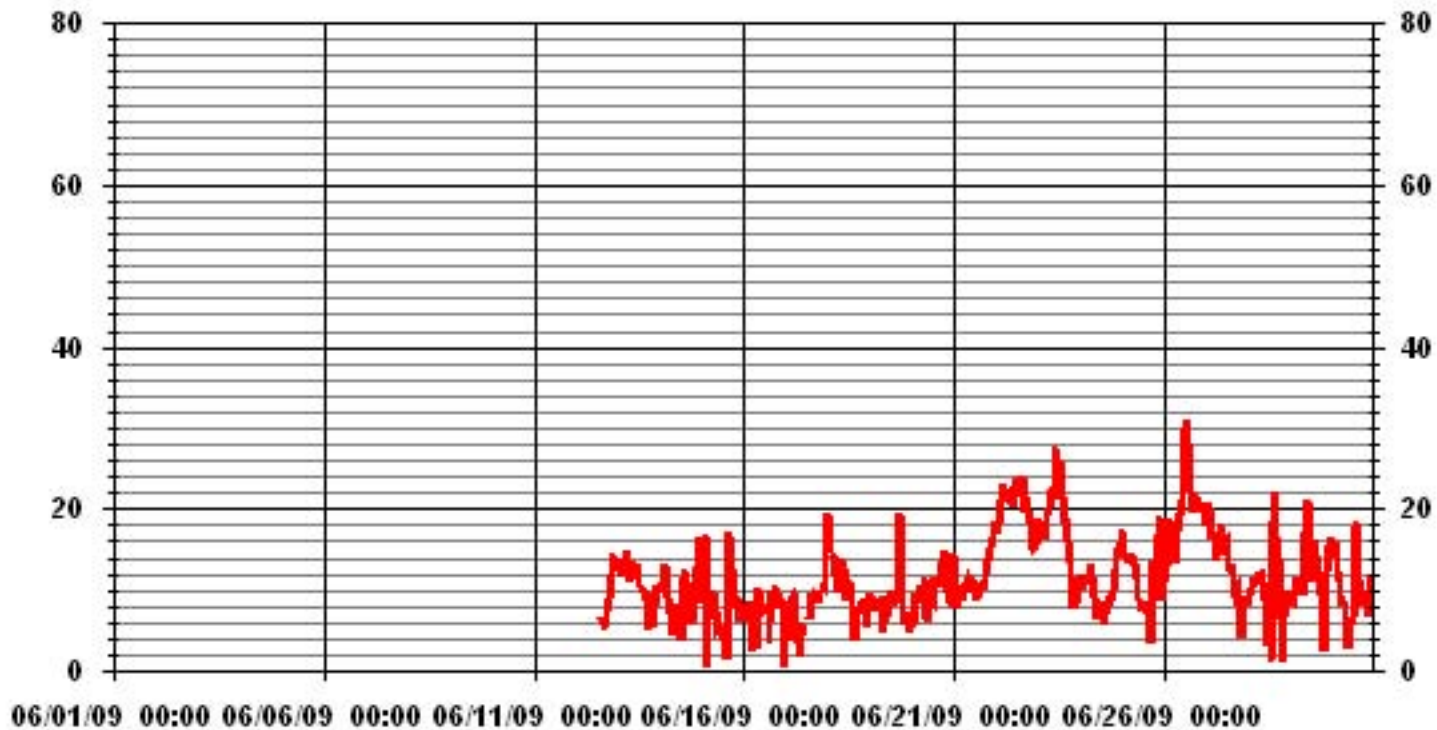
LAST CALIBRATION: November 7, 2007

MONTHLY SUMMARY

| | | | | | |
|---------------------------|----------|----------------------|----|-----------|-----|
| MAXIMUM 1-HR AVERAGE: | 31.1 KPH | @ HOUR(S) | 13 | ON DAY(S) | 26 |
| MAXIMUM 24-HR AVERAGE: | 19.4 KPH | | | ON DAY(S) | 22 |
| CALMS (≤ 1 KPH) | 0.27 % | OPERATIONAL TIME: | | 438 | HRS |
| MONTHLY CALIBRATION TIME: | 0 HRS | AMD OPERATION UPTIME | | 99.3 | % |
| STANDARD DEVIATION | 5.29 | MONTHLY AVERAGE | | 11.55 | KPH |



01 Hour Averages



— LICA31 WSP KPH

LICA31
WSP / WDR Joint Frequency Distribution (Percent)

June 2009

Distribution By % Of Samples

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

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 | |
| < 6.0 | .45 | .22 | .91 | 1.14 | .45 | .45 | .22 | .00 | .91 | .68 | 1.36 | .22 | 2.28 | .45 | .68 | .45 | 10.95 | |
| < 12.0 | 2.96 | 2.28 | 4.10 | 2.51 | .45 | 1.59 | 3.65 | 2.51 | 2.96 | 3.65 | 4.10 | 4.56 | 4.56 | 5.47 | 2.51 | 3.65 | 51.59 | |
| < 20.0 | .00 | .00 | .00 | .68 | .91 | 1.82 | 1.82 | 2.28 | .68 | 1.14 | 1.59 | 2.28 | 5.02 | 5.02 | 4.10 | .68 | 28.08 | |
| < 29.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.14 | 3.42 | 2.96 | .91 | .00 | 8.44 | |
| < 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .45 | .00 | .00 | .00 | .00 | .45 | |
| >= 39.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | |
| Totals | 3.42 | 2.51 | 5.02 | 4.33 | 1.82 | 3.88 | 5.70 | 4.79 | 4.56 | 5.47 | 7.07 | 8.67 | 15.29 | 13.92 | 8.21 | 4.79 | | |

Calm : .45 %

Total # Operational Hours : 438

Distribution By Samples

| | | Direction | | | | | | | | | | | | | | | | |
|---------|----|-----------|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|--|
| Limit | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | Freq | |
| < 6.0 | 2 | 1 | 4 | 5 | 2 | 2 | 1 | | 4 | 3 | 6 | 1 | 10 | 2 | 3 | 2 | 48 | |
| < 12.0 | 13 | 10 | 18 | 11 | 2 | 7 | 16 | 11 | 13 | 16 | 18 | 20 | 20 | 24 | 11 | 16 | 226 | |
| < 20.0 | | | | 3 | 4 | 8 | 8 | 10 | 3 | 5 | 7 | 10 | 22 | 22 | 18 | 3 | 123 | |
| < 29.0 | | | | | | | | | | | | 5 | 15 | 13 | 4 | | 37 | |
| < 39.0 | | | | | | | | | | | | 2 | | | | | 2 | |
| >= 39.0 | | | | | | | | | | | | | | | | | | |
| Totals | 15 | 11 | 22 | 19 | 8 | 17 | 25 | 21 | 20 | 24 | 31 | 38 | 67 | 61 | 36 | 21 | | |

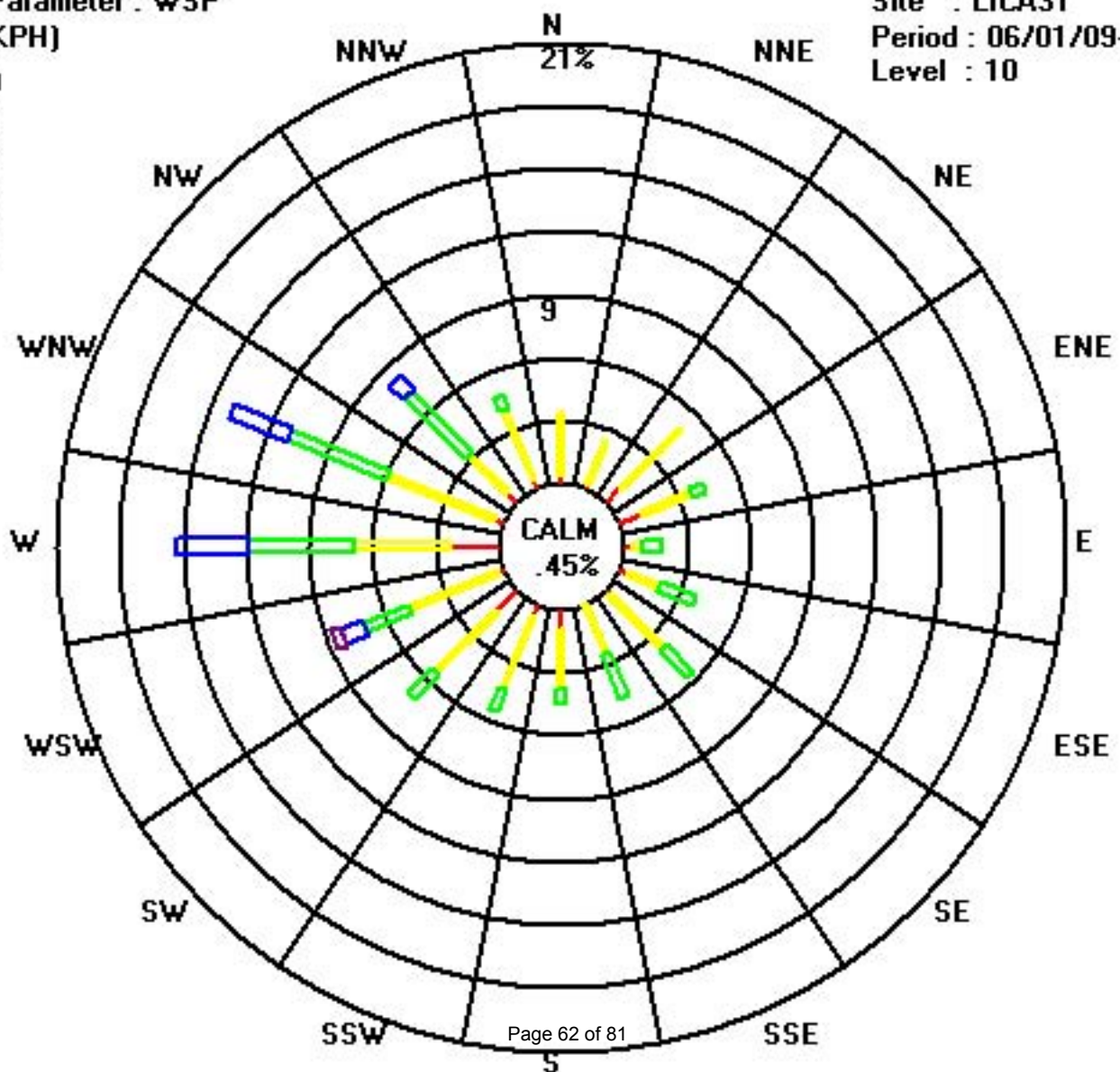
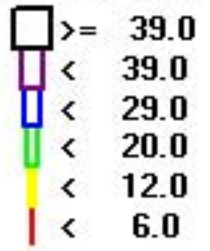
Calm : .45 %

Total # Operational Hours : 438

Class Limits (KPH)

Period : 06/01/09-06/30/09

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -ST. LINA

JUNE 2009

WIND DIRECTION 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. | QUADRANT | RDGS. | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 147 | 158 | 165 | 160 | 162 | 165 | 189 | 190 | 185 | 204 | 195 | 190 | 211 | 195 | 210 | 197 | 199 | 203 | 223 | 293 | 13 | 351 | 355 | 333 | 188 | 125 | SE | 9 | |
| 14 | 296 | 295 | 303 | 300 | 259 | 261 | 311 | 271 | 268 | 240 | 269 | 268 | 304 | 283 | 289 | 270 | 265 | 212 | 203 | 193 | 211 | 215 | 236 | 217 | 260 | 260 | WSW | 24 | |
| 15 | 263 | 301 | 306 | 218 | 210 | 209 | 227 | 243 | 261 | 287 | 21 | 56 | 59 | 48 | 222 | 181 | 109 | 106 | 123 | 132 | 144 | 142 | 77 | 224 | 183 | 240 | S | 24 | |
| 16 | 239 | 112 | 76 | 340 | 273 | 327 | 84 | 129 | 269 | 283 | 24 | 341 | 302 | M | 278 | 249 | 282 | 284 | 320 | 341 | 3 | 4 | 1 | 292 | 323 | 230 | NW | 23 | |
| 17 | 157 | 75 | 42 | 17 | 4 | 331 | 281 | 214 | 286 | 77 | 47 | M | M | 357 | 345 | 339 | 332 | 338 | 333 | 351 | 356 | 3 | 10 | 288 | 350 | 220 | N | 22 | |
| 18 | 314 | 321 | 311 | 309 | 307 | 309 | 290 | 290 | 297 | 301 | 311 | 282 | 286 | 272 | 281 | 279 | 275 | 246 | 248 | 247 | 255 | 256 | 221 | 171 | 288 | 240 | WNW | 24 | |
| 19 | 175 | 177 | 155 | 193 | 210 | 210 | 214 | 235 | 318 | 292 | 323 | 302 | 308 | 291 | 238 | 217 | 212 | 222 | 221 | 212 | 106 | 135 | 219 | 76 | 222 | 240 | SW | 24 | |
| 20 | 76 | 109 | 98 | 129 | 128 | 117 | 113 | 107 | 136 | 67 | 60 | 41 | 36 | 42 | 35 | 43 | 56 | 67 | 79 | 73 | 61 | 42 | 42 | 57 | 73 | 240 | ENE | 24 | |
| 21 | 66 | 48 | 45 | 49 | 37 | 23 | 28 | 40 | 46 | 43 | 35 | 34 | 32 | 24 | 15 | 15 | 6 | 13 | 2 | 343 | 335 | 327 | 325 | 324 | 14 | 240 | NNE | 24 | |
| 22 | 317 | 311 | 302 | 297 | 300 | 301 | 294 | 295 | 298 | 303 | 305 | 306 | 304 | 297 | 297 | 298 | 299 | 278 | 279 | 283 | 284 | 264 | 258 | 260 | 294 | 240 | WNW | 24 | |
| 23 | 272 | 276 | 268 | 267 | 253 | 256 | 262 | 265 | 269 | 281 | 271 | 277 | 276 | 264 | 275 | 275 | 281 | 275 | 291 | 285 | 270 | 267 | 237 | 238 | 269 | 240 | W | 24 | |
| 24 | 252 | 230 | 230 | 212 | 219 | 234 | 235 | 242 | 269 | 292 | 296 | 274 | 289 | 280 | 256 | 136 | 158 | 155 | 167 | 142 | 118 | 118 | 127 | 131 | 205 | 240 | SSW | 24 | |
| 25 | 131 | 140 | 146 | 147 | 155 | 156 | 165 | 162 | 167 | 179 | 202 | 230 | 235 | 291 | 334 | 321 | 95 | 313 | 287 | 264 | 243 | 289 | 282 | 255 | 206 | 240 | SSW | 24 | |
| 26 | 246 | 227 | 224 | 234 | 242 | 248 | 259 | 260 | 273 | 268 | 254 | 250 | 245 | 254 | 253 | 261 | 277 | 284 | 289 | 281 | 287 | 285 | 280 | 272 | 261 | 240 | W | 24 | |
| 27 | 268 | 268 | 266 | 264 | 265 | 261 | 261 | 275 | 290 | 293 | 286 | 296 | 304 | 314 | 319 | 319 | 327 | 346 | 328 | 346 | 40 | 169 | 166 | 178 | 285 | 240 | WNW | 24 | |
| 28 | 148 | 169 | 160 | 151 | 139 | 139 | 136 | 136 | 140 | 145 | 191 | 61 | 352 | 319 | 284 | 309 | 304 | 325 | 325 | 323 | 0 | 128 | 172 | 181 | 184 | 240 | S | 24 | |
| 29 | 190 | 185 | 194 | 226 | 252 | 223 | 223 | 242 | 253 | 255 | 244 | 244 | 246 | 224 | 227 | 237 | 240 | 236 | 265 | 77 | 178 | 194 | 134 | 128 | 223 | 240 | SW | 24 | |
| 30 | 113 | 103 | 87 | 80 | 68 | 61 | 64 | 89 | 170 | 268 | 345 | 314 | 335 | 302 | 305 | 312 | 303 | 272 | 269 | 289 | 265 | 262 | 298 | 292 | 330 | 240 | NNW | 24 | |
| HOURLY AVG | 317 | 321 | 311 | 340 | 307 | 331 | 311 | 295 | 318 | 303 | 345 | 341 | 352 | 357 | 345 | 339 | 332 | 346 | 333 | 351 | 356 | 351 | 355 | 333 | | | | | |

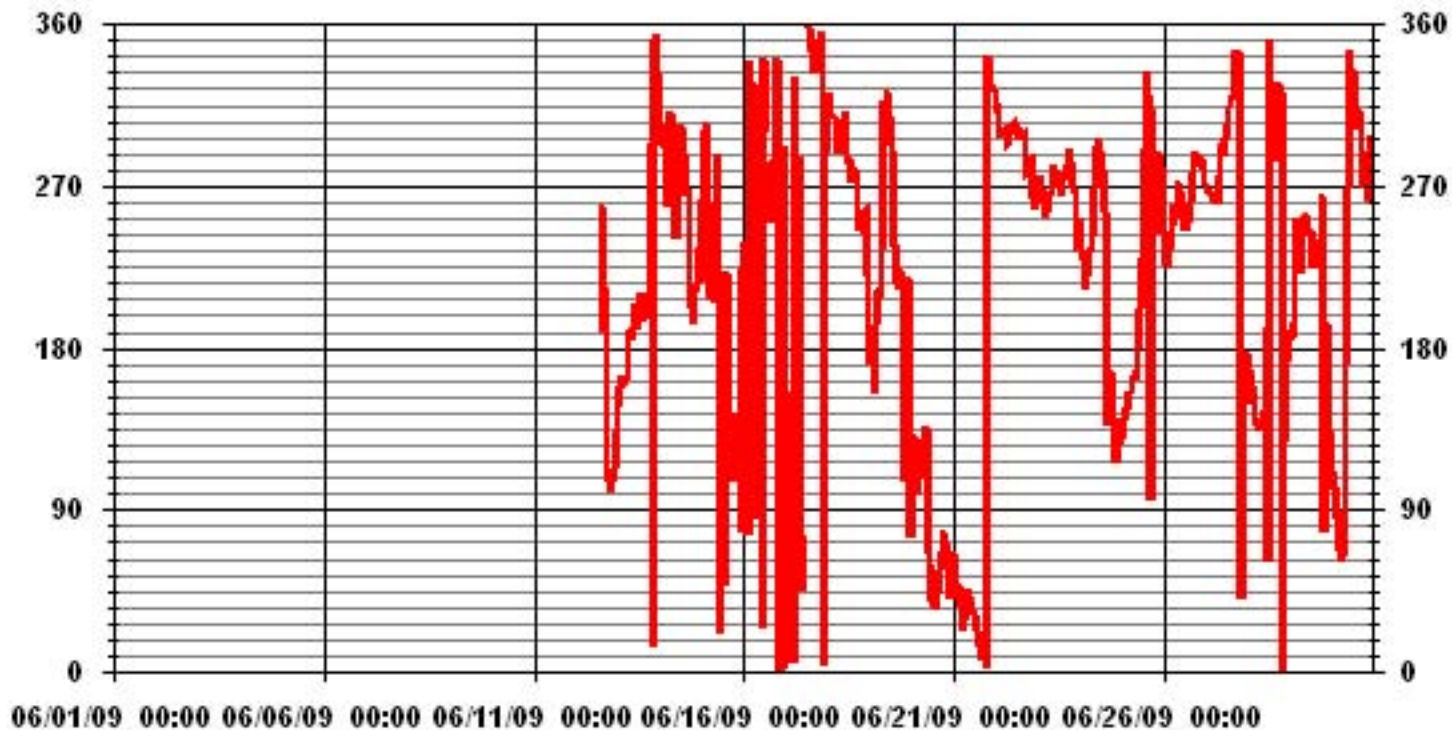
STATUS FLAG CODES

| | | | |
|---|--------------------|-----|-------------------------------|
| S | - OUT OF SERVICE | IZS | - IZS - DAILY ZERO/SPAN CHECK |
| N | - INVALID DATA | M | - MAINTENANCE |
| D | - INSTRUMENT DRIFT | P | - POWER FAILURE |
| C | - CALIBRATION | NA | - NOT APPLICABLE |

| | |
|-------------------|--------------------------------|
| LAST CALIBRATION: | November 7, 2007 |
| DECLINATION : | 19 DEGREES FROM MAGNETIC NORTH |

| | | | |
|---------------------------|-------|----------------------|---------|
| MONTHLY CALIBRATION TIME: | 0 HRS | OPERATIONAL TIME: | 438 HRS |
| STANDARD DEVIATION | 93.74 | AMD OPERATION UPTIME | 99.3 % |
| | | MONTHLY AVERAGE | 269 DEG |

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

| | | | |
|---------------------|---|----------------------|------------|
| Calibration Date | June 11, 2009 | Previous Calibration | N/A |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | ST. LINA | | |
| Start Time (MST) | 13:30 | End Time (MST) | 16:35 |
| Reason: | Installation Calibration | | |
| Barometric Pressure | 695 mmHg | Station Temperature | 25 Deg C |
| Cal Gas | 52.2 ppm | Cal Gas Expiry date | 12/19/2010 |
| DAS Output Voltage | 0 - 1 Volts | | |

Equipment Information

| | | | | | |
|--------------------------|----------------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 100E | S/N : | 468 | Method: | Fluorescent |
| Converter Make / Model: | - | S/N : | - | | |
| Calibrator Make / Model: | Enviroics 2000 | S/N : | 1991 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | A0717 | | |
| Flow Meter: | Enviroics 2000 | S/N : | 1991 | | |

Analyzer Settings

| Before Calibration | | After Calibration | |
|------------------------|--------------------|--------------------|--|
| Concentration Range | 0 - 1000 ppb | | |
| Sample Flow / Box Temp | 571 ccm 34.5 Deg C | 570 ccm 33.6 Deg C | |
| HVPS / Lamp Setting | 529 3044 | 529 3042 | |
| PMT / RxCell Temp | 7.8 Deg C 50 Deg C | 7.9 Deg C 50 Deg C | |
| Converter / IZS Temp | NA Deg C 40 Deg C | NA Deg C 40 Deg C | |
| Offset / Slope | 46.4 1.004 | 46.4 1.013 | |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 5000.0 | 0 | 0 | 1 | 0.0000 |
| 4922.0 | 76.9 | 803 | 805 | 0.9975 |
| 4962.0 | 38.4 | 401 | 400 | 1.0022 |
| 4981.0 | 19.2 | 200 | 199 | 1.0072 |
| 4999.0 | 0 | 0 | 1 | N/A |
| Sum of Least Squares | | | | 0.9989 |
| New Correction Factor | | | | 0.9975 |

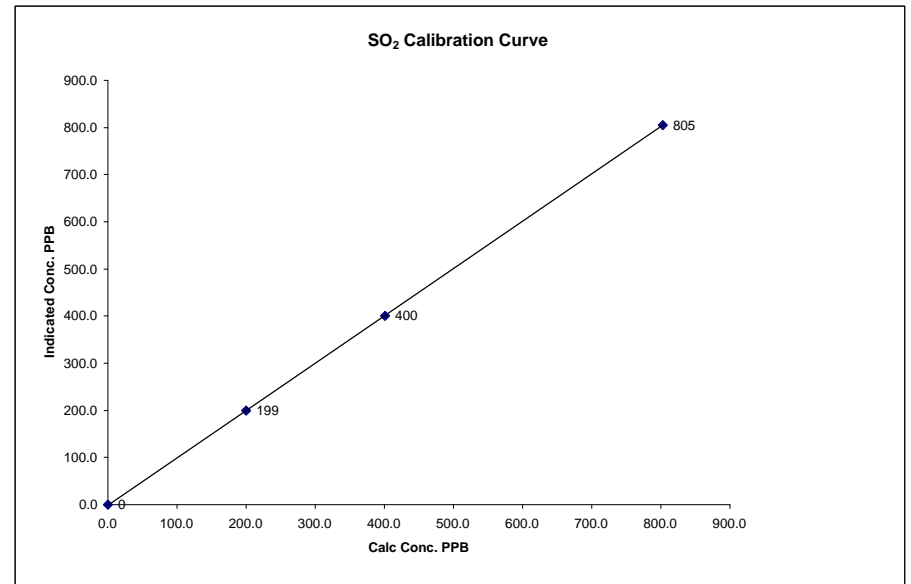
| | Before Calibration | After Calibration |
|--|--------------------|-------------------|
| Auto Zero | N/A | 0.5 |
| Auto Span | N/A | 353.0 |
| Sample Lines Connected | | YES |
| Percent Change from Previous Calibration | | N/A |

Calibration Performed by: Shea Beaton

SO₂ Calibration Curve

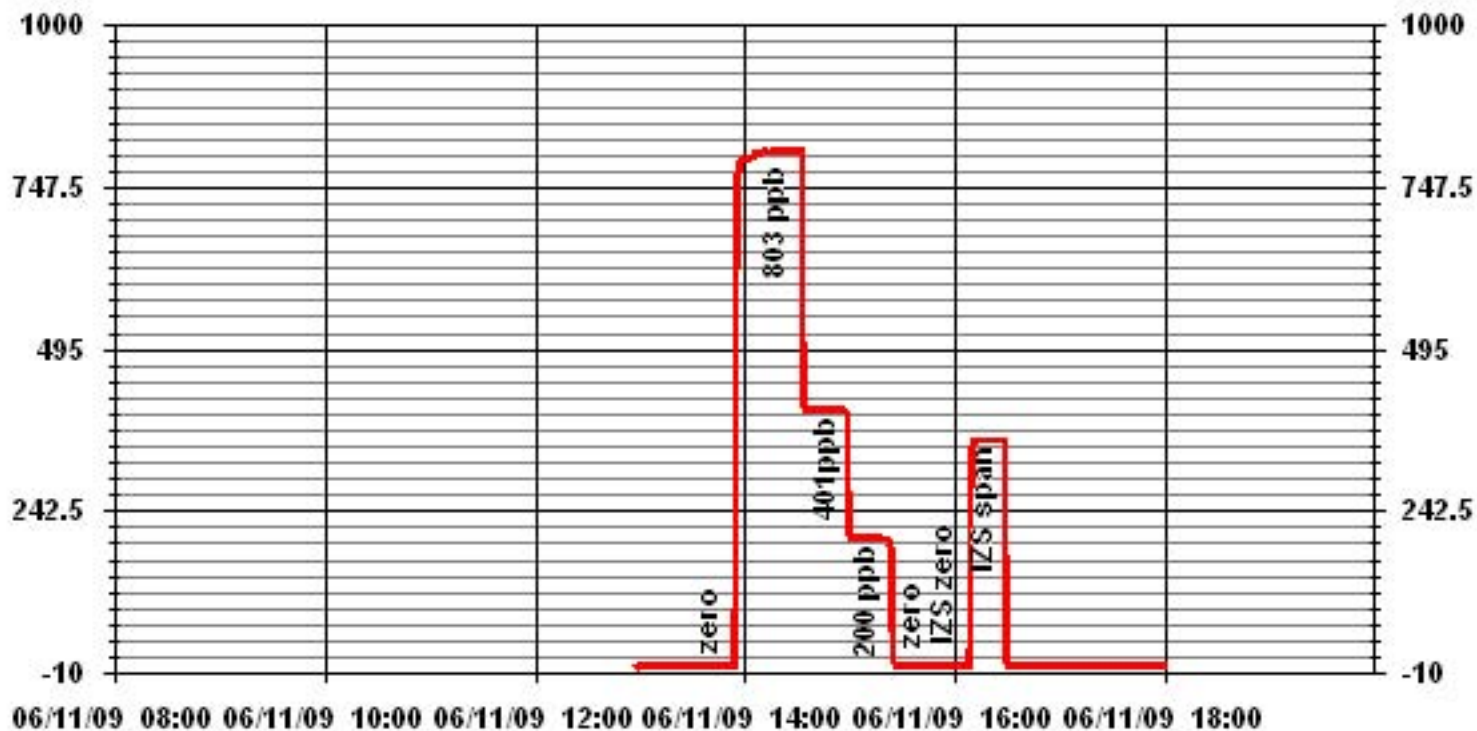
| | |
|------------------|---|
| Calibration Date | June 11, 2009 |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION |
| Plant / Location | ST. LINA |
| Start Time (MST) | 13:30 |
| End Time (MST) | 16:35 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999990 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|-----------|
| 0 | 0 | n/a | Intercept | (± 3% F.S.) | -1.146356 |
| 200 | 199 | 1.0072 | | | |
| 401 | 400 | 1.0022 | | | |
| 803 | 805 | 0.9975 | | | |



Notes:

01 Minute Averages



Hydrogen Sulphide

H₂S Calibration Report

Station Information

| | | | | | |
|---------------------|---|----------------|----------------------|------------|-------|
| Calibration Date | June 12, 2009 | | Previous Calibration | N/A | |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | | | |
| Plant / Location | ST.LINA | | | | |
| Start Time (MST) | 8:15 | End Time (MST) | 11:45 | | |
| Reason: | Installation Calibration | | | | |
| Barometric Pressure | 697 | mBar | Station Temperature | 24 | Deg C |
| Cal Gas | 10.6 | ppm | Cal Gas Expiry date | 04/03/2009 | |
| DAS Output Voltage | 0 - 1 Volts | | | | |

Equipment Information

| | | | | | |
|--------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 510 | Method: | Fluorescent |
| Converter Make / Model: | Internal | S/N : | N/A | | |
| Calibrator Make / Model: | API 700 | S/N : | 831 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | A0717 | | |
| Flow Meter: | API 700 | S/N : | 831 | | |

Analyzer Settings

| | | Before Calibration | | After Calibration | |
|------------------------|-------|--------------------|------|-------------------|-------|
| Concentration Range | | 0 - 100 | | ppb | |
| Sample Flow / Box Temp | 543 | ccm | 33 | Deg C | 544 |
| HVPS / Lamp Setting | 534 | | 2048 | | 534 |
| PMT / RxCell Temp | 8.4 | Deg C | 50 | Deg C | 8.4 |
| Converter / IZS Temp | 315.4 | Deg C | 45 | Deg C | 314.7 |
| Offset / Slope | 48.2 | | 1.16 | | 48.2 |
| | | | | | 34.3 |
| | | | | | Deg C |
| | | | | | Deg C |
| | | | | | Deg C |
| | | | | | Deg C |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 5000 | 0 | 0 | 0 | N/A |
| 4962 | 37.7 | 80 | 80 | 0.9991 |
| 4979 | 21.2 | 45 | 45 | 0.9987 |
| 4988 | 11.8 | 25 | 25 | 1.0007 |
| 4999 | 0 | 0 | 0 | N/A |
| Sum of Least Squares | | | | 0.9991 |
| New Correction Factor | | | | 0.9991 |

Before Calibration

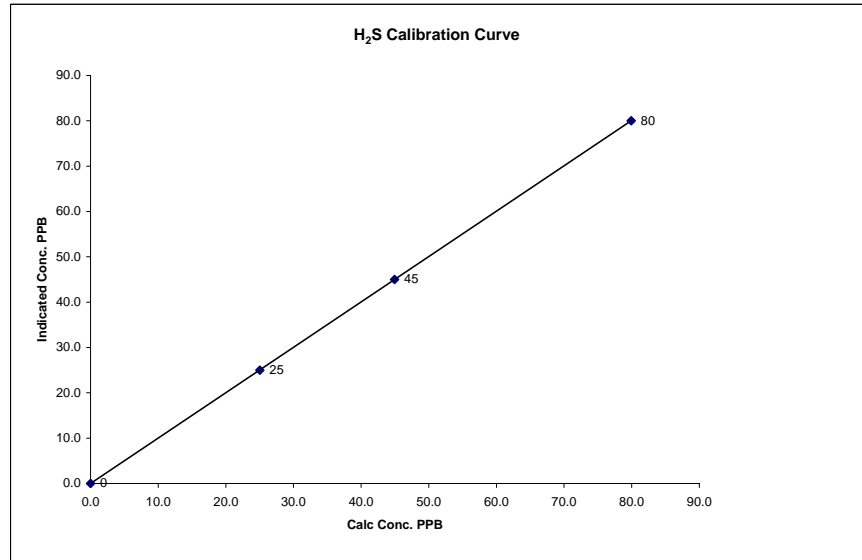
| | | | |
|--|-----|-------------------|------|
| Auto Zero | N/A | After Calibration | 0.0 |
| Auto Span | N/A | | 44.0 |
| Sample Lines Connected | | | YES |
| Percent Change from Previous Calibration | | | - |

Calibration Performed by: Shea Beaton

H₂S Calibration Curve

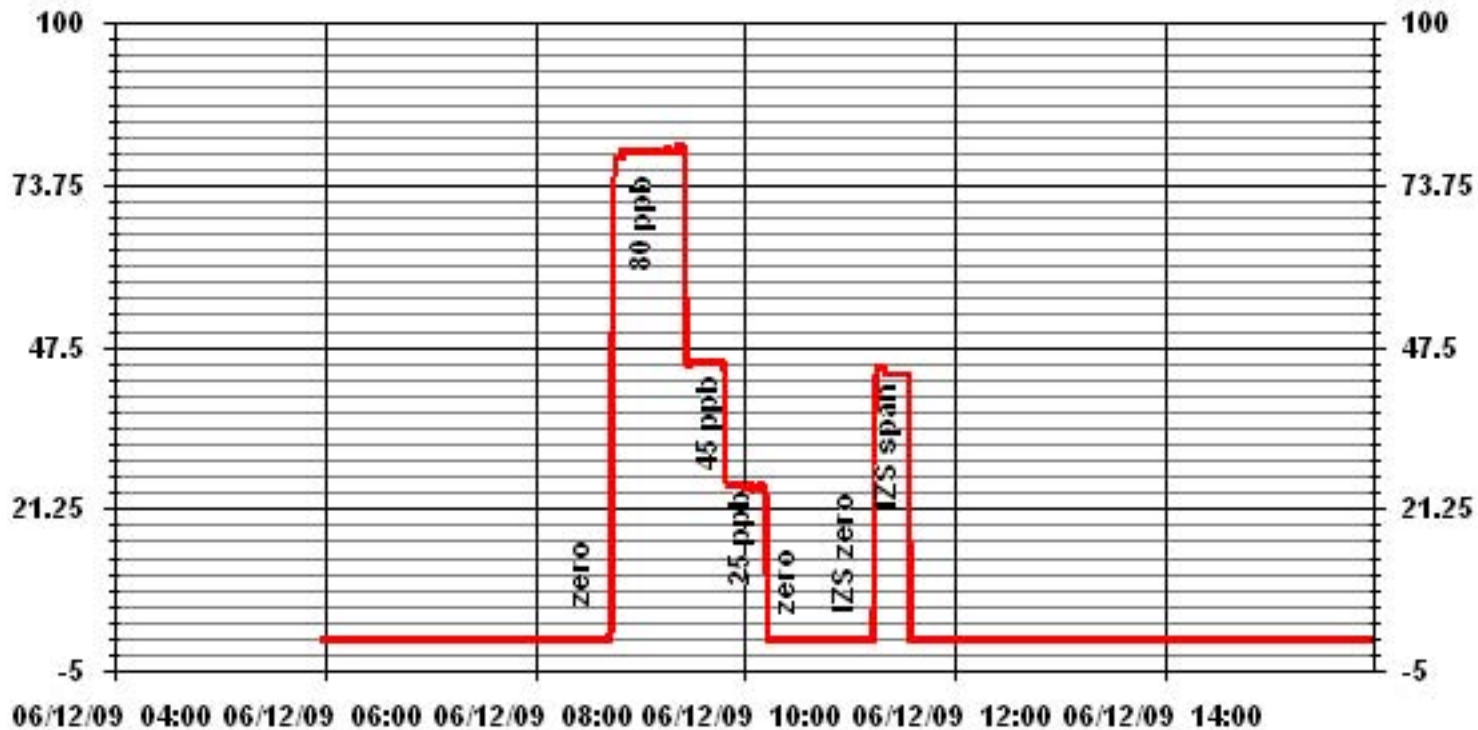
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | June 12, 2009 | | |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | ST.LINA | | |
| Start Time (MST) | 8:15 | End Time (MST) | 11:45 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) | (0.85 to 1.15) | 1.000000 |
|----------------------|------------------------|-------------------|-------------------------------|------------------|-------------------|-----------|
| 0 | 0 | n/a | Intercept | | ($\pm 3\%$ F.S.) | -0.012201 |
| 25 | 25 | 1.0007 | | | | |
| 45 | 45 | 0.9987 | | | | |
| 80 | 80 | 0.9991 | | | | |



Notes:

01 Minute Averages



H₂S Calibration Report

Station Information

| | | | | | |
|---------------------|---|----------------|----------------------|---------------|-------|
| Calibration Date | June 26, 2009 | | Previous Calibration | June 12, 2009 | |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | | | |
| Plant / Location | ST.LINA | | | | |
| Start Time (MST) | 15:00 | End Time (MST) | 19:05 | | |
| Reason: | Maintenance Check | | | | |
| Barometric Pressure | 27.75 | inHg | Station Temperature | 21 | Deg C |
| Cal Gas | 9.86 | ppm | Cal Gas Expiry date | 02/20/2009 | |
| DAS Output Voltage | 0 - 1 Volts | | | | |

Equipment Information

| | | | | | |
|--------------------------|----------|-------|-------|---------|-------------|
| Analyzer Make / Model: | API 101E | S/N : | 510 | Method: | Fluorescent |
| Converter Make / Model: | Internal | S/N : | N/A | | |
| Calibrator Make / Model: | API 700 | S/N : | 690 | Method: | Dilution |
| DAS Make / Model: | ESC 8832 | S/N : | A0717 | | |
| Flow Meter: | API 700 | S/N : | 690 | | |

Analyzer Settings

| | | Before Calibration | | After Calibration | |
|------------------------|-------|--------------------|------|-------------------|-------|
| Concentration Range | | 0 - 100 | | ppb | |
| Sample Flow / Box Temp | 544 | ccm | 33.9 | Deg C | 546 |
| HVPS / Lamp Setting | 534 | | 2115 | | 534 |
| PMT / RxCell Temp | 8.4 | Deg C | 50 | Deg C | 8.4 |
| Converter / IZS Temp | 314.8 | Deg C | 45 | Deg C | 315.6 |
| Offset / Slope | 48.2 | | 1.16 | | 48.2 |
| | | | | | 1.06 |

Calibration Data

| Dilution Flow Rate | Source Gas Flow Rate | Calculated Concentration | Indicated Conc. (DAS) | Correction Factor |
|-----------------------|----------------------|--------------------------|-----------------------|-------------------|
| 5000 | 0 | 0 | 0 | N/A |
| 4960 | 40 | 79 | 86 | 0.9172 |
| 4960 | 40 | 79 | 78 | 1.0113 |
| 4980 | 20 | 39 | 39 | 1.0113 |
| 4990 | 10 | 20 | 19 | 1.0379 |
| 5000 | 0 | 0 | 0 | N/A |
| Sum of Least Squares | | | | 1.0125 |
| New Correction Factor | | | | 1.0113 |

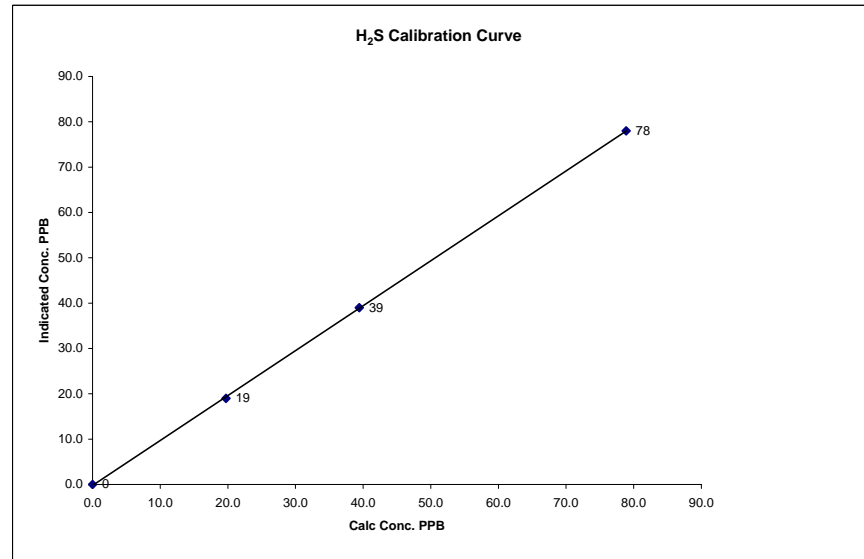
| | | Before Calibration | After Calibration |
|--|--|--------------------|-------------------|
| Auto Zero | | 0.9 | 0.8 |
| Auto Span | | 55.4 | 50.9 |
| Sample Lines Connected | | | YES |
| Percent Change from Previous Calibration | | | -1.2% |

Calibration Performed by: Shane Taylor

H₂S Calibration Curve

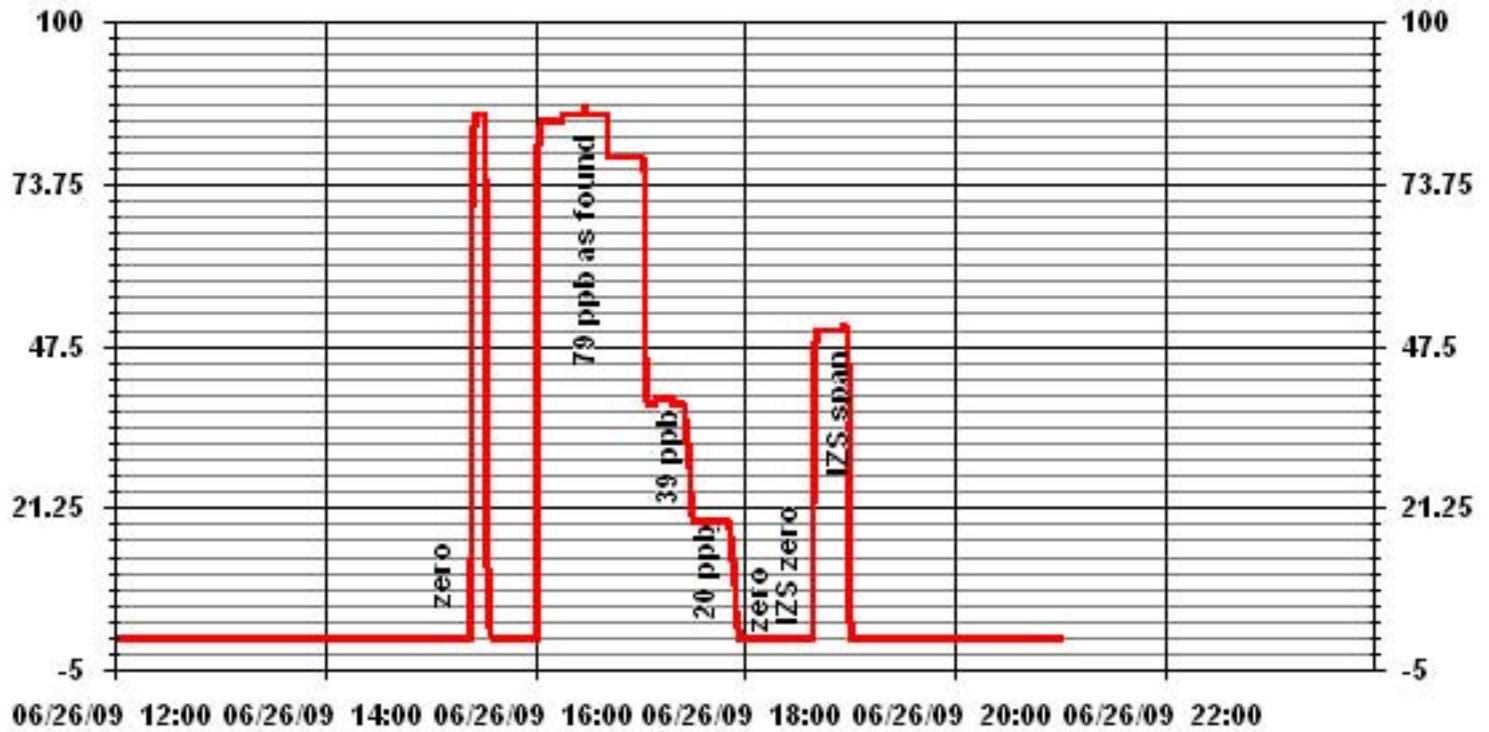
| | | |
|------------------|---|----------------|
| Calibration Date | June 26, 2009 | |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | |
| Plant / Location | ST.LINA | |
| Start Time (MST) | 15:00 | End Time (MST) |
| | | 19:05 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope | (≥ 0.995) (0.85 to 1.15) | 0.999949 |
|----------------------|------------------------|-------------------|-------------------------------|--------------------------|-----------|
| 0 | 0 | n/a | Intercept | (± 3% F.S.) | -0.200000 |
| 20 | 19 | 1.0379 | | | |
| 39 | 39 | 1.0113 | | | |
| 79 | 78 | 1.0113 | | | |



Notes: _____

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information

| | | | |
|------------------------|---|----------------------|--------------------------------------|
| Calibration Date: | June 11, 2009 | Previous Calibration | N/A |
| Company: | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location: | ST. LINA | | |
| : | (MST) 13:30 | End Time | (MST) 16:35 |
| Reason: | Installation Calibration | | |
| Barometric Pressure: | 695 mmHg | Station Temperature: | 25 Deg C |
| Calibrator: | API 700 | S/N: | 831 |
| Cal Gas Concentration: | 299 Prop/ 1019 Meth | ppm | Cal Gas Expiry Date: August 21, 2011 |
| DAS make & Model: | ESC 8832 | S/N : | A0717 |
| Output Voltage Range: | 0 - 10 VDC | | |

Analyzer Information

| | | | | | |
|--------------|----------|-------|-----------|--------|------------------|
| Make / Model | TECO 51C | S/N : | 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 | 8 | psi | 8 | psi |
| Air Pressure | 20 | psi | 20 | psi |

Calibration Data

| Dilution Flow | Source Gas Flow | Calculated Concentration | Indicated Concentration | Correction Factor |
|--------------------|-----------------|--------------------------|-------------------------|-------------------|
| | | | | |
| 3000 | 0.0 | 0.0 | 0.0 | N/A |
| 2997 | 65.9 | 39.6 | 39.7 | 0.9975 |
| 2995 | 35.3 | 21.5 | 21.2 | 1.0142 |
| 2995 | 20.2 | 12.3 | 12.1 | 1.0165 |
| 3009 | 0 | 0.0 | 0.0 | N/A |
| Correction Factor: | | | | 0.9975 |

| | |
|---|--------|
| Previous Calibration Correction Factor: | N/A |
| Current Correction Factor Before Span Adjust: | 0.9975 |
| Percent Change: | N/A |

IZS Calibration Data

| | Before Calibration | After Calibration |
|------------------------|--------------------|-------------------|
| Auto Zero | N/A | 0.0 |
| Auto Span | N/A | 45.4 |
| Sample Lines Connected | | YES |

Cylinder Pressures

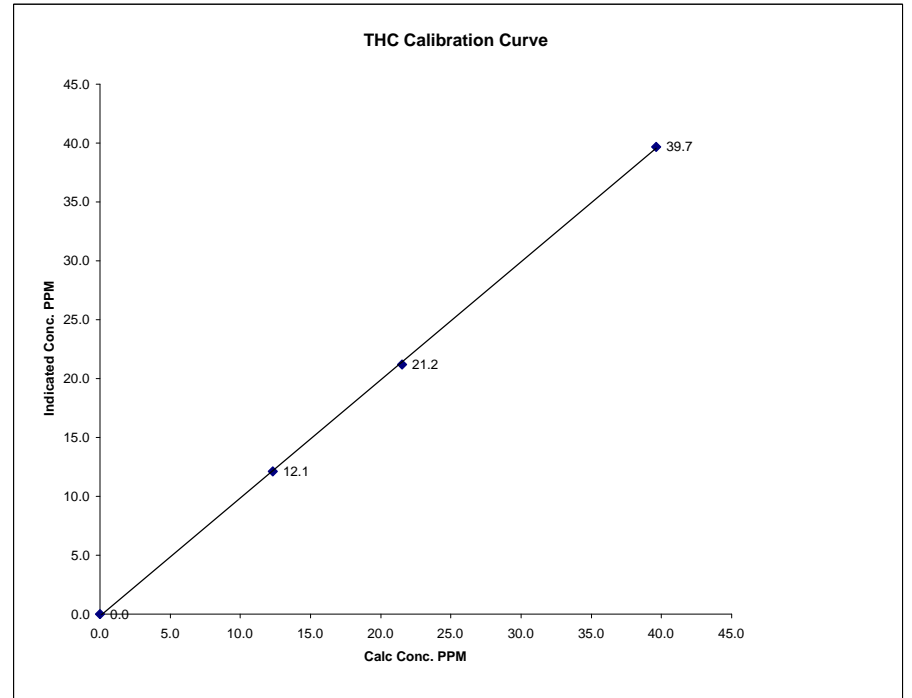
| | | |
|----------|------|-----|
| Span | 2000 | psi |
| Hydrogen | 2000 | psi |
| Zero Air | N/A | psi |

Calibration Performed by: Shane Taylor

THC Calibration Curve

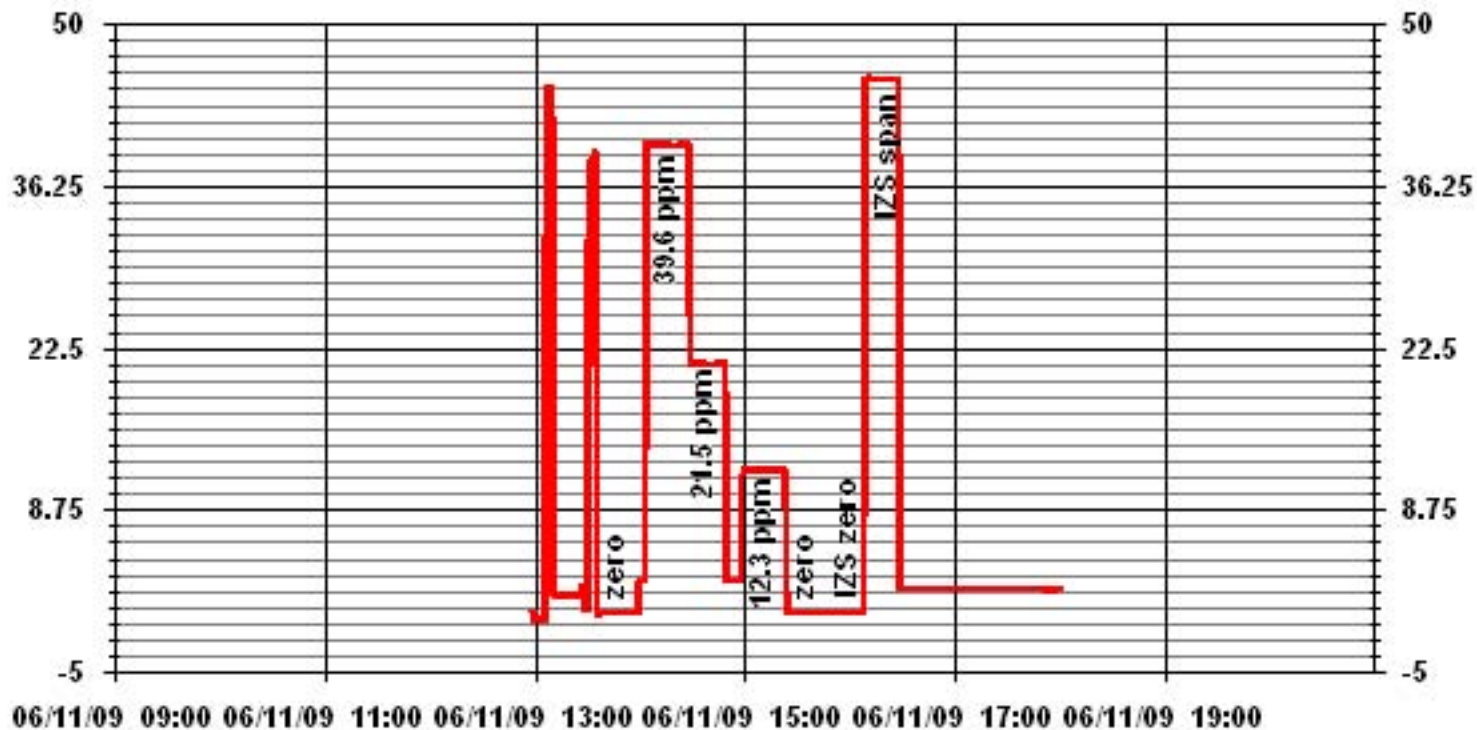
| | | | |
|------------------|---|----------------|-------|
| Calibration Date | June 11, 2009 | | |
| Company | LAKELAND INDUSTRY & COMMUNITY ASSOCIATION | | |
| Plant / Location | ST. LINA | | |
| Start Time (MST) | 13:30 | End Time (MST) | 16:35 |

| 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 | | 0.999889 | 1.002863 | -0.152535 |
| 12.3 | 12.1 | 1.0165 | | | |
| 21.5 | 21.2 | 1.0142 | | | |
| 39.6 | 39.7 | 0.9975 | | | |



Notes: Flame temp 177, Flows were manually measured for this cal.

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO2 Calibration Report
Station Information

| | | | |
|-----------------------|--------------------------|----------------------|------------|
| Calibration Date | June 12, 2009 | Previous Calibration | N/A |
| Company | LICA | Plant/Location | ST. LINA |
| Start Time (MST) | 8:15 | End Time (MST) | 14:10 |
| Reason: | Installation Calibration | | |
| Barometric Pressure | 697 mmHg | Station Temperature | 25.0 Deg C |
| Cal Gas Concentration | NOx 51.8 ppm | NO | 51.6 ppm |
| DAS Output Voltage | 0 - 1 Volts | Cal Gas Expiry date | 12/19/2010 |

Equipment Information

| | | | | | |
|--------------------------|-----------------|-------|-------|---------|------------------|
| Analyzer Make / Model: | API 200E | S/N : | 592 | Method: | Chemiluminescent |
| Calibrator Make / Model: | EnviroNics 2000 | S/N: | 1991 | | |
| DAS Make / Model: | ESC 8832 | S/N : | A0717 | | |
| Flow Meter: | EnviroNics 2000 | S/N : | 1991 | | |

Analyzer Settings

| Before Calibration | | | | After Calibration | | | |
|--------------------------|------------|-------------|--|-------------------|-------------|--|--|
| Concentration Range | 0 - 1000 | | | ppb | | | |
| Sample Flow/Conv. Temp | 451 ccm | 316.3 Deg C | | 451 ccm | 314.9 Deg C | | |
| Ozone Flow / Vacuum HVPS | 73 ccm | 3.6 *Hg-A | | 72 ccm | 3.6 *Hg-A | | |
| | 710 Volts | | | 710 Volts | | | |
| Rx/ Temp / PMT Temp | 50 Deg C | 6.9 Deg C | | 50 Deg C | 6.9 Deg C | | |
| Box Temp / IZS Temp | 31.1 Deg C | 45.3 Deg C | | 32 Deg C | 45.2 Deg C | | |
| Offset | 1.8 NOx | 0.5 NO | | 1.8 NOx | 0.5 NO | | |
| Slope | 1.01 NOx | 0.995 NO | | 1.001 NOx | 0.996 NO | | |

Gas Phase Titration Calibration Data

| Dilution Air Flow Rate | Source Flow Rate | O3 Set Point | Calculated Concentration | | Indicated Concentration | | | Correction Factor | |
|--------------------------------------|------------------|--------------|--------------------------|-----|-------------------------|-----|-----|-------------------|--------|
| | | | NOx | NO | NOx | NO | NO2 | NOx | NO |
| 4998.0 | 0 | N/A | 0 | 0 | -1 | 0 | 0 | N/A | N/A |
| 4923.0 | 77.5 | N/A | 803 | 800 | 809 | 802 | 7 | 0.9924 | 0.9972 |
| 4923.0 | 77.5 | N/A | 803 | 800 | 803 | 801 | 2 | 0.9998 | 0.9984 |
| 4968.0 | 38.8 | N/A | 401 | 400 | 398 | 397 | 1 | 1.0086 | 1.0072 |
| 4987.0 | 19.4 | N/A | 201 | 200 | 198 | 199 | -1 | 1.0138 | 1.0048 |
| 5006.0 | 0 | N/A | 0 | 0 | 0 | 0 | -1 | N/A | N/A |
| Converter Efficiency | | | | | | | | | |
| 4923.0 | 77.5 | N/A | 803 | 800 | 805 | 803 | 2 | N/A | |
| 4923.0 | 77.5 | 400 | 803 | N/A | 802 | 436 | 365 | 99% | |
| 4923.0 | 77.5 | 200 | 803 | N/A | 805 | 619 | 185 | 99% | |
| 4923.0 | 77.5 | 100 | 803 | N/A | 805 | 712 | 93 | 100% | |
| 4923.0 | 77.5 | N/A | 803 | 800 | 806 | 804 | 2 | N/A | |
| Correction Factor | | | | | | | | | |
| 5009.0 | 0 | N/A | 0 | 0 | 0 | 1 | -1 | N/A | N/A |
| Linearity OK? Yes No | | | | | | | | | |
| Flows Checked on-site? Yes No | | | | | | | | | |
| Sum of Least Squares | | | | | | | | 1.0021 | 1.0004 |
| New Correction Factor | | | | | | | | 0.9998 | 0.9984 |
| Average Converter Efficiency | | | | | | | | 99% | |

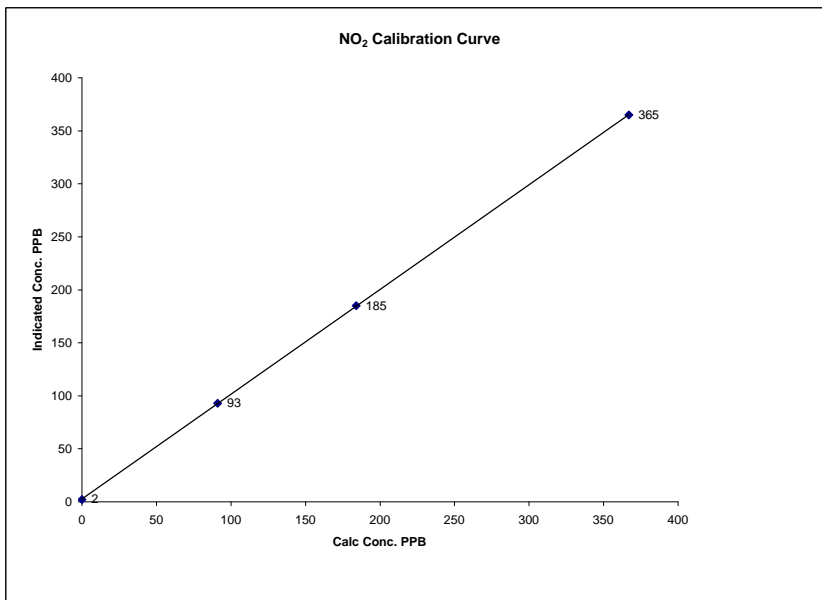
| Before Calibration | | | | After Calibration | | | | |
|--|-----|-----|-----|-------------------|-------|-----|-------|---------------|
| Auto Zero | N/A | NOx | N/A | NO2 | -0.8 | NOx | -1.4 | |
| Auto Span | N/A | NOx | N/A | NO2 | 689.0 | NOx | 671.0 | |
| Sample Lines Connected | | | | | | | | YES |
| Percent Change from Previous Calibration | | | | | | | | NOx N/A NO NO |

Calibration Performed by: Shea Beaton

NO2 Calibration Curve

| | |
|------------------|---------------|
| Calibration Date | June 12, 2009 |
| Company | LICA |
| Plant / Location | ST. LINA |
| Start Time (MST) | 8:15 |
| End Time (MST) | 14:10 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient Slope Intercept | (≥ 0.995) (0.85 to 1.15) (± 3% F.S.) |
|----------------------|------------------------|-------------------|---|--------------------------------------|
| 0 | 2 | N/A | | 0.999987 |
| 91 | 93 | 0.9785 | | 0.988487 |
| 184 | 185 | 0.9946 | | |
| 367 | 365 | 1.0055 | | 2.597865 |

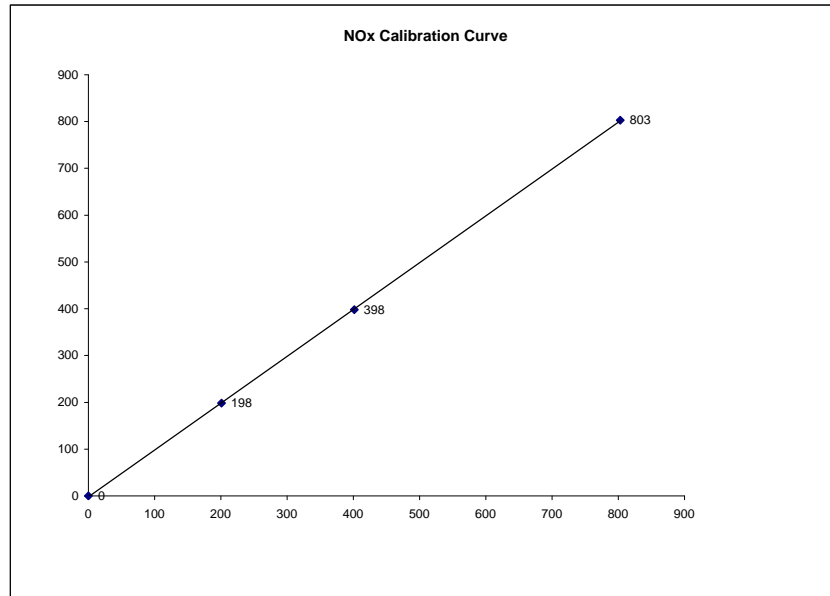


Notes:

NOx Calibration Curve

| | | |
|------------------|---------------|----------------------|
| Calibration Date | June 12, 2009 | |
| Company | LICA | |
| Plant / Location | ST. LINA | |
| Start Time (MST) | 8:15 | End Time (MST) 14:10 |

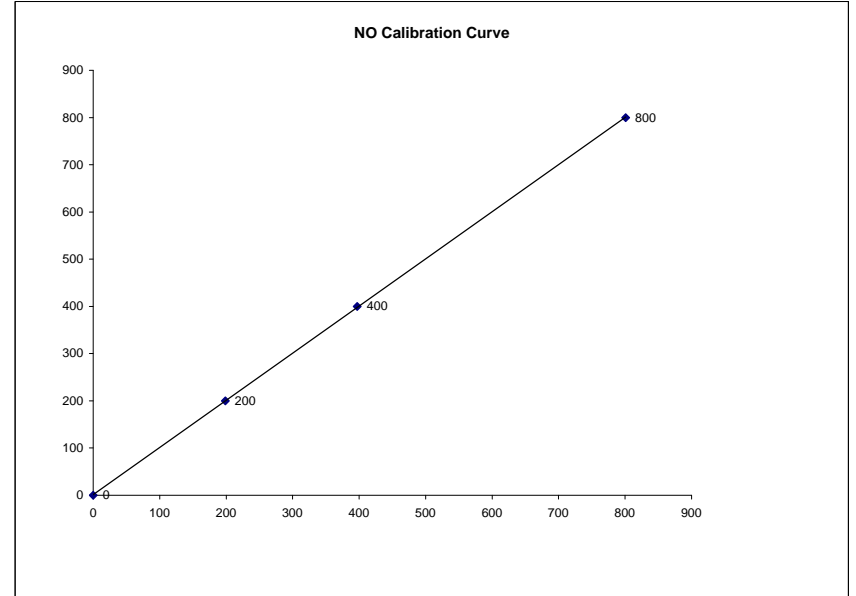
| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient | (≥ 0.995) | 0.999972 |
|----------------------|------------------------|-------------------|-------------------------|-------------------|-----------|
| 0 | 0 | N/A | Slope | (0.85 to 1.15) | 1.000908 |
| 201 | 198 | 1.0138 | Intercept | ($\pm 3\%$ F.S.) | -1.811259 |
| 401 | 398 | 1.0086 | | | |
| 803 | 803 | 0.9998 | | | |



NO Calibration Curve

| | | |
|------------------|---------------|----------------------|
| Calibration Date | June 12, 2009 | |
| Company | LICA | |
| Plant / Location | ST. LINA | |
| Start Time (MST) | 8:15 | End Time (MST) 14:10 |

| Calculated Conc. ppb | Indicated Response ppb | Correction Factor | Correlation Coefficient | (≥ 0.995) | 0.999977 |
|----------------------|------------------------|-------------------|-------------------------|-------------------|-----------|
| 0 | 0 | N/A | Slope | (0.85 to 1.15) | 1.001644 |
| 200 | 199 | 1.0048 | Intercept | ($\pm 3\%$ F.S.) | -1.211242 |
| 400 | 397 | 1.0072 | | | |
| 800 | 801 | 0.9984 | | | |



01 Minute Averages

