

November 23, 2007

**Lakeland Industry & Community Association**

Box8237  
5006-50 Avenue  
Bonnyville, Alberta  
T9N 2J5

**ATTENTION: Mr. Mike Bisaga**

**REFERENCE: Ambient Air Monitoring Report For October 2007**

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Maxxam Analytics Inc. is pleased to submit this report of data collected at the Ambient Air Monitoring Station located at the Lakeland Industry & Community Assoc. Cold Lake site for the month of October 2007.

Included is a summary of the monthly continuous and hourly average reports, equipment calibration reports, as well as a brief description of the calibration procedure. The passive network data are also included in this report.

During the month of October 2007 the following proceedings were noted:

**Cold Lake South Site**

- All analyzers and wind systems were all above 90% uptime objective for the month.
- All data was within Provincial objectives for the month.
- All data was corrected using daily zero calibration data. Furthermore the PM 2.5 data was corrected using Alberta Environment correction standards.
- There was 0 hours of data for THC that was invalidated as no concentrations fell below the historical background average of 1.5 ppm, a concentration agreed to with the LICA Program Manager.
- The PM 2.5 was unstable for 1 hour during the month the data was subsequently invalidated.
- On October 13<sup>th</sup> there was 1 hour of data missing for an undetermined reason. All parameters with the exception of temperature were affected.
- On October 2<sup>nd</sup> a Thomas wobble pump that was used with the original Ozone analyzer was rebuilt. The pump was further re-connected to the new Ozone analyzer and the internal pump disconnected. The 'As Found' calibration was completed prior to the switch of the pumps with the regular monthly calibration occurring afterwards.
- On October 25<sup>th</sup> dropped off a bottle of methane span gas and also removed pump closet exhaust fan, as it was not functioning.
- On October 30<sup>th</sup> the pump closet exhaust fan was replaced.

### Passive Network

A summary of the passive monitoring are reported as follows:

- Monitoring period averages for O<sub>3</sub> ranged from 15.3 – 46.9 ppb.
- Monitoring period averages for SO<sub>2</sub> ranged from <0.1 – 1.3 ppb.
- Monitoring period averages for NO<sub>2</sub> ranged from 0.6 – 5.6 ppb.
- Monitoring period averages for H<sub>2</sub>S ranged from 0.03 – 0.34 ppb.

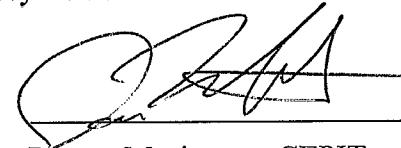
Site #20 – Sampler shelter was destroyed by a gunshot. No samplers analyzed. The shelter was replaced. This is a re-occurring incident at this site.

Site #10 – Sampler was replaced as original sampler damaged. This was previous damage that occurred to the sampler, replacement occurred, as duplicate sampling was needed for the next month's sampling session.

Please feel free to contact either of Craig Snider at (403) 219-3689 or Darren Morissette (403)-219-3661, should you have any questions concerning this report.

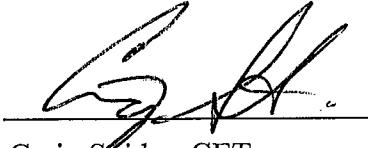
Sincerely,  
Maxxam Analytics Inc.

Prepared by:



Darren Morissette, CEPIT  
Senior Technologist

Reviewed by:



Craig Snider, CET  
Ambient Manager

**Lakeland Industry & Community Association**  
Cold Lake Monitoring Site  
Ambient Air Monitoring  
Data Report  
For  
October 2007

Prepared By:

**MAXXAM ANALYTICS INC.**

# **Lakeland Industry & Community Assoc.**

## **COLD LAKE**

### **AMBIENT AIR MONITORING STATION**

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## **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*.

# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

## MONTHLY CONTINUOUS DATA SUMMARY

### COLD LAKE

**Continuous Ambient Monitoring – October 2007**

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION COLD LAKE SITE					MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)	
					1-HOUR				24-HOUR		
PARAMETER	OBJECTIVES		EXCEEDENCES		MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
	1-HR	24-HR	1-HR	24-HR							
SO <sub>2</sub> (PPB)	172	57	0	0	0.14	4	27	11	1.1	31	99.9
TRS (PPB)	-	-	-	-	0.00	0	ALL	ALL	0	ALL	99.9
NO <sub>2</sub> (PPB)	212	106	0	0	3.83	24	12	9	10.3	19	99.9
NO (PPB)	-	-	-	-	1.03	43	19	8	8.2	19	99.9
NOx (PPB)	-	-	-	-	5.09	64	12	9	18.8	19	99.9
O <sub>3</sub> (PPB)	82	-	0	-	21.55	43	24	19	31.5	25	99.9
THC (PPM)	-	-	-	-	2.00	4.3	28	19	2.5	20	99.9
PM 2.5 (UG/M <sup>3</sup> )	-	30	-	0	2.58	11.1	17	15	7.3	17	99.7
TEMPERATURE (DEG C)	-	-	-	-	4.89	18.3	15	14	10.7	15	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	66.81	97.4	14	7	84.6	11	99.9
VECTOR WS (KPH)	-	-	-	-	6.61	27.6	25	14	16.2	10	99.9
VECTOR WD (DEGREES)	-	-	-	-	S	-	-	-	-	-	99.9

**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION  
Passive Ambient Monitoring Network – October 2007**

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM (PPB)		NETWORK AVERAGE (PPB)	
PARAMETER	STATION	READING	READING
NO <sub>2</sub>	25	5.6	2.0
SO <sub>2</sub>	13	1.3	<0.4
H <sub>2</sub> S	4	0.34	0.11
O <sub>3</sub>	2	46.9	21.9

## **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

S02

- Analyzer make / model TECO 43A

No operational issues during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. There was one hour of missing data on October 13<sup>th</sup>, 2007.

TRS

- Analyzer make / model TECO 43A

## CD NOVA CDN 101 Converter

No operational issues during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. There was one hour of missing data on October 13<sup>th</sup>, 2007.

THC

- Analyzer make / model TECO 51C-LT

No operational issues during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. It was agreed to with the LICA Program Manager to invalidate all data, after zero correction, which falls below the historical background average of 1.5 ppm. As a result 0 hours of data was invalidated and the uptime was at 100.0%. There was one hour of missing data on October 13<sup>th</sup>, 2007.

NO<sub>x</sub>

- Analyzer make / model TECO 42C

No operational issues during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. There was one hour of missing data on October 13<sup>th</sup>, 2007.

### **O<sub>3</sub>**

- Analyzer make / model

TECO 49I

No operational issues during the month. The original external pump being used with the original analyzer was rebuilt and re-connected to the new analyzer. The internal pump was disconnected. The pump replacement occurred after ‘As Found’ points were completed on the analyzer afterwards the regular monthly calibration occurred. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. There was one hour of missing data on October 13<sup>th</sup>, 2007.

### **PM 2.5**

- Analyzer make / model

TEOM 1400A

No operational issues during the month. There were one hour of instability during the month; the data was subsequently invalidated. There was one hour of missing data on October 13<sup>th</sup>, 2007.

### **Wind Speed & Direction**

- 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. There was one hour of missing data on October 13<sup>th</sup>, 2007.

### **Relative Humidity**

- System make / model

Rotronic Hygroclip-S3

No operational issues observed during the month. There was one hour of missing data on October 13<sup>th</sup>, 2007.

### **Temperature**

- System make / model

Rotronic Hygroclip-S3

No operational issues observed during the month.

### **Datalogger**

- System make / model
- Software make / version

ESC 8832

ESC v 5.51a

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

## **Trailer**

- A bottle of Methane Span gas was dropped off, also a non functioning exhaust fan for the pump closet was removed for replacement on October 25<sup>th</sup>, 2007.
- Replaced closet exhaust fan.

## **Air Quality Index (AQI)**

The AQI data was adjusted to reflect regular monthly calibrations, maintenance, and downtime and daily calibrations.

## **Passive Network**

- Site #20 – Sampler was destroyed by shotgun blast. The sampler was replaced. This is a reoccurring incidence at this site.
- Site #10 – Sampler was replaced as original sampler damaged. This was previous damage that occurred to the sampler, replacement occurred, as duplicate sampling was needed for the next month's sampling session.

**LICA - COLD LAKE SITE**

**MONTHLY SUMMARIES,**

**GRAPHS**

**&**

**WIND ROSES**

# **AIR QUALITY INDEX**

**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE**

OCTOBER 2007

**AIR QUALITY INDEX (AQI)**

HOUR START DAY	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	
1	12	11	11	10	10	8	5	NA	7	9	NA	NA	NA	NA	NA	9	10	9	8	4	2	1	1	0	12	
2	O3_	-	O3_	O3_	-	-	-	-	-	O3_	PM2	PM2	O3_													
3	1	1	2	2	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	14	15	15	14	15	14	13	10	15
4	PM2	PM2	PM2	PM2	PM2	PM2	-	-	-	-	-	-	-	-	-	O3_	O3_	O3_								
5	13	10	9	8	8	NA	4	6	9	11	13	15	15	15	12	11	10	8	7	7	7	7	9	8	15	
6	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
7	7	7	8	8	NA	10	10	9	10	11	12	13	13	13	13	12	12	12	10	7	5	10	11	7	13	
8	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
9	4	3	3	NA	6	6	1	6	10	12	13	13	14	14	14	14	14	14	12	10	11	11	11	11	14	
10	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
11	11	10	NA	9	8	8	8	7	10	13	14	14	14	14	14	13	13	12	11	9	10	10	9	8	14	
12	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
13	7	NA	4	8	5	4	5	8	8	10	14	17	17	17	19	19	18	17	17	16	16	16	16	15	19	
14	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
15	13	11	9	4	3	3	4	5	11	17	18	18	18	19	19	18	17	15	13	9	5	4	NA	19		
16	-	O3_	O3_	O3_	O3_	O3_	-	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	
17	5	2	1	1	2	2	3	7	6	7	14	17	17	17	17	17	17	16	16	16	16	16	16	16	17	
18	O3_	PM2	PM2	O3_	PM2	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
19	15	15	14	14	12	10	14	13	14	14	14	15	15	15	16	16	16	16	16	16	16	16	15	17		
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21	15	15	14	14	12	11	10	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9		
22	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
23	15	15	14	14	13	12	10	9	8	9	9	9	10	11	12	NA	12	10	9	8	7	7	6	7	15	
24	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
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26	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
27	9	10	9	8	7	6	8	6	8	10	11	14	17	NA	19	19	18	10	5	5	3	2	4	19		
28	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
29	9	8	7	6	5	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4		
30	O3_	O3_	O3_	O3_	O3_	O3_	-	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	
31	NA	11	9	9	9	8	8	8	9	11	13	16	17	17	17	17	14	7	7	11	11	14	13	NA	17	
PEAK	16	16	15	14	15	15	16	14	16	16	19	19	19	20	20	21	20	20	22	21	20	19	18	17		
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_										

**STATUS FLAG CODES**

NA - NOT APPLICABLE

**AQI SUMMARY**

AQI CLASS	O3	PM 2.5	NO2	SO2	FREQ
VERY POOR (101 - 255)	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%
POOR (51 - 100)	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%
FAIR (26 - 50)	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%
GOOD (1 - 25)	617 hrs 82.93%	77 hrs 10.35%	0 hrs 0.00%	0 hrs 0.00%	694 hrs 93.28%
OVERALL	617 hrs 82.93%	77 hrs 10.35%	0 hrs 0.00%	0 hrs 0.00%	694 hrs 93.28%
UNAVAILABLE	-	-	-	-	50 hrs 6.72%

**MOUNTAIN STANDARD TIME**

**SO<sub>2</sub>**

**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE**

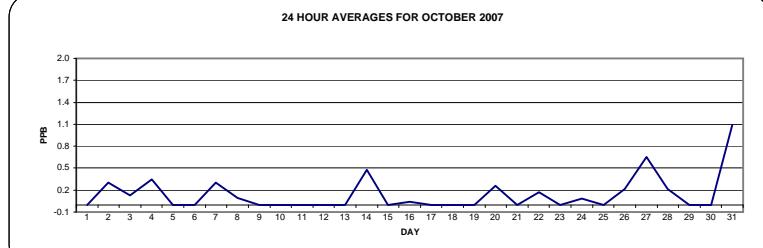
OCTOBER 2007

**SULPHUR DIOXIDE (SO<sub>2</sub>)** 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	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	0	0	<b>IZS</b>	0	0	C	C	C	<b>IZS</b>	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
2	0	0	0	0	0	0	<b>IZS</b>	0	0	1	1	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0.3	0.3	24
3	0	0	0	0	0	<b>IZS</b>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0.1	0.1	24	
4	1	1	1	0	<b>IZS</b>	0	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.1	0.3	24
5	0	0	0	<b>IZS</b>	0	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	<b>IZS</b>	0	0	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	<b>IZS</b>	0	0	0	0	0	0	0	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	24
8	<b>IZS</b>	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>IZS</b>	1	0.1	24
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>IZS</b>	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	<b>IZS</b>	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	<b>IZS</b>	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	<b>IZS</b>	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	<b>IZS</b>	0	0	<b>M</b>	0	0	0	0.0	23		
14	0	0	0	0	0	0	0	0	0	0	0	3	3	2	1	1	1	<b>IZS</b>	0	0	0	0	0	0	0.5	0.5	24	
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>IZS</b>	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	<b>IZS</b>	0	0	0	0	0	0	1	0.0	24		
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>IZS</b>	0	0	0	0	0	0	0	0.0	24			
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>IZS</b>	0	0	0	0	0	0	0	0	0.0	24			
19	0	0	0	0	0	0	0	0	0	0	0	0	<b>IZS</b>	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	1	<b>IZS</b>	3	2	0	0	0	0	0	0	0	0	0	0	3	0.3	24	
21	0	0	0	0	0	0	0	0	0	0	<b>IZS</b>	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	1	<b>IZS</b>	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
23	0	0	0	0	0	0	0	0	<b>IZS</b>	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	<b>IZS</b>	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0.1	24	
25	0	0	0	0	0	<b>IZS</b>	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	<b>IZS</b>	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
27	0	0	0	<b>IZS</b>	0	0	0	1	1	4	3	1	1	1	1	0	0	0	0	0	0	1	0	1	0.7	24		
28	0	0	<b>IZS</b>	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
29	0	0	<b>IZS</b>	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	<b>IZS</b>	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		
31	<b>IZS</b>	0	0	0	1	1	1	1	2	2	2	1	1	1	2	2	1	1	1	1	1	1	<b>IZS</b>	2	<b>1.1</b>	24		
HOURLY MAX	1	1	1	0	1	1	1	1	2	4	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1			
HOURLY AVG	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0				

**STATUS FLAG CODES**

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



**OBJECTIVE LIMIT:**

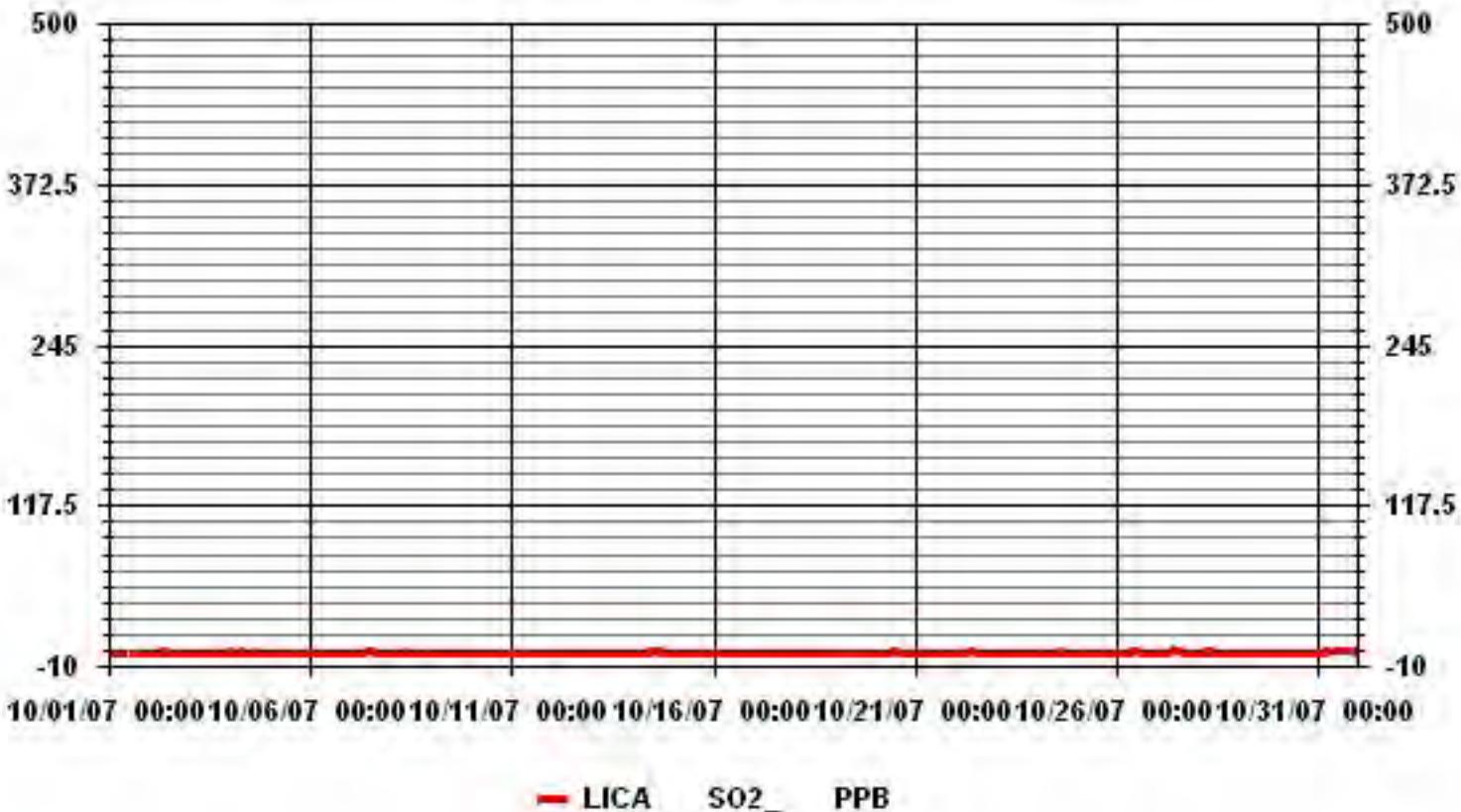
ALBERTA ENVIRONMENT: 1-HR 172 PPB 24-HR 57 PPB

**MONTHLY SUMMARY**

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	80
MAXIMUM 1-HR AVERAGE:	4 PPB @ HOUR(S) 11 ON DAY(S) 27
MAXIMUM 24-HR AVERAGE:	1.1 PPB ON DAY(S) 31
Izs Calibration Time:	34 HRS Operational Time: 743 HRS
Monthly Calibration Time:	4 HRS AMD Operation Uptime: 99.9 %
Standard Deviation:	0.45 Monthly Average: 0.14 PPB

**MOUNTAIN STANDARD TIME**

### 01 Hour Averages



**LICA**  
**SO2\_ / WD Joint Frequency Distribution (Percent)**

October 2007

**Distribution By % Of Samples**

Logger Id : 01  
Site Name : LICA  
Parameter : SO2\_  
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
< 20	.85	1.13	.85	3.68	6.09	12.19	20.85	1.98	3.97	3.26	9.92	15.88	11.20	4.82	1.84	1.41	100.00
< 60	.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	
< 170	.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	
>= 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
<b>Totals</b>	<b>.85</b>	<b>1.13</b>	<b>.85</b>	<b>3.68</b>	<b>6.09</b>	<b>12.19</b>	<b>20.85</b>	<b>1.98</b>	<b>3.97</b>	<b>3.26</b>	<b>9.92</b>	<b>15.88</b>	<b>11.20</b>	<b>4.82</b>	<b>1.84</b>	<b>1.41</b>	

Calm : .00 %

Total # Operational Hours : 705

**Distribution By Samples**

**Direction**

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	6	8	6	26	43	86	147	14	28	23	70	112	79	34	13	10	705
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
<b>Totals</b>	<b>6</b>	<b>8</b>	<b>6</b>	<b>26</b>	<b>43</b>	<b>86</b>	<b>147</b>	<b>14</b>	<b>28</b>	<b>23</b>	<b>70</b>	<b>112</b>	<b>79</b>	<b>34</b>	<b>13</b>	<b>10</b>	

Calm : .00 %

Total # Operational Hours : 705

Logger : 01 Parameter : SO2

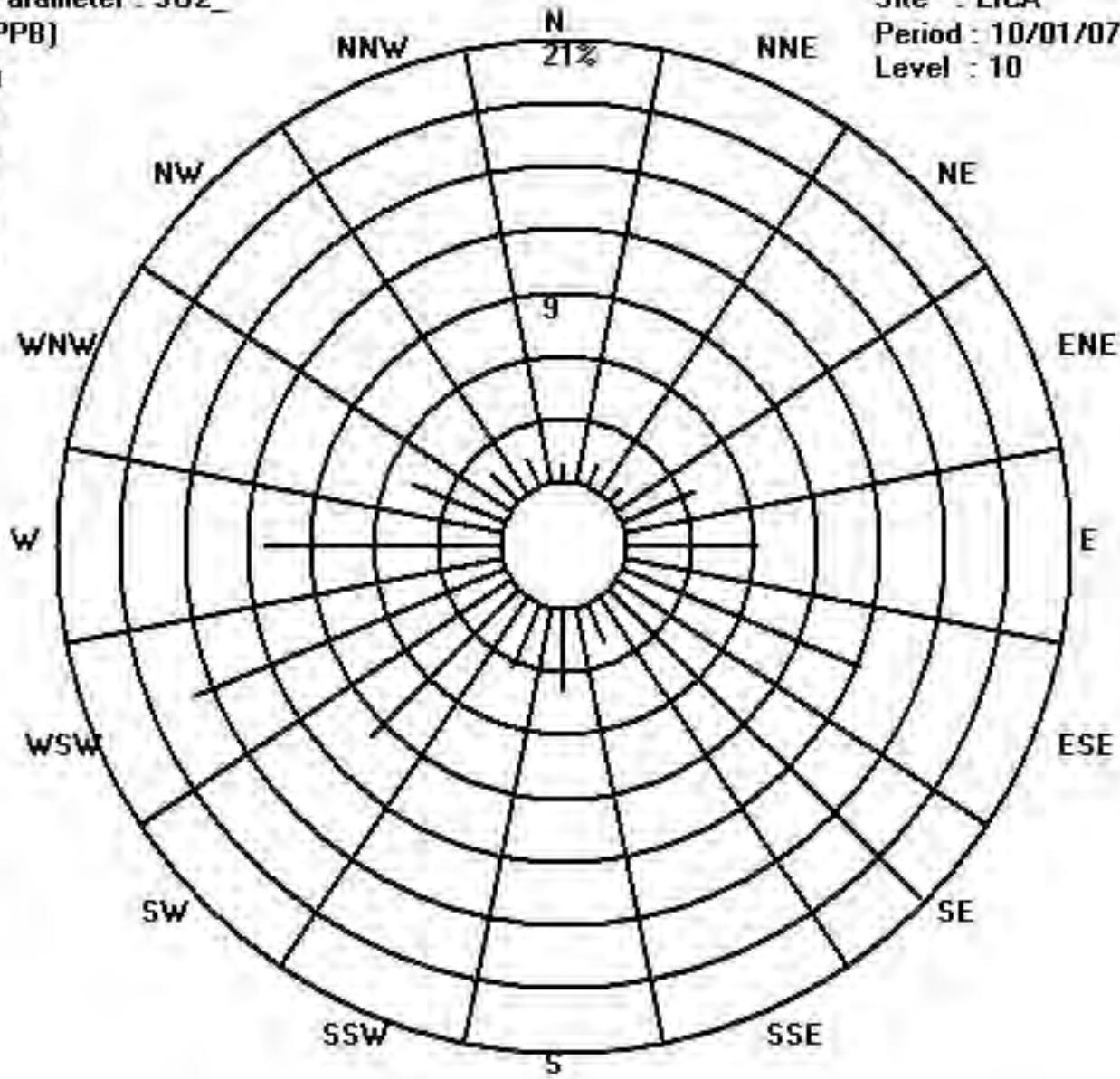
Class Limits (PPB)



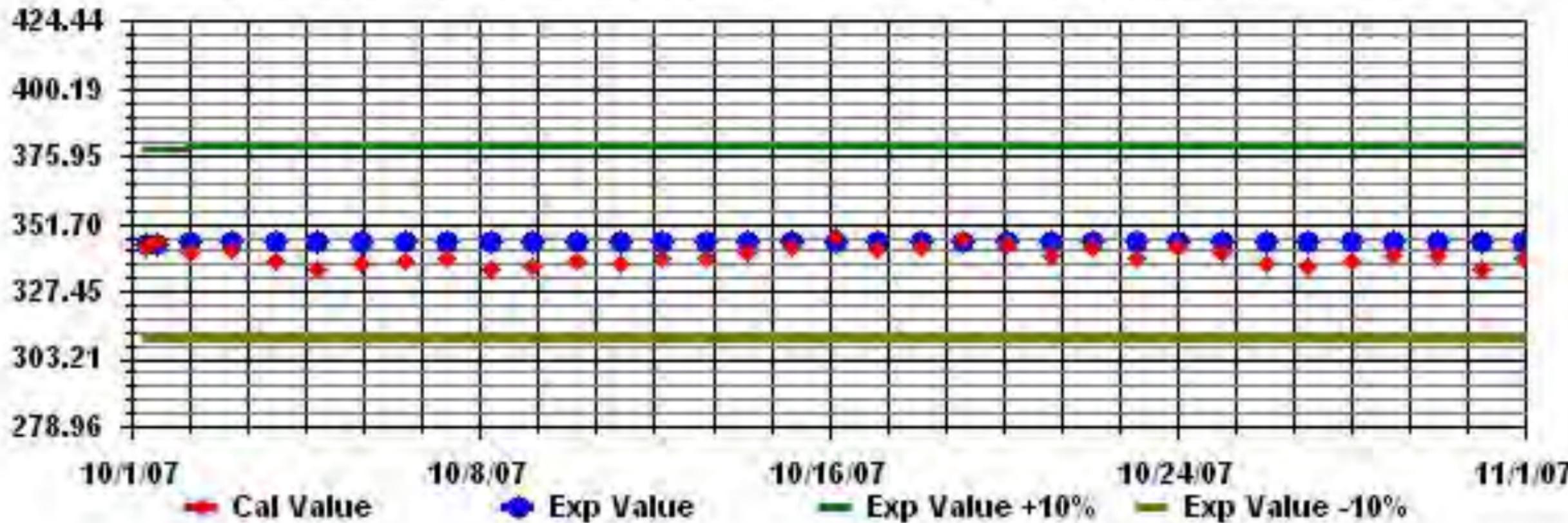
Site : LICA

Period : 10/01/07-10/31/07

Level : 10



Calibration Graph for Site: LICA Parameter: SO2\_ Sequence: SO2 Phase: SPAN



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

## SULPHUR DIOXIDE MAX instantaneous maximum in ppt

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGs.	
DAY																												
1	1	1	1	1	1	1	1	Izs	1	1	C	C	C	Izs	1	1	1	1	1	0	1	1	1	1	1	1	0.9	24
2	1	1	1	1	1	1	Izs	1	1	2	2	2	1	2	2	2	1	1	1	1	1	0	1	1	2	1.2	24	
3	1	1	1	1	0	Izs	1	1	1	1	1	0	1	0	1	0	1	1	1	1	2	1	1	2	0.8	24		
4	1	2	1	1	Izs	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1	24	
5	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		
6	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		
7	1	Izs	1	1	1	1	1	1	1	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	3	1.3	24	
8	Izs	1	1	1	1	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1	Izs	1	1	Izs	3	1.1	24	
9	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	Izs	1	1	1	1	1.1	24	
10	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		
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Izs	1	1	1	1	1	1.0	24		
12	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	Izs	1	1	1	1	4	1.1	24		
13	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	Izs	1	1	M	1	1	2	1.0	23		
14	1	1	1	0	1	1	1	1	1	2	5	4	3	2	2	Izs	1	1	1	1	1	1	1	5	1.5	24		
15	1	1	1	1	1	2	1	1	1	1	1	1	1	1	Izs	1	1	1	1	1	1	1	2	1.0	24			
16	1	1	1	1	1	1	1	1	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1.0	24			
17	1	1	1	1	1	1	1	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1	1	1.0	24		
18	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		
19	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		
20	1	1	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1	1	1	7	1	1	1.4	24			
21	1	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24		
22	1	1	1	1	1	1	Izs	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24		
23	1	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24		
24	1	1	1	1	1	Izs	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	2	1.1	24		
25	1	1	1	1	1	Izs	1	1	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
26	1	1	1	1	Izs	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1.2	24		
27	1	1	1	1	Izs	1	1	1	2	8	3	2	2	1	1	1	1	1	1	1	1	1	1	1	8	1.5	24	
28	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	
29	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	
30	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		
31	Izs	1	1	1	1	2	2	2	3	3	2	2	2	2	3	3	2	1	1	2	2	Izs	3	1.9	24			
HOURLY MAX	1	2	1	1	2	1	2	4	2	3	8	5	5	7	2	3	3	2	1	1	2	2	2	1				
HOURLY AVG	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.3	1.6	1.3	1.4	1.4	1.1	1.2	1.0	1.0	1.0	1.0	1.0	1.1	1.0	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

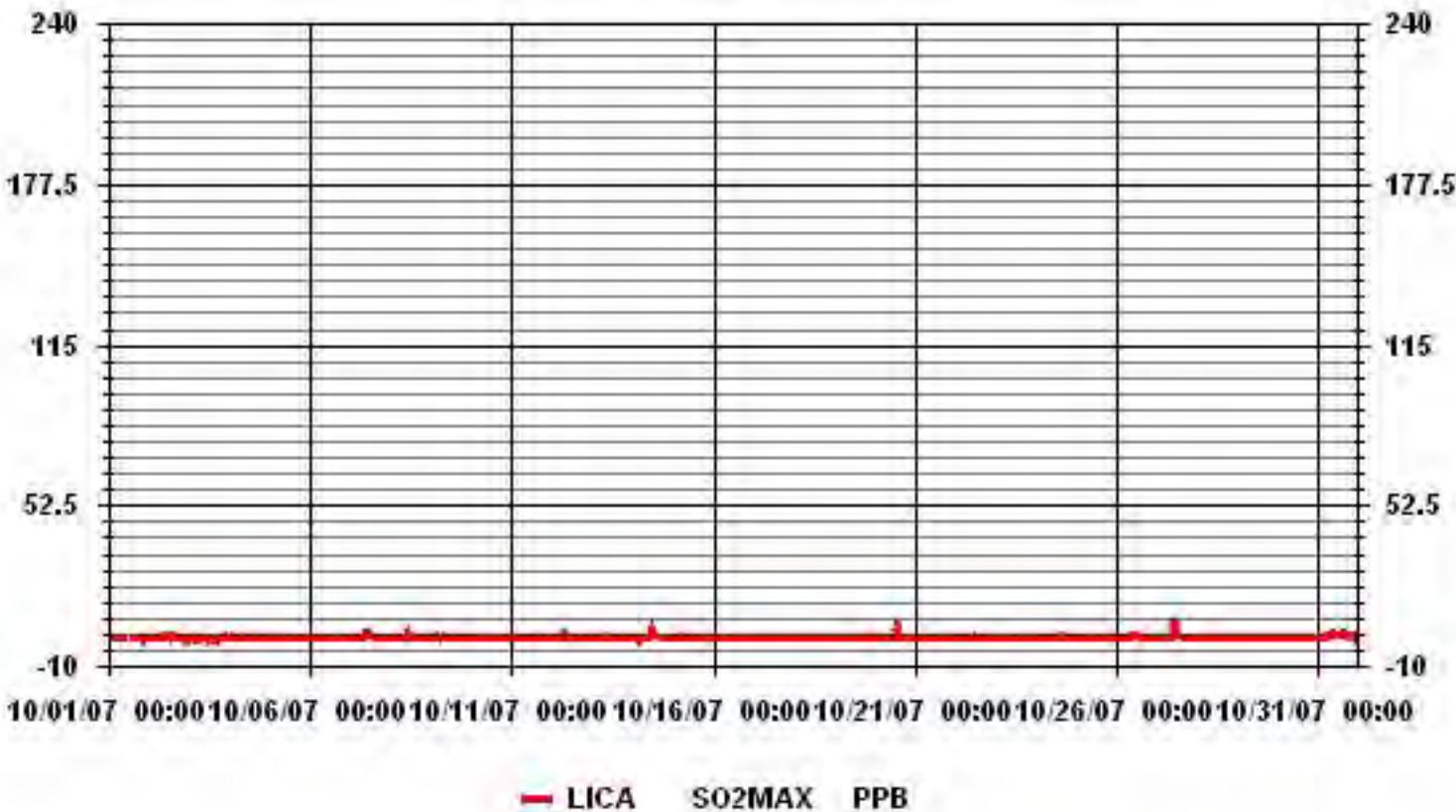
NUMBER OF NON-ZERO READINGS:	697
MAXIMUM INSTANTANEOUS VALUE:	8 PPB @ HOUR(S) 11 ON DAY(S) 27

Izs CALIBRATION TIME:	34 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	4 HRS		
STANDARD DEVIATION:	0.55		

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



**TRS**

**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE**

OCTOBER 2007

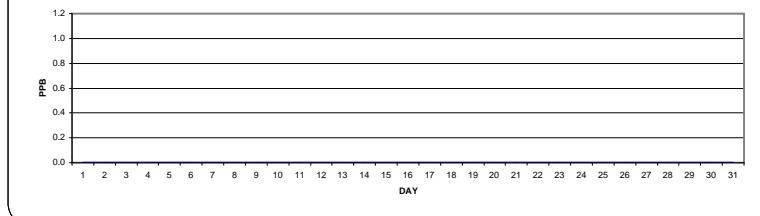
**TOTAL REDUCED SULPHUR (TRS)** hourly averages in ppb

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
DAY																											
1	0	0	0	0	0	0	0	Izs	0	0	C	C	C	Izs	0	0	0	0	0	0	0	0	0	0	0.0	24	
2	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	
3	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	
4	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	
5	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	
6	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	
7	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	
8	Izs	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	Izs	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	Izs	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	Izs	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	Izs	0	0	0	0	0	0	0.0	24	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Izs	0	0	M	0	0	0	0	0	0.0	23		
14	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	0	0	0	0	0	0	0	0	0	0	Izs	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	Izs	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	Izs	0	0	0	0	0	0	0	0	0	0.0	24	
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Izs	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	Izs	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	24	
21	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	Izs	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	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	Izs	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	Izs	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	Izs	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	24	
28	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	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	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	
31	Izs	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	
HOURLY MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HOURLY AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

**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

**24 HOUR AVERAGES FOR OCTOBER 2007**



**OBJECTIVE LIMIT:**

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

**MONTHLY SUMMARY**

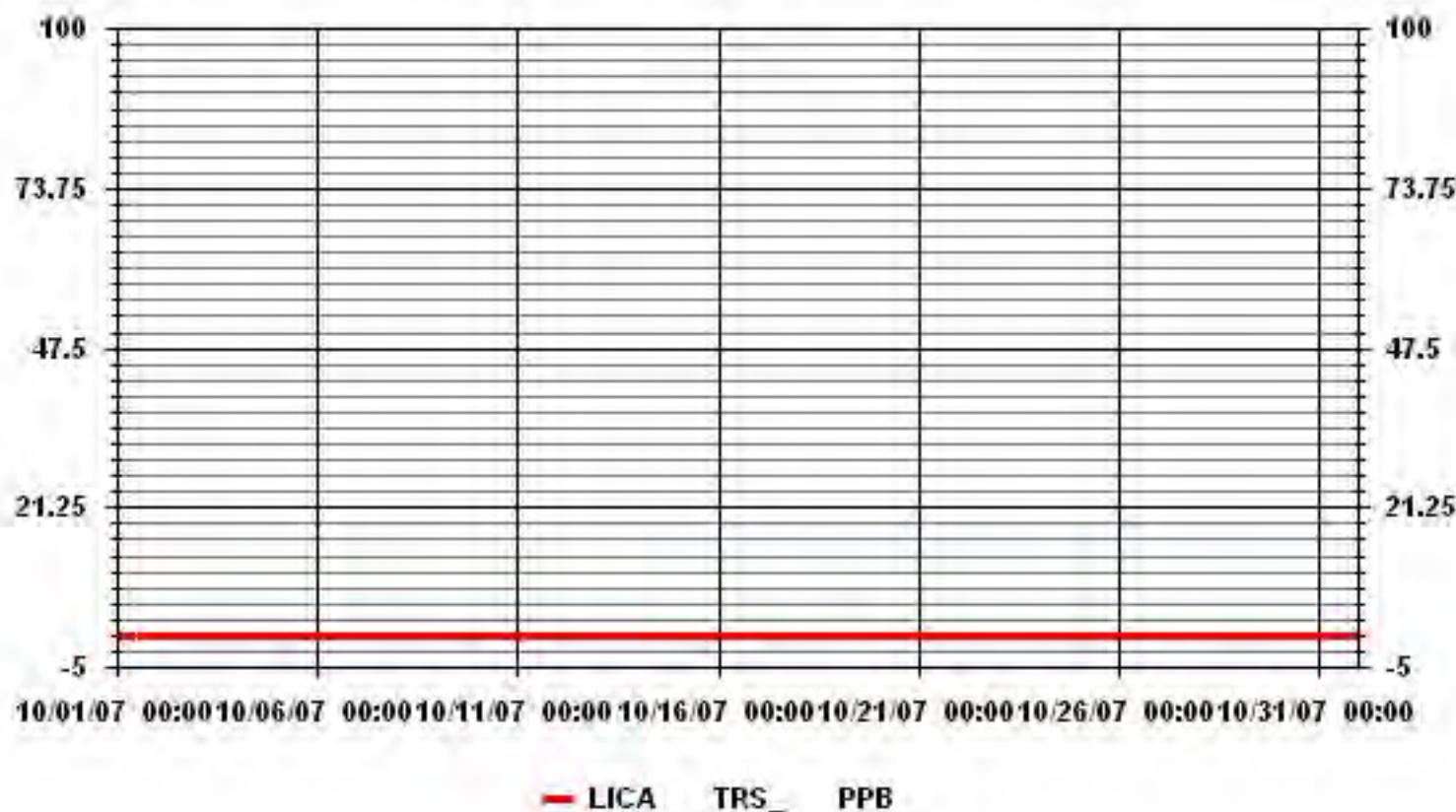
NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	0
MAXIMUM 1-HR AVERAGE:	0 PPB @ HOUR(S)
MAXIMUM 24-HR AVERAGE:	0.0 PPB

VAR-VARIOUS

Izs CALIBRATION TIME:	34 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	4 HRS	AMD OPERATION UPTIME:	99.9 %
STANDARD DEVIATION:	0.00	MONTHLY AVERAGE:	0.00 PPB

**MOUNTAIN STANDARD TIME**

### 01 Hour Averages



LICA  
 TRS\_ / WD Joint Frequency Distribution (Percent)

October 2007

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	.85	1.13	.85	3.68	6.09	12.19	20.85	1.98	3.97	3.26	9.92	15.88	11.20	4.82	1.84	1.41	100.00
< 10	.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	
>= 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Totals	.85	1.13	.85	3.68	6.09	12.19	20.85	1.98	3.97	3.26	9.92	15.88	11.20	4.82	1.84	1.41	

Calm : .00 %

Total # Operational Hours : 705

Distribution By Samples

Direction

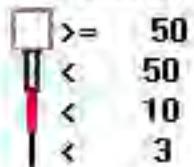
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	6	8	6	26	43	86	147	14	28	23	70	112	79	34	13	10	705
< 10																	
< 50																	
>= 50																	
Totals	6	8	6	26	43	86	147	14	28	23	70	112	79	34	13	10	

Calm : .00 %

Total # Operational Hours : 705

Logger : 01 Parameter : TRS\_

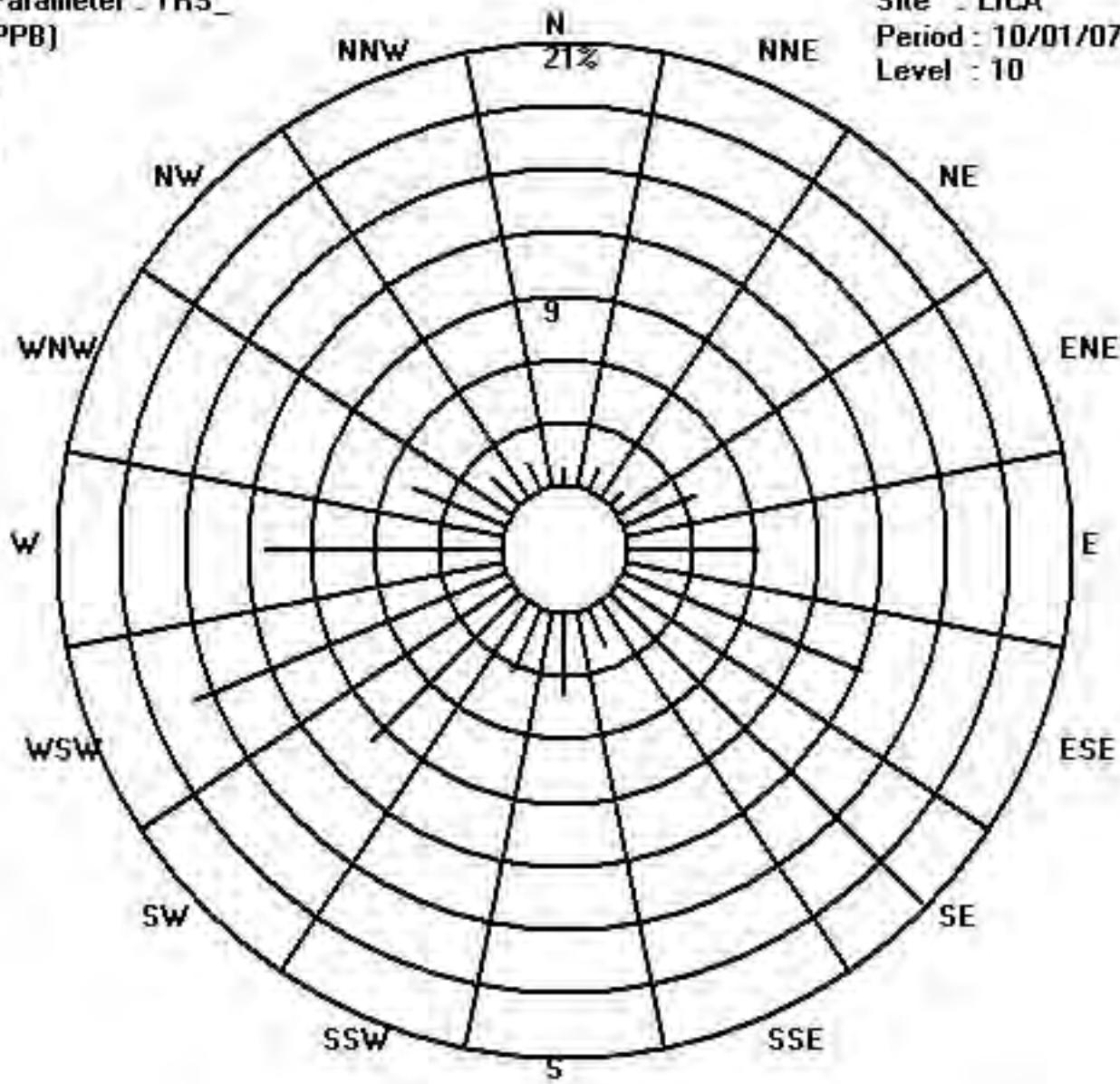
Class Limits (PPB)



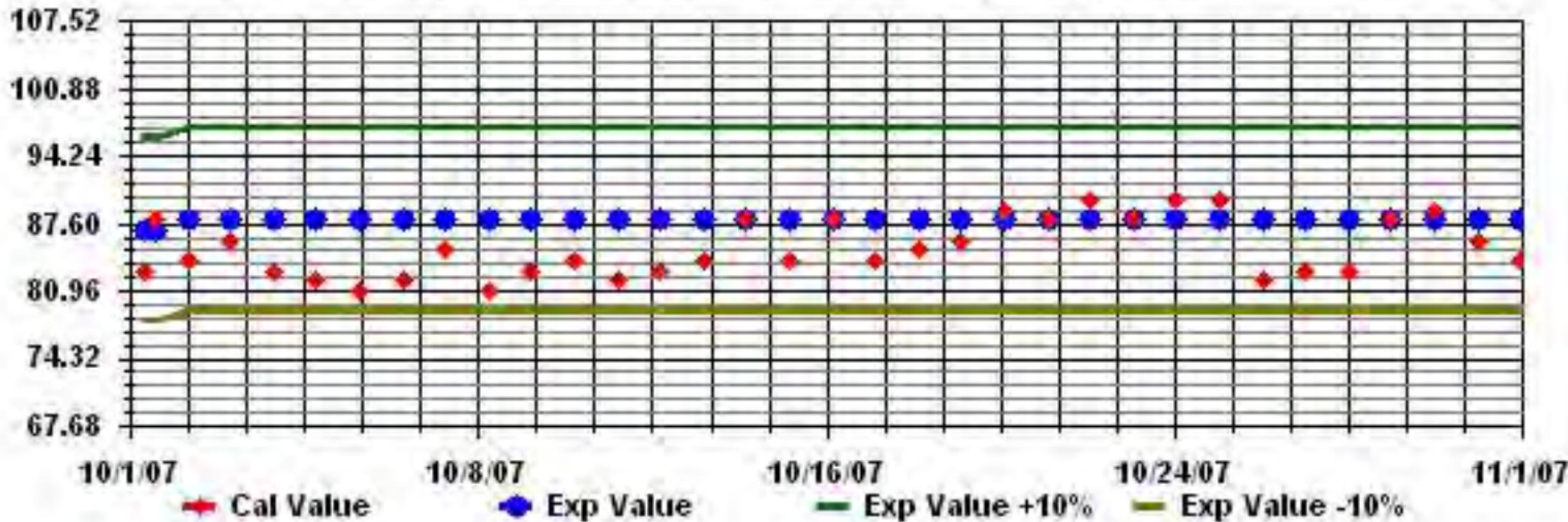
Site : LICA

Period : 10/01/07-10/31/07

Level : 10



Calibration Graph for Site: LICA Parameter: TRS\_ Sequence: TRS Phase: SPAN



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

## TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX. MAX.	24-HOUR AVG. AVG.	RDGS. RDGS.
DAY																											
1	1	0	0	1	1	1	1	IZS	1	1	C	C	C	C	IZS	1	1	1	1	1	1	1	0	1	1	0.8	24
2	1	0	0	0	1	0	IZS	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.8	24	
3	1	1	0	1	1	IZS	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0.4	24
4	1	1	1	0	IZS	0	0	0	0	0	0	1	1	0	0	1	0	0	1	0	0	1	1	1	0.4	24	
5	0	1	1	IZS	0	1	0	1	1	1	1	0	1	1	0	0	0	1	1	0	0	1	1	1	0.7	24	
6	0	1	IZS	1	1	1	1	0	1	0	1	1	1	0	1	1	0	1	0	1	1	0	1	1	0.7	24	
7	1	IZS	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	
8	IZS	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	IZS	1	0.9	24	
9	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1.0	24	
10	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1.0	24	
11	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1.0	24	
12	1	0	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	3	1.0	24
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	IZS	1	1	M	1	1	1.0	23	
14	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
15	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
16	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	IZS	1	1	1	1	1	1	1	1	0.9	24	
17	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	0	1	1	1	0	1	1	0.9	24	
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
20	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24	
26	1	0	1	1	1	IZS	1	1	1	1	1	1	0	1	1	P	1	1	1	1	1	1	1	1	0.9	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	1.0	24	
28	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	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	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	
31	IZS	1	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	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
HOURLY AVG	0.9	0.9	0.9	0.8	0.9	0.9	0.8	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	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

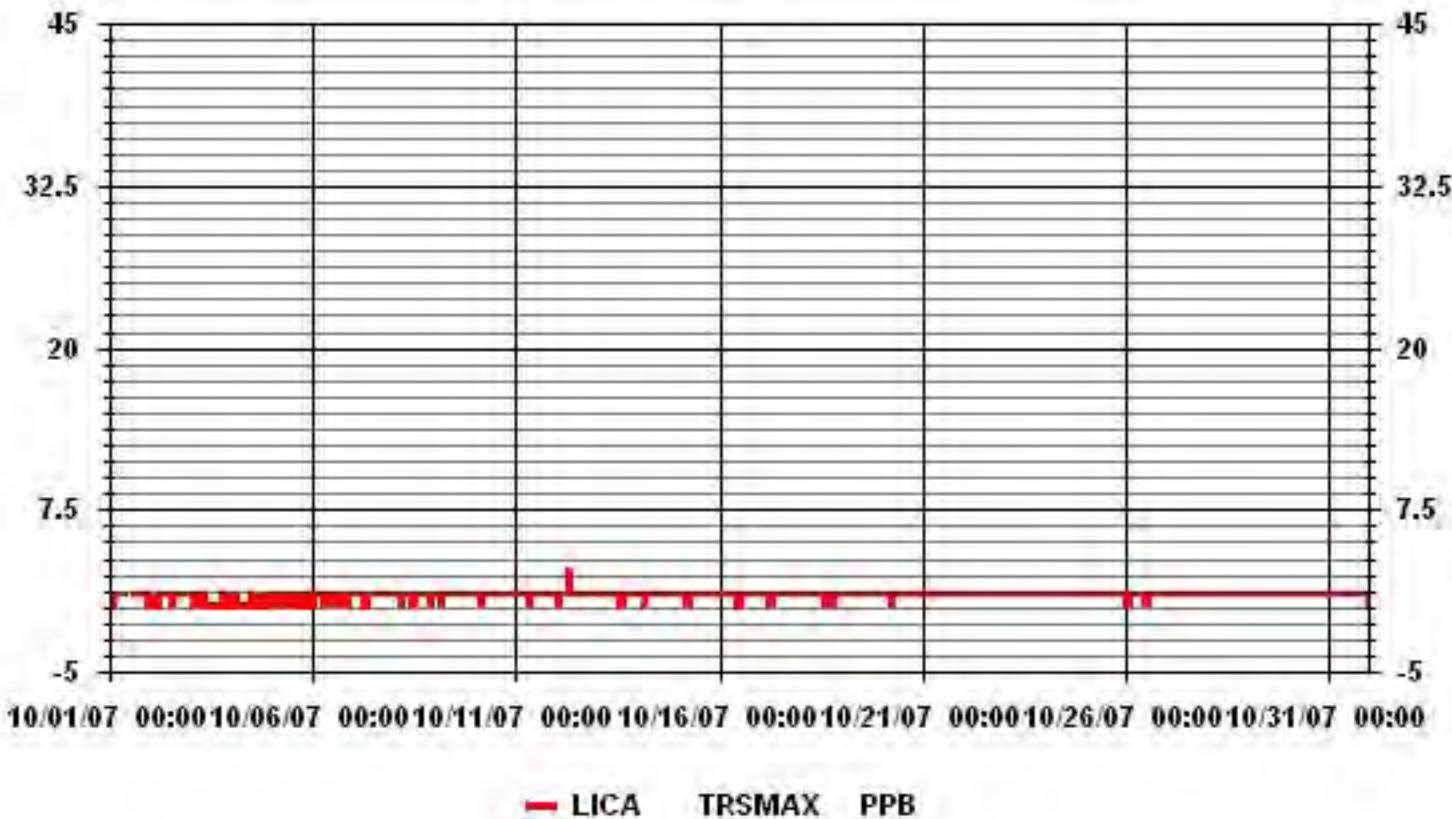
NUMBER OF NON-ZERO READINGS:	634
MAXIMUM INSTANTANEOUS VALUE:	3 PPB @ HOUR(S) 8 ON DAY(S) 12
VAR - VARIOUS	

IZS CALIBRATION TIME:	34 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	4 HRS		
STANDARD DEVIATION:	0.31		

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



# **THC**

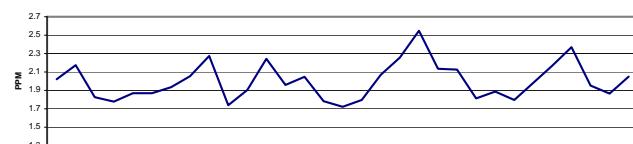
LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

TOTAL HYDROCARBONS (THC) hourly averages in ppm

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	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			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	1.7	1.7	1.7	1.7	1.7	1.8	<b>IZS</b>	1.7	1.7	1.8	1.7	1.8	C	C	C	<b>IZS</b>	1.8	2.1	3.2	2.8	2.7	2.6	2.5	3.2	2.0	24		
2	2.9	2.4	3.4	2.7	2.9	3.3	<b>IZS</b>	2.3	2.1	2.1	2	1.9	1.8	1.9	1.8	1.8	1.8	1.7	1.8	1.8	1.9	2.2	3.4	2.2	24			
3	1.8	2	2	2	2	<b>IZS</b>	2.3	2.2	2.1	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	1.8	24	
4	1.8	1.7	1.7	1.7	<b>IZS</b>	1.7	1.8	1.8	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	24			
5	1.9	1.9	1.9	<b>IZS</b>	2.1	2.2	2	2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.2	1.9	24		
6	2	1.9	<b>IZS</b>	2	2	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.1	1.9	24		
7	2.2	<b>IZS</b>	2.1	2	2.6	2.4	2.4	2.1	2.2	2.1	2	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.6	1.9	24		
8	<b>IZS</b>	1.7	1.7	2.2	2.8	1.9	2.6	2.4	2.2	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.4	3.7	<b>IZS</b>	3.7	2.1	24	
9	2.5	2.7	3.2	2.8	2.6	3.1	3.4	3.3	2.8	2.4	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	3.4	2.3	24		
10	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	24		
11	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	3.4	3.4	1.9	24		
12	2.3	2.5	2.7	2.9	2.7	2.3	2.2	2.2	2.1	2.1	2	1.9	1.8	1.7	1.7	1.7	1.8	2	2	<b>IZS</b>	2.5	3	2.4	3.1	2.2	24		
13	2.4	2.1	2.1	2.7	2.1	2.1	2.5	2.2	2.2	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	<b>IZS</b>	1.8	1.8	M	1.8	1.8	2.7			
14	2.1	2.2	2.4	2.2	1.9	2.2	2.1	2.1	2.1	2.1	2	1.9	2	2	2	2	2	<b>IZS</b>	2.1	2	1.9	1.9	1.9	2.4	2.0	24		
15	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	<b>IZS</b>	1.8	1.7	1.7	1.8	1.8	1.7	1.9	24		
16	1.7	1.8	1.8	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	<b>IZS</b>	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	24			
17	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	<b>IZS</b>	1.7	1.8	1.9	2	2	2.1	2	2.1	1.8	24			
18	2	1.8	1.8	2	1.9	2.1	2	1.9	1.8	1.7	1.7	1.7	1.7	<b>IZS</b>	1.7	1.7	1.7	2.1	2.3	2	3.4	3.2	3	2.4	3.4	2.1	24	
19	2.2	3.3	2.7	2.8	3.1	2.6	2.4	2.3	2	1.8	1.8	<b>IZS</b>	1.9	1.8	1.8	1.8	1.9	2.7	2.5	2.3	2.4	2.2	3.3	2.3	24			
20	2.4	3.1	3.4	2.6	3.2	3.6	3.6	3.6	3.9	3.8	3.6	2.9	<b>IZS</b>	1.9	1.7	1.7	1.7	1.7	1.7	1.8	2	2.1	2	2.1	3.9	<b>2.5</b>	24	
21	2.2	2.5	2.5	2.4	2.2	2.2	2.3	2.1	2	1.9	<b>IZS</b>	1.9	1.8	1.8	1.8	1.8	2.2	2.8	2	2.8	2	2.1	2.8	2.1	24			
22	2.3	2.3	3	3.1	3.6	2.6	2.7	2.9	2.1	<b>IZS</b>	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.6	2.1	24		
23	1.7	1.8	1.8	1.8	1.9	1.9	1.9	<b>IZS</b>	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	1.8	24			
24	1.9	2	2	2.1	2.1	2	2	<b>IZS</b>	2	2	2	2	2	1.9	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.1	1.9	24	
25	1.8	1.8	1.9	1.8	1.8	<b>IZS</b>	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	2.4	24		
26	1.9	1.9	2	1	1.9	<b>IZS</b>	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.3	2.4	2.7	3	2	3.0	2.0	24		
27	2.2	2.2	2.2	2.2	<b>IZS</b>	2.1	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.1	2	2.3	2.3	3.1	3.2	3.2	2.2	24		
28	2.6	3.9	2.9	<b>IZS</b>	2.7	2.6	2.2	2	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	3.1	4.3	24		
29	2.2	2.3	<b>IZS</b>	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.5	2.0	24		
30	2	<b>IZS</b>	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.2	2	2.1	2.2	1.9	24	
31	<b>IZS</b>	2.2	2.2	2.3	2	2	2.1	2	2	2	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	2.4	2.1	24	
HOURLY MAX	2.9	3.9	3.4	3.1	3.6	3.6	3.6	3.9	3.8	3.6	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.3	4.3	3.2	3.4	3.2	3.7	3.1				
HOURLY AVG	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.1	2.2	2.1				

24 AVERAGES FOR OCTOBER 2007

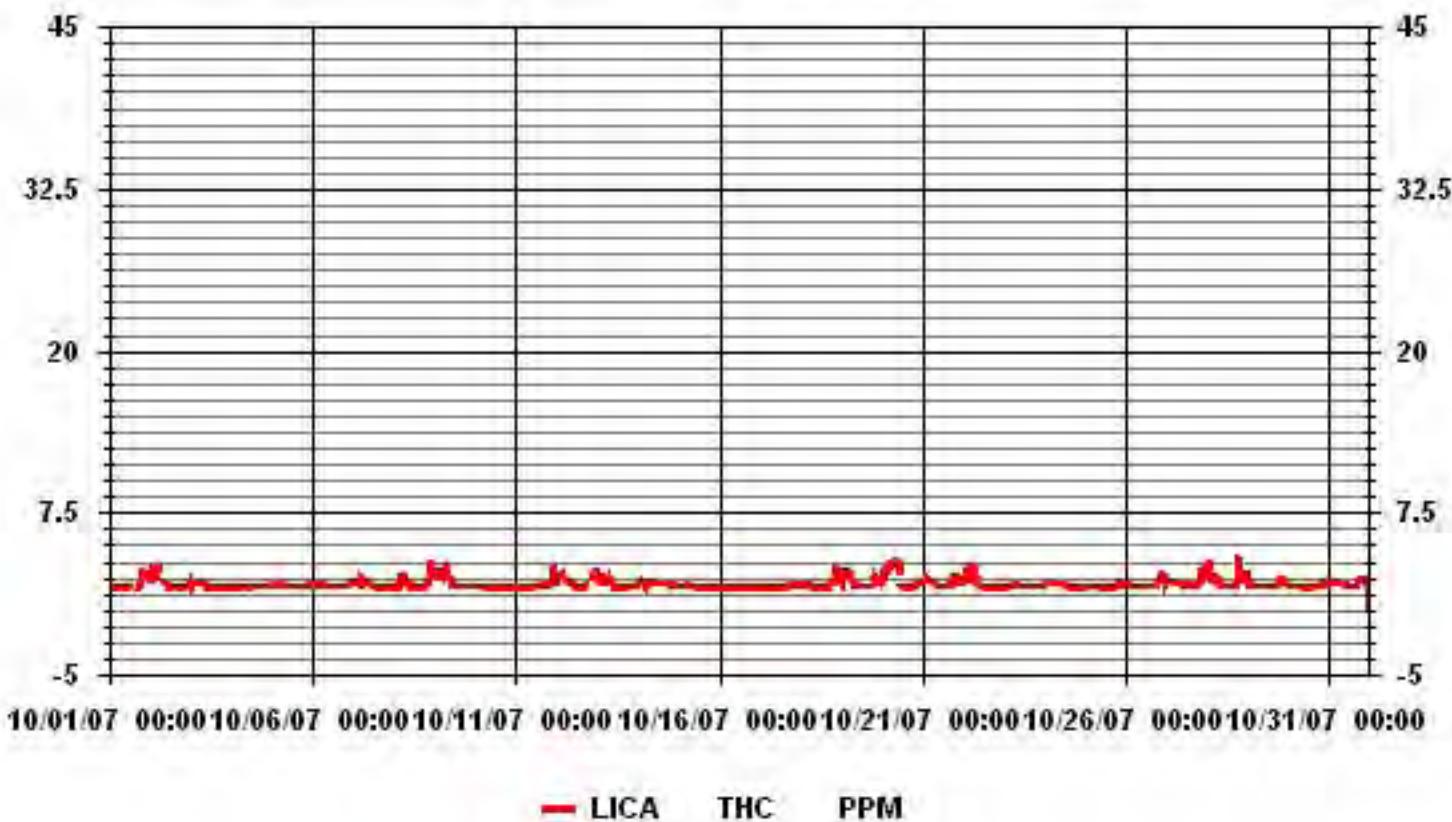


NUMBER OF NON-ZERO READINGS:	706
MAXIMUM 1-HR AVERAGE:	4.3 PPM
MAXIMUM 24-HR AVERAGE:	2.5 PPM

Izs Calibration Time:	34 Hrs	Operational Time:	743 Hrs
Monthly Calibration Time:	3 Hrs	Am Operation Uptime:	99.9 %
Standard Deviation:	0.40	Monthly Average:	2.00 PPM

MOUNTAIN STANDARD TIME

### 01 Hour Averages



LICA  
THC / WD Joint Frequency Distribution (Percent)

October 2007

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	.84	1.13	.84	3.39	5.94	12.03	20.82	1.84	3.68	1.84	9.06	14.58	11.04	4.81	1.98	1.41	95.32	
< 10.0	.00	.00	.00	.28	.14	.14	.00	.14	.28	1.41	.84	1.27	.14	.00	.00	.00	4.67	
< 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	.84	1.13	.84	3.68	6.09	12.18	20.82	1.98	3.96	3.25	9.91	15.86	11.18	4.81	1.98	1.41		

Calm : .00 %

Total # Operational Hours : 706

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	6	8	6	24	42	85	147	13	26	13	64	103	78	34	14	10	673
< 10.0				2	1	1		1	2	10	6	9	1				33
< 50.0																	
>= 50.0																	
Totals	6	8	6	26	43	86	147	14	28	23	70	112	79	34	14	10	

Calm : .00 %

Total # Operational Hours : 706

Logger : 01 Parameter : THC

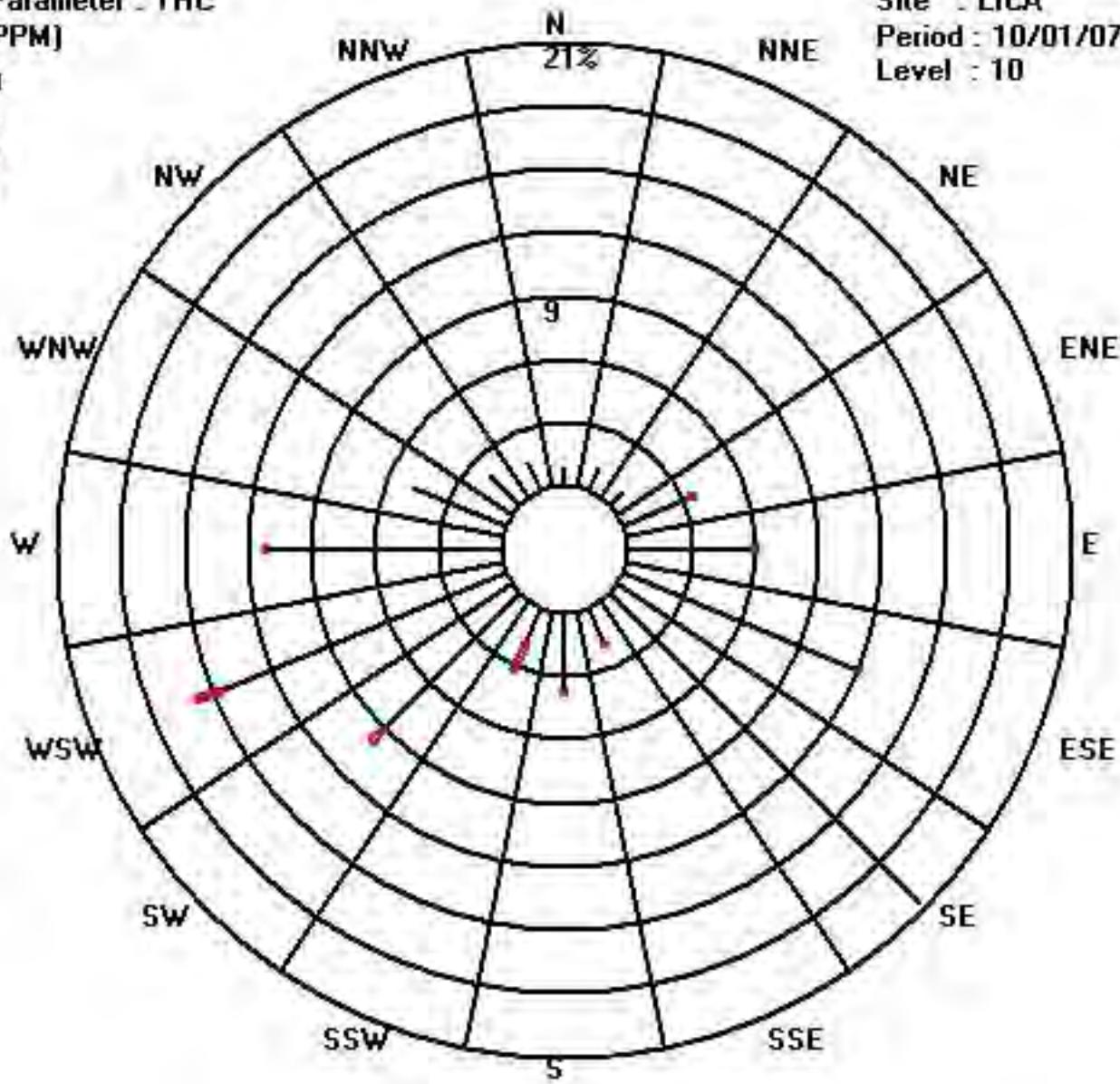
Class Limits (PPM)



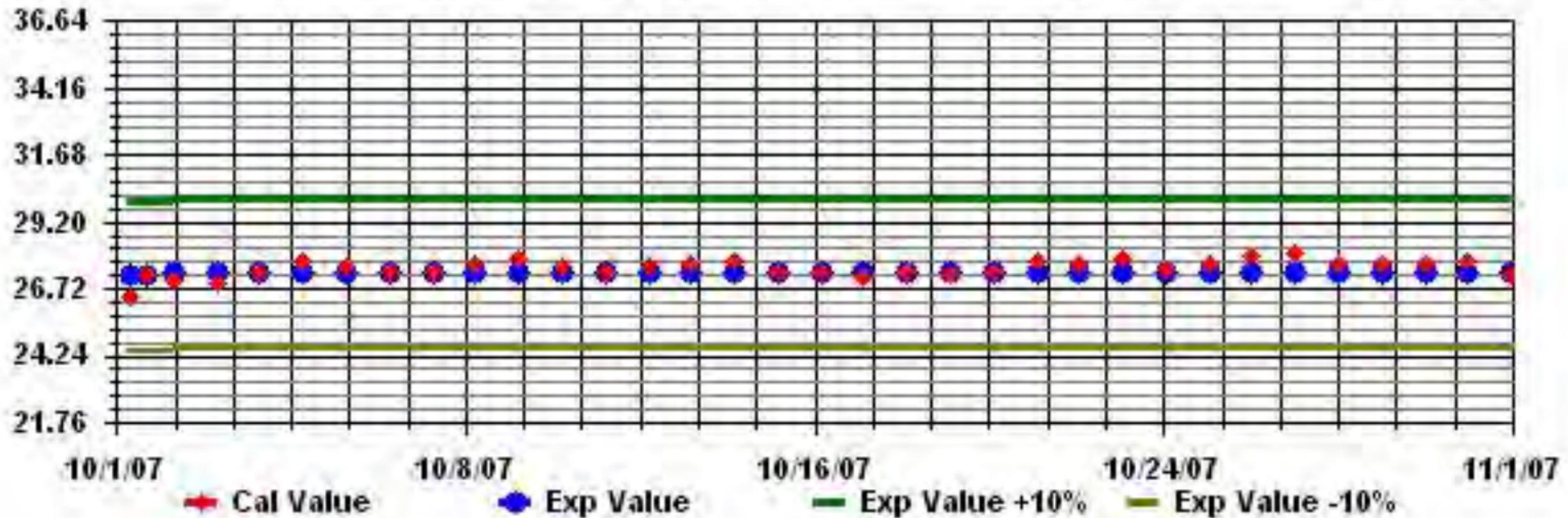
Site : LICA

Period : 10/01/07-10/31/07

Level : 10



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



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

## TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	DAILY MAX. AVG.	24-HOUR RDGS.		
DAY																											
1	1.7	1.8	1.7	1.7	1.9	1.8	1.9	<b>IZS</b>	1.8	1.8	1.8	1.8	1.8	C	C	C	<b>IZS</b>	2.1	4.6	4.8	3.6	3.3	3.1	4.6	4.8	2.5	24
2	4.6	4.5	5.9	3.4	6	5.1	<b>IZS</b>	3	2.3	2.2	2.1	2	1.9	1.9	1.8	1.9	1.8	1.8	1.8	2	2	2.6	3.1	6	2.8	24	
3	1.9	3.2	3.1	2.3	2.2	<b>IZS</b>	2.8	2.8	2.6	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.2	2.0	24	
4	1.8	1.8	1.7	1.8	<b>IZS</b>	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	1.9	1.8	1.9	1.9	1.8	24	
5	2	2	2	<b>IZS</b>	2.8	3.4	2.2	2.2	1.9	1.9	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	2	1.9	1.8	1.9	2	2	3.4	2.0	24
6	2	2	<b>IZS</b>	2	2	2.1	2	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2	1.9	1.8	1.9	2.8	2.4	2.8	2.0	24
7	3.7	<b>IZS</b>	2.2	2.1	5.3	3.4	3.6	2.3	2.3	2.4	2	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.7	5.3	2.3	24	
8	<b>IZS</b>	1.7	2	6.1	4.2	2.7	6	4.3	2.8	2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	9.1	3.0	24	
9	6.1	3.3	4.3	4.3	3.2	5.5	4.8	3.7	3.1	2.6	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	<b>IZS</b>	1.8	6.1	24
10	1.8	1.8	1.8	1.9	2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	<b>IZS</b>	1.7	1.8	2	1.8	24		
11	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	2	2	1.9	2	2.2	2.1	<b>IZS</b>	2.2	6.5	5.3	6.5	2.3	24		
12	2.4	2.7	3.3	5.8	3.2	3.7	3.4	2.8	2.2	2.2	2	2	1.9	1.8	1.8	1.7	2	2.3	2.5	<b>IZS</b>	3.2	7	3.3	9.9	9.9	3.2	24
13	4.1	2.3	3.2	3.9	3.5	3.2	3.4	2.5	2.6	2.2	1.8	1.8	1.8	1.7	1.7	1.8	1.9	<b>IZS</b>	1.8	2.3	M	1.9	2	4.1	2.4	23	
14	3.7	3.6	6.3	3.7	2	3.8	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2	2	2.2	<b>IZS</b>	2.2	2.1	2	2	1.9	6.3	2.6	24		
15	1.9	1.9	1.8	1.9	2	2	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	<b>IZS</b>	1.8	1.8	1.8	1.9	1.8	1.8	2	1.8	24	
16	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.8	<b>IZS</b>	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.9	1.8	24	
17	1.7	1.7	1.7	1.7	2	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	<b>IZS</b>	1.8	1.9	2	2	2.3	2	3.9	2	2.2	3.9	1.9	24
18	2.1	1.9	1.9	3.6	2.1	2.2	2.1	2	1.9	1.8	1.7	2	<b>IZS</b>	1.7	1.7	1.9	3.1	3.2	2.8	4.8	5.2	5.4	4.4	5.4	2.7	24	
19	2.5	7.5	4.3	4.2	5.7	3.8	2.6	2.5	2.3	2	1.8	1.8	<b>IZS</b>	1.9	1.9	1.8	1.8	2.8	5.2	6.2	4.6	3.1	2.4	7.5	3.2	24	
20	3.9	5.8	7.4	3.7	5	7	5.1	5.6	4.3	3.8	3.3	<b>IZS</b>	2.1	1.8	1.7	1.7	1.8	2	3.2	4.2	2.2	2.8	2.6	7.4	3.6	24	
21	3.6	4.1	3.7	2.7	2.2	2.6	2.8	2.2	2.1	2	<b>IZS</b>	1.9	1.9	1.8	1.8	1.8	<b>10.6</b>	5.7	2.3	4.2	2.3	2.2	2.2	10.6	3.0	24	
22	2.3	2.8	4.8	5.1	6.5	3.3	3.6	6.1	2.5	<b>IZS</b>	2	1.9	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.8	6.5	2.7	24	
23	1.8	1.8	1.9	1.9	1.9	1.9	1.9	<b>IZS</b>	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	2.2	2.2	1.9	1.9	2.2	1.9	24		
24	2	2	2.2	2.1	2.2	2.1	<b>IZS</b>	2.1	2.1	2	2	2	2.1	2	1.9	1.7	1.7	1.7	1.7	1.8	1.9	1.8	1.8	2.2	2.0	24	
25	1.8	1.9	2	1.9	1.9	<b>IZS</b>	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3	7	1.9	1.9	1.9	7	2.1	24	
26	1.9	1.9	2.2	2.1	2	<b>IZS</b>	1.9	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.4	3.2	3.4	4.8	4.9	2.1	4.9	2.3	24		
27	2.6	2.4	2.3	2.2	<b>IZS</b>	2.1	2.1	2.2	2	2	2	2	2	1.9	1.9	2	2.5	3.5	2.8	3.3	4.2	7.2	5.1	3.8	7.2	2.8	24
28	3.3	7.8	4.6	<b>IZS</b>	3.3	3.3	2.8	2.7	2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.2	3.6	7.4	3.7	2.3	3.5	4.4	4.7	7.8	3.2	24
29	2.4	2.8	<b>IZS</b>	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.6	3.1	5	5.2	2.1	2.5	2.3	2.1	5.2	2.4	24	
30	2	<b>IZS</b>	1.9	1.9	1.8	1.8	1.9	1.8	2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3	2.1	2.3	3.1	3.3	2.5	2.7	3.3	2.1	24	
31	<b>IZS</b>	2.8	2.9	3.3	2.2	2.1	2.2	2.1	2.3	2.1	2	1.8	1.8	1.8	1.9	2.2	4.8	5.6	3.7	3.6	2.8	2.2	<b>IZS</b>	5.6	2.6	24	
HOURLY MAX	6	8	7	6	7	6	6	4	4	3	2	2	2	2	2	2	3	11	7	5	7	7	9	10			
HOURLY AVG	2.6	2.9	3.0	2.8	2.9	2.6	2.5	2.2	2.0	1.9	1.9	1.9	1.8	1.8	1.9	2.5	2.7	2.6	2.9	2.9	2.9	2.9	2.8				

### 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
BB	- BELOW BACKGROUND OF 1.5 PPM		

### MONTHLY SUMMARY

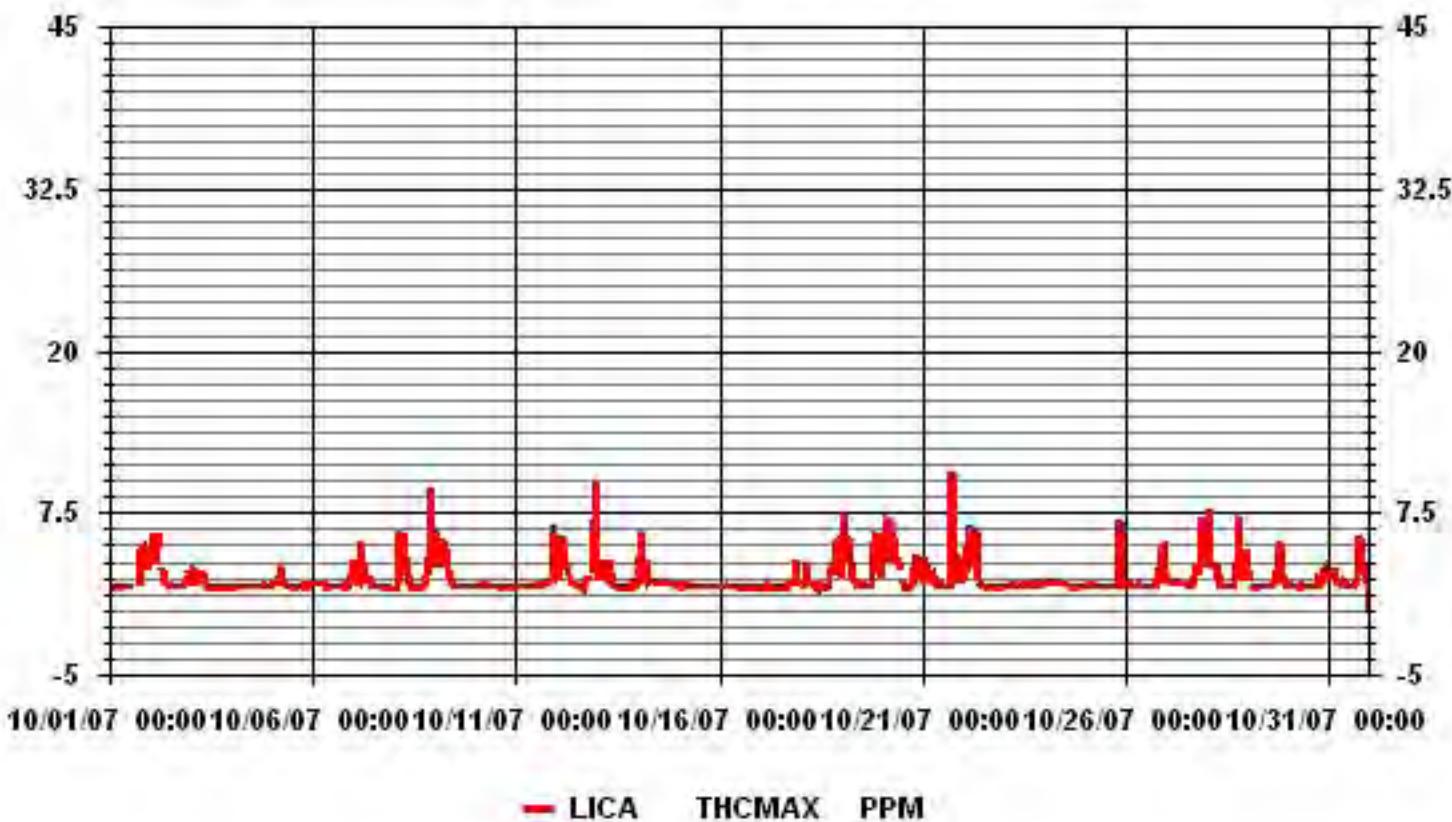
NUMBER OF NON-ZERO READINGS:	706
MAXIMUM INSTANTANEOUS VALUE:	10.6 PPM @ HOUR(S) 18 ON DAY(S) 21

IZS CALIBRATION TIME:	34 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	3 HRS		
STANDARD DEVIATION:	1.20		

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



# **PARTICULATE MATTER**

## **2.5**

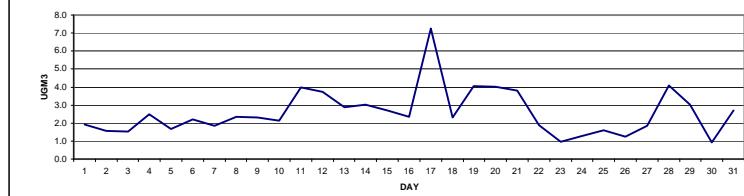
**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE**

OCTOBER 2007

**PARTICULATE MATTER 2.5 (PM2.5)** hourly averages in ug/n<sup>3</sup>

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
DAY																												
1	1.4	0.7	0.8	0.5	1.3	1.2	1.5	5.4	1.1	2.4	2.5	2.1	3.2	3.6	3.7	3.3	3.7	3.9	1.4	0.3	0.9	0.2	0.7	0.4	5.4	1.9	24	
2	1.3	1.4	2.1	2.6	4.1	3.5	2.3	6.5	2.2	1.5	3.2	0.9	0	0	1.4	0	0	1.2	0.8	1	1.5	0.3	0	6.5	1.6	24		
3	0.1	0.3	1.2	1.2	1.4	1.6	1.3	4.9	3.6	0.9	0.4	0.4	0.4	2.2	1.4	1.4	1.8	1.1	1.7	0.7	1.8	2.5	2.7	2.1	4.9	1.5	24	
4	2.9	1.9	1.4	1.9	1.9	1.5	2.8	3.5	2.6	1.4	1.2	2.7	2.1	2.7	3.3	3.2	4	3.9	3.2	3.6	4.7	2	0.9	0.7	4.7	2.5	24	
5	0.7	0.4	0.2	1.8	1.2	0	1.1	6.9	2.3	0.1	1.2	0.4	0	0	0	0	1.2	1.7	4.2	4.8	3.2	2.5	2.9	3.4	6.9	1.7	24	
6	2.6	2.1	2.3	2.1	3.3	2.8	3.2	4.6	3	2.2	3.1	2.8	2.3	0.5	1.6	1.5	1.7	1.5	2.7	1.9	2.2	0.7	1.1	1.1	4.6	2.2	24	
7	0.8	1.1	1.6	3.1	0	1	3.2	4.5	3	3.7	0	0	0.4	1.6	1.5	2.2	2.5	3.3	2.4	3.2	2.9	0.8	1	0.9	4.5	1.9	24	
8	3.1	2.2	2.6	2.4	3.9	3.2	4.1	4.7	5.6	1.9	0.4	1.5	1.4	0	0	0.5	0.5	2.9	2.2	1.3	2.9	5.5	1.6	5.6	2.3	24		
9	1.8	2.6	1.7	1.2	2.8	2.9	3.7	8.5	7.3	7.3	0.5	0	0	0	0	1.6	2.8	2.3	1.9	2.7	1.9	1.9	8.5	2.3	24			
10	2.1	2.4	2.1	2.9	2.5	3.1	4.5	3.6	1.9	0.1	0.2	0.3	1.9	0.3	0.1	0.5	1.2	4.6	4.6	5.7	3.7	2	0.1	0.7	5.7	2.1	24	
11	0.6	1.8	1.5	2.5	4.5	4	4.9	4.9	5.4	4.7	5.5	5.7	4.7	3.8	3	3.6	4.3	4.7	2	2.7	2.8	7.4	5.8	4.4	7.4	4.0	24	
12	1.8	2.5	2.9	3	2.3	1.2	1.2	8.4	8.9	3.7	3.7	3.1	2.3	2.1	1.3	2	2.9	3.7	4.8	5.2	5.8	5.1	5.6	6.1	8.9	3.7	24	
13	5.2	4.2	4.1	2	1.9	2.1	2.9	3.6	6.2	2.2	2	2	0.9	0.8	1.3	2.2	3.3	4	3.1	3.6	3.4	<b>M</b>	3	2.4	6.2	2.9	23	
14	1.6	2	0	1.2	3.3	1.4	2.2	4.5	6	2.9	1.7	2	3	2.6	3.2	4.7	3.5	3.6	5	4.3	3.4	3.2	3.5	3.4	6.0	3.0	24	
15	3.3	3.2	3.6	2.9	3.9	3.1	3.4	3.5	2.6	3.2	3	2.9	1.1	2.9	2.7	2.4	2.5	1.9	3.2	3.2	3	0.8	0.7	1.5	3.9	2.7	24	
16	1.8	1.4	2	1.7	1.5	0.9	1.6	2.3	2.5	2.1	2.2	1.9	0.7	1.5	2.2	2.6	4.1	2.5	2.9	3.4	3.6	3.4	4.1	2.3	24			
17	3.7	4.5	3.1	4.9	4.8	5.2	6	6.7	7.2	7	7.7	7.5	8.3	9.1	<b>11.1</b>	10.2	8.8	8.9	8.9	8	8.6	7.6	7.9	8.6	11.1	<b>7.3</b>	24	
18	6.2	4.2	3.7	2.4	2.2	2.2	2.7	2.9	2.1	1.5	1.1	0.2	0	0	0.8	1.5	2.9	2.9	3.2	1.7	1.9	2.9	4.3	6.2	2.3	24		
19	4	5.2	4.4	3.8	5	3.4	4.2	7.3	6.3	4.1	3.1	2.5	3.1	1.8	3.5	4.4	1.8	3.7	3.8	2.9	6	4.6	4.7	3.9	7.3	4.1	24	
20	3.4	2.4	2.5	2.2	3.2	1.9	3.7	6.2	6.6	6.9	6.8	4.7	5.3	4.3	3.9	4.7	3.2	3.5	2.7	2.9	2.9	3.9	4.3	4.6	6.9	4.0	24	
21	4.5	3.9	3.9	4.6	4.7	5.1	4.6	4.6	7.6	7.8	6.5	5.6	2.5	2.5	3.4	4.3	2.2	1	1.3	1.7	1.1	1.5	2.7	4	7.8	3.8	24	
22	3.8	1.9	1.2	2.4	1	1.9	2.3	4	4.4	1.7	1	1.7	0	0	0.9	0	0.9	2.4	2.2	1.9	1.3	2.8	2.8	2.4	4.4	1.9	24	
23	2.7	1.3	1.2	1.6	2	1.3	1.7	2.1	1.6	1.2	0.3	0.6	0	0.8	1	0.3	0	0.7	0.2	0	1.7	0.8	0	0	2.7	1.0	24	
24	0	0	0	0	0.1	0	0.6	0	0	1.3	3.3	2.1	4	3.7	5.5	3.3	0	0	1.4	4.3	<b>D</b>	0	0	0	0	5.5	1.3	23
25	0.6	0	1.8	0.4	0	1.6	3	4.6	3.9	3.5	2.8	0.8	0	0.2	0	2.4	2.1	1.7	1.7	2.4	1	1.3	1	4.6	1.6	24		
26	1.7	1.5	0.4	1.5	1.8	5.2	2	2.9	2.2	0	2.2	1.5	1.3	0.9	0	0.1	0.3	0.6	1	0.9	0.3	0.4	0.1	1.3	5.2	1.3	24	
27	0.6	0.8	0.5	0.5	0	0.5	0	0	2	0.6	0	0	0.4	0.6	2.2	1.5	1.2	1.7	2.3	5.2	6.9	7.7	6.7	7.7	1.8	24		
28	5.5	3.4	2.4	3.9	5.4	6.6	6	6.9	6.9	4.4	3.2	3.6	3.1	2	2.1	1.9	1.3	1.2	1.5	4.1	8.2	5.7	5.1	3.6	8.2	4.1	24	
29	5.2	5.6	3.7	1.6	1	1.2	2.2	2.6	2.2	2.4	1.7	2.1	1.6	1.6	4.7	6.6	4.8	3.5	3	2.2	2.4	3.6	3.5	3.7	6.6	3.0	24	
30	4.3	3.8	3.1	1.1	0.9	0.6	0.7	<b>C</b>	<b>C</b>	<b>C</b>	1.1	0.2	0	0	0.1	0	0.6	1.2	0.7	0.5	0.3	0	0.2	4.3	0.9	24		
31	0	0	0	1.2	2.2	2.4	2.2	2.3	2.7	3.7	2.6	2.1	2.6	2.6	4	5.1	2.9	4.1	3.3	3.4	4.9	4.9	5.1	2.7	24			
HOURLY MAX	6	6	4	5	5	7	6	9	9	8	8	8	8	9	11	10	9	9	9	8	9	8	8	9	9	24		
HOURLY AVG	2.5	2.2	2.0	2.1	2.4	2.3	2.8	4.4	4.0	2.8	2.4	2.1	1.8	1.8	2.2	2.4	2.3	2.7	2.8	3.1	2.8	2.7	2.7	2.7	2.7	24		

**24 HOUR AVERAGES FOR OCTOBER 2007**



**OBJECTIVE LIMIT:**

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

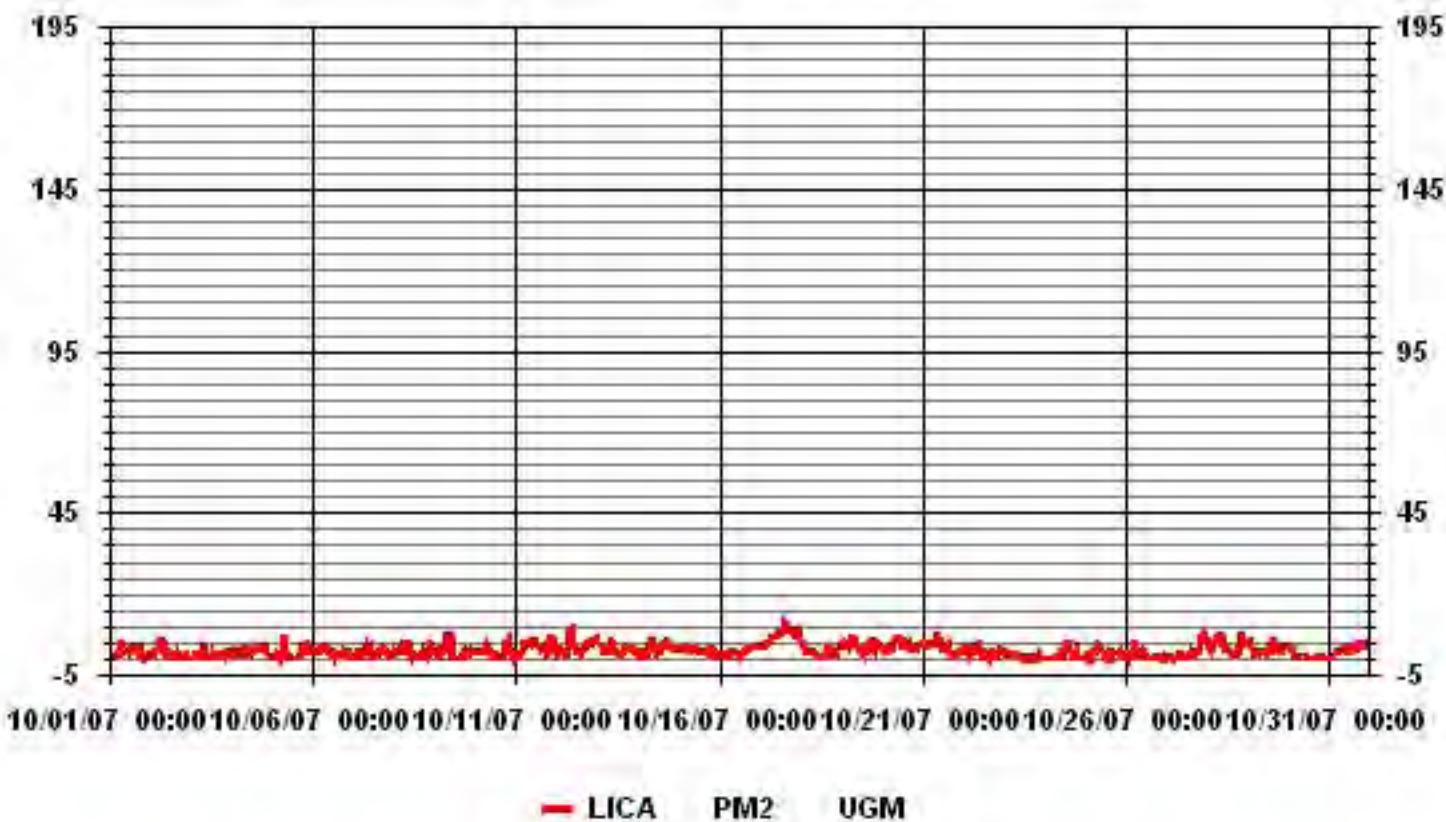
**MONTHLY SUMMARY**

NUMBER OF 1-HR EXCEEDENCES:	-
NUMBER OF 24-HR EXCEEDENCES:	0
PROPOSED GUIDELINE	
NUMBER OF NON-ZERO READINGS:	676
MAXIMUM 1-HR AVERAGE:	11.1 UG/M <sup>3</sup> @ HOUR(S) 15 ON DAY(S) 17
MAXIMUM 24-HR AVERAGE:	7.3 UG/M <sup>3</sup> ON DAY(S) 17

Izs Calibration Time:	0 Hrs	Operational Time:	742 Hrs
Monthly Calibration Time:	3 Hrs	Am Operation Uptime:	99.7 %
Standard Deviation:	1.96	Monthly Average:	2.58 UG/M <sup>3</sup>

**MOUNTAIN STANDARD TIME**

### 01 Hour Averages



**LICA**  
**PM2 / WD Joint Frequency Distribution (Percent)**

October 2007

**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	.81	1.08	.81	3.78	5.95	12.44	21.24	1.89	3.78	3.11	10.14	15.83	10.96	4.73	2.02	1.35	100.00
< 60.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
< 80.0	.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	
< 240.0	.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	
Totals	.81	1.08	.81	3.78	5.95	12.44	21.24	1.89	3.78	3.11	10.14	15.83	10.96	4.73	2.02	1.35	

Calm : .00 %

Total # Operational Hours : 739

**Distribution By Samples**

**Direction**

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 30.0	6	8	6	28	44	92	157	14	28	23	75	117	81	35	15	10	739
< 60.0																	
< 80.0																	
< 120.0																	
< 240.0																	
>= 240.0																	
Totals	6	8	6	28	44	92	157	14	28	23	75	117	81	35	15	10	

Calm : .00 %

Total # Operational Hours : 739

Logger : 01 Parameter : PM2

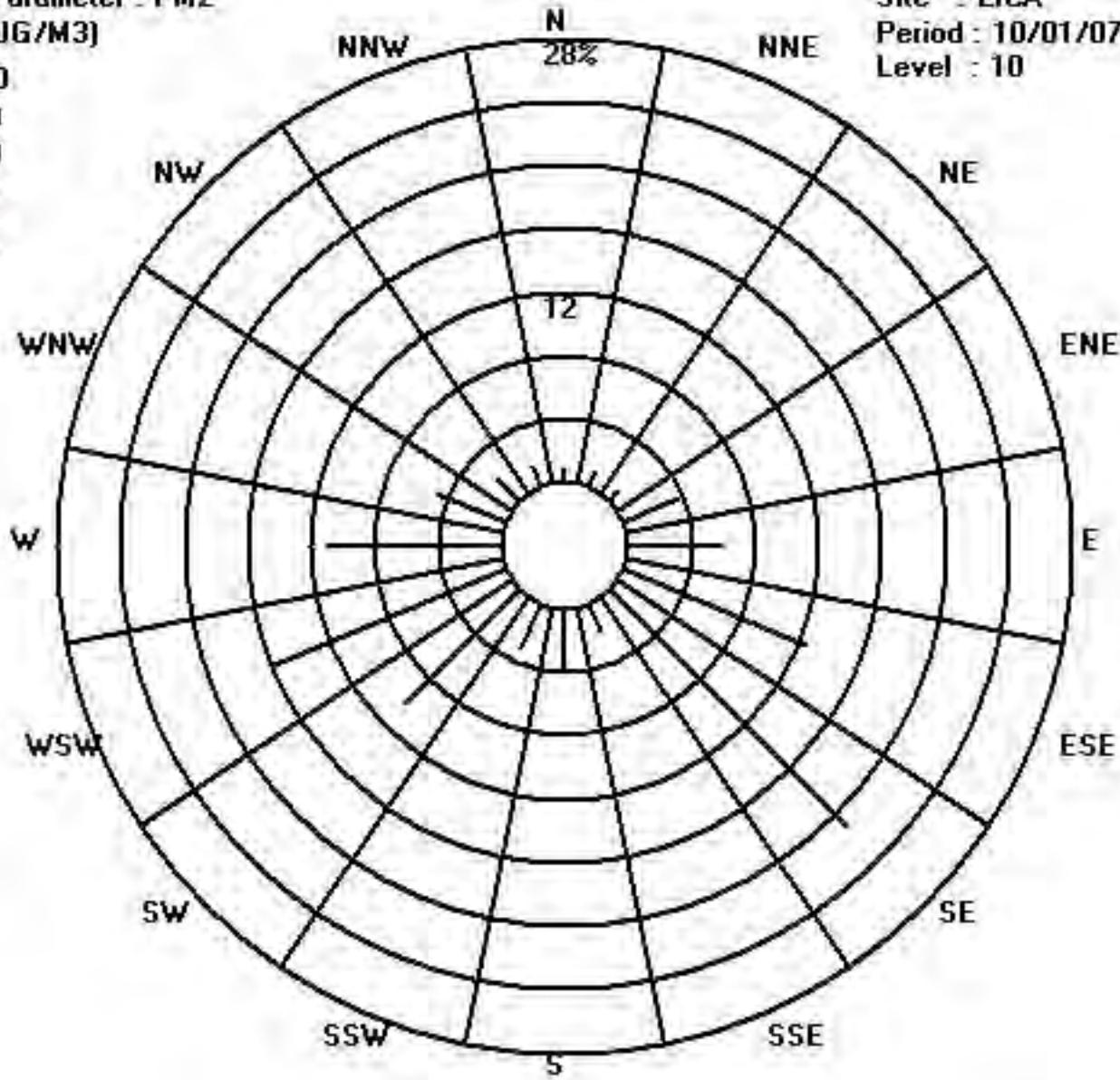
Class Limits (UG/M3)



Site : LICA

Period : 10/01/07-10/31/07

Level : 10



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

PARTICULATE MATTER 2.5 MAX instantaneous maximum in ug/r<sup>3</sup>

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
DAY																												
1	2.8	2.4	2.3	1.4	3.8	2.6	5.9	11.3	3.1	4.4	3.9	4.3	5.4	5.9	5.4	5.3	5.6	6.1	4	1.6	2.4	1.6	2.1	4.5	11.3	4.1	24	
2	4.9	5.4	6.1	6.6	7.7	7.7	8.1	10.4	5.9	3.4	6	4.2	2.8	2.8	2	4.3	2.3	1.1	3.7	2.2	3.3	3.3	2.4	1.4	10.4	4.5	24	
3	2.2	2.1	2.7	2.4	2.9	4.5	5	7.2	6.6	2.6	2.7	2.7	2.5	4.9	5.3	3.7	3.7	2.9	3	1.8	3.4	3.7	3.8	3.3	7.2	3.6	24	
4	5.9	5.3	5.9	6	5.8	5.6	7.5	8.5	6.6	5.3	5.3	4.9	4.9	6.5	6.6	6.7	7.7	10.5	7.4	7.8	9.5	6.5	5.3	5	10.5	6.5	24	
5	5.6	5	3.8	7	7.4	5.4	7	13.3	11.2	3.8	4.1	2.1	1.7	0	2.7	0.9	2.8	4	11.4	9.7	4.8	3.9	4.9	5.8	13.3	5.3	24	
6	5.6	7.2	7.5	7.5	7.7	6.2	7	10.5	7.5	5.6	4.5	5.5	5.1	3.3	3.2	3.9	4.1	3.9	6	6.2	9.2	5.1	5.1	5.6	10.5	6.0	24	
7	5.1	6.9	5.8	8.6	3.7	4.5	8.7	9.8	7.6	7.5	1.1	1.5	2	2.9	4.9	4.3	4.7	5.4	4	5	4.3	3.2	3.7	2.2	9.8	4.9	24	
8	6	3.8	4.3	4.5	8.3	7.3	8.2	10.4	7.2	5.7	3.8	5.2	2.9	1.6	1.4	4.8	2	4.6	4.3	2.6	5.6	7.5	8.3	7.4	10.4	5.3	24	
9	7	8.2	5.8	5.5	7.2	7	8	14	12.1	11.1	2.8	0.9	0.4	1.6	1.8	1.1	2.1	4.8	5.1	4.2	4	4.6	4.5	3.7	14	5.3	24	
10	3.7	4.2	3.8	4.1	6.4	10	11.1	5.8	3.3	2.1	2	3.1	4.2	2	2.6	2.8	3.6	8.9	8.7	10.2	6.5	5.3	1.5	3.7	11.1	5.0	24	
11	2.9	3.2	3.3	5.9	7	5.4	6.5	8.5	6.7	6.5	7.5	7.6	7.5	5.4	5.3	5.4	5.8	6.5	4.8	7.2	6.9	17.2	10.4	9.3	17.2	6.8	24	
12	7.2	7	10.5	10.3	8.1	5.9	5.4	17.6	14.5	7.3	6	5.1	4.4	4.2	3.2	3.9	5.1	5.4	8.8	9	7.8	7.5	7.6	7.6	17.6	7.5	24	
13	7.8	7.1	7.2	4.2	3.8	4.6	4.5	5.3	8.6	6.9	4.1	4.7	3.1	2.9	5.4	6.5	6.1	5.4	6.5	5.1	5.5	M	4.8	3.9	8.6	5.4	23	
14	5.6	6.4	3.8	5.7	8.1	5.1	6.1	10.4	10.3	6.4	4.3	3.4	4.8	4	5.3	6.4	5.4	6	6.6	5.9	5.5	5	4.8	4.8	10.4	5.8	24	
15	4.8	4.7	5.4	4.1	7.1	4.4	4.8	5.1	3.8	5.4	5.8	4.9	3.1	5.2	5	4.4	6.1	4.5	4.5	4.8	6	3.1	2.8	3.6	7.1	4.7	24	
16	3.7	2.7	3.4	2.8	3.2	2.7	3.1	3.9	3.9	4.5	4.4	4.8	3.7	3.1	3.9	5.5	6	4.3	3.9	5.5	5.8	5	4.9	5.3	6	4.2	24	
17	5	6	5.5	7.1	6.1	7.3	7.7	8.4	9.2	8.5	8.9	9.4	10.2	10.6	18.1	13.7	10.6	10.3	10.3	10	10.6	9.4	9.5	10	18.1	9.3	24	
18	8.9	7.2	7.2	4.7	3.3	3.6	3.9	4.8	4.4	3.4	2.9	3.3	-0.1	2.2	2.9	3.8	4.5	6.4	6.5	2.9	4	3.7	4	5.8	8.9	4.3	24	
19	5.5	7.7	5.6	5.9	7.8	5.6	7.1	9.8	9.5	9.4	5.6	5.4	8.6	5.5	5.7	7.8	2.9	5.6	5.1	4.5	9	6.6	8.1	6.8	9.8	6.7	24	
20	5.9	5.4	3.9	3.4	4.8	3.6	6	9.4	8.4	11.7	8.8	8.8	8.9	6.8	5.9	7.4	4.7	4.8	4.3	4.8	3.8	5.4	5.7	6	11.7	6.2	24	
21	6.2	6	5.7	7.3	6.7	6.9	6.2	6.9	9.7	9.4	8.9	7.6	4.7	4.5	5.3	6.9	5.1	2.9	3.2	4.2	4.2	3.1	5.4	7.4	9.7	6.0	24	
22	6.8	4.6	2.8	6.4	3.8	5.8	4.8	6.2	7.1	4.8	2.9	5	2.6	0.6	3.8	2.7	4.3	4.9	4.9	4.4	4.5	5.4	5.7	4.8	7.1	4.6	24	
23	4.9	3.2	2.6	4.8	4.7	3.3	5.1	6.2	4.8	4.9	4.4	3.7	3.7	3.3	3.8	3.4	3.4	1.9	3.1	2.4	1.4	4.8	4.9	4.8	1.6	6.2	3.8	24
24	2.2	1.7	1.6	2.2	2	0.9	2.4	2.4	2.3	3.6	5.6	4.5	8.5	12	8.2	9.2	5.1	3.4	13.9	9.7	D	1.7	0.4	1.6	13.9	4.6	23	
25	6.5	1.5	3.4	1.6	1	2.7	5.6	7	6	5.5	5.1	4.3	4.4	2.5	2.1	4.5	5.4	3.2	4	3.8	4.9	3.4	3.4	2.7	7	3.9	24	
26	2.8	2.7	4.5	7.1	6.8	16.5	4.9	6.6	7.6	3.9	5.9	5.5	6.7	2.6	2.5	4.5	3.6	5.1	5.3	5.4	4.3	4.2	4.2	6.2	16.5	5.4	24	
27	4.9	4.9	3.4	4.5	5.9	4.3	3.4	3.3	6.1	2.8	1.1	1	2	2.7	5.5	4	3.2	3.4	4.3	4.3	4.3	13.8	14	10.1	8.8	14	5.1	24
28	8.7	5.8	7.8	13.7	10	10.9	8.5	12.2	8.3	6.6	5.3	5.9	4.5	3.7	4	3.9	3.7	2.2	3.4	6.7	24.8	16.9	6.9	5.7	24.8	7.9	24	
29	7.2	8	8	3.3	2.4	3.8	4.3	4.5	3.8	4.5	4.4	4	4.6	3.8	8	11.1	6.7	6.5	4.7	6.2	6.4	6.1	5.8	6.1	11.1	5.6	24	
30	6.1	6.5	5.1	3.2	2.6	2.1	2.8	C	C	3.2	2	1.7	2.4	1.5	4.2	3.2	5.5	4.8	4.1	3.6	3.3	3.2	3.4	6.5	3.5	24		
31	3.1	2.8	2.7	4.6	5.4	6	5.5	5.5	6	6.4	5.1	4.4	3.4	5.4	4.5	4.8	5.5	8.1	6.6	7.5	7.2	6.9	9.5	8	9.5	5.6	24	
HOURLY MAX	9	8	11	14	10	17	11	18	15	12	9	9	10	12	18	14	11	11	14	10	25	17	10	10				
HOURLY AVG	5.3	5.0	4.9	5.4	5.5	5.6	6.0	8.2	7.1	5.8	4.7	4.5	4.3	4.0	4.7	5.2	4.6	5.2	5.7	5.4	6.5	5.9	5.3	5.2				

#### 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

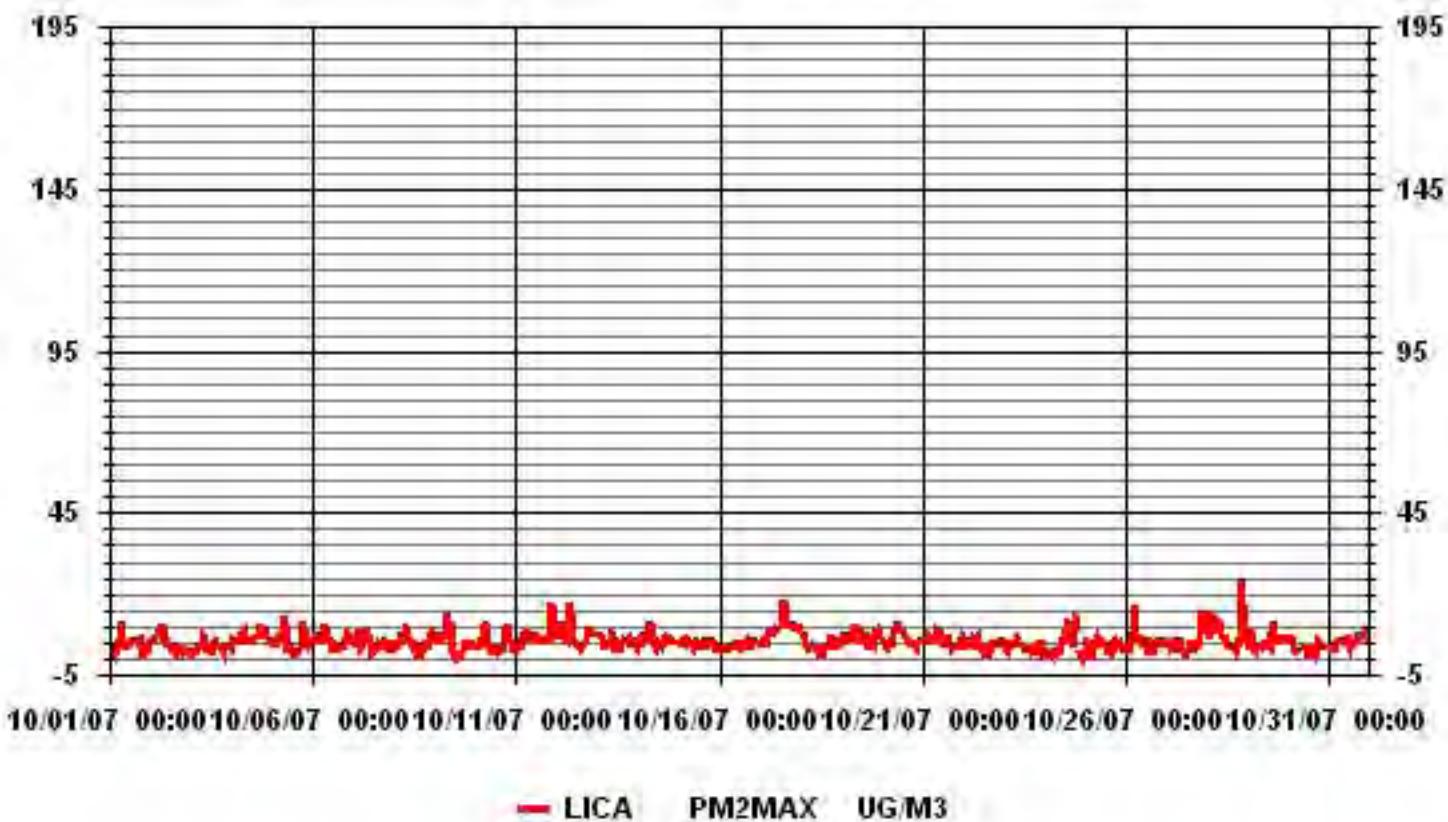
NUMBER OF NON-ZERO READINGS:	737
MAXIMUM INSTANTANEOUS VALUE:	24.8 UG/M <sup>3</sup> @ HOUR(S)
ON DAY(S)	21 28

Izs Calibration Time:	0 HRS	Operational Time:	742 HRS
Monthly Calibration Time:	3 HRS		
Standard Deviation:	2.71		

#### MOUNTAIN STANDARD TIME



### 01 Hour Averages



**NO<sub>2</sub>**

# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

NITROGEN DIOXIDE hourly averages in ppt

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGs.
DAY																											
1	2	2	2	3	3	6	11	Izs	4	2	3	2	4	4	4	3	2	5	6	7	5	3	2	2	11	3.8	24
2	2	1	3	4	4	4	Izs	C	C	C	C	C	Izs	3	2	4	5	4	2	3	3	4	9	9	3.6	24	
3	3	6	9	9	8	Izs	13	13	5	2	1	0	1	0	0	0	0	1	1	1	1	1	1	13	3.3	24	
4	2	2	1	1	Izs	1	1	3	2	1	1	1	1	1	1	2	2	6	9	10	4	3	5	10	2.7	24	
5	7	6	6	Izs	3	5	13	15	3	1	0	0	0	1	0	1	1	3	5	3	2	1	1	1	15	3.4	24
6	1	1	Izs	2	2	2	2	3	2	1	1	1	1	1	1	1	1	2	4	2	2	2	2	4	1.7	24	
7	2	Izs	5	2	2	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1.6	24	
8	Izs	1	1	1	4	10	11	10	8	5	1	1	0	0	0	0	1	2	3	6	8	13	10	Izs	13	4.4	24
9	6	9	9	8	9	14	13	13	14	15	3	1	1	1	1	1	2	2	2	1	1	1	Izs	1	15	5.6	24
10	1	1	1	1	2	8	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	Izs	1	1	8	1.3	24
11	1	1	1	1	1	1	2	2	2	3	2	2	2	2	3	3	3	5	6	Izs	6	4	4	6	2.6	24	
12	5	5	7	6	7	6	9	17	24	6	9	12	8	1	1	1	3	4	7	Izs	10	11	7	10	24	7.7	24
13	5	5	5	2	2	5	3	13	16	7	1	7	1	1	1	2	3	Izs	2	3	M	2	2	16	4.0	23	
14	2	1	2	2	2	2	3	2	2	2	3	3	2	2	2	3	Izs	3	2	2	2	2	2	3	2.2	24	
15	1	1	1	1	2	3	3	2	1	2	2	1	2	1	Izs	2	5	4	5	2	1	1	5	2.0	24		
16	1	1	2	1	2	3	4	2	1	1	1	1	1	Izs	1	1	1	1	1	2	2	4	1.4	24			
17	2	2	1	2	3	5	6	6	3	2	1	1	2	Izs	3	2	3	4	5	7	7	4	4	7	3.3	24	
18	5	4	3	4	4	5	6	5	4	3	2	1	Izs	1	1	2	12	15	11	6	8	9	11	15	5.3	24	
19	10	9	9	9	9	12	13	17	18	8	9	6	Izs	7	7	6	6	10	13	15	14	10	9	10	18	10.3	24
20	9	5	5	5	4	4	5	7	9	8	8	Izs	6	3	1	1	1	3	2	4	8	7	7	3	9	5.0	24
21	4	5	4	5	3	4	3	4	3	2	Izs	2	1	1	1	1	2	4	3	5	5	7	8	8	3.4	24	
22	7	4	3	3	4	7	11	11	8	Izs	5	5	3	1	1	3	2	3	1	1	1	1	1	11	3.8	24	
23	1	1	1	2	2	2	3	3	Izs	2	2	2	1	2	2	3	3	8	5	2	2	3	2	8	2.4	24	
24	2	2	2	4	3	3	5	Izs	6	4	3	3	3	5	5	3	1	1	1	0	1	2	2	1	6	2.7	24
25	1	2	2	2	3	2	Izs	3	2	1	1	1	0	1	0	0	1	1	2	6	2	2	1	6	1.6	24	
26	2	2	2	3	4	Izs	2	5	4	2	2	1	2	1	0	0	1	3	2	5	6	6	7	4	7	2.9	24
27	3	3	3	3	Izs	3	2	3	3	2	3	2	2	2	2	2	3	11	5	5	11	12	10	11	12	4.6	24
28	9	5	4	Izs	8	10	8	6	4	2	2	1	1	1	1	2	3	12	20	20	16	17	15	20	7.3	24	
29	15	13	Izs	4	3	3	5	7	5	3	2	2	3	3	11	7	7	9	13	6	7	6	4	15	6.1	24	
30	4	Izs	2	2	2	2	4	4	3	1	1	1	0	0	1	1	3	4	5	5	4	3	5	2.5	24		
31	Izs	3	2	4	6	7	8	8	8	6	5	4	3	4	4	5	8	18	12	7	8	4	6	Izs	18	6.4	24
HOURLY MAX	15	13	9	9	9	14	13	17	24	15	9	12	8	7	7	11	8	18	15	20	20	16	17	15			
HOURLY AVG	4.0	3.6	3.4	3.3	3.8	4.9	6.0	6.7	5.8	3.3	2.6	2.3	1.9	1.7	1.7	2.0	2.2	4.1	4.7	4.9	5.4	5.0	4.5	4.2			

### STATUS FLAG CODES

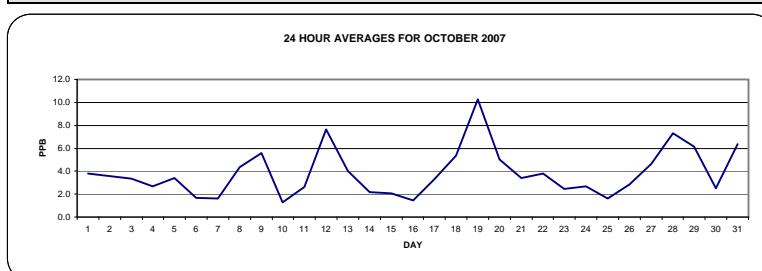
S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

### OBJECTIVE LIMIT:

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

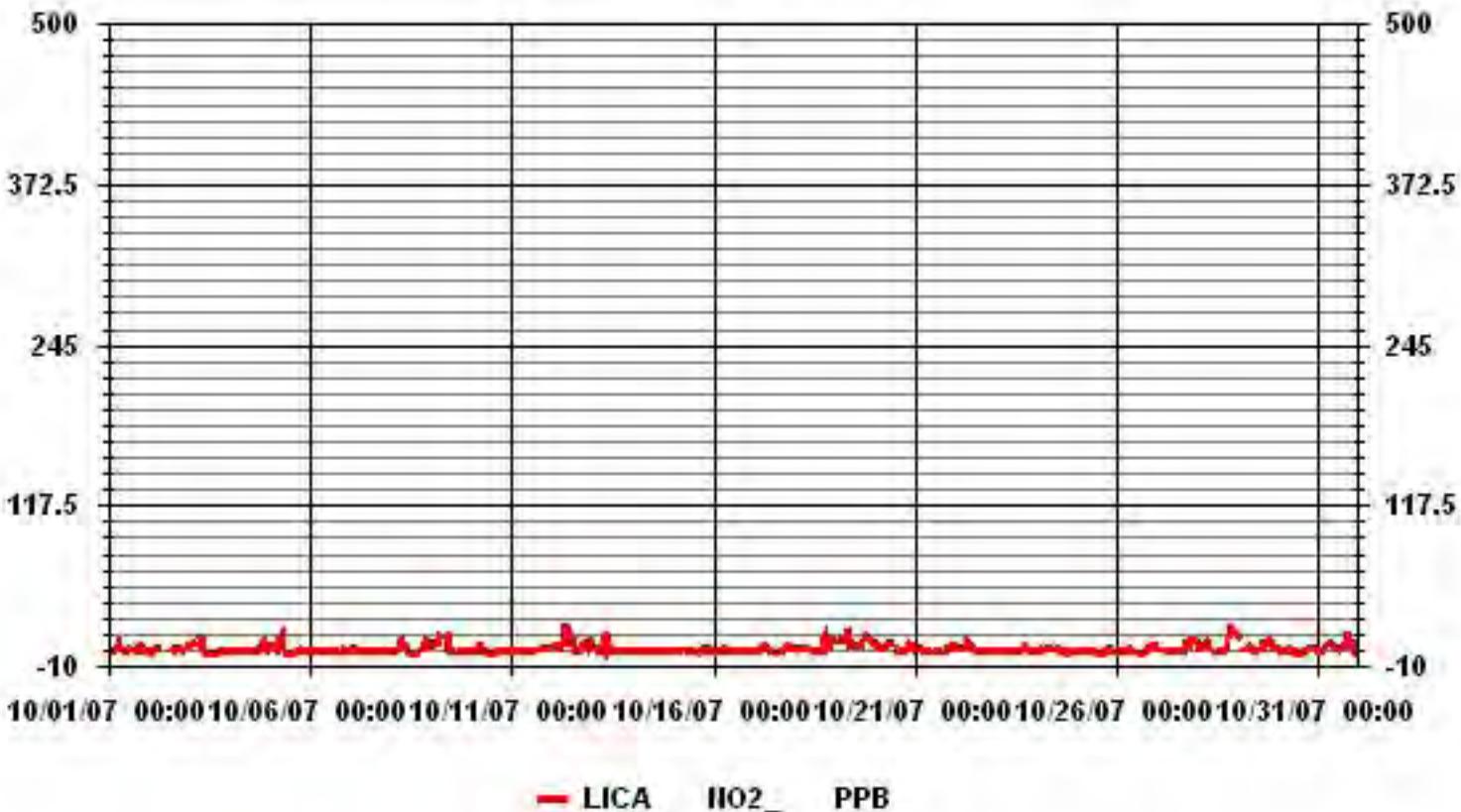
### MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	680
MAXIMUM 1-HR AVERAGE:	24 PPB @ HOUR(S) 9 ON DAY(S) 12
MAXIMUM 24-HR AVERAGE:	10.3 PPB ON DAY(S) 19
Izs CALIBRATION TIME:	34 HRS OPERATIONAL TIME: 743 HRS
MONTHLY CALIBRATION TIME:	6 HRS AMD OPERATION UPTIME: 99.9 %
STANDARD DEVIATION:	3.63 MONTHLY AVERAGE: 3.83 PPB



### MOUNTAIN STANDARD TIME

### 01 Hour Averages



LICA  
NO2\_ / WD Joint Frequency Distribution (Percent)

October 2007

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	.85	1.13	.85	3.69	6.11	12.23	20.91	1.84	3.98	3.12	9.67	15.64	11.52	4.97	1.99	1.42	100.00
< 110	.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	
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Totals	.85	1.13	.85	3.69	6.11	12.23	20.91	1.84	3.98	3.12	9.67	15.64	11.52	4.97	1.99	1.42	

Calm : .00 %

Total # Operational Hours : 703

Distribution By Samples

Direction

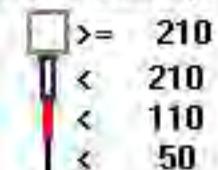
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	6	8	6	26	43	86	147	13	28	22	68	110	81	35	14	10	703
< 110																	
< 210																	
>= 210																	
Totals	6	8	6	26	43	86	147	13	28	22	68	110	81	35	14	10	

Calm : .00 %

Total # Operational Hours : 703

Logger : 01 Parameter : NO<sub>2</sub>

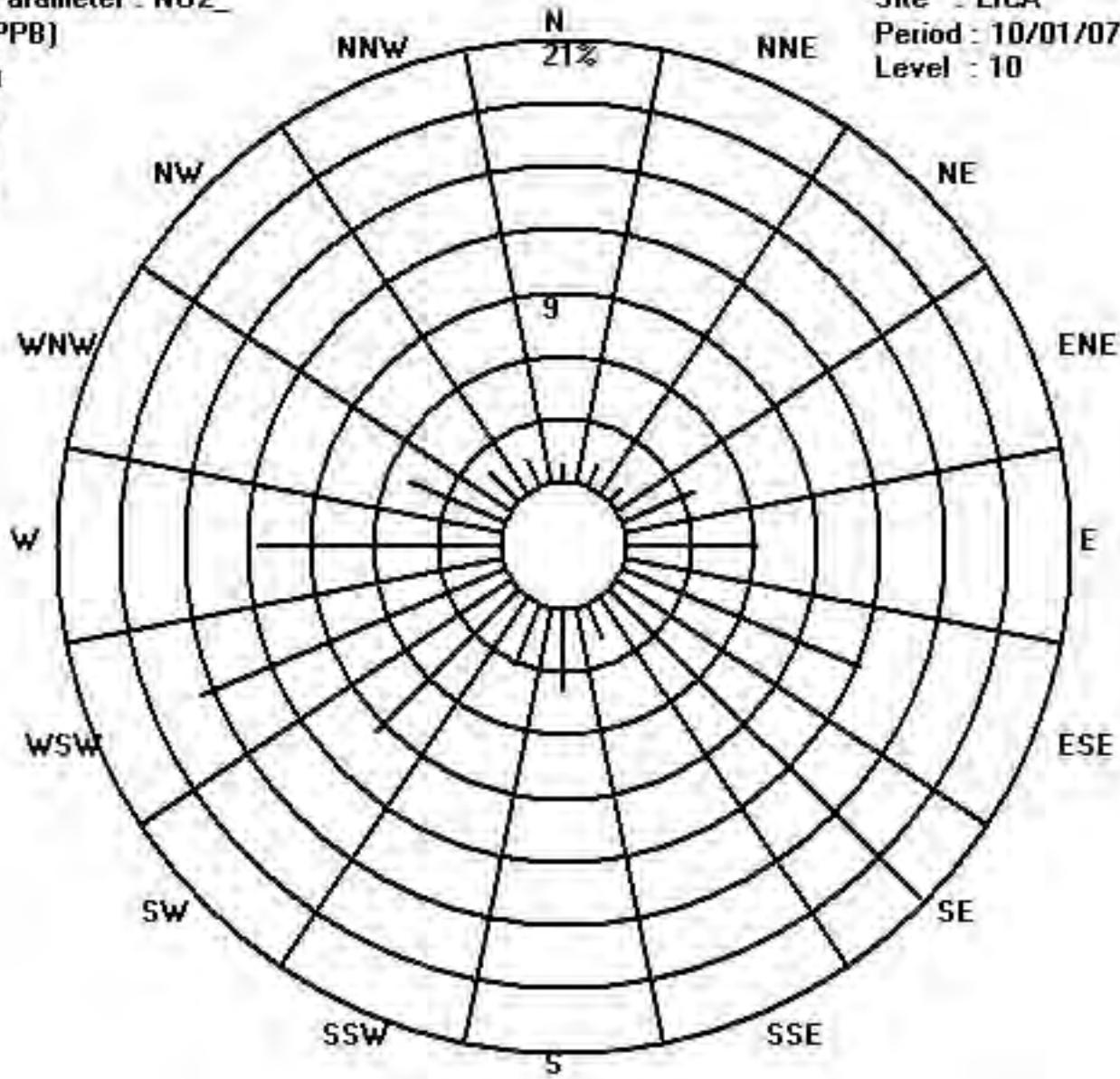
Class Limits (PPB)



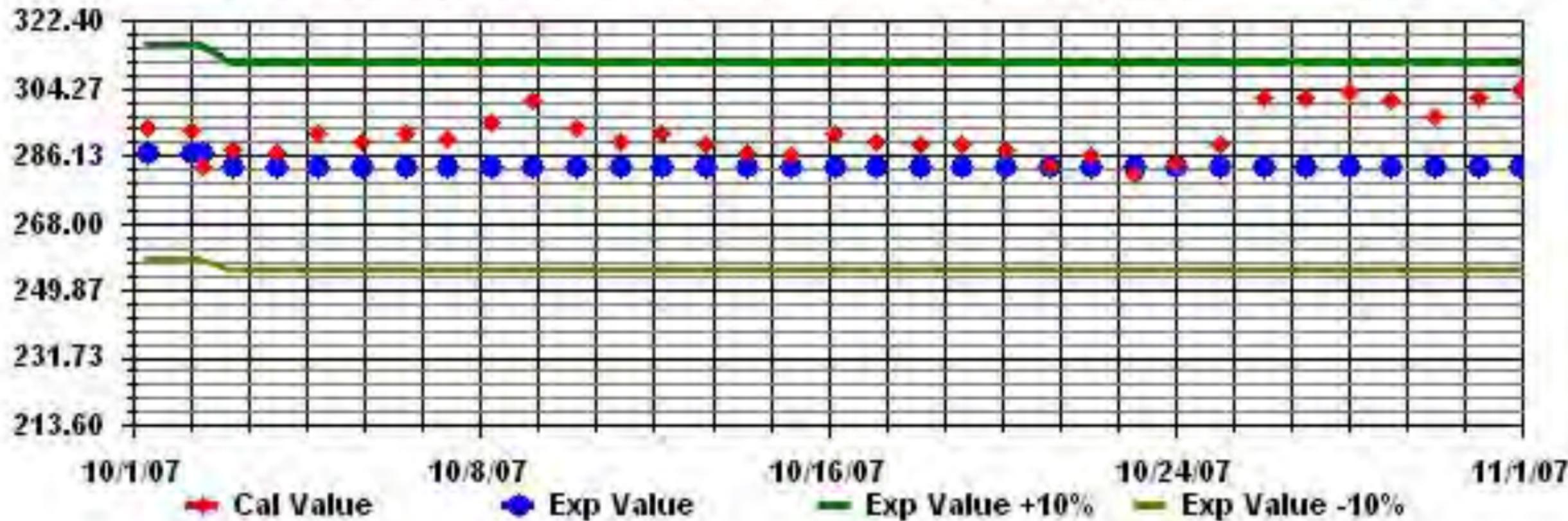
Site : LICA

Period : 10/01/07-10/31/07

Level : 10



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



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

NITROGEN DIOXIDE MAX instantaneous maximum in pp

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
DAY																													
1	3	4	5	4	12	8	39	IZS	9	3	5	4	6	7	6	6	4	8	9	14	7	4	4	4	39	7.6	24		
2	5	2	5	5	8	7	IZS	C	C	C	C	C	IZS	4	3	6	9	6	3	5	7	8	15	15	6.1	24			
3	5	10	11	15	11	IZS	16	16	10	4	4	3	5	1	0	1	1	2	2	1	2	1	3	16	5.5	24			
4	2	2	2	1	IZS	1	1	30	2	6	2	2	1	4	2	4	5	4	12	13	15	7	4	12	30	5.8	24		
5	13	11	8	IZS	9	15	21	20	12	2	2	8	3	5	4	13	3	6	9	9	5	2	2	2	21	8.0	24		
6	2	2	IZS	2	3	2	7	9	7	2	1	6	4	2	2	5	2	2	10	6	4	3	2	3	10	3.8	24		
7	4	IZS	12	3	4	7	5	5	14	6	4	2	2	2	1	3	1	1	1	1	1	1	1	2	14	3.6	24		
8	IZS	3	2	2	11	15	15	11	10	8	3	2	1	1	1	1	1	3	5	10	15	18	15	IZS	18	7.0	24		
9	9	13	13	10	11	26	26	22	19	20	7	2	13	5	7	3	12	4	3	4	4	3	IZS	1	26	10.3	24		
10	1	1	1	3	5	26	3	2	2	1	1	4	2	12	7	6	4	2	2	2	IZS	10	6	6	35	4.0	24		
11	1	1	1	3	10	4	5	11	35	34	8	5	8	4	5	4	4	4	12	8	IZS	10	6	6	35	8.2	24		
12	6	7	8	8	7	11	12	113	140	8	63	62	88	3	3	3	6	8	14	IZS	16	18	11	13	140	27.3	24		
13	7	12	8	4	3	11	12	43	52	59	6	71	28	1	3	16	16	15	IZS	4	8	M	5	4	71	17.6	23		
14	2	2	5	4	3	3	4	4	5	2	4	4	12	3	3	4	7	IZS	7	3	3	4	2	2	12	4.0	24		
15	2	2	2	2	7	20	5	15	4	3	3	3	4	2	15	2	IZS	4	8	8	10	6	3	1	20	5.7	24		
16	1	2	2	2	4	22	5	4	2	2	1	2	3	2	3	IZS	5	2	5	2	2	2	2	22	3.4	24			
17	4	2	3	4	9	10	9	10	5	4	8	3	14	4	IZS	7	3	5	5	6	9	9	5	5	14	6.2	24		
18	5	6	5	9	7	6	7	5	4	3	2	2	IZS	2	2	5	26	30	16	9	17	15	19	30	9.1	24			
19	17	14	13	12	12	31	19	26	32	11	14	11	14	11	IZS	13	16	16	10	19	19	22	19	13	13	12	32	16.7	24
20	11	8	6	7	6	5	10	14	11	9	9	IZS	10	6	1	1	3	4	3	7	13	9	12	4	14	7.3	24		
21	5	9	6	8	4	5	5	12	7	3	IZS	2	5	1	1	1	2	6	7	5	15	8	11	12	15	6.1	24		
22	13	6	5	6	6	10	21	15	10	IZS	6	10	7	2	1	7	4	5	1	2	1	2	2	3	21	6.3	24		
23	1	1	1	3	3	3	4	6	IZS	3	3	6	2	2	3	9	8	12	9	7	7	5	2	2	12	4.4	24		
24	3	3	3	8	6	8	IZS	17	17	7	23	7	10	6	5	3	1	1	1	1	3	4	1	23	6.3	24			
25	3	3	3	3	24	2	IZS	12	5	4	3	3	2	1	1	1	1	2	5	14	5	4	3	24	4.6	24			
26	5	4	3	5	5	IZS	4	9	8	10	5	5	11	10	1	1	2	6	3	6	9	10	13	6	13	6.1	24		
27	4	3	5	4	IZS	6	3	13	6	4	4	3	3	4	5	3	8	30	9	13	20	19	13	14	30	8.5	24		
28	16	7	5	IZS	9	15	10	7	6	3	2	2	2	1	3	2	9	6	19	27	24	21	20	18	27	10.2	24		
29	18	17	IZS	7	13	6	11	10	8	6	6	5	13	29	7	16	14	11	15	17	11	11	8	5	29	11.5	24		
30	5	IZS	3	3	2	3	5	5	4	3	1	1	1	3	1	2	7	8	8	6	6	7	4	8	3.9	24			
31	IZS	3	3	6	7	8	9	18	11	7	6	5	5	6	5	6	21	26	19	16	14	6	8	IZS	26	9.8	24		
HOURLY MAX	18	17	13	15	24	31	39	113	140	59	63	71	88	29	16	16	21	30	30	27	24	21	20	19					
HOURLY AVG	6.0	5.5	5.1	5.3	7.7	10.1	10.4	16.8	15.8	8.6	6.6	8.9	9.2	4.6	4.2	5.1	5.8	8.0	8.5	8.2	9.0	8.0	6.8	6.2					

### 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

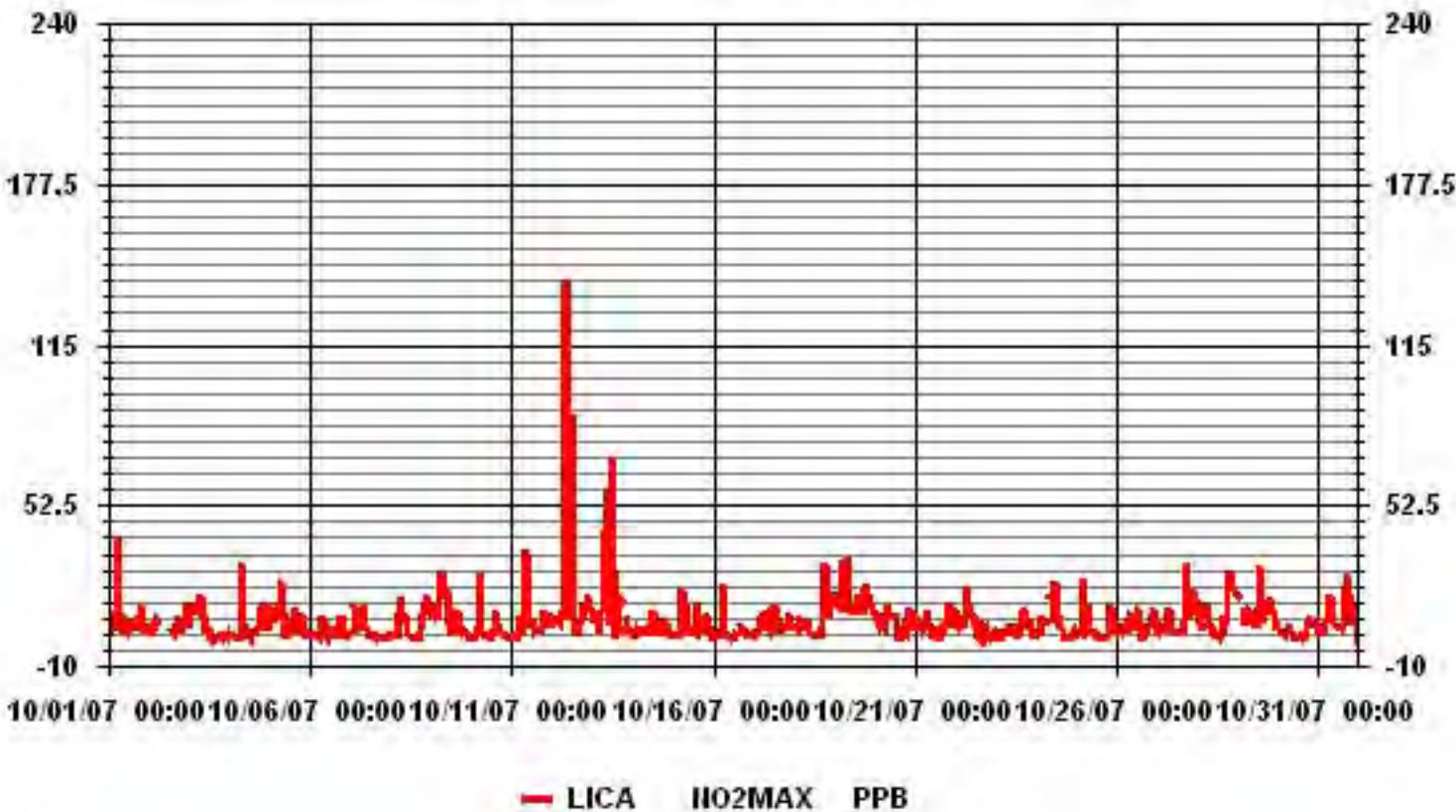
NUMBER OF NON-ZERO READINGS:	702
MAXIMUM INSTANTANEOUS VALUE:	140 PPB @ HOUR(S) 9 ON DAY(S) 12

Izs Calibration Time:	34 HRS	Operational Time:	743 HRS
Monthly Calibration Time:	6 HRS		
Standard Deviation:	10.46		

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



**NO**

# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

NITRIC OXIDE hourly averages in ppt

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	MAX.	AVG.	RDGS.		
DAY																												
1	0	0	0	0	0	0	4	Izs	3	1	1	0	1	0	0	0	0	0	0	0	0	0	1	5	5	0.7	24	
2	1	0	3	6	12	8	Izs	C	C	C	C	C	Izs	0	0	0	0	0	0	0	0	0	0	0	12	1.9	24	
3	0	0	0	0	0	Izs	1	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.4	24		
4	0	0	0	0	Izs	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.1	24		
5	0	0	0	Izs	0	1	10	22	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	22	1.6	24		
6	0	0	Izs	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
7	0	Izs	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
8	Izs	0	0	0	0	5	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	Izs	5	0.6	24		
9	0	1	2	0	3	14	31	35	26	16	1	0	0	0	0	0	0	0	0	0	0	0	Izs	0	35	5.6	24	
10	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Izs	0	0	1	0.0	24	
11	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5	Izs	15	8	2	15	1.4	24
12	0	1	0	0	0	0	0	31	40	3	8	17	6	0	0	0	0	0	0	Izs	0	1	0	0	40	4.7	24	
13	0	0	0	0	0	0	0	9	16	3	0	9	1	0	0	0	0	0	Izs	0	0	M	0	0	16	1.7	23	
14	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	Izs	0	0	0	0	0	0	1	0.1	24		
15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	Izs	0	0	0	0	0	0	1	0.0	24			
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	24			
17	0	0	0	0	0	1	0	1	1	0	1	0	0	0	Izs	0	0	0	0	0	0	0	1	0.2	24			
18	0	0	0	0	1	0	0	0	0	0	0	0	0	Izs	0	0	0	0	5	0	0	0	1	2	5	0.4	24	
19	6	10	10	10	8	16	26	43	20	2	2	1	Izs	1	2	1	0	0	1	6	10	3	5	5	43	8.2	24	
20	4	1	1	1	2	2	3	8	6	10	5	Izs	2	0	0	0	0	0	0	0	0	0	0	0	10	2.0	24	
21	0	0	0	0	0	0	0	1	1	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
22	1	0	0	0	0	0	2	3	0	Izs	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0.3	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	24		
24	0	0	0	0	0	0	Izs	1	2	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	3	0.6	24	
25	0	0	0	0	1	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
26	0	0	0	0	0	Izs	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
27	0	0	0	0	0	Izs	0	0	0	0	0	1	1	0	0	0	0	3	0	0	0	1	0	0	3	0.3	24	
28	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	1	1	3	5	0.7	24		
29	2	2	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0.3	24		
30	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		
31	Izs	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	Izs	2	0.2	24		
HOURLY MAX	6	10	10	10	12	16	31	43	40	16	8	17	6	3	2	1	0	3	5	6	10	15	8	5				
HOURLY AVG	0.5	0.5	0.6	0.6	0.9	1.7	2.7	5.9	4.2	1.6	0.8	1.1	0.5	0.2	0.1	0.1	0.0	0.1	0.3	0.6	0.5	0.7	0.5	0.6				

### 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

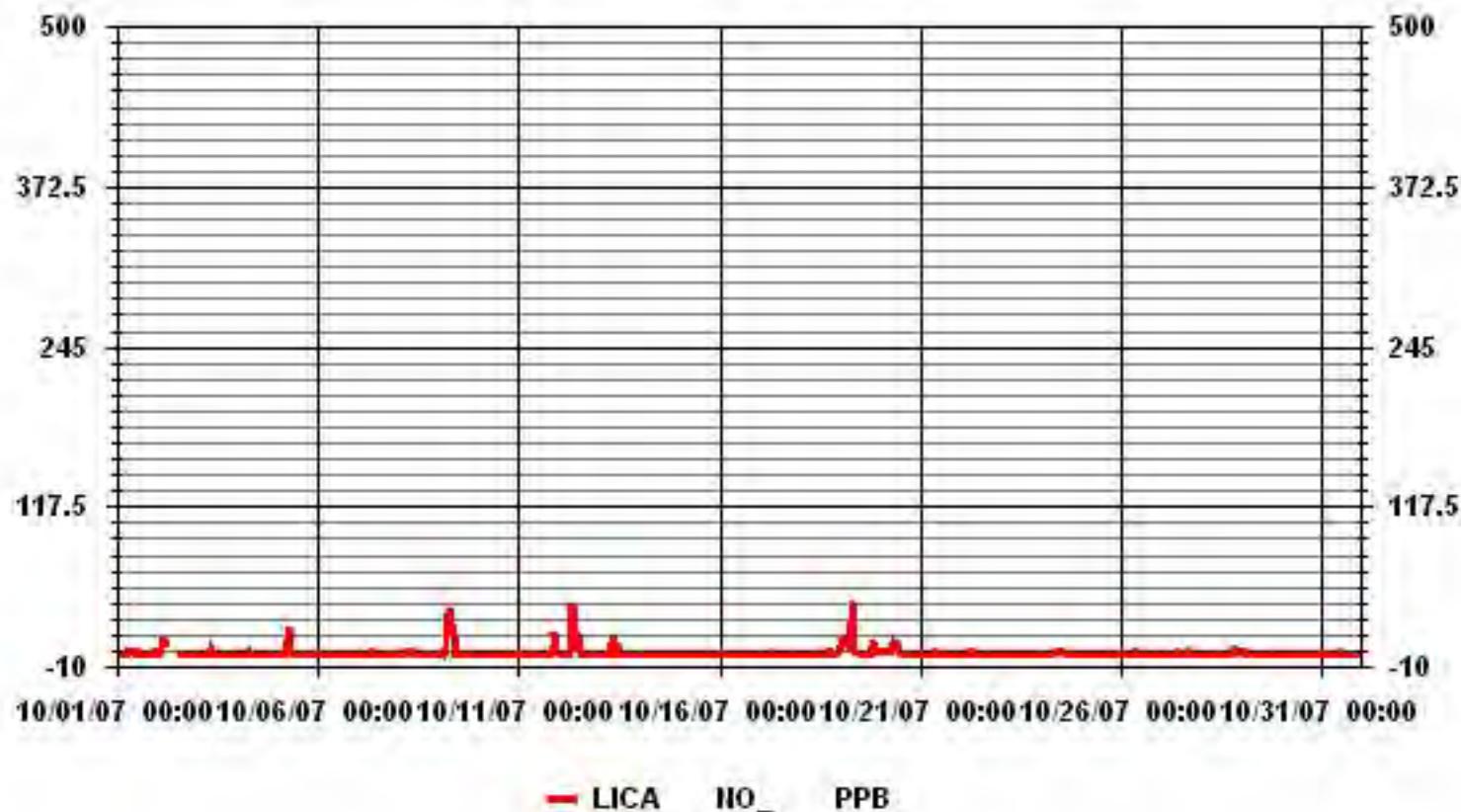
NUMBER OF NON-ZERO READINGS:	140
MAXIMUM 1-HR AVERAGE:	43 PPB
MAXIMUM 24-HR AVERAGE:	8.2 PPB

Izs CALIBRATION TIME:	34 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	6 HRS	AMD OPERATION UPTIME:	99.9 %
STANDARD DEVIATION:	4.05	MONTHLY AVERAGE:	1.03 PPB

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



**LICA**  
**NO\_ / WD Joint Frequency Distribution (Percent)**

October 2007

**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	.85	1.13	.85	3.69	6.11	12.23	20.91	1.84	3.98	3.12	9.67	15.64	11.52	4.97	1.99	1.42	100.00
< 110	.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	
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Totals	.85	1.13	.85	3.69	6.11	12.23	20.91	1.84	3.98	3.12	9.67	15.64	11.52	4.97	1.99	1.42	

Calm : .00 %

Total # Operational Hours : 703

**Distribution By Samples**

**Direction**

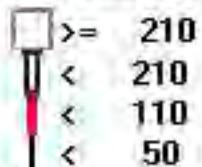
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	6	8	6	26	43	86	147	13	28	22	68	110	81	35	14	10	703
< 110																	
< 210																	
>= 210																	
Totals	6	8	6	26	43	86	147	13	28	22	68	110	81	35	14	10	

Calm : .00 %

Total # Operational Hours : 703

Logger : 01 Parameter : NO<sub>x</sub>

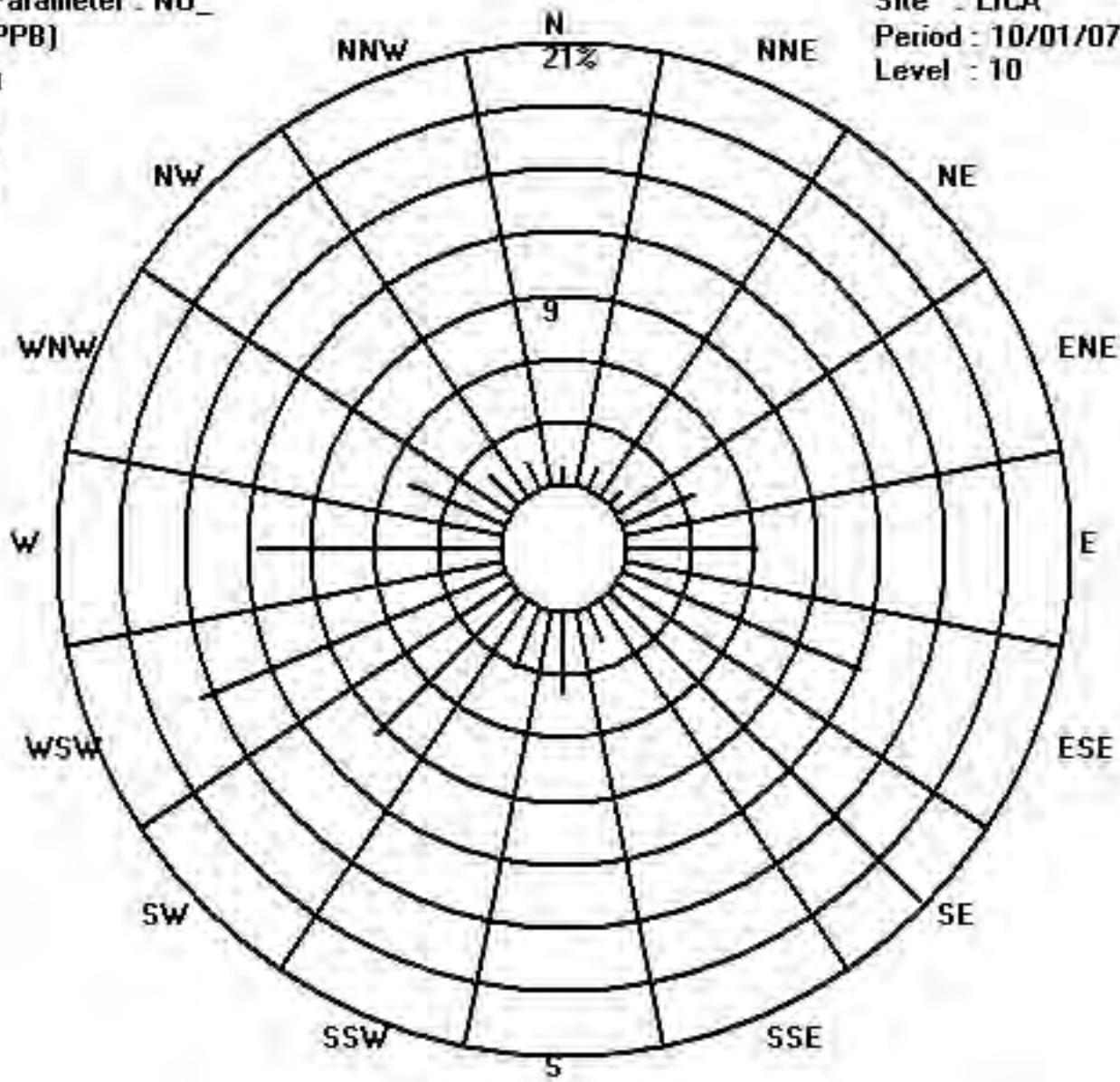
Class Limits (PPB)



Site : LICA

Period : 10/01/07-10/31/07

Level : 10



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

NITRIC OXIDE MAX instantaneous maximum in ppb

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
DAY																													
1	1	1	1	0	10	1	36	IZS	19	3	2	1	3	2	2	1	1	0	0	5	8	2	2	32	36	5.8	24		
2	3	0	10	8	26	14	IZS	C	C	C	C	C	C	IZS	1	1	4	0	0	0	0	0	0	0	0	26	4.2	24	
3	0	0	0	0	0	0	IZS	5	7	5	1	2	3	2	0	0	0	0	0	0	0	0	0	0	7	1.1	24		
4	0	0	0	0	0	IZS	0	0	81	0	4	0	1	0	3	1	1	3	2	10	2	1	2	1	6	81	5.1	24	
5	5	1	0	0	IZS	5	11	25	32	9	9	3	2	4	2	2	15	3	5	10	7	3	0	0	0	32	6.7	24	
6	0	0	IZS	0	2	0	15	12	4	2	0	1	3	3	1	3	0	0	0	33	1	2	0	0	0	33	3.6	24	
7	1	IZS	4	1	0	2	0	5	2	4	3	0	1	4	1	3	0	0	0	0	0	0	0	0	0	5	1.3	24	
8	IZS	0	0	0	4	10	6	5	4	1	0	0	0	0	0	0	0	0	0	0	0	1	7	IZS	10	1.7	24		
9	1	3	6	1	14	25	118	63	50	24	4	1	2	1	4	2	10	2	2	1	0	0	0	IZS	0	118	14.5	24	
10	0	0	0	1	1	25	2	0	0	2	0	2	1	10	1	9	1	1	0	0	0	0	0	IZS	0	0	25	2.4	24
11	0	0	0	0	18	1	2	25	18	30	4	4	3	1	1	0	1	0	3	12	IZS	26	18	10	30	7.7	24		
12	3	1	1	1	0	1	3	500	129	5	64	65	34	0	0	0	0	0	0	0	IZS	1	21	0	1	500	36.1	24	
13	0	12	0	0	0	5	7	47	46	48	8	110	32	0	3	8	10	12	IZS	0	3	M	4	1	110	16.2	23		
14	0	0	0	3	4	0	2	5	6	0	2	6	1	0	1	1	2	IZS	6	0	0	16	0	0	16	2.4	24		
15	0	0	0	0	6	14	1	3	4	12	1	1	12	5	3	1	IZS	1	5	4	3	0	0	0	14	3.3	24		
16	0	0	0	0	7	9	2	5	0	1	1	6	0	1	2	IZS	2	3	1	0	0	0	0	9	1.7	24			
17	0	0	0	0	5	16	5	19	11	4	18	2	9	2	IZS	10	0	0	0	1	0	0	0	19	4.4	24			
18	0	0	0	0	68	0	0	0	1	1	0	0	0	0	IZS	0	0	0	2	53	11	0	2	3	6	68	6.4	24	
19	14	17	18	13	21	45	56	82	53	7	6	2	IZS	14	27	11	2	7	11	34	31	10	17	19	82	22.5	24		
20	8	3	3	5	4	8	6	87	8	13	8	IZS	4	2	0	0	0	0	0	0	0	0	1	0	87	7.0	24		
21	0	0	0	0	0	0	0	0	7	2	1	IZS	1	0	1	0	0	1	0	0	0	13	0	0	2	13	1.2	24	
22	13	0	0	0	0	1	10	22	0	IZS	0	2	1	0	0	0	0	0	0	0	0	0	0	0	22	2.1	24		
23	0	0	0	0	0	0	0	0	0	IZS	0	0	2	0	0	0	1	10	2	5	2	2	0	0	0	10	1.0	24	
24	0	0	0	2	3	3	7	IZS	13	16	10	4	13	7	4	1	0	0	0	0	0	0	0	0	16	3.6	24		
25	0	0	0	0	32	0	IZS	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	3	0	32	1.7	24		
26	0	0	0	0	0	IZS	0	1	3	6	8	4	19	3	0	0	3	0	0	0	2	0	3	0	19	2.3	24		
27	0	0	0	0	0	IZS	1	0	3	3	0	1	8	2	3	3	1	0	62	0	12	9	5	1	0	62	5.0	24	
28	4	0	1	IZS	1	0	0	0	0	0	0	0	0	1	0	7	0	11	13	13	4	3	17	17	3.3	24			
29	6	3	IZS	1	8	0	1	2	4	3	6	2	5	11	16	4	15	0	4	6	0	0	0	0	16	4.2	24		
30	0	IZS	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0.1	24		
31	IZS	0	0	0	0	0	2	1	2	6	2	7	3	1	0	27	1	3	3	6	0	0	IZS	27	2.9	24			
HOURLY MAX	14	17	18	13	68	45	118	500	129	48	64	110	34	14	27	15	27	62	53	34	31	26	18	32					
HOURLY AVG	2.0	1.4	1.5	1.2	8.2	6.6	10.7	36.3	13.7	6.9	5.4	8.0	5.5	2.7	2.6	2.4	3.4	3.3	5.2	3.8	3.3	3.1	2.1	3.2					

### 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

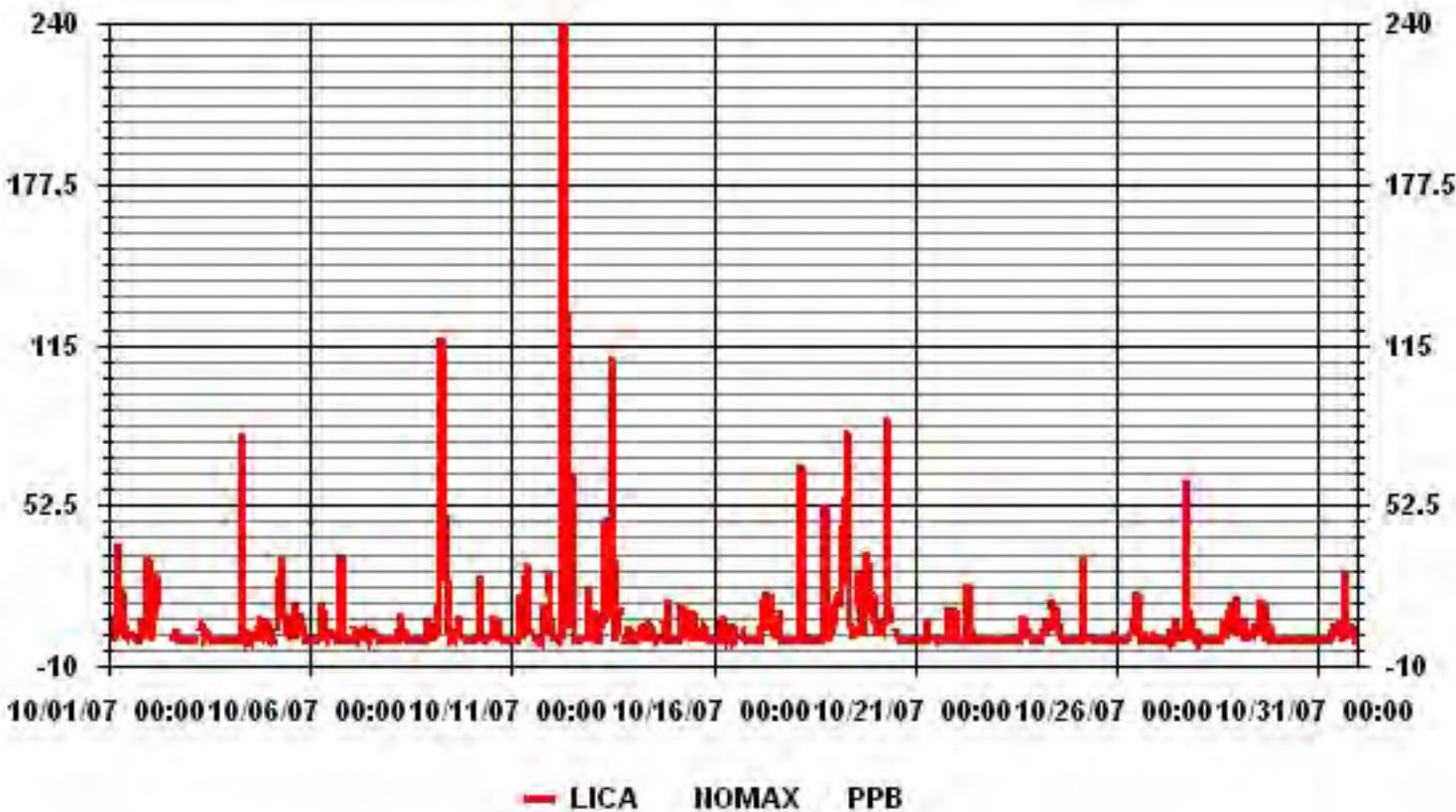
NUMBER OF NON-ZERO READINGS:	385
MAXIMUM INSTANTANEOUS VALUE:	500 PPB @ HOUR(S) 8 ON DAY(S) 12

Izs Calibration Time:	34 HRS	Operational Time:	743 HRS
Monthly Calibration Time:	6 HRS		
Standard Deviation:	22.73		

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



**NO<sub>x</sub>**

**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE**

OCTOBER 2007

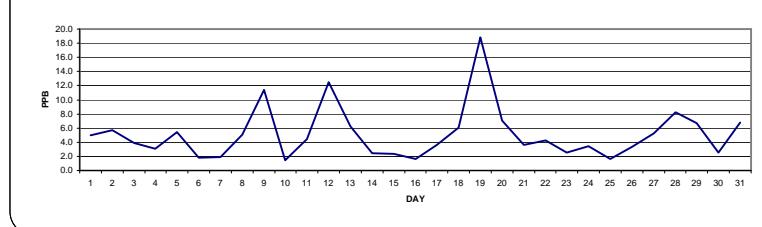
**OXIDES OF NITROGEN** hourly averages in ppb

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1	2	2	2	3	4	6	16	<b>IZS</b>	8	4	4	2	5	5	4	4	3	5	6	7	6	4	4	8	16	5.0	24
2	3	2	6	10	16	13	<b>IZS</b>	C	C	C	C	C	<b>IZS</b>	4	3	4	5	4	2	3	3	4	9	16	5.7	24	
3	3	6	9	9	8	<b>IZS</b>	15	19	7	3	2	1	1	0	0	0	1	1	1	1	1	1	1	19	3.9	24	
4	1	2	1	1	<b>IZS</b>	1	1	7	2	2	1	1	1	2	2	2	2	3	7	9	11	4	3	5	11	3.1	24
5	8	6	6	<b>IZS</b>	4	7	23	38	6	1	1	1	1	1	2	1	3	6	4	2	1	1	1	38	5.4	24	
6	1	2	<b>IZS</b>	2	2	2	4	2	1	1	1	1	1	1	1	1	1	4	4	2	2	2	2	4	1.8	24	
7	2	<b>IZS</b>	6	2	2	3	3	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1.9	24	
8	<b>IZS</b>	1	1	1	4	16	13	13	10	6	1	1	0	0	0	0	1	2	3	6	8	13	11	<b>IZS</b>	16	5.0	24
9	6	11	11	8	13	28	44	49	40	32	4	1	1	1	1	1	2	2	2	1	2	1	<b>IZS</b>	1	49	11.4	24
10	1	1	1	1	3	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	<b>IZS</b>	1	1	9	1.4	24
11	1	1	1	1	2	1	2	4	3	4	2	2	3	3	4	3	3	6	12	<b>IZS</b>	21	13	7	21	4.4	24	
12	6	6	7	6	7	10	47	<b>64</b>	9	18	29	14	1	1	1	3	4	7	<b>IZS</b>	11	13	7	10	64	12.5	24	
13	5	6	5	2	2	5	4	23	32	11	2	17	2	1	1	2	3	4	<b>IZS</b>	2	3	<b>M</b>	2	32	6.2	23	
14	2	1	2	2	2	2	3	3	3	2	2	4	4	3	2	2	3	<b>IZS</b>	3	2	2	3	2	2	4	2.4	24
15	1	1	1	1	3	4	4	4	3	2	2	1	1	2	2	2	<b>IZS</b>	2	5	4	5	2	1	1	5	2.3	24
16	1	1	2	1	2	3	4	3	2	1	1	2	1	1	1	<b>IZS</b>	2	1	1	1	1	2	2	4	1.6	24	
17	2	2	1	2	3	6	6	8	4	3	2	2	2	2	2	<b>IZS</b>	3	2	3	4	5	7	7	4	8	3.7	24
18	5	4	3	4	5	5	6	6	5	4	3	2	1	<b>IZS</b>	1	1	2	12	20	12	7	9	10	13	20	6.1	24
19	16	20	19	19	18	28	40	60	39	11	12	7	<b>IZS</b>	8	9	7	7	11	14	21	13	15	15	15	60	<b>18.8</b>	24
20	13	6	6	6	6	9	16	16	18	13	<b>IZS</b>	9	3	1	1	1	2	2	4	8	7	7	3	18	7.1	24	
21	4	5	4	5	3	4	3	5	4	3	<b>IZS</b>	3	2	1	1	1	2	4	3	6	5	7	8	8	3.7	24	
22	8	4	3	3	4	8	13	14	9	<b>IZS</b>	5	6	4	1	1	3	2	3	1	1	1	1	1	14	4.2	24	
23	1	1	1	1	2	2	3	3	<b>IZS</b>	2	2	3	2	2	2	3	4	8	5	2	3	3	2	2	8	2.6	24
24	2	2	2	4	4	6	<b>IZS</b>	7	6	6	6	5	8	7	3	1	1	0	0	0	0	2	2	1	8	3.4	24
25	1	2	2	2	4	<b>IZS</b>	3	2	1	1	1	1	1	0	0	0	1	2	6	2	2	1	6	1.7	24		
26	2	2	2	3	4	<b>IZS</b>	2	5	5	4	3	2	4	2	1	0	1	3	2	5	6	6	8	4	8	3.3	24
27	3	3	3	3	<b>IZS</b>	3	2	3	4	3	4	3	3	3	3	3	3	14	5	6	12	13	10	11	14	5.2	24
28	9	5	4	<b>IZS</b>	8	10	8	6	5	3	2	2	1	1	1	2	3	13	25	26	18	18	26	8.2	24		
29	17	15	<b>IZS</b>	4	3	3	6	7	5	4	3	3	4	4	3	13	7	7	9	14	6	7	6	4	17	6.7	24
30	4	<b>IZS</b>	2	2	2	4	4	4	3	1	1	0	0	1	1	1	3	4	5	5	5	4	3	5	2.5	24	
31	<b>IZS</b>	3	2	4	6	7	8	9	9	7	7	5	4	4	5	5	9	18	12	7	8	4	6	<b>IZS</b>	18	6.8	24
HOURLY MAX	17	20	19	19	18	28	44	60	64	32	18	29	14	8	9	13	9	18	20	25	26	21	18	18			
HOURLY AVG	4.5	4.2	4.0	3.9	5.0	6.8	9.0	13.1	10.5	5.3	3.7	3.9	2.7	2.1	2.1	2.3	2.4	4.3	5.1	5.6	6.1	5.9	5.2	4.9			

**STATUS FLAG CODES**

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

**24 HOUR AVERAGES FOR OCTOBER 2007**



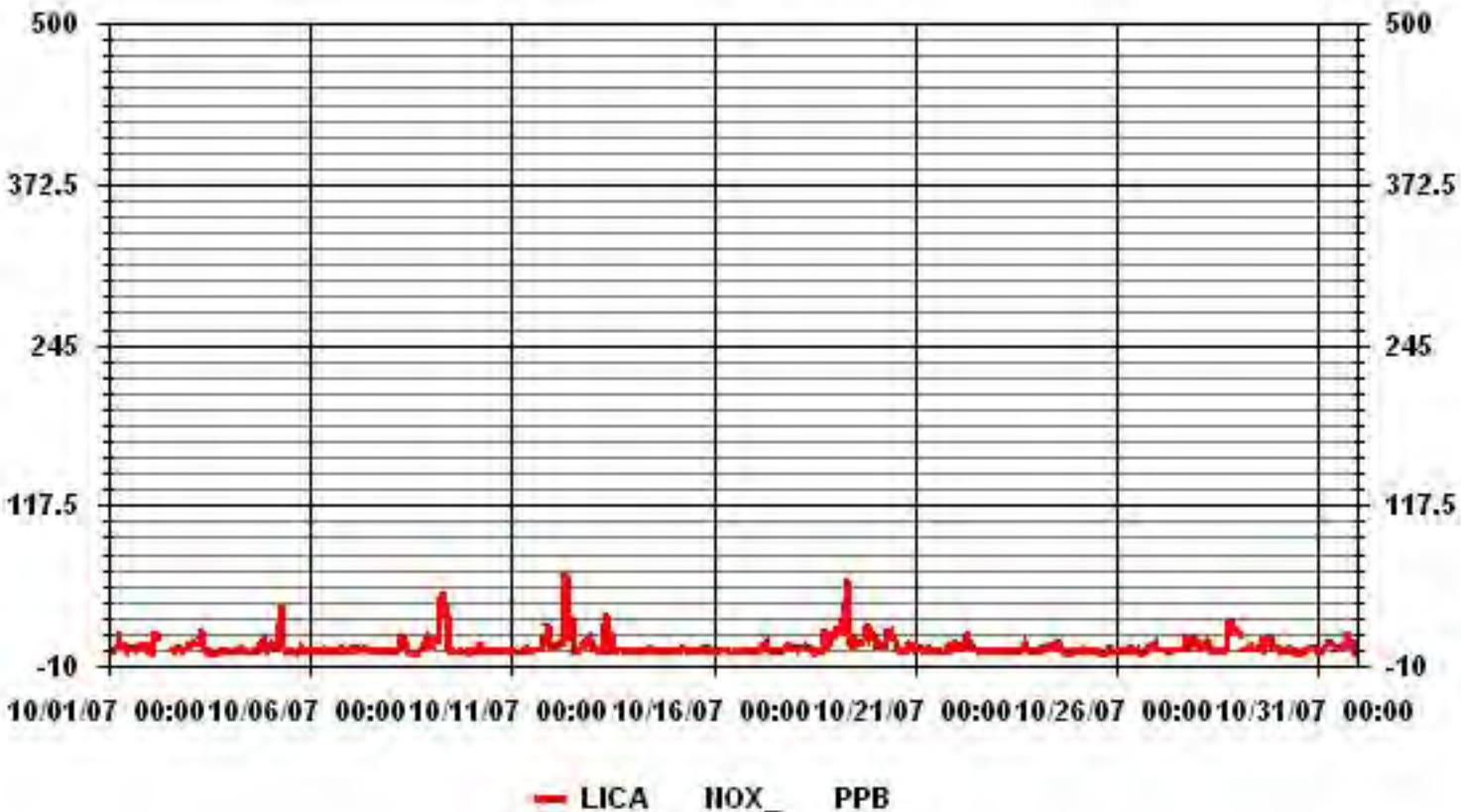
**MONTHLY SUMMARY**

NUMBER OF NON-ZERO READINGS:	686
MAXIMUM 1-HR AVERAGE:	64 PPB
MAXIMUM 24-HR AVERAGE:	18.8 PPB

Izs Calibration Time:	34 HRS	Operational Time:	743 HRS
Monthly Calibration Time:	6 HRS	AMD Operation Uptime:	99.9 %
Standard Deviation:	6.84	Monthly Average:	5.09 PPB

**MOUNTAIN STANDARD TIME**

### 01 Hour Averages



LICA  
NOX\_ / WD Joint Frequency Distribution (Percent)

October 2007

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	.85	1.13	.85	3.55	6.11	12.23	20.91	1.84	3.98	3.12	9.53	15.64	11.52	4.97	1.99	1.42	99.71
< 110	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.28
< 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	.85	1.13	.85	3.69	6.11	12.23	20.91	1.84	3.98	3.12	9.67	15.64	11.52	4.97	1.99	1.42	

Calm : .00 %

Total # Operational Hours : 703

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	6	8	6	25	43	86	147	13	28	22	67	110	81	35	14	10	701
< 110				1							1						2
< 210																	
>= 210																	
Totals	6	8	6	26	43	86	147	13	28	22	68	110	81	35	14	10	

Calm : .00 %

Total # Operational Hours : 703

Logger : 01 Parameter : NOX\_

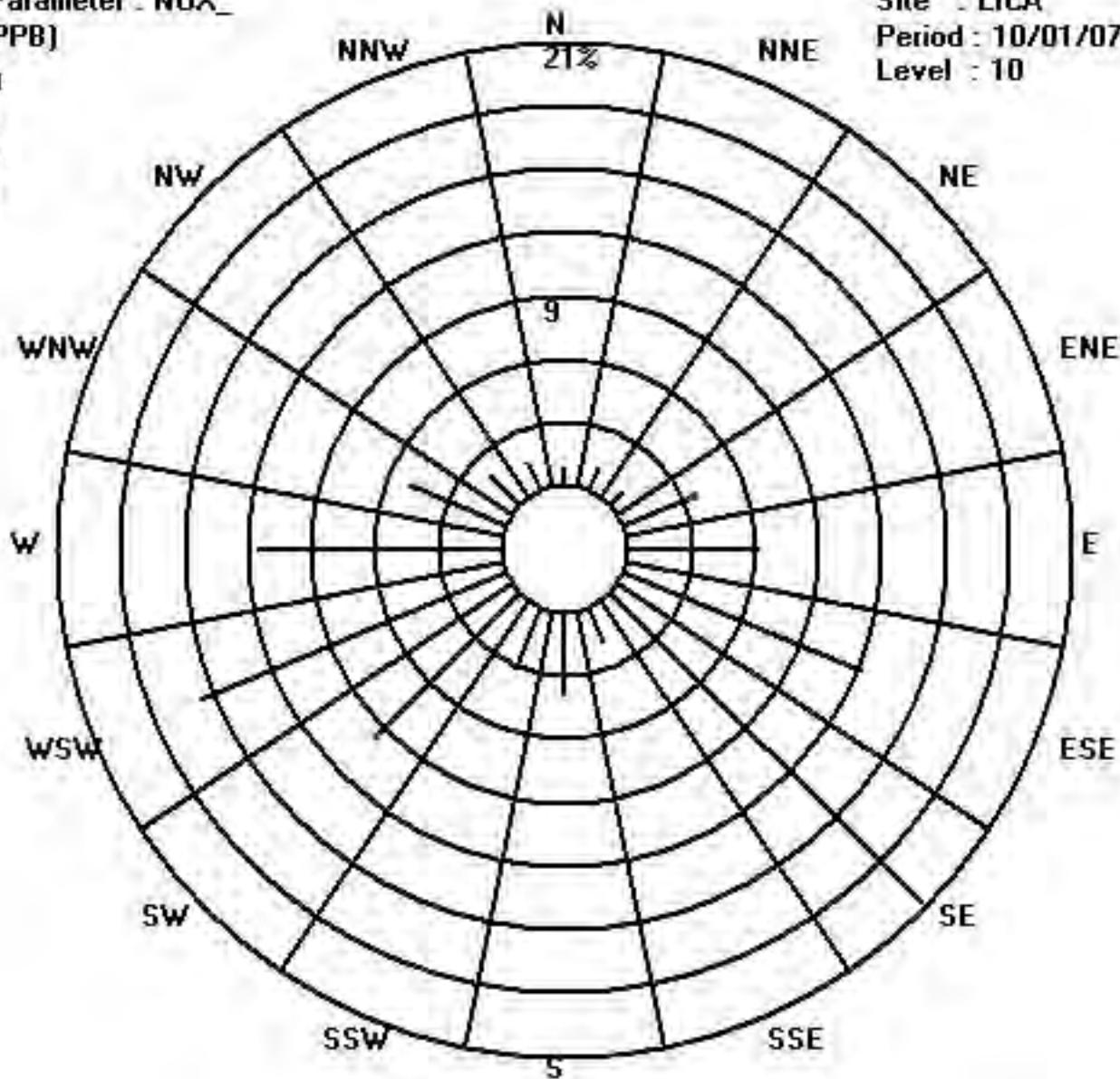
Class Limits (PPB)



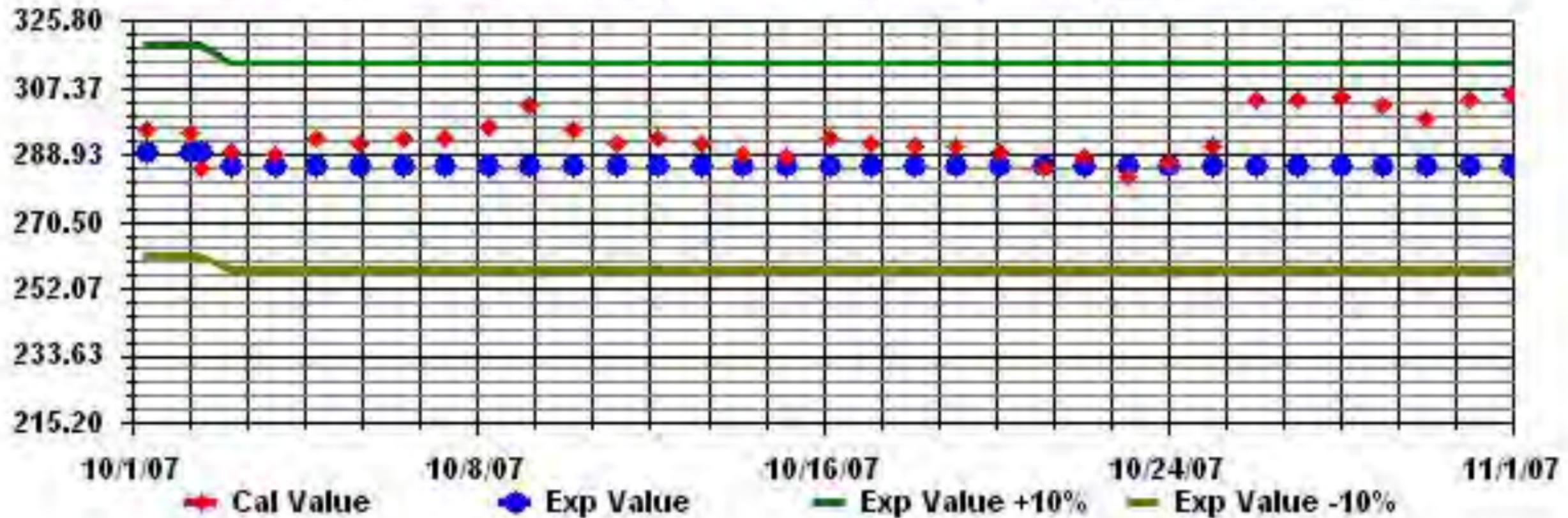
Site : LICA

Period : 10/01/07-10/31/07

Level : 10



Calibration Graph for Site: LICA Parameter: HOX\_ Sequence: HO2 Phase: SPAN



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

OXIDES OF NITROGEN MAX instantaneous maximum in pp

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
DAY																												
1	4	5	7	5	23	10	73	IZS	22	6	7	5	10	9	8	5	9	9	20	15	6	6	36	73	13.5	24		
2	8	3	15	14	28	21	IZS	C	C	C	C	C	IZS	7	4	10	10	6	3	5	7	8	15	28	10.3	24		
3	5	10	12	15	11	IZS	21	23	15	6	6	4	8	1	1	1	1	3	2	1	2	2	1	3	23	6.7	24	
4	2	2	2	1	IZS	1	1	107	3	9	2	3	2	7	3	6	9	7	21	14	15	9	5	18	107	10.8	24	
5	18	12	9	IZS	15	27	42	49	22	7	4	10	6	6	5	17	6	10	20	17	8	2	2	2	49	13.7	24	
6	2	3	IZS	2	6	3	14	21	8	3	2	7	6	5	4	8	2	2	35	7	5	3	2	4	35	6.7	24	
7	4	IZS	16	4	4	7	6	10	17	8	7	3	4	2	2	6	2	1	2	1	1	1	3	17	4.9	24		
8	IZS	3	2	2	15	26	21	16	15	10	3	3	1	1	1	1	1	3	5	10	15	18	22	IZS	26	8.8	24	
9	11	17	16	12	24	53	124	82	67	44	12	5	16	7	11	6	22	5	4	4	5	3	IZS	2	124	24.0	24	
10	2	1	1	4	5	51	5	3	2	4	2	2	5	3	12	8	7	5	3	2	2	IZS	1	1	51	5.7	24	
11	1	2	2	4	12	7	7	23	51	62	11	8	11	5	6	5	5	4	15	20	IZS	33	24	14	62	14.4	24	
12	9	8	9	9	7	13	14	500	253	13	107	101	101	4	3	3	7	8	14	IZS	18	32	12	14	500	54.7	24	
13	7	24	8	5	3	14	14	91	98	106	13	126	39	2	4	25	24	25	IZS	5	12	M	7	5	126	29.9	23	
14	2	2	5	6	6	4	5	8	8	3	6	9	13	4	4	5	8	IZS	9	3	3	13	2	3	13	5.7	24	
15	2	2	2	2	13	33	6	19	9	11	4	5	5	3	19	3	IZS	5	12	9	13	6	4	1	33	8.2	24	
16	1	2	3	2	5	31	7	8	3	3	2	5	3	3	3	IZS	5	2	7	2	3	3	2	3	31	4.7	24	
17	5	2	3	5	15	18	10	22	8	5	14	4	17	5	IZS	15	4	5	5	6	11	9	5	5	22	8.6	24	
18	6	7	5	10	25	7	7	7	5	5	4	3	3	IZS	2	2	5	29	77	20	9	19	19	24	77	13.0	24	
19	27	28	32	25	29	61	68	104	85	17	21	14	IZS	27	40	27	11	27	30	51	48	22	30	30	104	37.1	24	
20	17	11	10	10	9	11	12	92	17	22	17	IZS	13	8	2	2	3	4	3	7	13	10	13	4	92	13.5	24	
21	5	9	6	8	5	5	5	19	9	5	IZS	4	6	2	2	2	3	6	7	6	27	9	12	14	27	7.7	24	
22	27	7	6	6	6	11	30	34	10	IZS	7	12	8	3	1	8	4	5	1	2	1	2	2	3	34	8.5	24	
23	1	2	2	3	3	3	4	6	IZS	4	3	8	2	3	3	10	14	14	11	9	9	5	2	2	14	5.3	24	
24	3	4	3	9	11	9	16	IZS	27	24	16	26	19	15	10	6	3	1	1	1	2	3	5	1	27	9.3	24	
25	3	3	3	3	51	3	IZS	14	6	5	4	5	4	1	2	1	1	2	5	15	6	8	3	51	6.5	24		
26	5	4	3	5	5	IZS	4	9	12	15	13	7	24	14	2	1	6	6	3	6	11	10	17	7	24	8.2	24	
27	5	3	5	4	4	IZS	8	4	15	9	4	6	5	6	6	9	4	9	85	9	23	29	24	15	14	85	13.1	24
28	20	7	7	IZS	11	16	10	8	6	4	3	3	2	2	3	2	17	6	31	37	35	24	22	31	37	13.3	24	
29	23	21	IZS	8	20	6	12	12	9	8	6	17	36	9	19	23	11	19	21	12	11	8	5	36	14.3	24		
30	5	IZS	3	3	3	4	6	5	5	3	2	2	1	1	5	1	2	7	8	8	6	6	7	4	8	4.2	24	
31	IZS	3	3	6	7	9	9	22	12	10	12	6	11	10	6	7	48	28	22	18	19	6	9	IZS	48	12.9	24	
HOURLY MAX	27	28	32	25	51	61	124	500	253	106	107	126	101	36	40	27	48	85	77	51	48	33	30	36				
HOURLY AVG	7.9	7.1	6.9	6.6	13.0	16.3	19.2	47.5	28.1	14.7	11.0	13.8	12.5	6.8	6.3	7.1	8.9	11.1	13.1	11.3	12.3	10.5	9.1	9.3				

### 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

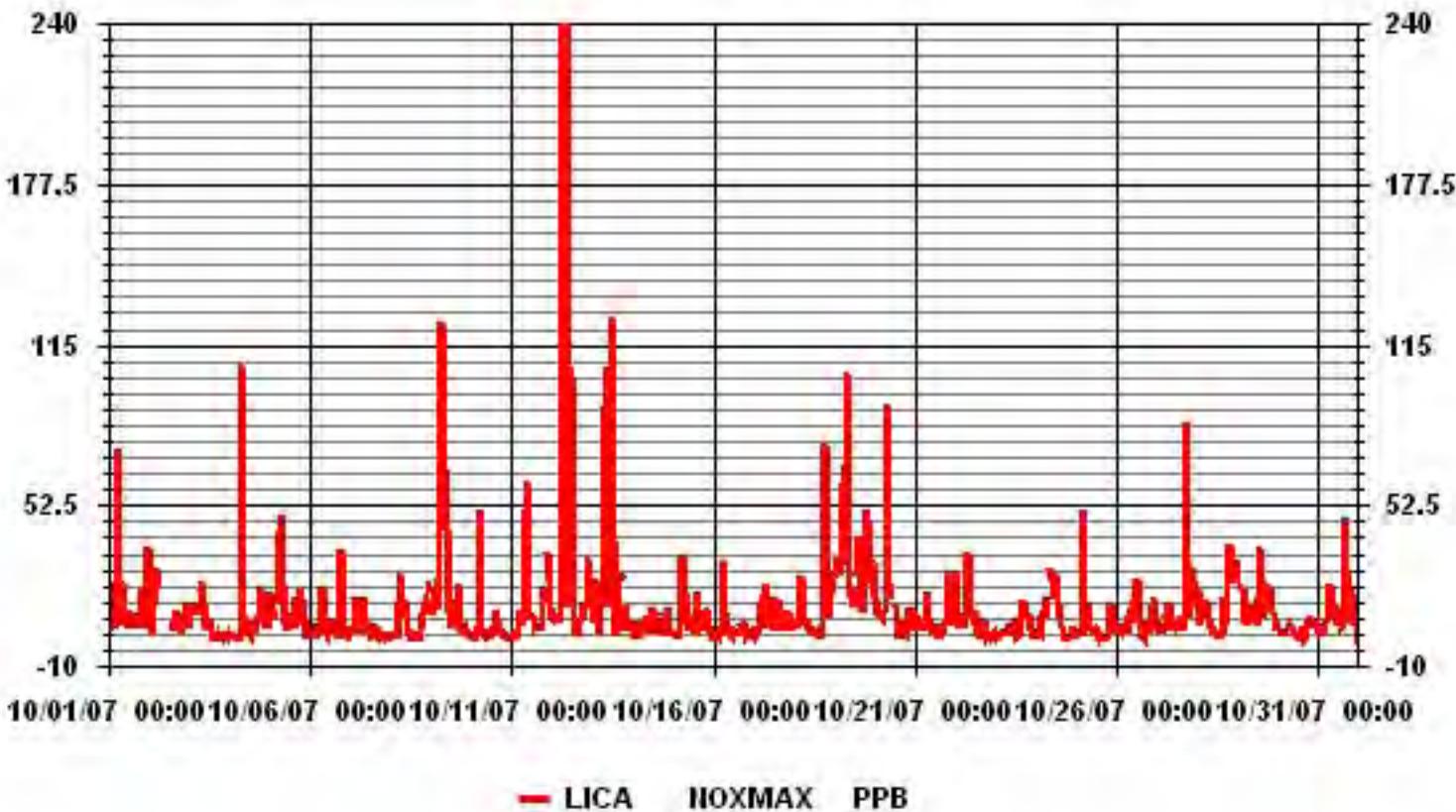
NUMBER OF NON-ZERO READINGS:	703
MAXIMUM INSTANTANEOUS VALUE:	500 PPB @ HOUR(S) 8 ON DAY(S) 12

IZS CALIBRATION TIME:	34 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	6 HRS		
STANDARD DEVIATION:	26.34		

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



O<sub>3</sub>

**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE**

OCTOBER 2007

OZONE ( $O_3$ ) hourly averages in ppb

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
DAY																												
1	23	21	22	20	19	15	9	<b>IZS</b>	14	18	19	20	18	18	17	17	19	17	16	8	4	2	1	0	23	14.7	24	
2	1	1	0	0	0	0	<b>IZS</b>	5	14	17	20	24	29	<b>C</b>	<b>C</b>	<b>IZS</b>	27	27	30	29	28	25	20	30	15.6	24		
3	26	20	18	16	16	<b>IZS</b>	8	11	18	22	25	29	29	29	24	21	20	16	14	14	13	14	17	16	29	19.0	24	
4	13	13	15	15	<b>IZS</b>	19	20	18	19	22	24	25	26	25	25	24	24	23	19	14	10	20	21	13	26	19.4	24	
5	8	6	6	<b>IZS</b>	12	11	2	3	19	24	25	25	26	27	28	28	27	25	24	21	22	22	21	21	28	18.6	24	
6	21	19	<b>IZS</b>	17	16	16	16	13	19	25	27	28	28	28	27	25	25	24	21	17	20	19	18	16	28	21.1	24	
7	14	<b>IZS</b>	7	16	10	7	9	16	16	20	28	33	34	34	37	37	36	34	33	31	31	32	31	30	37	25.0	24	
8	<b>IZS</b>	26	22	17	8	2	2	3	8	22	34	35	35	36	37	37	36	33	30	26	18	10	7	<b>IZS</b>	37	22.0	24	
9	9	3	1	2	1	0	0	1	7	13	28	33	34	34	34	34	34	32	32	32	31	31	<b>IZS</b>	29	29	33	29.0	24
10	30	30	30	28	24	19	27	26	27	28	29	30	31	31	32	32	32	33	31	31	<b>IZS</b>	29	29	33	29.0	24		
11	29	29	28	26	25	24	21	20	20	19	19	17	17	16	17	16	17	7	0	<b>IZS</b>	0	0	1	29	16.7	24		
12	1	1	5	4	11	13	9	10	12	21	24	27	32	35	36	36	33	31	26	<b>IZS</b>	13	9	16	9	36	18.0	24	
13	16	17	13	20	27	16	12	8	7	31	37	37	40	40	41	40	39	35	<b>IZS</b>	30	27	<b>M</b>	23	20	41	26.2	23	
14	17	16	7	4	13	13	12	15	17	19	23	29	33	37	41	40	38	<b>IZS</b>	31	29	27	26	25	23	41	23.3	24	
15	21	20	20	19	17	15	14	14	16	17	19	25	32	35	33	33	<b>IZS</b>	34	30	32	29	31	32	33	24.8	24		
16	31	29	28	27	27	25	24	25	26	27	29	31	36	38	41	<b>IZS</b>	37	37	36	35	34	33	31	41	31.3	24		
17	30	29	27	25	23	20	18	16	18	18	18	19	21	23	<b>IZS</b>	23	20	18	15	14	11	9	12	11	30	19.0	24	
18	17	20	20	18	16	14	11	12	15	19	22	27	33	<b>IZS</b>	37	37	35	19	9	9	10	6	2	1	37	17.8	24	
19	0	0	0	0	0	0	0	1	3	15	18	23	<b>IZS</b>	22	22	25	23	17	10	2	0	4	2	1	25	8.2	24	
20	0	1	0	1	0	0	0	1	3	5	9	<b>IZS</b>	24	33	36	36	35	34	33	23	22	20	24	36	16.3	24		
21	23	19	21	18	18	15	15	14	16	19	<b>IZS</b>	24	28	32	32	31	31	28	24	23	14	11	9	7	32	20.5	24	
22	7	17	15	10	10	10	6	4	14	<b>IZS</b>	23	25	30	36	36	34	36	34	39	40	39	38	36	33	40	24.9	24	
23	31	31	29	27	25	26	25	23	<b>IZS</b>	25	26	27	30	28	27	26	27	22	24	26	26	27	26	31	26.5	24		
24	25	24	22	18	18	17	13	<b>IZS</b>	11	12	12	13	16	16	17	23	31	40	<b>43</b>	42	40	35	31	33	43	24.0	24	
25	32	29	27	25	27	29	<b>IZS</b>	28	31	32	33	34	35	35	36	36	36	35	34	31	24	31	32	32	36	<b>31.5</b>	24	
26	29	30	28	26	25	<b>IZS</b>	32	27	26	31	31	33	33	34	35	34	33	29	27	23	18	13	10	19	35	27.2	24	
27	22	23	22	23	<b>IZS</b>	23	23	22	25	27	29	28	28	28	28	26	26	22	18	8	5	5	4	29	20.8	24		
28	5	7	5	<b>IZS</b>	6	11	18	22	27	32	35	36	36	37	38	37	35	28	13	3	2	6	3	1	38	19.3	24	
29	1	1	<b>IZS</b>	28	30	29	27	25	27	28	29	28	28	28	28	16	15	10	7	3	14	12	14	15	30	19.3	24	
30	15	<b>IZS</b>	17	19	19	19	20	21	24	27	30	34	34	34	35	31	28	24	23	21	20	22	35	24.8	24			
31	<b>IZS</b>	21	17	17	17	16	16	16	18	22	26	31	33	33	33	34	28	13	14	22	21	27	25	<b>IZS</b>	34	22.7	24	
HOURLY MAX	32	31	30	28	30	29	32	28	31	32	37	37	40	40	41	40	39	40	43	42	40	38	36	33				
HOURLY AVG	17.1	17.3	16.3	16.8	15.9	14.6	14.1	14.5	17.0	21.7	24.8	27.6	29.6	30.4	31.3	30.2	29.7	26.3	23.9	22.1	20.4	18.8	18.2	18.0				

**STATUS FLAG CODES**

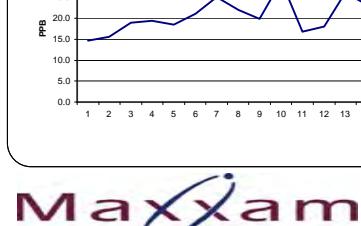
S	- OUT OF SERVICE	<b>IZS</b>	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	<b>M</b>	- MISSING DATA
D	- INSTRUMENT DRIFT	<b>P</b>	- POWER FAILURE
C	- CALIBRATION	<b>NA</b>	- NOT APPLICABLE

**OBJECTIVE LIMIT:**

ALBERTA ENVIRONMENT: 1-HR 82 PPB

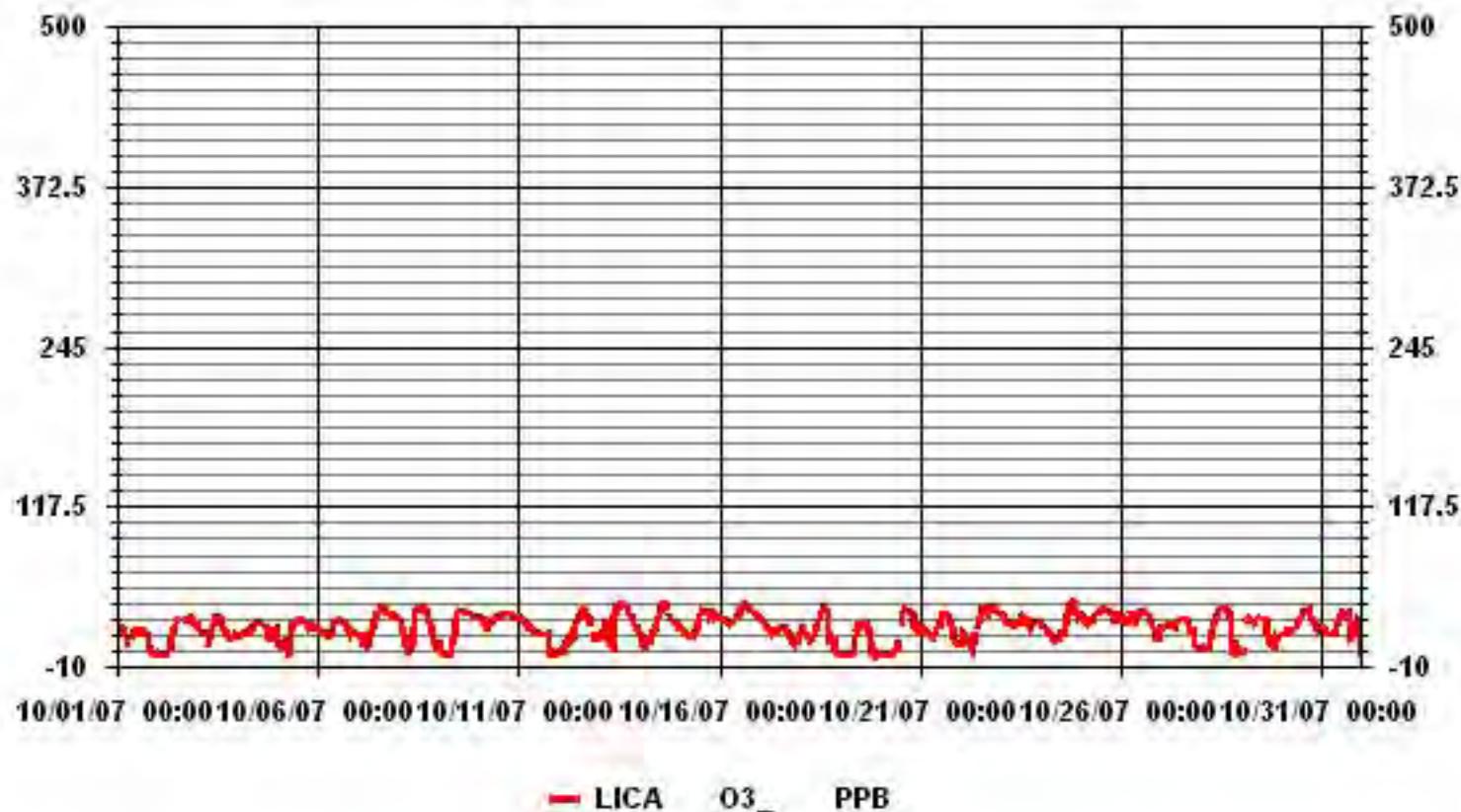
**MONTHLY SUMMARY**

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	683
MAXIMUM 1-HR AVERAGE:	43 PPB @ HOUR(S) 19 ON DAY(S) 24
MAXIMUM 24-HR AVERAGE:	31.5 PPB
IZS CALIBRATION TIME:	34 HRS OPERATIONAL TIME: 743 HRS
MONTHLY CALIBRATION TIME:	3 HRS AMD OPERATION UPTIME: 99.9 %
STANDARD DEVIATION:	10.40 MONTHLY AVERAGE: 21.55 PPB



**MOUNTAIN STANDARD TIME**

### 01 Hour Averages



LICA  
03\_ / WD Joint Frequency Distribution (Percent)

October 2007

Distribution By % Of Samples

Logger Id : 01  
Site Name : LICA  
Parameter : 03\_  
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	.84	1.13	.84	3.68	6.09	12.18	20.82	1.98	3.96	3.25	9.63	15.72	11.47	4.95	1.98	1.41	100.00
< 110	.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	
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Totals	.84	1.13	.84	3.68	6.09	12.18	20.82	1.98	3.96	3.25	9.63	15.72	11.47	4.95	1.98	1.41	

Calm : .00 %

Total # Operational Hours : 706

Distribution By Samples

Direction

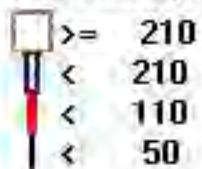
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	6	8	6	26	43	86	147	14	28	23	68	111	81	35	14	10	706
< 110																	
< 210																	
>= 210																	
Totals	6	8	6	26	43	86	147	14	28	23	68	111	81	35	14	10	

Calm : .00 %

Total # Operational Hours : 706

Logger : 01 Parameter : 03

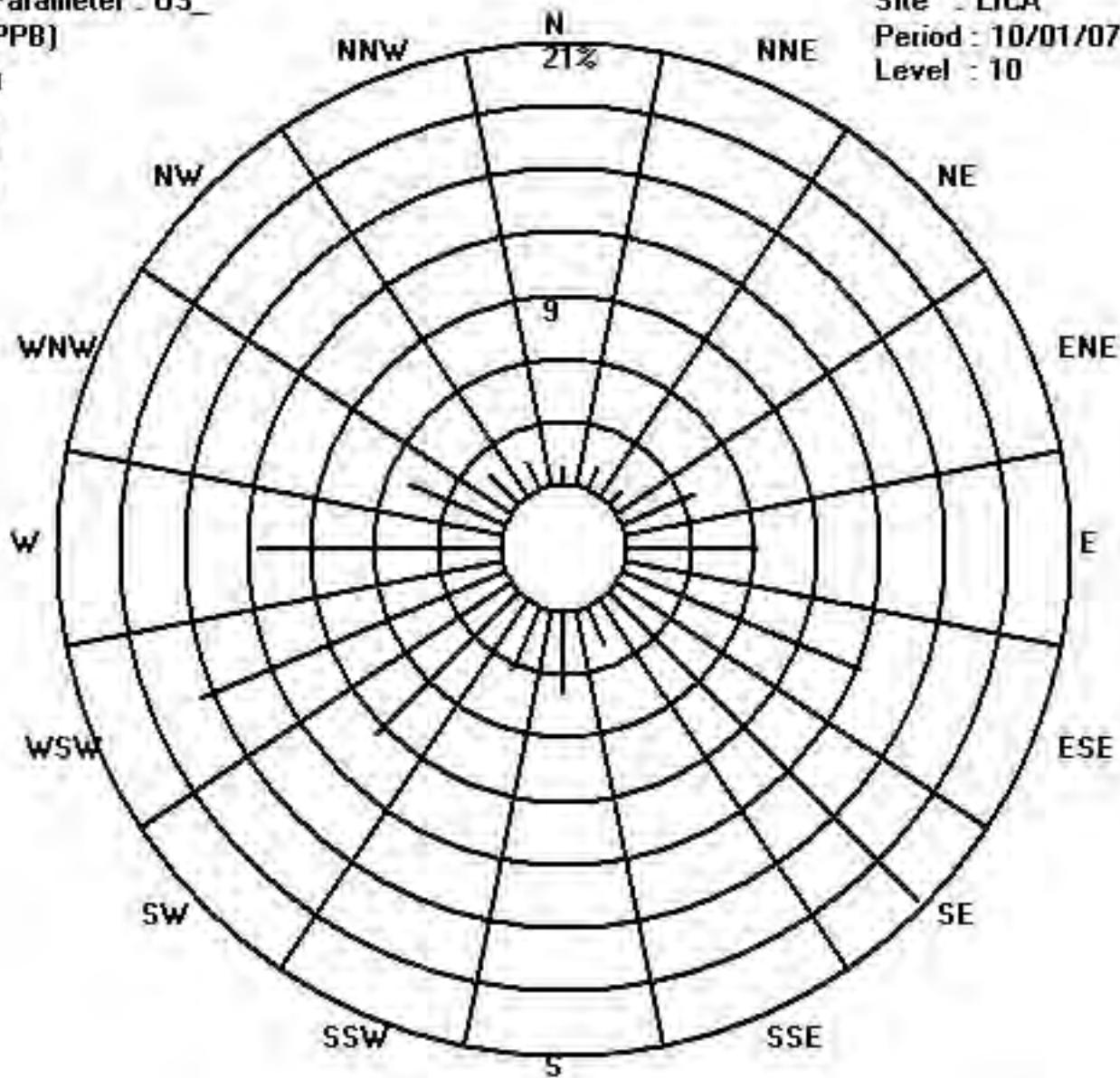
Class Limits (PPB)



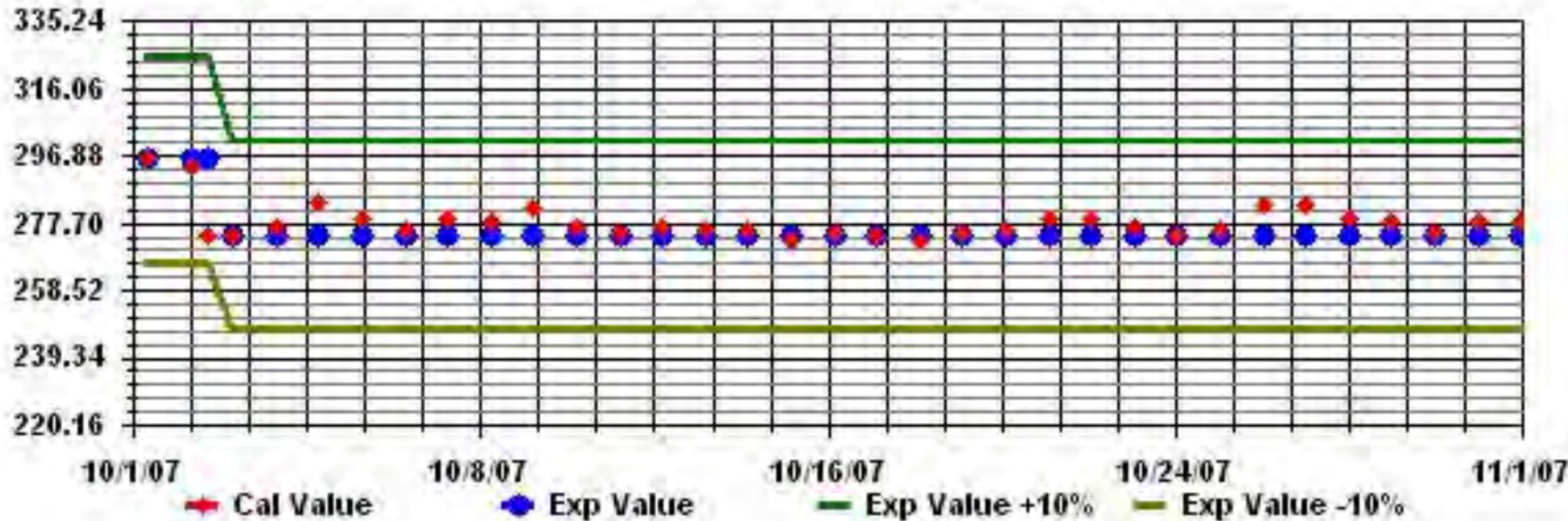
Site : LICA

Period : 10/01/07-10/31/07

Level : 10



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



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

OZONE MAX instantaneous maximum in ppb

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
DAY																											
1	24	23	23	21	21	18	12	<b>IZS</b>	17	20	21	21	20	19	19	22	21	21	13	10	5	1	2	24	17.2	24	
2	2	1	1	1	2	1	<b>IZS</b>	14	16	20	23	29	31	<b>C</b>	<b>C</b>	<b>IZS</b>	30	30	31	30	30	28	25	31	18.2	24	
3	27	24	20	19	18	<b>IZS</b>	13	16	21	24	28	30	30	31	29	22	22	19	16	15	14	17	17	17	31	21.3	24
4	16	15	15	16	<b>IZS</b>	20	20	20	25	25	26	26	26	25	25	25	24	22	18	17	22	22	19	26	21.3	24	
5	13	9	11	<b>IZS</b>	19	21	4	10	23	25	26	26	27	28	29	29	29	26	24	23	23	22	22	29	21.5	24	
6	22	20	<b>IZS</b>	18	17	18	15	21	27	28	28	29	29	28	26	26	26	23	21	22	21	19	17	29	22.6	24	
7	17	<b>IZS</b>	13	17	16	11	16	17	25	32	34	34	35	38	38	37	35	34	32	32	32	31	38	27.1	24		
8	<b>IZS</b>	28	24	21	14	7	4	5	13	32	37	36	36	37	39	39	37	35	31	29	26	16	10	<b>IZS</b>	39	25.3	24
9	13	10	3	3	3	1	1	3	14	22	31	34	35	36	35	35	35	34	33	34	33	32	<b>IZS</b>	31	36	22.2	24
10	30	31	30	29	25	27	28	27	28	28	30	32	32	33	34	33	34	34	32	<b>IZS</b>	30	29	34	30.3	24		
11	30	29	29	27	27	25	23	21	20	20	19	18	18	18	18	17	19	17	2	<b>IZS</b>	4	1	2	30	18.5	24	
12	2	4	7	9	14	15	11	16	17	25	27	32	35	36	37	37	35	33	32	<b>IZS</b>	22	15	21	18	37	21.7	24
13	32	34	24	29	31	26	19	18	17	38	38	41	41	41	43	42	41	38	<b>IZS</b>	33	31	<b>M</b>	25	23	43	32.0	23
14	20	19	16	7	16	15	15	16	18	21	27	32	35	40	43	41	39	<b>IZS</b>	33	30	28	27	26	24	43	25.6	24
15	23	21	20	18	17	14	16	16	18	20	32	34	36	34	33	<b>IZS</b>	35	33	34	33	33	32	36	26.3	24		
16	32	31	29	28	28	27	25	26	27	28	30	33	38	39	42	<b>IZS</b>	38	38	37	36	35	34	33	32.5	24		
17	31	30	28	27	24	22	20	18	19	19	19	21	23	24	<b>IZS</b>	27	22	19	16	15	13	12	13	31	20.7	24	
18	20	23	22	22	19	16	13	14	17	23	24	31	37	<b>IZS</b>	38	38	38	31	18	14	13	11	5	2	38	21.3	24
19	1	0	4	0	0	1	2	5	7	20	27	28	<b>IZS</b>	25	26	27	26	24	15	5	2	85	6	4	85	14.8	24
20	2	2	1	2	1	1	0	3	5	7	13	<b>IZS</b>	32	36	38	37	37	36	36	<b>195</b>	27	26	24	26	195	25.5	24
21	25	24	22	22	19	16	16	16	18	20	<b>IZS</b>	27	31	33	33	32	32	31	29	27	20	19	16	12	33	23.5	24
22	16	23	20	13	19	16	13	11	16	<b>IZS</b>	25	27	34	37	38	37	37	38	41	41	41	38	38	34	41	28.4	24
23	32	32	31	29	26	26	26	25	<b>IZS</b>	26	28	30	31	30	28	28	29	26	27	27	27	27	26	32	28.0	24	
24	25	25	23	21	19	18	15	<b>IZS</b>	12	13	13	16	19	19	18	29	40	43	45	44	43	38	33	33	45	26.3	24
25	33	31	29	26	29	29	<b>IZS</b>	30	33	34	33	35	35	36	37	37	36	35	33	29	33	33	33	37	32.9	24	
26	32	31	29	26	27	<b>IZS</b>	34	29	28	33	33	34	34	35	36	35	34	31	29	27	22	19	14	23	36	29.3	24
27	24	25	23	24	<b>IZS</b>	24	24	25	27	29	30	29	28	29	28	28	25	25	23	15	16	7	7	30	23.4	24	
28	11	10	6	<b>IZS</b>	10	15	22	25	30	34	36	36	37	38	38	38	36	33	23	9	16	11	8	4	38	22.9	24
29	2	3	<b>IZS</b>	31	31	30	29	29	28	30	31	31	30	30	30	22	17	16	12	9	16	15	16	16	31	21.9	24
30	17	<b>IZS</b>	18	20	20	21	21	21	23	26	29	32	35	35	35	37	33	31	26	24	25	24	23	37	26.6	24	
31	<b>IZS</b>	22	22	20	17	17	17	19	21	25	29	33	34	34	36	36	32	19	21	28	25	29	27	<b>IZS</b>	36	25.6	24
HOURLY MAX	33	34	31	31	31	30	34	30	33	38	38	41	41	41	43	42	41	43	45	195	43	85	38	34			
HOURLY AVG	19.8	20.0	18.8	18.9	18.3	17.3	16.4	17.6	19.6	24.5	27.0	29.8	31.4	31.9	32.8	31.9	31.7	29.6	27.5	30.3	24.0	24.7	20.4	20.0			

### STATUS FLAG CODES

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

### MONTHLY SUMMARY

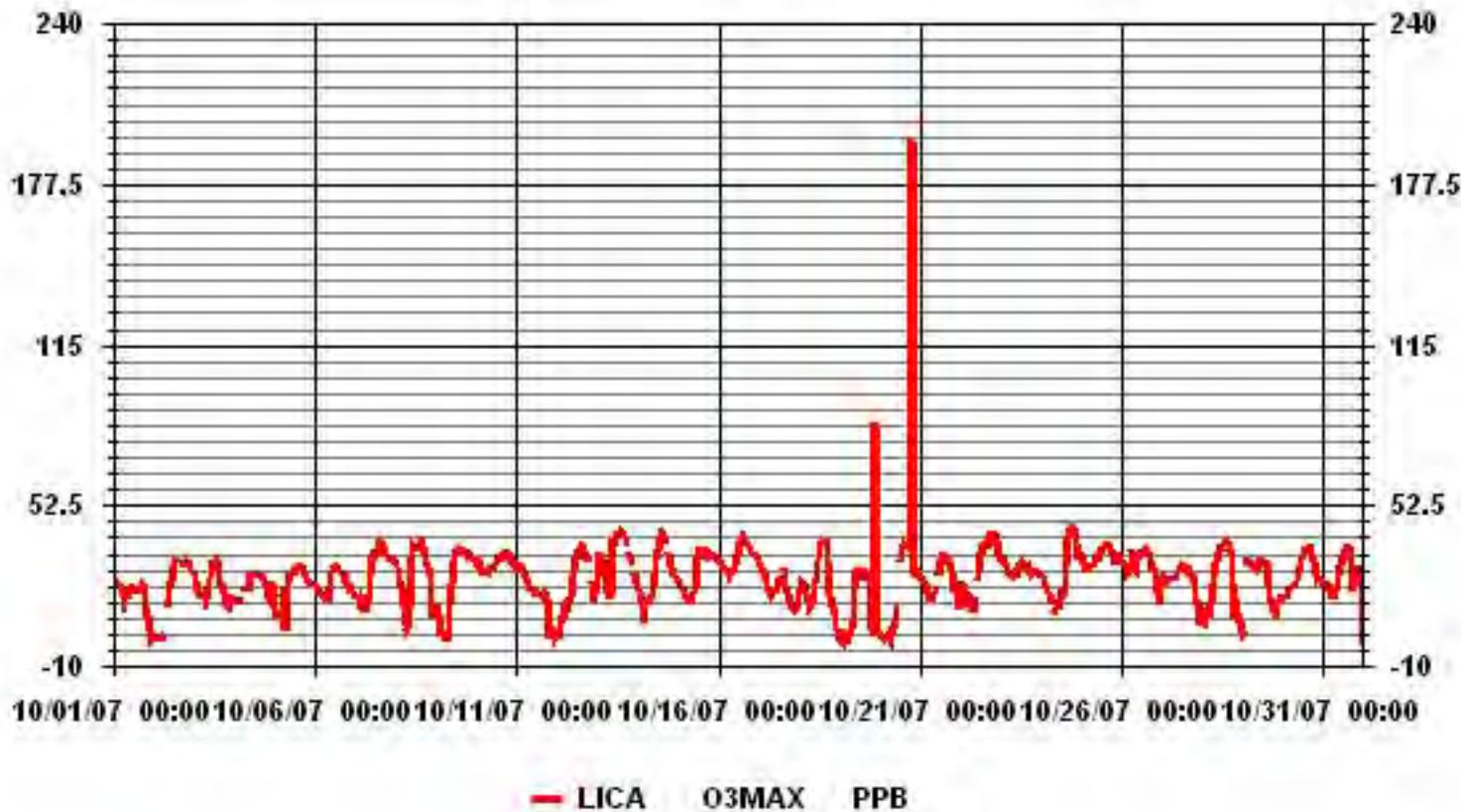
NUMBER OF NON-ZERO READINGS:	702
MAXIMUM INSTANTANEOUS VALUE:	195 PPB @ HOUR(S) 20 ON DAY(S) 20

IZS CALIBRATION TIME:	34 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	3 HRS		
STANDARD DEVIATION:	11.96		

### MOUNTAIN STANDARD TIME



### 01 Hour Averages



# **VECTOR WIND SPEED**

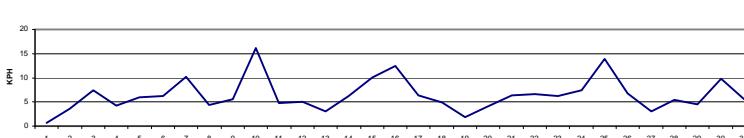
# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

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

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
DAY																											
1	5.5	3.9	3.5	5.5	5.4	4.4	3.1	1.7	3.1	1.8	3.4	5.3	6.8	9.1	9.3	5.5	3.4	2.2	2.7	1.7	0.4	0.2	0.2	0.6	9.3	0.6	24
2	0.2	0.7	1.5	0.4	0.5	1	0.1	1.2	2.3	4.9	4.4	7.5	8.3	7.5	8.7	6.8	5.6	5.4	5.4	4.2	4.4	4.9	3.6	4.3	8.7	3.6	24
3	5.2	5.2	5.4	5.7	7.2	5.7	4.5	5.8	8.1	9.3	11.5	15.6	14.6	17.7	17	13.6	12.1	10.1	10.8	10.4	4.7	7.2	5	2.5	17.7	7.4	24
4	4.5	6.6	7.6	8	5.4	5.8	5.6	6.5	7.9	8.7	10.3	7.6	6.4	5.8	6.8	5.7	4.9	4.4	3.7	1.8	2.3	3.8	3.1	1.5	10.3	4.3	24
5	1.2	0.8	1.6	2.5	1.8	1.2	1	1.8	4.7	9.9	10.8	8.1	7.8	9.8	9.9	10.8	10.5	6.8	4.3	5.3	9	8.6	7.2	7.2	10.8	5.9	24
6	7.8	5.8	7.1	6.2	7.7	8.2	9.1	10	10	7.7	7	6.2	7.4	6.6	4.7	4	3.4	3.5	3.7	5.4	4.3	0.8	2	10.0	6.2	24	
7	0.9	1.2	3.2	5.8	1.7	1	4.8	11	11.9	10.4	14.5	15.7	16.6	16.6	15.7	13	14.7	13.7	12.2	14.2	13.1	15.2	9	8.2	16.6	10.2	24
8	5.7	5	3.2	0.5	1.2	2	1.1	0.6	1.8	5.4	5.9	11.2	9.4	7	8.3	7	8.3	6.7	5.4	4.1	2.7	0.9	0.5	0.6	11.2	4.4	24
9	0.8	0.9	0.3	0.3	0.3	0.5	0.1	0.1	0.7	1.7	6.9	9.9	9.3	10.1	10.2	11.6	9.9	7.5	6.3	9.5	8.6	9.1	10.1	9	11.6	5.6	24
10	8.4	10.5	12.3	11.2	6.3	5.9	17.8	14.4	16.8	20.6	23.6	23.6	23.4	22.4	20.7	21.4	21.7	17.7	18.2	13.6	11.7	16.7	15.4	13.4	23.6	16.2	24
11	12.7	9.1	5.7	4.9	7.4	7.4	7.5	5.2	4.8	5.1	2.3	5.1	5.2	4.7	3.1	5.2	3.9	0.7	0.8	0.9	0.7	0.9	2.5	12.7	4.7	24	
12	3.6	4.2	4.3	4.4	7	5.8	3.4	5.7	6	6.1	5	7.6	11	9.7	8.4	6.4	4.6	5.1	3.5	3.1	0.5	0.9	2.6	0.9	11.0	5.0	24
13	1.5	0.6	0.9	1	0.8	0.1	0.8	1.3	0.3	2.4	2.5	3.7	1.3	1.5	2.1	5.7	8.2	7.5	6.4	5.6	5.4	M	5.4	5.3	8.2	3.1	23
14	4.7	3.2	0.5	2	3.7	3.8	5.9	6.8	8.4	6.8	6.3	5.2	5.5	6.3	6.8	6.1	7.9	5.2	8.9	8.4	7.4	8.5	9.8	10.7	6.2	24	
15	10.4	9.9	9.9	8.7	7.9	8.1	9.8	10.6	11.4	11	8.7	8.8	13.9	13.2	14.8	17.3	14.8	9.1	3	5.7	4.6	7.2	11.9	12.4	17.3	10.1	24
16	8.9	5.5	3.5	6.5	6.4	9.5	10.5	10	13.2	15.4	16.3	15.9	19.1	22.1	23.2	22.3	15.7	14.8	13.6	15	10.5	7.5	6.5	5.8	23.2	12.4	24
17	6.5	6.8	8.1	5.8	6.6	6.6	6	6.6	6.1	7.5	8.8	7.9	9	10	9.4	5.9	6	4.7	4.8	3.9	3.5	3.5	3.5	5.2	10.0	6.4	24
18	6.2	2.1	6.4	4.6	6.4	6.4	4.4	6.6	7.1	5.4	5.3	6.4	10	10.3	10.4	9	5.8	2.4	0.3	0.5	0.7	0.3	0.5	0.4	10.4	4.9	24
19	0.5	0.3	0.4	0.8	0.7	1.8	1.3	2	1.3	1.4	1.6	3.4	4.6	3.9	5.2	4.3	4.4	2.8	0.1	0.4	0.3	0.4	0.7	0.9	5.2	1.8	24
20	0.9	1.6	1.8	0.9	0.8	1.2	1.6	3.3	2.9	3.7	3.5	5.3	4.1	7.9	9.1	10.2	8.5	3.5	4.6	5	4.5	5	4.8	5.2	10.2	4.2	24
21	5	4.4	5.8	5.4	6.3	5.3	5.2	7.1	7.7	9.3	10.5	10.4	11.2	11.4	11.2	11.1	8.9	4.5	3.6	2.9	1.6	0.7	1.1	1.1	11.4	6.3	24
22	1.3	2.2	0.5	0.9	2.1	1.1	0.8	2.8	5.5	5.6	8.9	10	11.3	14.9	9.9	4.1	8.4	8	11.8	11.9	9.3	11.9	10	5.7	14.9	6.6	24
23	6.9	7.6	7.1	6.7	6.6	7.3	6.6	7	6.6	8.2	7.3	5.9	5.3	6.2	3	1.8	4.7	3.2	4.9	7	5.8	8.1	7.9	8.4	8.4	6.3	24
24	9.3	6.8	5.2	3.7	7	6.8	3.7	5.6	3.9	5	4.4	4.2	2	5.2	2.9	13.6	13.3	13.4	15.5	13.7	6.6	6.2	8.9	9.7	15.5	7.4	24
25	10.7	10.3	8.6	8.9	7.8	10.9	12.1	13.2	17.1	17.5	19.8	22.1	24.3	27.6	25.1	26.8	21.6	13.4	7	4.1	3.3	7.1	6.7	7.5	27.6	13.9	24
26	7.3	6.3	7.1	6.8	6.3	6.6	5.4	3.8	4.3	10.4	15.2	13.9	12.5	10.4	11.5	9	5.6	6.5	4.9	4	2.1	0.7	1.3	1.6	15.2	6.8	24
27	1	1.3	2.1	2.7	2.6	3.4	3.5	4.6	3.5	4.9	6.8	6.2	6	5.7	6	5.1	1.6	0.8	0.8	0.8	0.7	0.5	0.3	0.9	6.8	3.0	24
28	0.6	0.9	0.8	4.2	3.6	6.5	6.5	5.7	7.2	10.1	11.3	13.4	11.4	11.5	10.9	10	6	2.9	1.2	1.1	1.4	1.1	0.6	0.4	13.4	5.4	24
29	1	0.9	3.7	3.6	5.8	7.2	6.9	6.1	7.1	7.1	6.7	6.2	7	4.8	2.5	1.8	2.3	1.9	1.8	2.5	5.4	5.2	5.7	5.9	7.2	4.5	24
30	6.7	6.3	7.9	8.1	8.4	8.4	9	9.2	9.9	12.7	14.4	17.5	18.7	19	15.4	12.4	10.8	6.5	6.3	5.9	5.9	4.5	5	4.9	19.0	9.7	24
31	4.8	3.8	2.5	3.7	6.3	6.3	4.6	3.8	4.7	7.6	9	10.3	10.5	9.2	8.6	9.3	4.3	1.5	1.6	1.8	3.2	4.6	3	7.3	10.5	5.5	24
HOURLY MAX	12.7	10.5	12.3	11.2	8.4	10.9	17.8	14.4	17.1	20.6	23.6	23.6	24.3	27.6	25.1	26.8	21.7	17.7	18.2	15.0	13.1	16.7	15.4	13.4			
HOURLY AVG	4.9	4.3	4.5	4.8	5.0	5.2	5.9	6.7	7.9	8.9	9.6	10.1	10.6	10.1	9.5	8.5	6.4	5.7	5.6	4.7	5.2	4.9	4.9				

### 24 HOUR AVERAGES FOR OCTOBER 2007



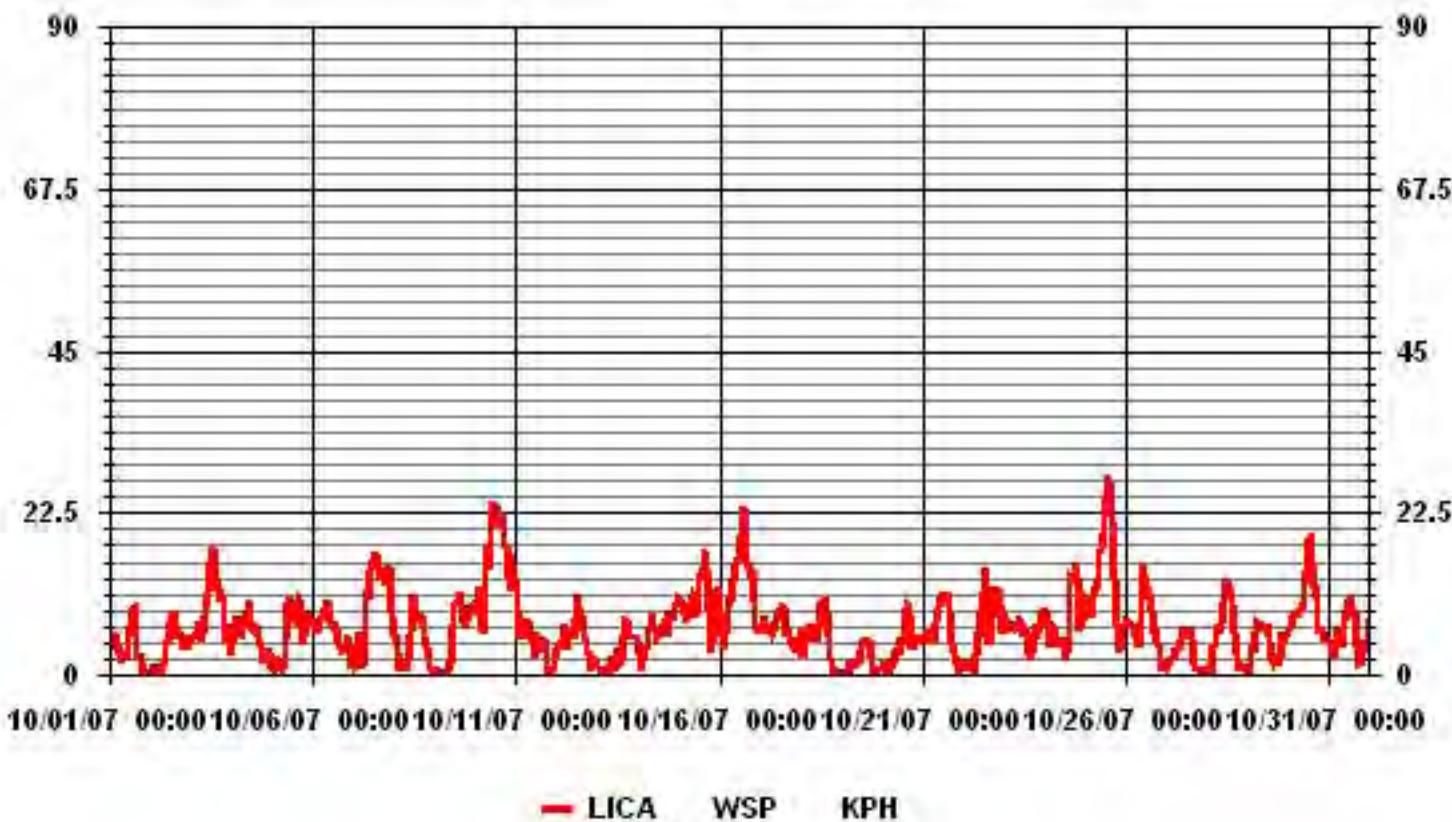
**Maxxam**  
Analytics Inc

### CALMS ( $\leq 0$ KPH)

0	%	OPERATIONAL TIME:	743	HRS
0	HRS	AMD OPERATION UPTIME:	99.9	%
4.81	KPH	STANDARD DEVIATION:	6.61	KPH

### MOUNTAIN STANDARD TIME

### 01 Hour Averages



**LICA**  
**WSP / WD Joint Frequency Distribution (Percent)**

October 2007

**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	.13	.67	.67	3.49	3.90	5.38	6.46	1.48	3.09	2.15	7.26	8.47	3.09	.80	.80	.94	48.85
< 12.0	.67	.40	.00	.00	2.01	6.46	8.07	.13	.67	.26	2.69	6.72	6.19	2.28	.53	.40	37.55
< 20.0	.00	.00	.00	.00	.00	.13	4.97	.00	.00	.00	.13	.40	.94	1.74	.67	.00	9.01
< 29.0	.00	.00	.00	.00	.00	.13	1.34	.00	.00	.00	.00	.00	.80	.00	.00	.00	2.28
< 39.0	.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	
<b>Totals</b>	<b>.80</b>	<b>1.07</b>	<b>.67</b>	<b>3.49</b>	<b>5.92</b>	<b>12.11</b>	<b>20.86</b>	<b>1.61</b>	<b>3.76</b>	<b>2.42</b>	<b>10.09</b>	<b>15.61</b>	<b>11.03</b>	<b>4.84</b>	<b>2.01</b>	<b>1.34</b>	

Calm : 2.28 %

Total # Operational Hours : 743

**Distribution By Samples**

**Direction**

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	1	5	5	26	29	40	48	11	23	16	54	63	23	6	6	7	363
< 12.0	5	3			15	48	60	1	5	2	20	50	46	17	4	3	279
< 20.0						1	37				1	3	7	13	5		67
< 29.0							1	10					6				17
< 39.0																	
>= 39.0																	
<b>Totals</b>	<b>6</b>	<b>8</b>	<b>5</b>	<b>26</b>	<b>44</b>	<b>90</b>	<b>155</b>	<b>12</b>	<b>28</b>	<b>18</b>	<b>75</b>	<b>116</b>	<b>82</b>	<b>36</b>	<b>15</b>	<b>10</b>	

Calm : 2.28 %

Total # Operational Hours : 743

Logger : 01 Parameter : WSP

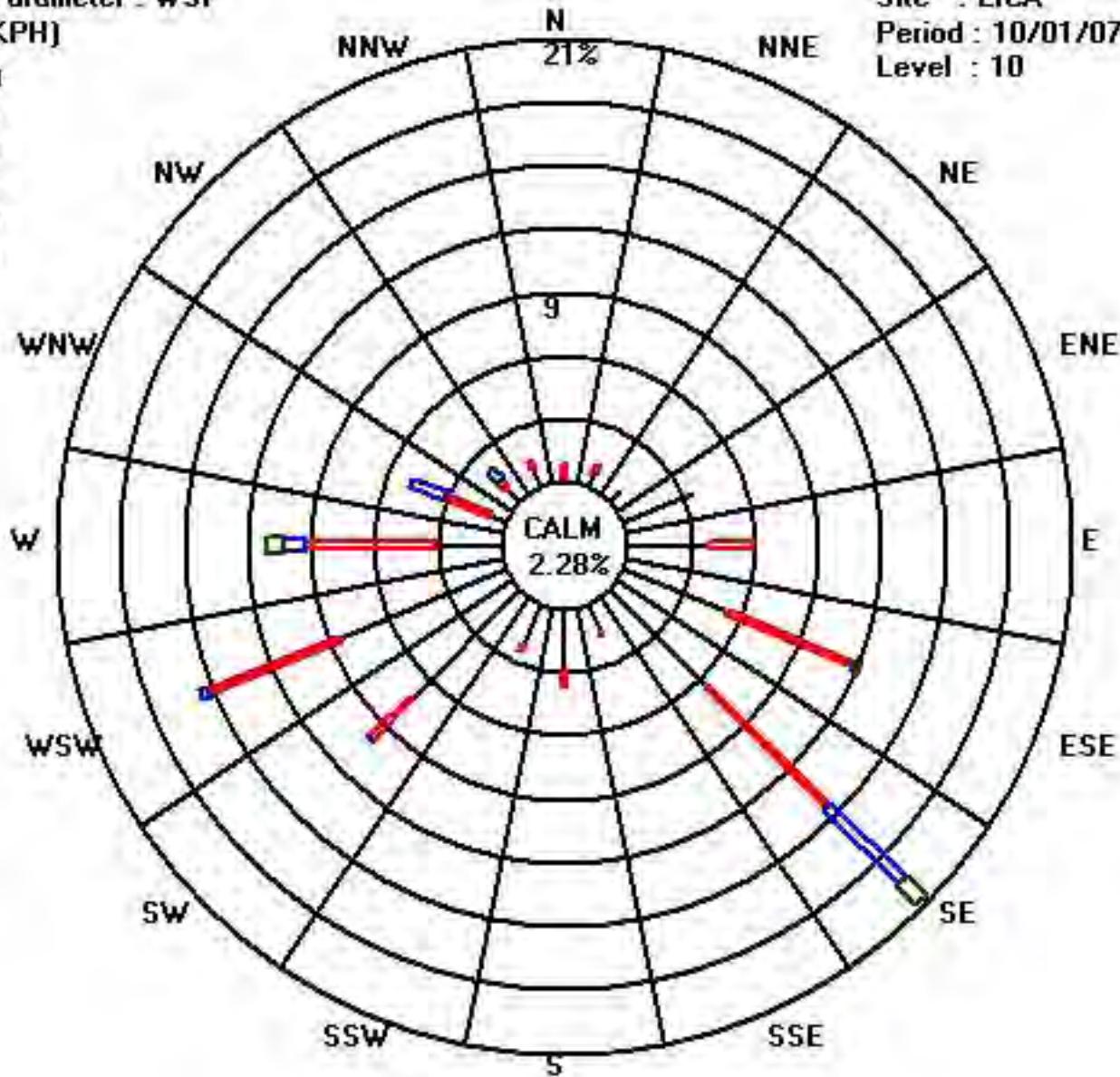
Class Limits (KPH)

□	>= 39.0
■	< 39.0
■	< 29.0
■	< 20.0
■	< 12.0
■	< 6.0

Site : LICA

Period : 10/01/07-10/31/07

Level : 10



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX	
DAY																										
1	9.2 E	6 ENE	6.5 E	9.4 E	9.1 E	7 NE	4.4 ENE	3.9 ENE	5.7 WNN	5.6 WNN	7.7 NW	10.9 W	10 WSW	13.4 WSW	8.9 WSW	6.9 W	4.5 WSW	5.3 SSW	3.2 SSE	2.1 SSE	1.5 NNE	1.2 SE	1.9 SE	15 WSW		
2	1.5 -	3.4 SW	3.5 WNW	3.9 W	2.4 E	2.9 SW	2.2 ESE	3.6 SSW	7.4 SW	9.6 WSW	9.2 WSW	13.5 SW	12.9 WSW	12.9 WSW	14.8 SW	11.7 WSW	8.6 WSW	9.3 NW	10.5 SW	9.9 SW	7.2 WSW	6.6 WSW	6.4 WSW	14.8 SW		
3	7 WSW	7.5 WSW	7.7 SW	7.8 WSW	9.5 WSW	7.5 WSW	6.7 WSW	8.8 SW	13.5 WSW	15.4 WSW	23.1 WSW	22.5 WSW	22.6 NW	26.2 WSW	25.4 WSW	22.3 NW	19.1 WSW	15.8 NW	16.5 NW	17.1 NW	7.5 NNW	13.7 N	9.5 NNW	6 NNW		
4	8.4 -	10.1 N	12.6 N	12.5 NW	9.5 -	8.6 NNW	8.5 -	10 WNW	12.7 NW	13.9 N	14.9 NNE	13.8 NNE	12.5 NNE	11.2 N	15.1 NE	10.6 ENE	7.8 NNE	6.8 NE	4.2 ESE	4.8 ESE	5.4 ESE	4.6 ESE	3.5 ESE	15.1 NE		
5	2.8 ENE	2.2 N	3.2 ESE	5.1 E	5 SE	3 ESE	3.4 ESE	4.3 E	8.6 SE	16.2 SE	18.3 SE	13.1 SE	14.8 SE	16.8 SE	18.1 SE	17.3 SE	15.8 SE	10.8 SE	7 SE	9 SE	12.4 SE	10.9 SE	9.4 SE	9.9 SE		
6	10.7 SE	8 SE	10.4 SE	8.7 SE	10.2 ESE	11.7 -	12.3 ESE	14.1 ESE	14.8 SE	16.7 SE	14.2 SE	10.8 SE	12.1 SE	14.1 SE	15.3 SE	11.3 SE	6.9 SE	5.6 SE	5.9 SE	8 SE	6.7 SE	3.3 SE	4.2 SE	16.7 SE		
7	4.2 SE	3.7 SE	5.9 SE	8.2 SE	4.4 SE	3 SE	12.7 SE	15.1 SE	15.5 SE	16.1 SE	19.8 SE	22.2 SE	23.9 SE	24 SE	24.1 SE	22.1 SE	21.4 SE	23.1 SE	18.8 SE	20.2 SE	18.4 SE	19.9 SE	14.5 SE	14.4 SE		
8	14 -	8.3 E	7.7 E	4.8 -	2.6 SW	3.7 W	5.3 SW	3.8 W	4.1 W	12.8 NW	11.5 WSW	17.6 WSW	15.2 WNW	12.4 NW	15.9 WSW	14.4 WSW	12.5 NW	11.3 WSW	7.2 W	6.1 W	4.7 SW	2.3 SSW	ESE	WSW		
9	4.5 -	3.7 SW	2.3 -	1.7 NE	2.4 -	2.5 SW	1.3 NE	1 SW	2.3 SE	6.8 ESE	12.4 ESE	16.2 SE	17.3 SE	16.5 SE	19.9 SE	16.8 SE	19.1 SE	10.6 SE	8.7 ESE	13.2 ESE	15.5 ESE	15.1 ESE	14 ESE	19.9 SE		
10	12.1 -	15 SE	15.7 ESE	16.9 SE	9.3 SE	19.2 SE	25.8 SE	23.1 SE	27.4 SE	29.9 SE	32.8 SE	32.1 SE	32.4 SE	32 SE	30.6 SE	33.2 SE	27.8 SE	27.3 SE	24.8 SE	20.6 SE	21.7 SE	26.9 SE	23 SE	33.2 SE		
11	18.3 SE	12.8 SE	9.4 SE	8.7 SE	11 SE	11.7 SE	11.5 SE	12.8 SE	11.3 SE	8.2 SE	8.3 SE	5.3 SE	9.1 SE	10.6 SE	8.2 SE	6.7 SE	8 SE	6.9 SE	2 SE	2.3 SE	2.9 SE	2.3 SE	2 SE	18.3 SE		
12	5.8 WSW	6.9 WSW	7.3 SW	9.5 SW	9.4 SE	8 SE	6.1 SE	7.9 SE	8.9 SE	10.2 SE	8.6 SE	14.1 SE	15.7 SE	16.1 SE	13.3 SE	10.3 SE	7.1 SE	5.7 SE	4.3 SE	1.9 SE	5.1 SE	6.6 SE	2.8 SE	16.1 SE		
13	4.3 -	3.3 SSW	2.7 S	4.3 ESE	3.5 SE	6.1 SE	4.1 SE	4.7 SE	2.7 SE	7 SE	8.2 SE	9.5 SE	6.7 SE	6.3 SE	7.9 SE	9.6 SE	11.8 SE	10 SE	8.2 SE	7 SE	7.4 SE	0 SE	8.8 SE	7.7 SE		
14	6.5 SE	5.9 SE	1.4 E	3.4 ESE	6.2 SE	7.5 SE	8.8 SE	9.4 SE	11.7 SE	12.4 SE	11.9 SE	8.4 SE	10.7 SE	14.1 SE	16.8 SE	13.1 SE	11.6 SE	7.9 SE	11.6 SE	10.9 SE	11.1 SE	12 SE	12.2 SE	13 SE		
15	12.7 SE	14.3 SE	11.8 SE	12.9 SE	10.2 SE	12.1 SE	13.8 SE	15.2 SE	14.7 SE	16.5 SE	15.7 SE	17.6 SE	19.4 SE	21.2 SE	21.6 SE	23 SE	19.9 SE	13.2 SE	5.8 SE	8 SE	6.2 SE	11 SE	16 SE	15.4 SE		
16	14.8 SE	10.6 SE	7.1 ESE	12 ESE	11.1 SE	13.3 SE	14.8 SE	14.9 SE	18.4 SE	22.3 SE	22.1 SE	23.8 SE	27.3 SE	29.4 SE	31.7 SE	32.1 SE	24.9 SE	21 SE	20.7 SE	21.3 SE	17.3 SE	12.7 SE	11.4 SE	9 SE		
17	8.8 E	10.5 ESE	13.3 E	9.9 E	9.6 E	9.3 E	9.1 E	8.9 E	12.3 E	14 E	12.8 E	14.4 E	15.4 E	14 E	11.4 E	11.3 E	7.3 E	7.7 E	6.3 E	6.4 E	5.5 E	6.1 E	10 SE	15.4 SE		
18	10.9 WNW	9.6 W	9.9 W	6.5 W	9.4 W	9 W	6.4 W	8.6 W	9.9 W	9.7 W	10.9 W	15.9 W	16.6 W	19.4 W	13.7 W	10.9 W	4.3 W	1.3 W	1.5 W	2.4 W	2.5 W	1.8 W	3.6 W	19.4 NW		
19	2.2 ENE	3.1 SW	3.8 SW	3.5 SSW	4.1 SSW	4.3 ENE	3.3 NE	4.4 ENE	4 ENE	5.8 ESE	5.5 ESE	8.9 ESE	6.1 ESE	6.4 ESE	8.3 ESE	6.3 ESE	3.3 ESE	2 ESE	5.3 ESE	4.2 ESE	2.9 ESE	2.2 ESE	9 ESE			
20	2.8 E	5.9 NW	3.5 WSW	3.2 WSW	3.1 W	2.8 WSW	4.7 W	4.7 WSW	6.3 WSW	5.1 WSW	5.7 WSW	5.5 WSW	8.4 WSW	10.3 WSW	12.8 WSW	16.8 WSW	16.3 WSW	8.8 WSW	6.8 WSW	8.1 WSW	7.2 WSW	6.1 WSW	6.6 WSW	16.8 WSW		
21	6.4 WSW	7 WSW	8.5 SW	7.5 SW	8.8 SW	7.8 SW	8 SW	11.1 SW	10.9 SW	14 SW	15.1 SW	14.7 SW	15.7 SW	16.8 SW	17.2 SW	16.3 SW	13.2 SW	7.7 SW	7.3 SW	5.9 SW	4.1 SW	1.6 SW	2.3 SW	17.2 WSW		
22	2.7 ESE	4.5 SE	3.5 SW	3.6 SSW	6.2 SSW	4.2 WSW	3.1 WSW	7.8 WSW	7.7 WSW	9.8 WSW	12.9 WSW	16.2 WSW	16.8 WSW	24.8 WSW	16.5 WSW	14.3 WSW	12.3 WSW	18.6 WSW	21.3 WSW	21.7 WSW	21.6 WSW	16.3 WSW	8.8 WSW	24.8 WSW		
23	9.3 W	10.8 W	9.1 W	9.2 W	8.6 W	11.9 W	9.7 W	11.5 W	9.8 W	12.2 W	11.1 W	9.4 W	11 W	8.5 W	6.7 W	7.9 W	5.1 W	9.5 W	9.4 W	9 W	11.9 NW	10.6 NW	11.7 NW	W		
24	11.8 SE	10.1 SE	7.8 SE	6.9 SE	11.4 SE	11.6 SE	6.8 SE	9.3 SE	7.6 SE	8.4 SE	8.9 SE	8.6 SE	13.4 SE	18.9 SE	10 SE	20.5 SE	26.7 SE	22.8 SE	30.4 SE	31.2 SE	16 SE	10.6 SE	13.3 SE	13.6 SE		
25	14.7 WSW	14.6 WSW	15.1 WSW	12.6 WSW	11.6 WSW	14.3 WSW	17.2 WSW	19.5 WSW	23.5 WSW	25.5 WSW	28.1 WSW	32.4 WSW	36.2 WSW	38.9 WSW	36.3 WSW	47.4 WSW	33.7 WSW	20.5 WSW	13.2 WSW	5.7 WSW	8.6 WSW	13.1 WSW	9.7 WSW	47.4 WSW		
26	10.1 WSW	9.9 WSW	11.1 WSW	11.3 WSW	14.5 WSW	9 WSW	5.5 WSW	12.4 NW	16.9 NW	22.8 NW	19.6 NW	21 NW	19.3 NW	18.2 NW	13.9 NW	14.6 NW	8.1 NW	7.2 NW	5.7 NW	3.8 NW	2.3 NW	2.7 NW	4 NW	22.8 NW		
27	3.2 SSE	4.5 SSW	4.9 SE	5.4 SE	5.4 SE	5.4 SE	5.8 SE	6.4 SE	7.7 SE	6.9 SE	9.7 SE	12.4 SE	14.2 SE	12.2 SE	12.3 SE	11.7 SE	10.9 SE	6.9 SE	3 SE	3.2 SE	4.3 SE	3.5 SE	4.6 SE	14.2 SE		
28	3 S	3.8 SSW	3.1 SW	6.4 WSW	7.7 WSW	8.9 WSW	9.7 WSW	9 WSW	13 WSW	14.6 WSW	17.3 WSW	19 WSW	15.6 WSW	19.2 WSW	18.9 WSW	15.8 WSW	9.5 WSW	5.6 WSW	3.6 WSW	2.3 WSW	2.4 WSW	5.1 WSW	2.2 WSW	1.8 WSW		
29	3 NNE	2.7 NE	6.4 E	5.8 E	10.6 E	12.8 E	10.6 E	11.2 E	11.9 E	12.5 E	11.2 E	9.9 E	11 E	8.8 E	7.8 E	4.9 E	5.4 E	4.4 E	3.8 E	3.6 E	3.3 E	6 E	7 E	9.3 E		
30	10.3 W	8.7 WSW	11.5 WSW	12.6 WSW	11.8 WSW	12.8 WSW	14 WSW	13.4 WSW	14.8 WSW	22.9 WSW	20.3 WSW	24.7 WSW	27.5 WSW	30.9 WSW	25.1 WSW	21 WSW	26.5 WSW	9.3 WSW	8.5 WSW	8.2 WSW	7.7 WSW	6.9 WSW	8.5 WSW	7.5 WSW	30.9 WSW	
31	6.6 SW	5.6 SW	5.3 SW	5.9 SW	10.1 SW	9.5 SW	8 SW	7.6 SW	13 SW	14.6 SW	17.9 SW	16 SW	14.2 SW	11.2 SW	12.5 SW	11 SW	8.8 SW	7.8 SW	5.4 SW	4.4 SW	3.8 SW	3.6 SW	3.3 SW	6 SW	7 SW	9.3 SW
PEAK	18.3 SE	15.0 SE	16.9 SE	11.8 SE	19.2 SE	25.8 SE	23.1 SE	27.4 SE	29.9 SE	32.8 SE	32.4 SE	36.2 SE	38.9 SE	36.3 SE	47.4 SE	33.7 SE	30.4 SE	31.2 SE	20.6 SE	21.7 SE	26.9 SE	23.0 SE	23.0 SE	23.0 SE		

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

\*INSTANTANEOUS MAXIMUM BASED ON ONE-MINUTE AVERAGES

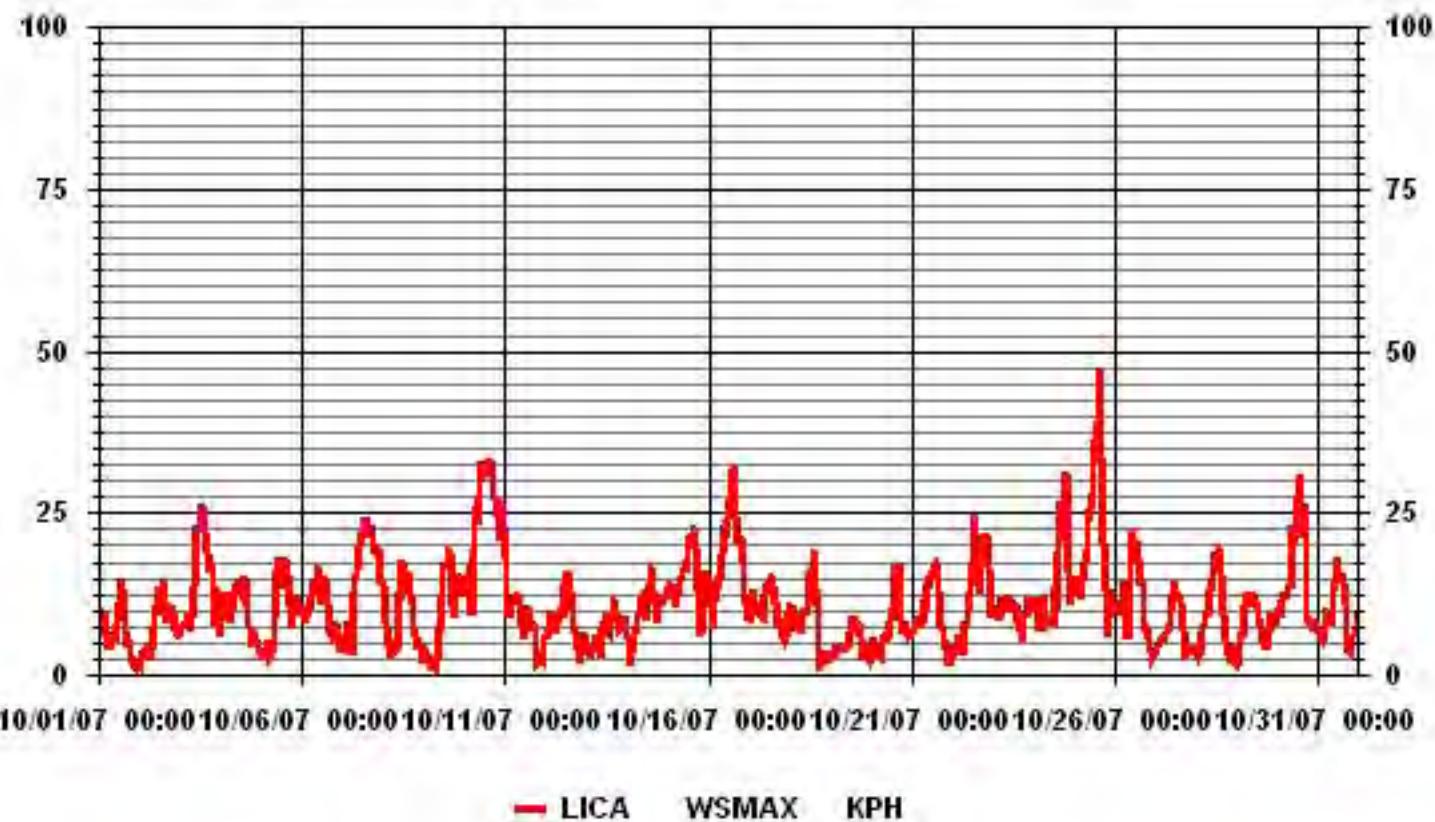
NOTE: WIND DIRECTION CORRESPONDS TO WIND SPEED MAXIMUMS

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	47.4	KPH DEG	@ HOUR(S) ON DAY(S)	16 25
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### 01 Hour Averages



# **VECTOR WIND DIRECTION**

# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

## VECTOR WIND DIRECTION (WD) hourly averages in degrees

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 AVG	24-HOUR AVG	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					
DAY																													
1	93	71	67	74	81	77	65	66	60	299	269	310	284	262	255	265	283	268	238	199	146	165	40	172	301	WNW	24		
2	131	187	253	295	96	226	105	147	211	229	229	238	243	241	235	239	224	242	272	287	228	229	244	235	237	SW	24		
3	250	238	230	232	245	240	234	231	240	256	263	267	283	281	295	291	296	310	324	331	336	357	348	345	281	W	24		
4	322	355	358	327	323	328	310	308	322	352	7	25	15	23	32	31	41	26	47	67	109	107	107	102	2	N	24		
5	83	82	115	95	139	115	74	99	102	119	116	114	104	119	118	118	127	121	120	125	127	128	127	126	118	ESE	24		
6	127	125	127	129	124	123	122	122	129	134	142	140	142	141	207	188	179	156	132	130	133	130	138	131	136	SE	24		
7	145	112	119	127	142	123	125	128	130	132	132	135	133	134	133	135	133	124	125	125	129	124	114	129	SE	24			
8	116	105	106	99	238	253	201	179	250	308	329	272	271	272	294	292	262	259	260	259	236	238	199	145	268	W	24		
9	178	248	196	114	143	175	64	200	82	111	125	127	115	119	117	118	122	121	114	119	119	121	120	120	ESE	24			
10	114	120	122	118	99	102	126	124	125	131	127	125	127	128	126	124	123	127	128	134	134	130	129	125	SE	24			
11	128	127	123	110	128	130	129	132	138	136	135	171	238	238	233	237	227	244	163	109	102	74	204	255	150	SSE	24		
12	251	240	240	234	234	233	234	231	236	244	249	259	270	261	260	254	230	219	228	246	190	213	255	174	244	WSW	24		
13	193	110	158	147	172	202	238	136	276	238	156	277	34	208	91	111	127	128	131	134	132	M	132	128	137	SE	23		
14	133	141	94	126	121	137	124	126	125	127	133	148	188	187	184	157	137	131	128	127	125	122	125	127	136	SE	24		
15	124	123	127	128	125	123	122	120	122	125	115	116	127	132	128	126	128	127	100	121	95	119	127	132	124	ESE	24		
16	126	109	97	117	115	122	119	122	127	128	129	128	128	127	128	128	129	125	124	124	119	113	108	97	123	ESE	24		
17	98	107	98	90	89	93	93	88	94	113	127	125	125	128	129	136	220	238	258	238	247	242	263	259	125	SE	24		
18	293	346	262	238	243	254	245	257	257	280	289	284	288	283	303	272	261	234	160	106	219	243	72	92	272	W	24		
19	81	205	75	57	240	57	74	77	70	64	88	88	107	90	73	52	75	104	202	190	75	278	27	67	79	ENE	24		
20	103	268	227	201	255	227	244	238	237	246	242	245	269	280	267	268	288	268	262	245	248	249	250	250	258	WSW	24		
21	246	239	238	240	238	236	222	223	233	254	248	256	259	262	264	254	242	240	215	240	203	144	120	91	244	WSW	24		
22	112	128	201	194	211	184	186	226	230	225	229	244	261	270	292	256	252	257	278	285	281	289	288	267	262	W	24		
23	258	256	259	255	260	263	267	279	261	264	261	244	245	221	232	127	121	98	118	124	122	125	124	124	225	SW	24		
24	127	124	123	110	125	123	127	128	126	128	126	114	318	2	27	319	308	292	295	298	247	248	251	266	270	W	24		
25	252	255	231	234	234	232	236	237	253	262	258	263	265	265	271	270	275	273	268	258	249	278	267	263	259	WSW	24		
26	255	254	239	235	248	267	231	239	288	331	319	319	313	299	298	291	268	244	239	226	228	220	167	121	280	W	24		
27	161	179	139	168	141	134	144	138	148	177	195	182	177	174	191	179	170	171	135	143	75	106	249	131	165	SSE	24		
28	146	229	246	232	240	242	237	235	244	256	260	266	273	269	274	252	244	232	225	79	59	102	44	83	254	WSW	24		
29	77	68	60	96	92	96	87	79	80	82	103	89	83	97	132	96	332	263	248	273	233	260	266	92	E	24			
30	255	255	259	263	259	254	260	264	259	284	283	281	283	296	300	300	288	248	232	228	238	222	215	227	270	W	24		
31	222	231	214	238	232	239	231	221	215	225	236	247	242	239	231	227	220	190	183	202	207	208	214	226	228	SW	24		
HOURLY AVG	322	355	358	327	323	328	310	308	322	352	329	319	318	299	303	319	332	310	324	331	336	357	348	345					

### 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

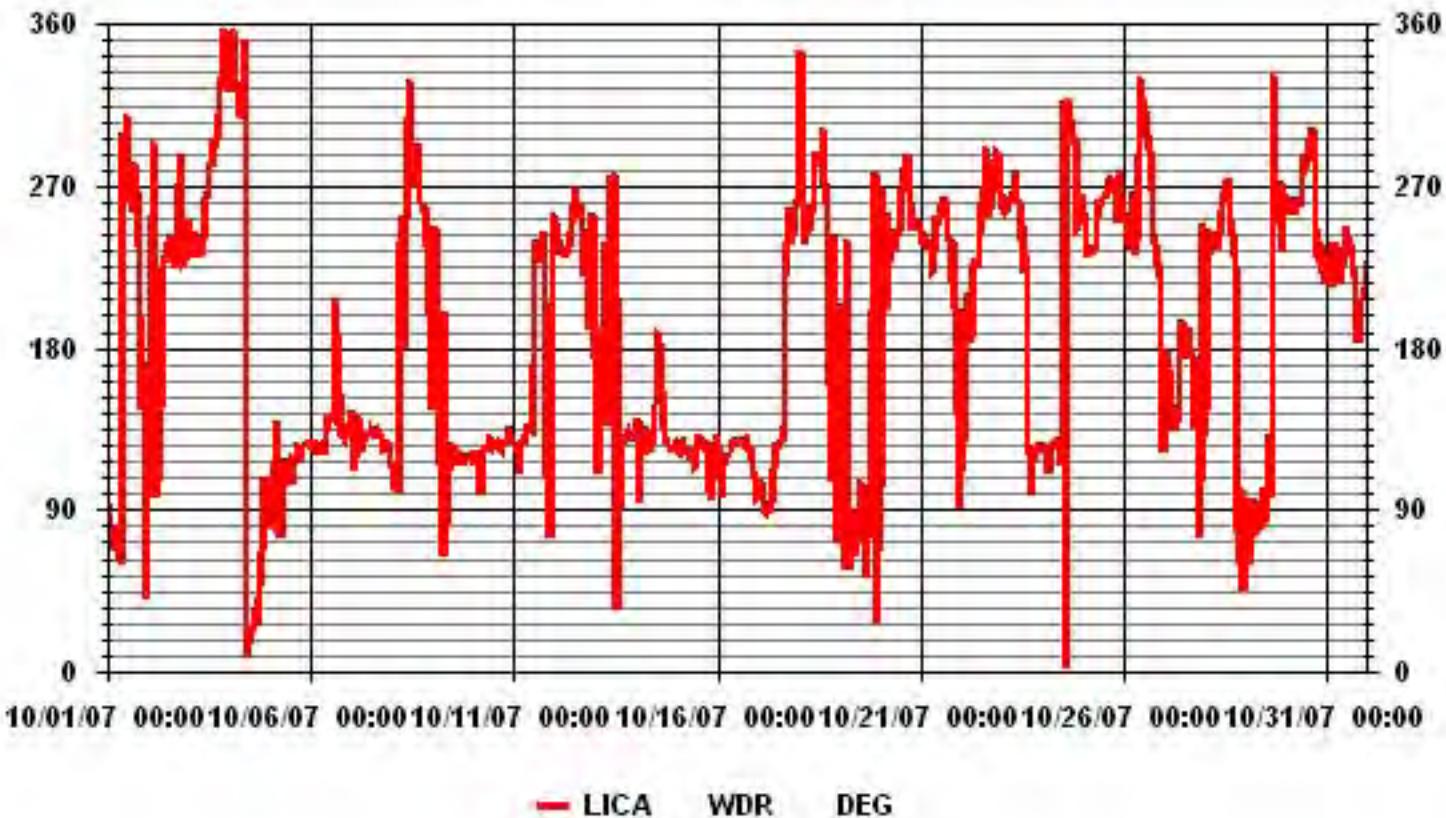
LAST CALIBRATION:	NA
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	743 HRS
STANDARD DEVIATION	75.76	AMD OPERATION UPTIME	99.9 %
		MONTHLY AVERAGE	188.00 DEG



MOUNTAIN STANDARD TIME

### 01 Hour Averages



# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

**STANDARD DEVIATION WIND DIRECTION (STDWDIR)** hourly averages in degrees

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	18	20	24	14	18	17	18	30	26	56	38	31	19	19	16	19	44	17	14	16	66	65	47	31	
2	46	21	22	45	28	35	74	41	39	24	38	24	22	21	22	27	17	12	15	23	25	15	17	15	
3	11	11	12	11	9	10	10	14	17	21	21	20	18	18	17	22	16	13	15	15	18	19	17	21	
4	16	18	17	13	13	14	12	13	16	21	21	23	30	31	23	26	24	17	17	30	35	16	17	23	
5	28	34	32	38	34	49	50	36	22	19	20	24	27	22	23	20	15	15	12	13	11	11	11	11	
6	12	11	10	12	12	13	13	15	15	20	30	24	28	27	33	39	35	30	17	15	14	17	65	44	
7	62	53	19	12	34	36	19	11	13	17	15	20	16	19	17	18	15	13	13	14	14	13	16	18	
8	26	20	16	76	33	21	51	34	21	19	25	23	25	33	25	27	18	15	15	13	18	45	45	40	
9	59	49	63	40	72	47	61	73	41	41	24	20	21	22	21	19	14	14	17	15	16	16	15	16	
10	18	15	14	15	20	18	12	15	15	15	14	14	14	13	15	15	14	14	14	13	16	15	15	16	
11	13	14	14	19	14	14	13	15	22	25	18	31	23	22	29	35	22	22	40	35	30	44	26	17	
12	9	11	14	15	11	10	14	11	14	20	30	23	22	23	21	21	14	13	13	8	44	40	28	47	
13	47	51	44	43	65	52	29	41	80	52	59	48	48	31	60	23	12	10	11	11	M	10	10		
14	12	36	54	14	14	21	11	11	12	16	23	37	39	39	38	32	17	14	12	12	12	11	11	10	
15	10	11	11	11	12	13	14	13	14	18	22	15	21	14	13	11	12	22	11	16	16	12	13		
16	19	20	28	16	17	12	13	14	14	14	15	15	14	13	13	13	14	13	14	13	18	21	23	25	
17	18	23	18	18	15	17	17	17	21	21	19	19	20	19	17	25	28	15	16	12	20	16	15	14	
18	18	29	15	11	11	13	14	15	14	21	22	26	22	23	18	20	16	10	46	38	44	45	62	43	
19	68	51	55	66	75	25	21	25	45	43	39	24	19	19	16	18	18	18	51	51	61	35	44	40	
20	32	34	25	27	43	23	27	17	18	21	14	20	30	20	22	18	17	17	15	9	11	9	9	10	
21	8	12	9	10	12	12	14	14	16	18	18	21	21	20	19	17	15	14	18	21	35	35	46	35	
22	34	37	61	55	32	52	60	44	16	17	17	19	21	16	35	16	16	18	17	18	15	16	16		
23	15	15	15	13	16	17	17	16	17	18	29	30	23	49	47	17	19	16	11	15	11	13	13		
24	10	14	13	17	13	14	19	13	21	21	20	30	52	37	27	15	14	18	17	18	36	16	14	17	
25	14	13	15	14	15	16	16	16	19	17	19	20	19	19	19	18	19	17	13	17	18	16	16		
26	13	13	13	17	15	22	16	14	18	18	18	19	22	18	17	15	10	12	14	24	44	30	39		
27	57	58	45	45	40	27	33	31	37	38	39	36	39	40	38	36	46	43	66	30	68	55	67	51	
28	49	57	54	11	12	10	14	14	16	17	19	18	20	20	20	16	13	15	32	22	17	42	50	49	
29	42	31	14	16	18	20	16	16	17	18	23	22	18	23	37	44	33	25	31	41	16	16	15	17	
30	15	15	15	16	16	14	15	16	16	17	18	19	19	17	15	14	17	12	15	13	12	14	15		
31	13	13	19	17	14	16	17	19	16	18	18	17	17	17	16	18	32	31	44	24	21	29	17		

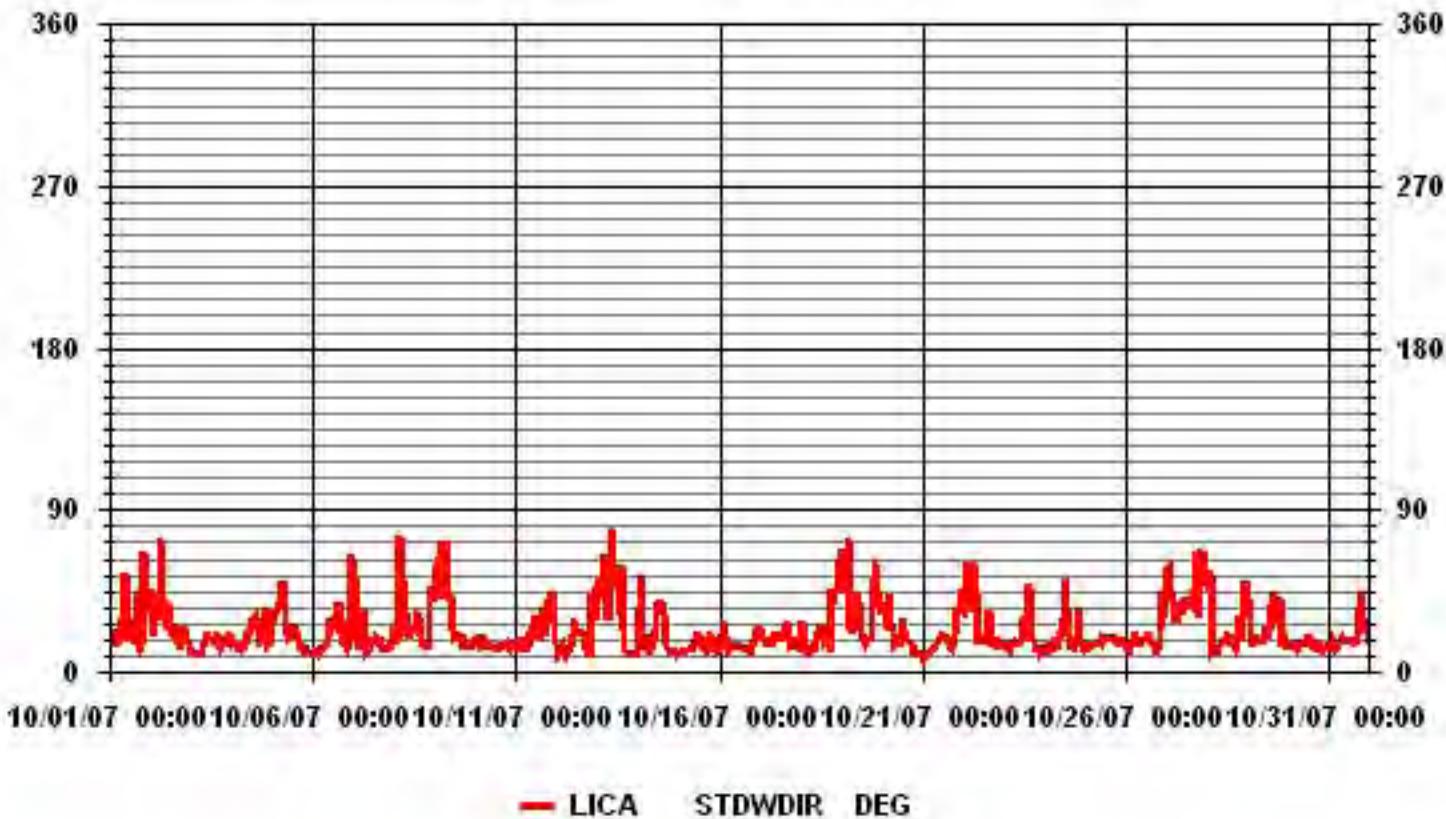
### STATUS FLAG CODES

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: NA

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 743 HRS

### 01 Hour Averages



# **TEMPERATURE**

**LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE**

OCTOBER 2007

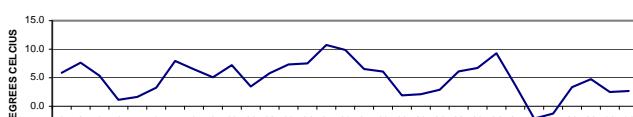
**AMBIENT TEMPERATURE** hourly averages (Degrees C)

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
DAY																											
1	5.9	5.4	5.6	5.1	5	4.3	3.5	4.3	6.1	8	9	9.7	10	10	8.2	8.4	9.4	9.3	7.2	4	2.3	0.9	0	-0.7	10.0	5.9	24
2	-1.2	-1.5	-1.5	-1.8	-0.8	0	0.3	2	6.6	8.5	11	13.2	13.7	14.5	15.2	15.7	14.1	13.3	12.3	11.6	10.8	10.2	9.1	8	15.7	7.6	24
3	7.4	5.8	4.9	3.5	2.1	1	0.2	1.2	3.8	6.3	8.2	9.5	9.6	9.5	8.2	8.4	7.4	6.3	5.7	4.9	3.7	4.1	3.7	3.2	9.6	5.4	24
4	2.4	2.6	2	1.7	1.4	1.3	1.1	1.1	1.3	1.9	2	2	2.4	2.5	2.4	2.4	2.5	1.7	0.5	-0.6	-1.6	-1.3	-1.7	-3	2.6	1.1	24
5	-3.9	-4.8	-5.4	-4.3	-5.4	-5.3	-6.7	-4.9	-0.5	1.3	2.9	4.4	5.9	7.2	8.2	8.9	8.9	7.6	5.4	4.3	4.1	3.7	3.9	3.8	8.9	1.6	24
6	3.4	2.6	1.6	1	0.7	1.1	1.7	2.3	3.4	4.1	4.3	4.8	5.3	5.9	6.2	6.1	6.5	5.7	3.8	2.1	2.2	1.6	1.1	0.5	6.5	3.3	24
7	0.2	-1.1	-1.5	0.5	-0.7	-2.1	-1.6	1.1	2.8	6.7	10.3	13.1	14.7	15.6	16.9	17.3	16.8	15.1	13.5	12.5	11.1	10.6	9.7	9.1	17.3	7.9	24
8	8.1	5.9	4.1	2.3	0.5	0.2	1.3	2.3	4.3	7.7	10.7	11.5	12.7	13.8	14.3	14.5	13.5	10.9	8.5	6.6	3.6	0.9	-0.8	-1.9	14.5	6.5	24
9	-2.7	-3.3	-3.9	-4.6	-5.1	-5.5	-5.9	-4.4	2.1	6.4	9.7	11.9	13.1	13.6	14.1	14.2	12.9	11.6	10.5	9.5	8.1	7.2	6.5	6	14.2	5.1	24
10	5.2	5	4.5	4	2.5	2.2	5	4.9	5.8	7.1	7.7	8.9	9.9	10.3	11.3	12	11.1	10.2	9.5	8.5	7.8	7.2	6.5	6	12.0	7.2	24
11	5.3	4.9	4.2	3.9	4	4	4.1	4.1	4.3	4.2	4	3.8	4.1	4.8	5.4	5.7	5.8	4	1.6	0.3	-0.3	-1.1	-2	5.8	3.5	24	
12	-1.9	-1.9	-0.9	-1.5	0	-0.4	-1.3	-0.2	2.3	5.3	8.5	10.8	12.4	13.2	13.5	12.9	11.6	10.7	9.6	8.3	7.5	6.6	7.3	6.5	13.5	5.8	24
13	6.6	6.7	5.8	5.8	6.3	4.7	3	3	5	9.1	10.2	11.1	11.9	12	13	12.4	11.5	9.3	7.2	5.8	4.5	4	3.8	3.2	13.0	7.3	24
14	2.5	2	0.2	-0.8	0	0	0	1.3	3.3	5.6	9.2	12.6	14.4	15.7	16.2	16.3	15.3	13	11.3	10	8.9	8.1	8	7.1	16.3	7.5	24
15	6.4	6.5	6.5	5.8	5.3	5	4.8	5.1	5.5	7.5	9.6	14.2	16.9	18.3	18	17.6	17.5	15.9	13.7	12.6	11.5	11.1	11.1	18.3	10.7	24	
16	10.3	8.8	7.6	7.1	6.6	5.6	5.2	5.3	6.7	8.3	10.3	12.3	14.3	15.2	15.4	15.2	14.2	12.6	11.3	10.5	9.6	8.8	8.2	7.6	15.4	9.9	24
17	6.4	6.2	5.6	5.1	4.5	4.2	4.2	3.7	4.6	5.5	6.4	7.7	9	9.2	8.9	9.1	8.2	7.7	7.6	7.4	7	6.4	6.3	5.8	9.2	6.5	24
18	6.1	6.3	6.2	5.9	5.7	5.4	5.1	4.9	5.4	6.8	8	10	11.3	12.4	12.8	12.9	11.9	8	3.9	1.6	-0.1	-1	-1.6	-2	12.9	6.1	24
19	-2.5	-3	-3.4	-3.6	-3.2	-2	-1.6	-0.6	1.1	3.3	5	6.2	6.4	6.4	6.5	7.4	7.4	6.5	4.8	2	0.7	0.8	0.8	0.4	7.4	1.9	24
20	-0.8	-2.1	-2.6	-3.1	-3.4	-4	-4.4	-3.6	-1.6	0.7	3.5	6	8.3	8.9	9.7	9.2	7.8	6.6	5.1	3.6	2.2	1.4	1.6	1.7	9.7	2.1	24
21	1.5	0.8	0.2	0	0.4	0.7	0.6	-0.3	0.4	3	5.2	6.7	8.1	9.1	9.6	9.4	8.4	5.9	3	1.7	-0.5	-1.5	-1.5	-1.5	9.6	2.9	24
22	-0.3	0.9	-0.5	-1.1	-1	-0.4	-0.4	0	3.7	5.4	7.8	10.2	11.8	12.7	12.4	12	11.9	11.3	10.8	9.7	8.8	8	6.8	6.1	12.7	6.1	24
23	5.4	5.3	4.7	4.1	4.2	4.7	4.8	4.9	5.2	6.1	6.9	8.1	8.6	8.7	8.7	9.4	8.9	8.3	7.8	7.4	7.1	7.7	7.5	6.6	9.4	6.7	24
24	6	5.6	5.1	5	4.7	4.7	4.5	4.3	5	7	10	13	17.7	17.3	17.2	17	15.5	13.8	11.9	7.3	7.2	7.7	7.8	7.6	17.7	9.3	24
25	6.1	4.8	3.2	2	1.7	2.1	2.1	3.4	4.5	5.1	6.1	6.7	6.9	6.5	5.9	5.4	4.5	3.3	2.2	1.2	0	6.9	3.7	24			
26	-0.8	-1.5	-2.6	-2.5	-2.1	-2	-2.1	-1.9	-1.4	-0.8	-0.6	-0.5	-0.1	0.3	0.4	0.6	0	-1.6	-2.8	-3.7	-5	-6.8	-7.5	-6.9	0.6	-2.2	24
27	-6.5	-6.4	-6.2	-5.9	-5.8	-5.6	-5.2	-5	-3.7	-1	1.4	3	3.7	4.1	4.4	3.7	2.5	0.3	0.6	-0.3	-0.5	-0.6	-1.1	-0.7	4.4	-1.3	24
28	-1.1	-1.6	-2.4	-2.6	-3	-1.2	-0.1	0.4	2.5	5.9	7.5	8.7	10	11	11.1	10.4	8.6	5.8	2.8	1.4	1.9	2.1	1.8	0.4	11.1	3.3	24
29	0.1	1.1	2.8	4.3	4.5	4.3	4.2	4.5	5.5	7	7.3	7.1	7.7	8	6.5	5.7	5	4.5	3.8	4.1	4	3.9	3.7	8.0	4.8	24	
30	3.7	3.3	3.3	3.2	2.9	2.1	1.5	0.7	1	2	3.5	4.6	5.2	5.3	5.5	5.3	5	3.1	2	0.9	0	-0.8	-1.7	-1.6	5.5	2.5	24
31	-2.2	-2.3	-3.1	-2.7	-1.4	-0.6	-0.3	0	0.7	2.5	5.1	7.2	8	8.4	8.8	8.4	6.6	3.4	1.2	2.1	2.2	3.9	4	4.3	8.8	2.7	24
HOURLY MAX	10.3	8.8	7.6	7.1	6.6	5.6	5.2	5.3	6.7	9.1	11.0	14.2	17.7	18.3	18.0	17.6	17.5	15.9	13.7	12.6	11.5	11.1	11.5	11.1			
HOURLY AVG	2.4	2.0	1.4	1.2	1.0	0.9	0.9	1.4	3.0	5.0	6.8	8.3	9.4	10.0	10.2	10.2	9.4	8.0	6.5	5.1	4.2	3.8	3.4	2.9			

**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

**24 HOUR AVERAGES FOR OCTOBER 2007**



**MONTHLY SUMMARY**

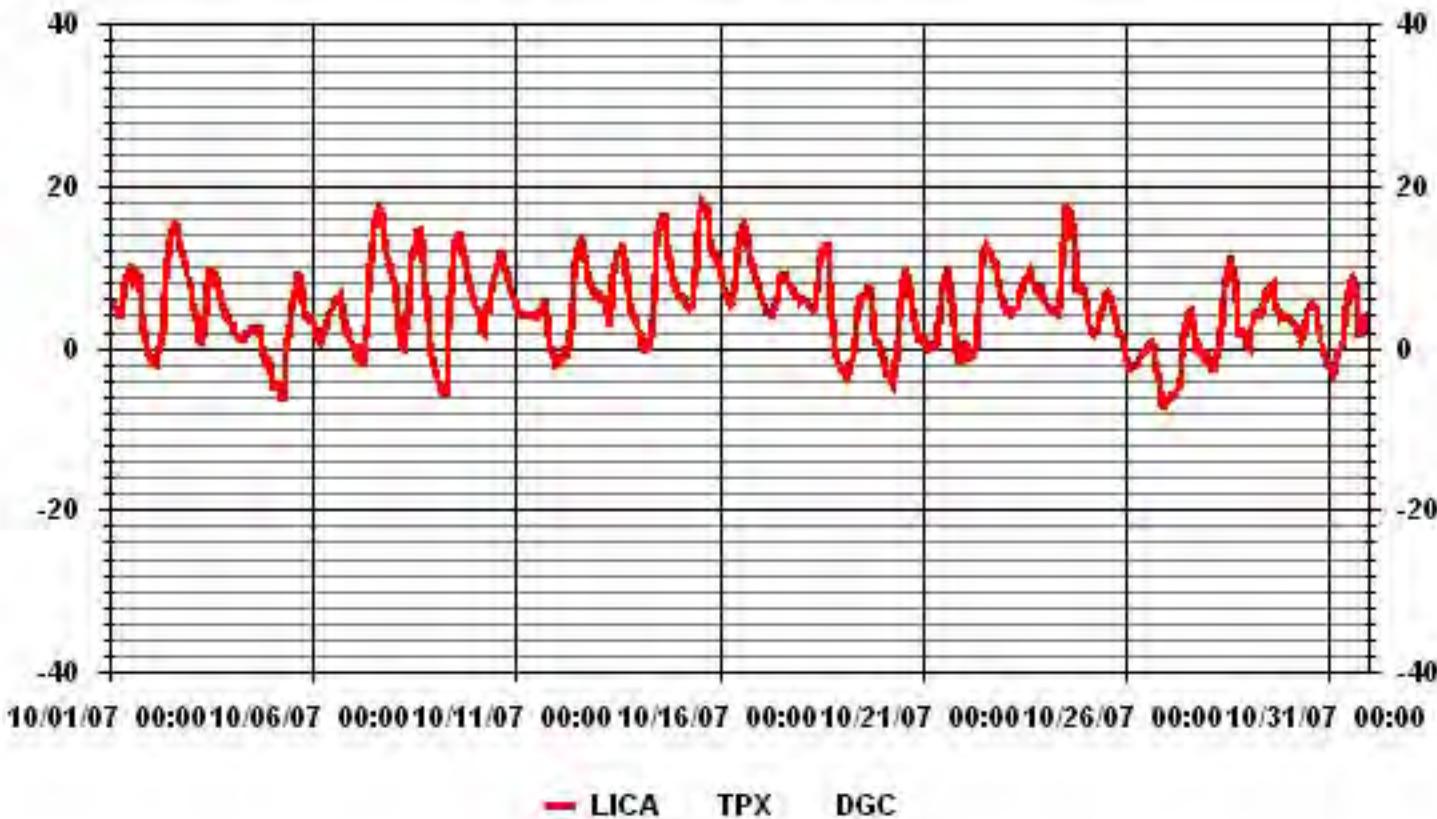
MINIMUM 1-HR AVERAGE:	-7.5	°C	@ HOUR(S)	23	ON DAY(S)	26
MAXIMUM 1-HR AVERAGE:	18.3	°C	@ HOUR(S)	14	ON DAY(S)	15
MAXIMUM 24-HR AVERAGE:	10.7	°C			ON DAY(S)	15

CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
AMD OPERATION UPTIME:				100.0	%
STANDARD DEVIATION:	5.09		MONTHLY AVERAGE:	4.89	°C

**MOUNTAIN STANDARD TIME**

**Maxxam**  
Analytics Inc

### 01 Hour Averages



# **RELATIVE HUMIDITY**

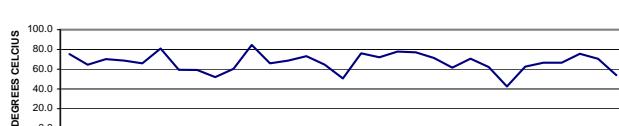
## LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

OCTOBER 2007

RELATIVE HUMIDITY hourly averages (%)

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	DAILY	24-HOUR MAX.	24-HOUR AVG.	RDGS.	
DAY																												
1	67.0	68.9	68.5	71.1	72.7	76.6	80.4	77.8	72.7	65.4	62.2	62.6	61.0	61.1	74.6	76.6	71.9	73.3	81.7	90.2	92.3	92.7	93.1	93.1	75.3	24		
2	93.5	93.4	93.5	93.0	91.5	93.4	93.8	88.5	73.7	66.7	58.3	48.1	42.1	38.8	34.3	33.5	38.5	41.1	45.3	50.1	55.0	55.9	61.5	65.3	93.8	64.5	24	
3	66.0	71.9	75.6	80.4	83.5	86.2	88.1	83.4	74.8	66.9	60.9	53.5	51.4	50.7	56.2	55.2	63.0	68.3	69.3	70.4	76.9	77.0	77.5	78.6	88.1	70.2	24	
4	82.4	79.2	77.7	77.3	74.2	72.9	71.1	73.2	73.3	66.3	61.1	59.3	57.6	57.6	57.6	57.2	61.1	65.7	71.1	75.4	70.6	71.9	78.1	82.4	68.7	24		
5	80.4	83.0	84.0	79.2	86.4	85.3	88.0	83.6	72.3	63.5	58.8	54.3	49.0	43.7	39.8	38.2	41.4	49.1	57.9	62.7	64.8	69.2	72.8	75.6	88.0	66.0	24	
6	79.0	82.4	85.7	88.7	90.5	89.8	88.3	88.1	83.5	78.5	75.7	73.8	71.5	68.4	68.0	70.4	69.3	72.0	79.7	85.1	85.6	87.9	89.6	91.6	91.6	81.0	24	
7	91.3	93.1	93.2	89.2	90.4	93.0	91.2	82.1	77.9	66.9	47.9	35.9	33.2	32.9	28.8	27.9	29.9	35.4	39.0	43.7	48.0	47.7	51.4	54.5	93.2	59.4	24	
8	59.4	69.2	77.5	83.7	87.7	89.9	87.6	86.2	83.3	66.3	49.1	46.9	40.7	32.9	27.1	23.0	23.9	33.8	40.7	44.6	44.6	45.8	64.9	72.3	74.9	89.9	59.2	24
9	76.6	82.9	83.4	82.2	82.9	84.3	85.4	82.4	63.6	53.0	40.3	31.3	26.7	23.8	22.8	22.2	21.8	26.0	30.5	35.7	39.8	45.9	50.0	54.2	85.4	52.0	24	
10	58.8	62.5	65.4	69.5	75.8	79.4	76.8	77.3	71.0	64.0	61.7	57.1	50.6	47.1	43.9	41.8	43.9	45.8	48.5	53.5	57.8	62.6	66.0	67.6	79.4	60.4	24	
11	69.9	71.9	75.5	77.8	78.0	78.5	78.5	79.0	79.1	79.0	82.2	89.3	90.1	88.8	86.2	83.9	84.4	87.3	92.9	95.1	95.4	95.3	95.6	95.8	84.6	24		
12	97.0	96.3	94.6	93.6	89.9	89.3	90.2	85.4	77.5	68.2	57.8	48.7	41.1	36.4	34.8	35.9	39.9	42.6	48.3	55.5	61.5	66.0	64.0	68.5	97.0	66.0	24	
13	69.6	73.9	79.5	76.0	71.8	80.5	86.1	86.0	79.4	63.0	58.3	54.6	48.5	46.9	41.2	43.0	46.5	58.5	69.4	76.7	83.7	M	92.3	94.4	94.4	68.7	23	
14	95.5	95.7	94.9	94.7	96.6	97.3	97.4	95.9	90.8	83.1	70.1	53.5	45.2	40.7	38.2	39.6	44.0	50.5	59.2	66.4	71.6	76.0	77.8	81.5	97.4	73.2	24	
15	84.8	84.6	83.5	85.1	86.1	86.1	86.6	84.8	83.7	78.0	72.9	57.5	46.4	40.6	42.0	42.7	42.8	46.9	53.1	54.8	56.6	52.3	49.1	49.5	86.6	64.6	24	
16	51.4	57.0	62.2	65.0	66.2	66.7	65.8	63.6	58.2	53.2	47.6	43.2	36.8	33.6	31.5	31.4	35.8	39.5	41.9	45.8	50.1	53.8	56.3	59.0	66.7	50.7	24	
17	64.5	66.5	69.4	72.3	75.8	79.7	82.5	84.2	82.7	80.7	78.7	74.2	70.3	70.0	71.2	70.2	72.0	73.7	74.7	75.9	79.1	83.6	84.1	90.6	90.6	76.1	24	
18	92.3	92.0	92.6	93.2	92.6	91.8	91.6	89.0	84.5	76.9	69.6	57.4	43.8	34.5	32.9	32.2	36.2	51.3	66.9	73.7	80.8	84.0	84.6	85.5	93.2	72.1	24	
19	86.2	88.0	88.1	89.2	89.9	87.3	85.8	83.8	82.5	77.7	70.2	62.4	60.3	60.6	61.2	64.2	60.4	65.2	73.5	83.4	86.3	87.0	87.3	87.6	89.9	77.8	24	
20	89.9	92.9	93.0	93.0	92.1	92.3	92.6	92.2	90.7	87.0	81.6	68.9	56.0	52.0	48.1	50.3	54.7	60.0	64.8	70.8	76.9	82.3	83.6	83.5	93.0	77.1	24	
21	84.2	87.0	88.9	90.6	90.3	90.1	91.2	92.5	88.6	81.4	72.7	65.7	56.9	48.5	43.2	42.3	41.0	46.1	55.0	59.5	70.5	74.1	75.2	76.4	92.5	71.3	24	
22	75.5	71.4	77.5	80.8	81.5	78.7	80.5	80.5	68.3	63.2	55.0	48.5	42.4	36.8	37.0	38.8	39.4	42.2	46.7	52.6	58.3	64.6	76.4	81.4	81.5	61.6	24	
23	85.1	83.3	83.9	85.9	85.3	82.9	82.1	81.5	77.2	71.0	61.1	54.1	57.1	58.3	57.4	57.7	60.2	61.5	63.4	65.3	64.3	65.5	69.2	85.9	70.6	24		
24	72.8	75.5	78.8	80.3	81.2	81.5	82.9	83.4	81.8	75.8	66.7	57.6	43.9	45.2	45.2	44.6	45.0	37.2	38.3	71.5	66.0	54.9	45.9	37.0	83.4	62.2	24	
25	38.0	43.2	50.6	55.8	51.9	49.5	52.1	52.5	46.2	44.2	45.5	40.4	34.6	30.4	28.7	29.8	30.9	33.5	37.3	42.1	48.0	42.9	44.5	47.5	55.8	42.5	24	
26	52.2	54.3	59.9	60.7	60.1	77.9	84.8	86.0	82.3	55.4	54.8	53.1	49.3	47.5	43.9	41.9	44.1	51.4	59.1	65.0	72.0	81.9	82.2	81.8	86.0	62.6	24	
27	82.8	82.3	80.8	78.3	78.6	77.4	74.8	73.8	69.7	61.9	50.0	46.2	45.8	46.8	47.0	51.1	56.0	63.8	63.7	69.2	71.9	73.3	76.2	76.0	66.6	24		
28	78.2	80.4	84.4	83.6	84.3	76.7	74.2	70.0	70.0	57.9	52.9	49.7	46.8	43.9	43.2	45.1	50.7	59.5	68.3	72.5	71.9	72.8	75.6	79.8	84.4	66.6	24	
29	80.6	79.1	75.7	70.3	68.8	67.5	68.3	68.4	67.3	63.8	58.2	56.7	57.6	56.1	59.2	82.2	90.3	93.9	94.5	94.4	88.6	89.9	91.1	92.1	94.5	75.6	24	
30	92.2	93.9	93.2	90.2	88.3	87.2	85.4	84.3	80.4	75.7	66.7	58.4	53.3	50.0	47.8	47.2	45.8	54.0	60.3	64.3	65.8	67.5	69.6	70.3	93.9	70.5	24	
31	73.3	71.9	75.4	75.0	72.1	70.8	68.6	65.4	61.2	53.7	44.9	38.7	36.6	35.8	35.5	33.5	38.8	50.3	57.5	52.5	51.9	43.8	44.2	75.4	54.0	24		
HOURLY MAX	97.0	96.3	94.9	94.7	96.6	97.3	97.4	95.9	90.8	87.0	82.2	89.3	90.1	88.8	86.2	83.9	90.3	93.9	94.5	95.1	95.4	95.3	95.6	95.8				
HOURLY AVG	76.5	78.3	80.2	80.8	81.2	82.0	82.3	81.0	75.9	68.2	61.4	55.1	49.8	47.1	46.1	46.9	48.9	54.0	59.5	64.9	68.5	69.5	71.8	73.7				

### 24 HOUR AVERAGES FOR OCTOBER 2007



### MONTHLY SUMMARY

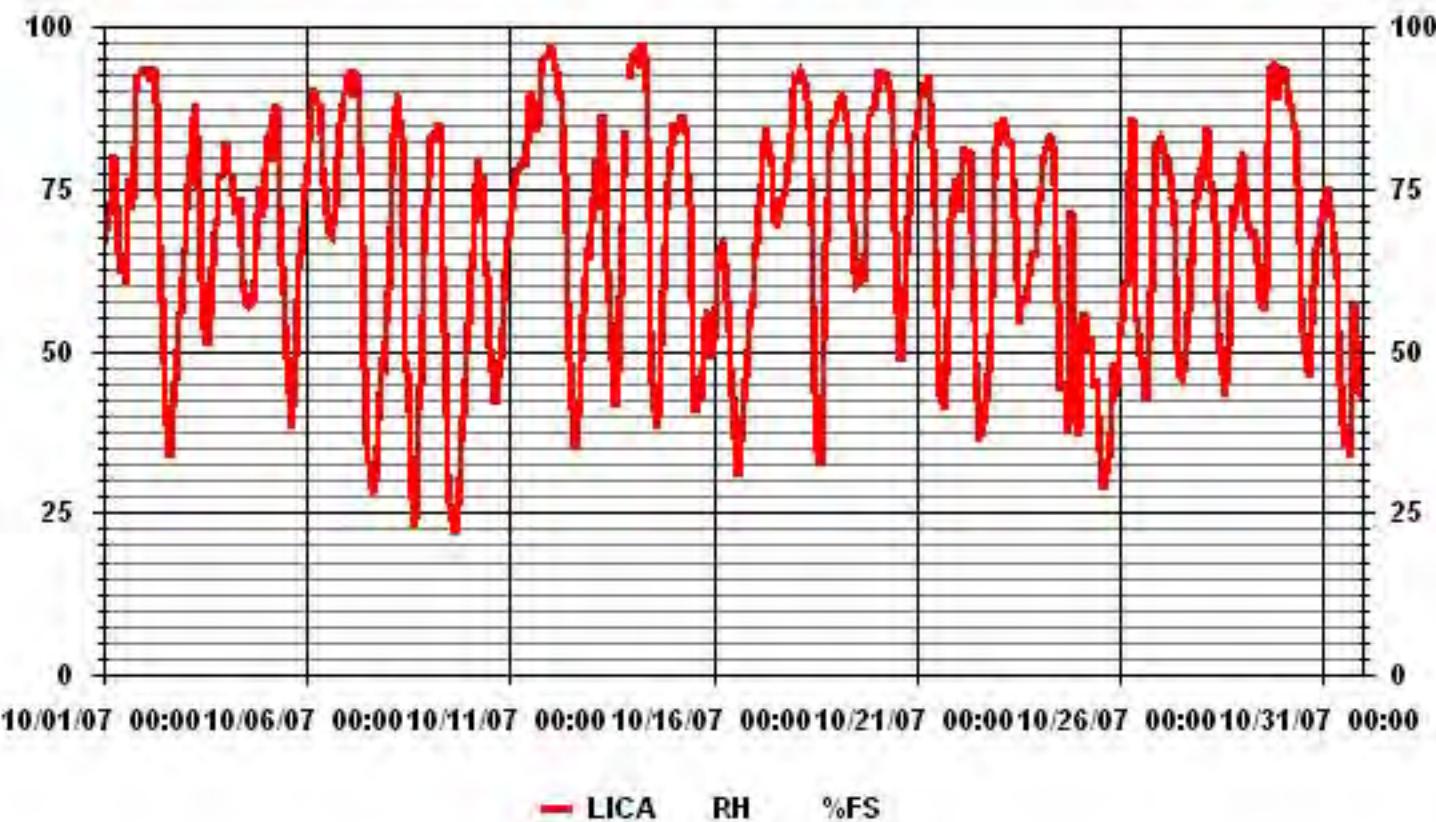
MAXIMUM 1-HR AVERAGE: 97.4 % @ HOUR(S) 7 ON DAY(S) 14  
MAXIMUM 24-HR AVERAGE: 84.6 % ON DAY(S) 11

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 743 HRS  
AMD OPERATION UPTIME: 99.9 %  
STANDARD DEVIATION: 18.22 MONTHLY AVERAGE: 66.81 %

### MOUNTAIN STANDARD TIME

**Maxxam**  
Analytics Inc

### 01 Hour Averages



# **OCTOBER 2007**

# **CALIBRATION REPORTS**

**LICA – COLD LAKE**

**SO<sub>2</sub>**

## SO<sub>2</sub> Calibration Report

### Station Information

Calibration Date	October 1, 2007	Previous Calibration	September 21, 2007
<b>Lakeland Industry &amp; Community Association</b>			
<b>LICA 1 - Cold Lake South</b>			
Start Time (MST)	10:25	End Time (MST)	14:15
Reason: Monthly Calibration			
Barometric Pressure	702 mmHg	Station Temperature	24 Deg C
Cal Gas	50.2 ppm	Cal Gas Expiry date	06/18/2009
DAS Output Voltage	0 - 10 Volts		

### Equipment Information

Analyzer Make / Model:	TECO 43A	S/N :	43A-4468-272	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	API 700	S/N :	690		

### Analyzer Settings

Concentration Range	Before Calibration				After Calibration			
	700 ccm	OK	0 - 500	ppb	700 ccm	OK	845	Deg C
HVPS / Lamp Setting	OK		843		OK		845	
PMT / RxCell Temp	OK	Deg C	OK	50	OK	Deg C	OK	Deg C
Converter / IZS Temp	NA	Deg C	OK	40	NA	Deg C	OK	Deg C
Offset / Slope	98		879		98		878	

### Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
4960	39.8	400	398	1.0040
4960	39.8	400	400	0.9990
4974	24.9	250	249	1.0042
4985	14.9	150	148	1.0108
ZERO	ZERO	0	1	N/A
Sum of Least Squares				1.0014
New Correction Factor				0.9990

### Before Calibration

### After Calibration

Auto Zero	0	0
Auto Span	343	345
Sample Lines Connected		
Percent Change from Previous Calibration		

Notes:

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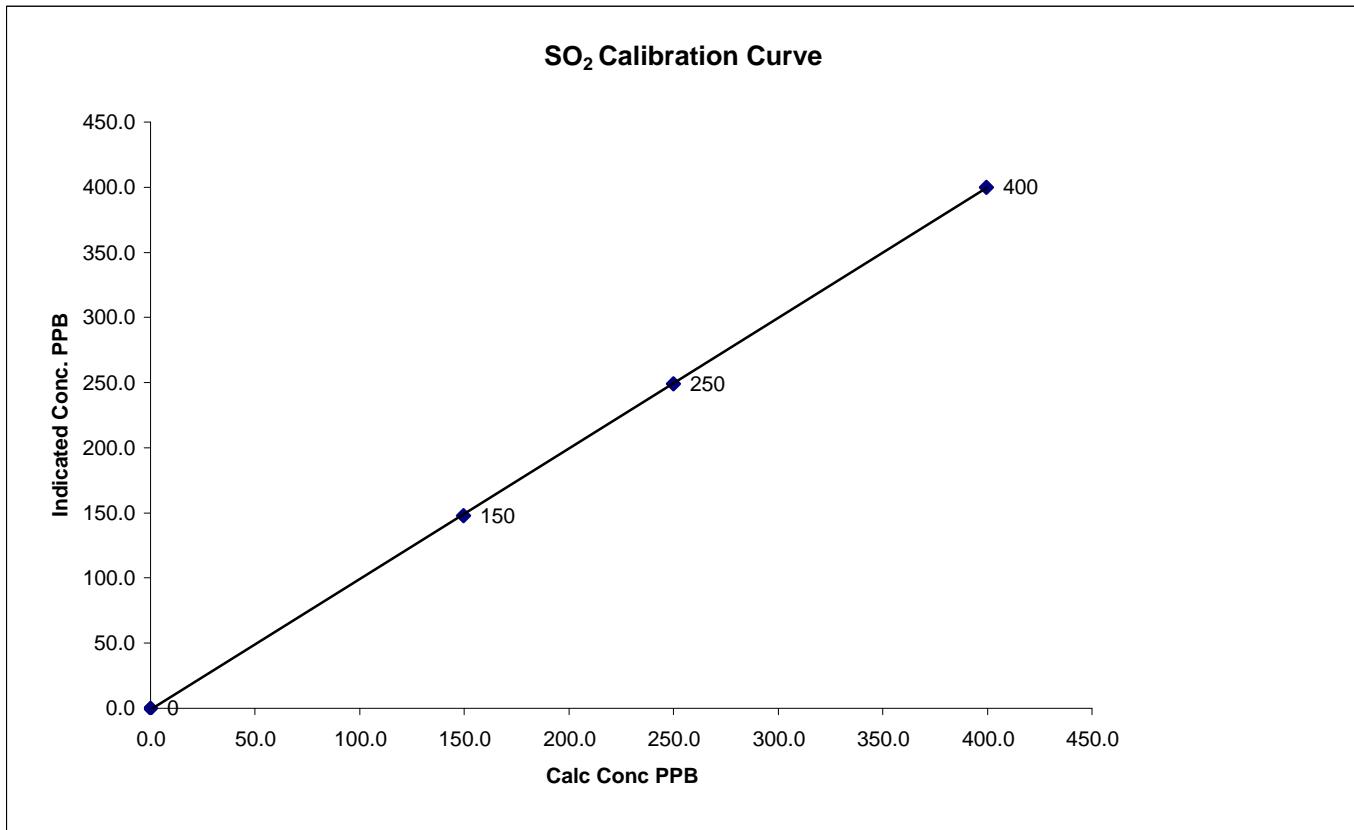
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Calibration Performed by: Shea Beaton

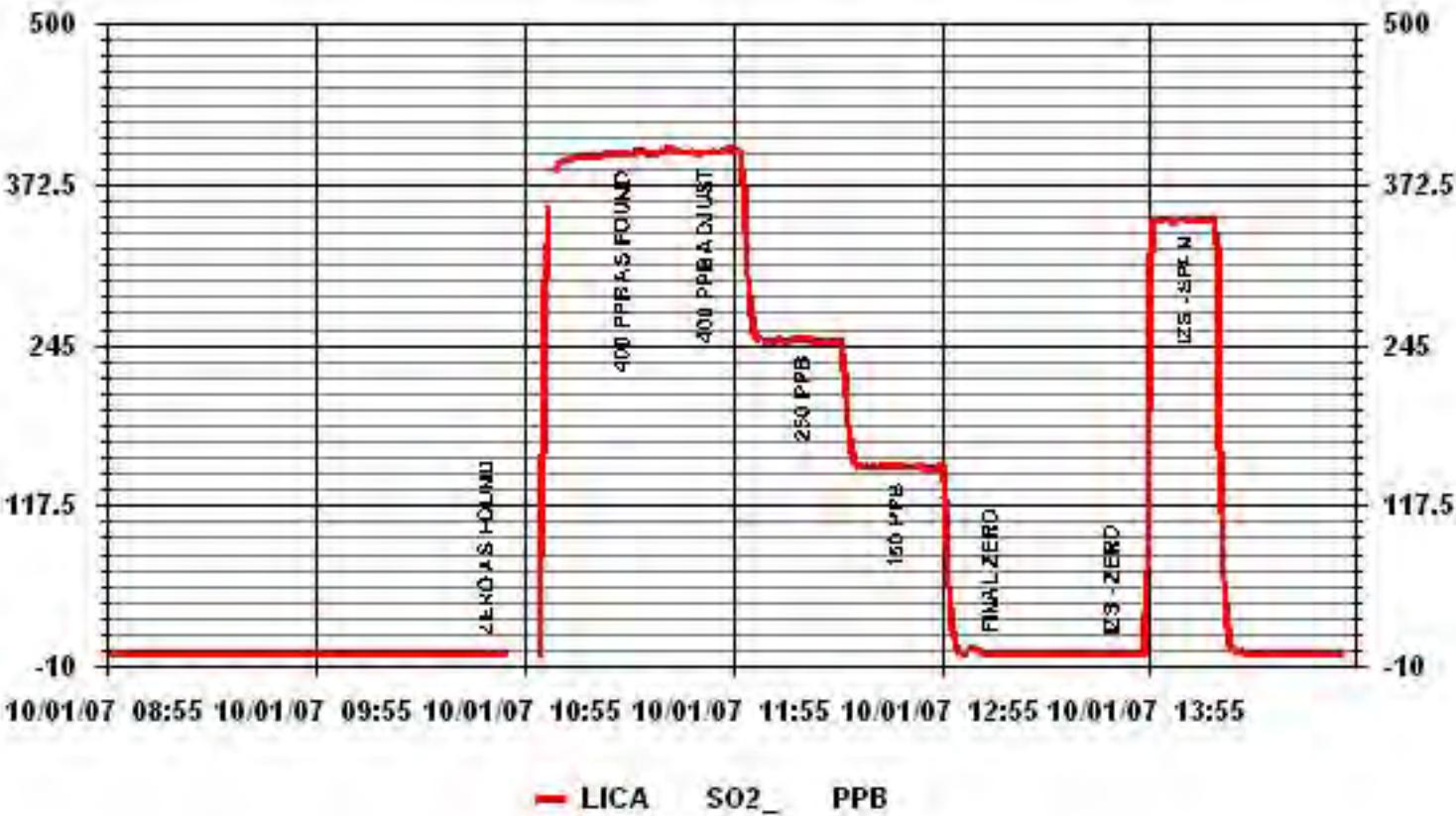
## SO<sub>2</sub> Calibration Curve

Calibration Date	October 1, 2007		
Company	<b>Lakeland Industry &amp; Community Association</b>		
Plant / Location	<b>LICA 1 - Cold Lake South</b>		
Start Time (MST)	10:25	End Time (MST)	14:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995) (0.85 to 1.15)	0.999972
			Slope	(± 3% F.S.)	1.001247
			Intercept		-0.813574
0	0	n/a			
150	148	1.0108			
250	249	1.0042			
400	400	0.9990			



### 01 Minute Averages



**TRS**

## TRS Calibration Report

### Station Information

Calibration Date	October 1, 2007	Previous Calibration	September 24, 2007
Company	<b>Lakeland Industry &amp; Community Association</b>		
Plant / Location	<b>LICA 1 - Cold Lake South</b>		
Start Time (MST)	10:25	End Time (MST)	14:15
Reason:	Monthly Calibration		
Barometric Pressure	702	mm Hg	Station Temperature 24 Deg C
Cal Gas	10.2	ppm	Cal Gas Expiry date 09/05/2007
DAS Output Voltage	0 - 10	Volts	

### Equipment Information

Analyzer Make / Model:	TECO 43A	S/N :	43A-35786-254	Method:	Fluorescent
Converter Make / Model:	CD Nova CDN 101	S/N :	250		
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	Environics 2000	S/N :	1991		

### Analyzer Settings

Parameter	Before Calibration			After Calibration		
	Setting	Unit	Status	Setting	Unit	Status
Concentration Range			0 - 100		ppb	
Sample Flow / Box Temp	400	ccm	OK	Deg C	400	ccm
HVPS / Lamp Setting	OK			884	OK	
PMT / RxCell Temp	OK	Deg C	OK	Deg C	OK	Deg C
Converter / IZS Temp	851	Deg C	OK	Deg C	OK	Deg C
Offset / Slope	850		836		850	
						874

### Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
4960	39.2	80	78	1.0254
4960	39.2	80	80	0.9998
4980	19.6	40	40	0.9997
4990	9.8	20	19	1.0523
ZERO	ZERO	0	0	N/A
				Sum of Least Squares 1.0021
				New Correction Factor 0.9998

### Before Calibration

### After Calibration

Auto Zero	0	0
Auto Span	83	88
Sample Lines Connected		YES
Percent Change from Previous Calibration		-2.5%

Notes:

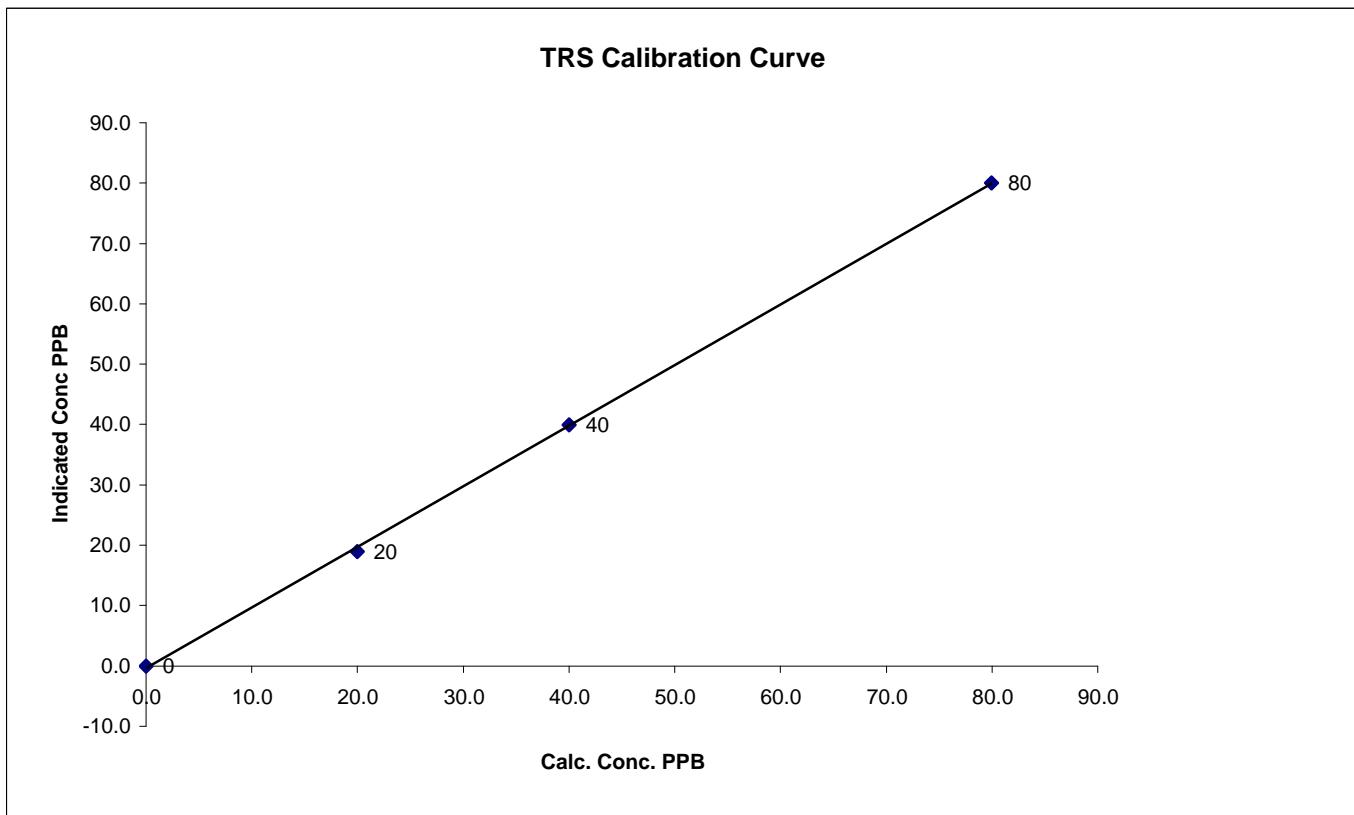
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Calibration Performed by: Shea Beaton

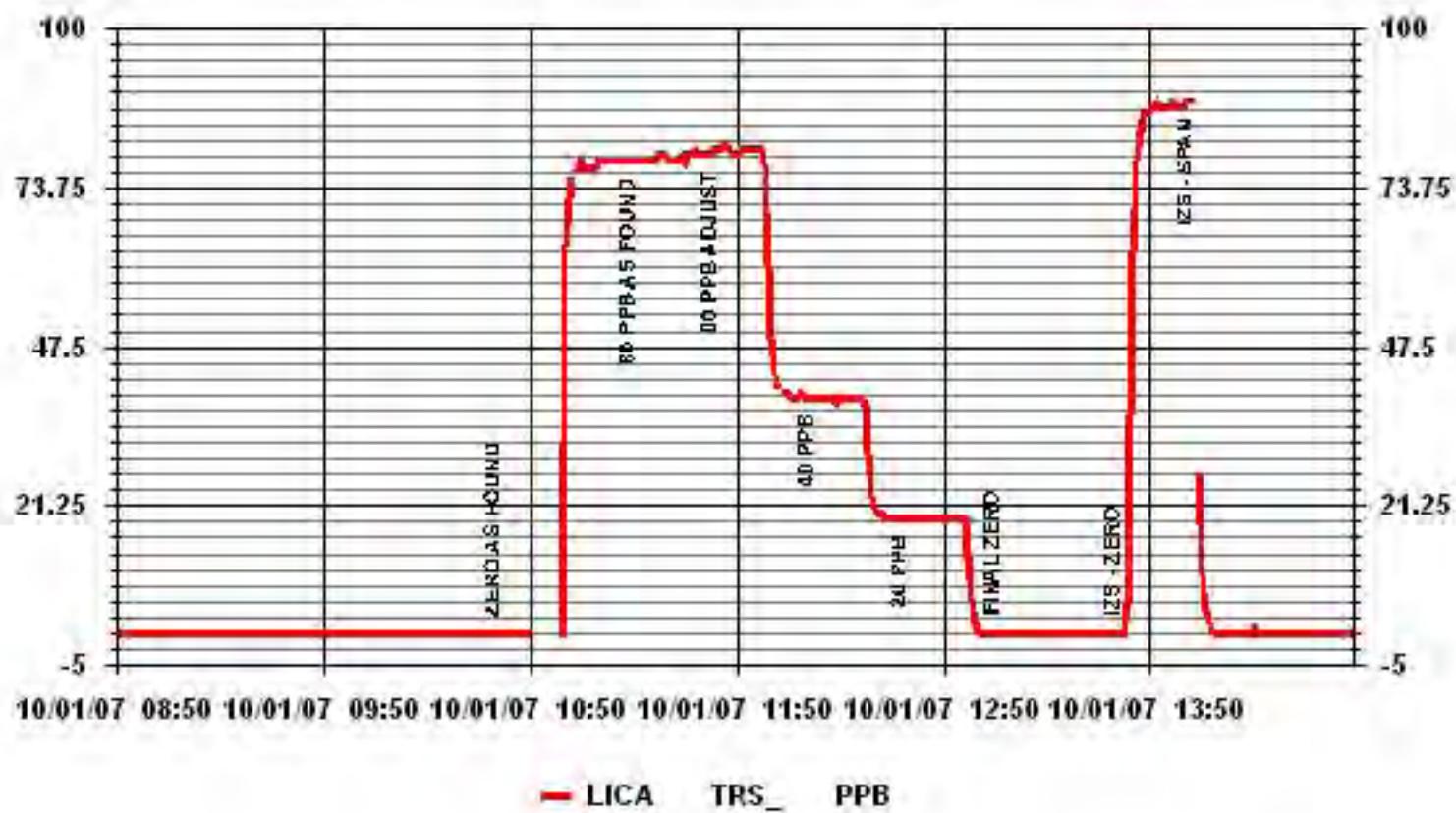
### TRS Calibration Curve

Calibration Date	October 1, 2007		
Company	<b>Lakeland Industry &amp; Community Association</b>		
Plant / Location	<b>LICA 1 - Cold Lake South</b>		
Start Time (MST)	10:25	End Time (MST)	14:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)	0.999806 1.004521 -0.398402
0	0	n/a			
20	19	1.0523			
40	40	0.9997			
80	80	0.9998			



### 01 Minute Averages



# **THC**

## THC Calibration Report

### Station Information

Calibration Date:	October 1, 2007	Previous Calibration	September 24, 2007
Company: <b>Lakeland Industry and Community Association</b>			
Plant / Location: <b>LICA1/Cold Lake</b>			
Start Time (MST)	13:20	End Time (MST)	16:35
Reason: Monthly Calibration			
Barometric Pressure:	702 mmHg	Station Temperature:	24 Deg C
Calibrator:	Environics 2000	S/N:	1991
Cal Gas Concentration:	1010 ppm	Cal Gas Expiry Date:	Jan-10
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
<b>Analyzer Settings</b>					

	Before Calibration		After Calibration	
Concentration Range	0 - 50	ppm	0 - 50	ppm
Sample Pressure	6.5	psi	6.5	psi
Hydrogen Pressure	9	psi	9	psi
Air Pressure	18	psi	18	psi

### Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
ZERO	ZERO	0.0	0.0	N/A
1920	79.2	40.0	39.3	1.0181
1920	79.2	40.0	40.1	0.9978
1960	39.6	20.0	19.6	1.0205
1980	19.8	10.0	9.5	1.0526
ZERO	ZERO	0.0	0.0	N/A
			Correction Factor:	0.9978

### Percent Change

Previous Calibration Correction Factor:	1.0003
Current Correction Factor Before Span Adjust:	1.0181
Percent Change:	-1.7%

### Izs Calibration Data

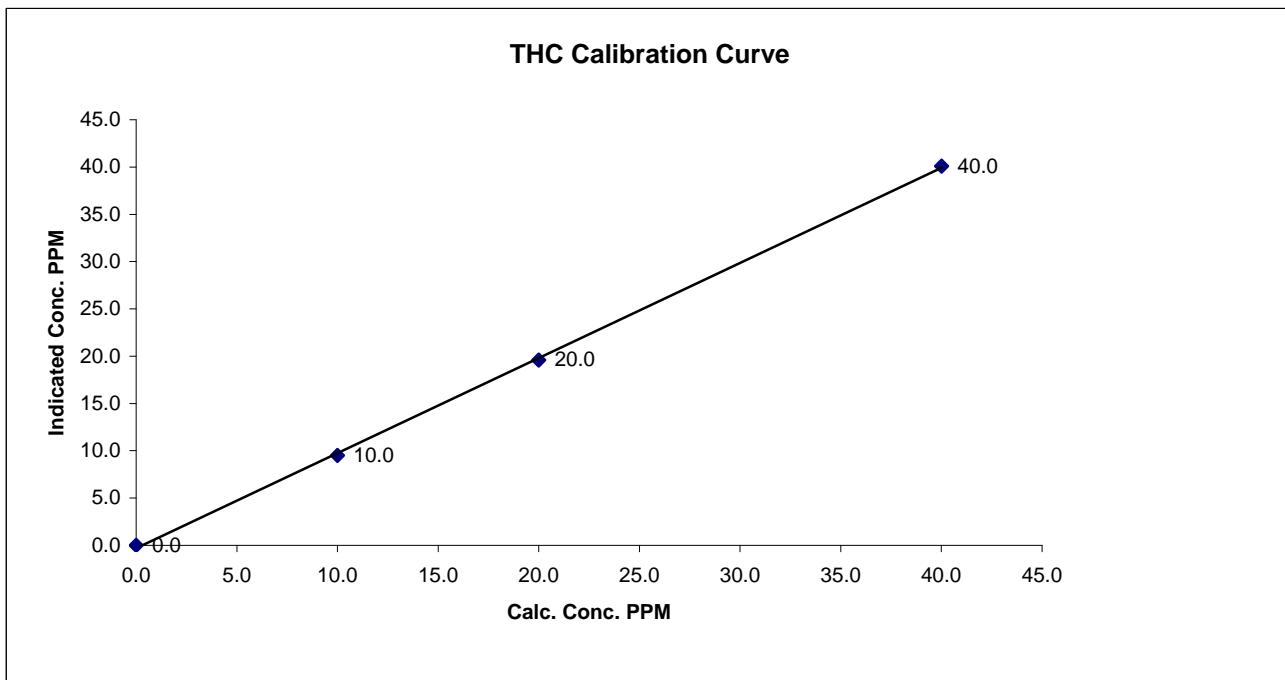
	Before Calibration		After Calibration
Auto Zero	0.0		0.0
Auto Span	26.5		27.3
Sample Lines Connected			<b>YES</b>

Notes:	Cylinder Pressures	
Span	700 psi	
Hydrogen	700 psi	
Zero Air	Maxxam-owned API 701 zero air supply with catalytic oxidizer	

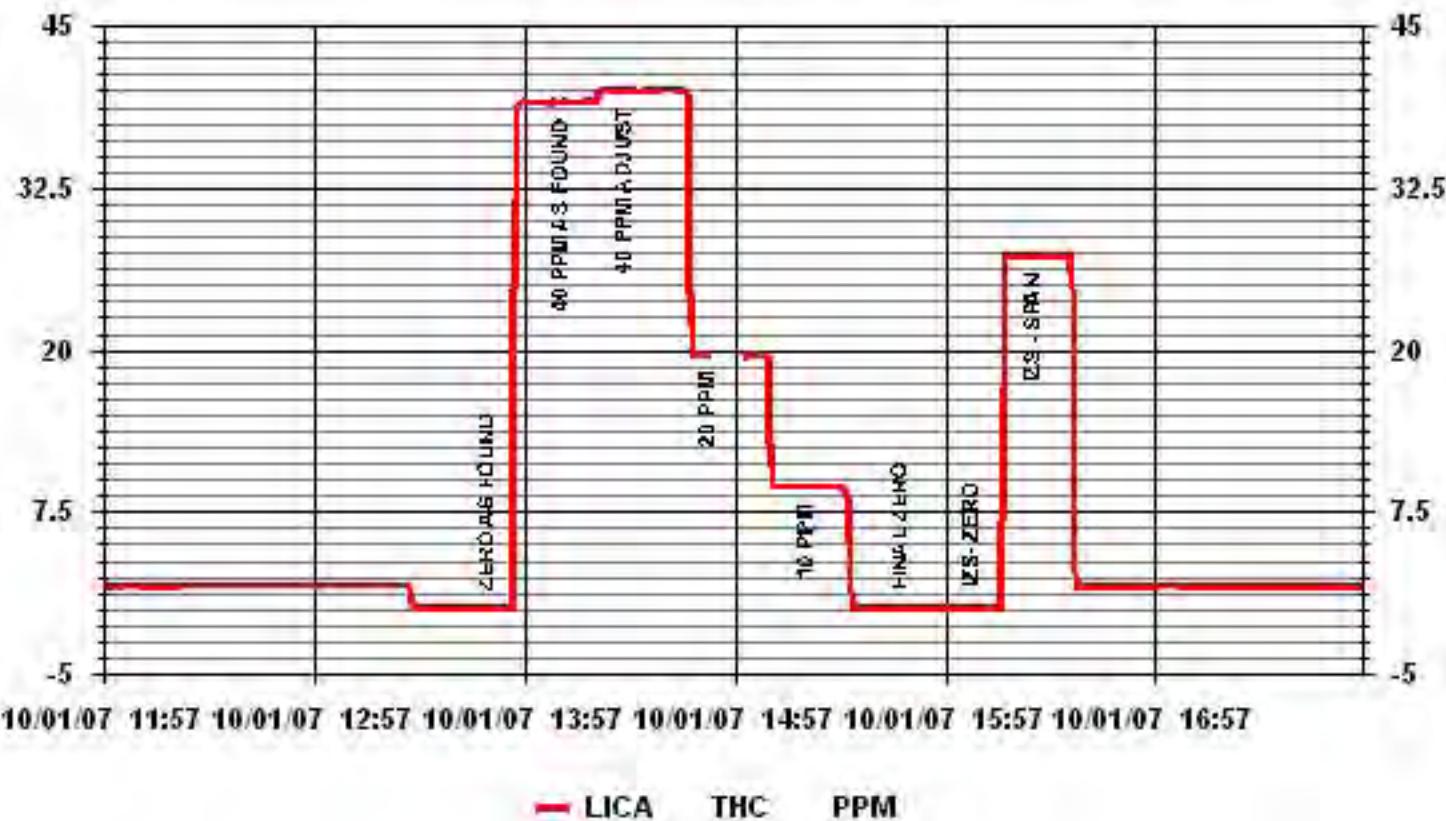
Calibration Performed by: Shea Beaton

## THC Calibration Curve

Calibration Date	October 1, 2007				
Company	<b>Lakeland Industry and Community Association</b>				
Plant / Location	<b>LICA1/Cold Lake</b>				
Start Time (MST)	13:20	End Time (MST)	16:35		
Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient ( $\geq 0.995$ ) Slope Intercept	(0.85 to 1.15) ( $\pm 3\%$ F.S.)	0.999742 1.005400 -0.298021
0.0	0.0				
10.0	9.5	1.0526			
20.0	19.6	1.0205			
40.0	40.1	0.9978			



### 01 Minute Averages



# **PARTICULATE MATTER**

## **2.5**

## TEOM® Calibration

### Station

Date: October 30, 2007  
 Station Name: LICA  
 Location: Cold Lake - South  
 Operator: Maxxam Analytics

### Transfer Standard

Make/Model: Bios DC-2  
 Serial Number: 1193  
 Cell s/n: 2272  
 Thermometer s/n: 2178

### Sampler

Make/Model R & P Series 1400 a TEOM  
 Unit # AMU 1494  
 Control unit s/n 140AB213859701  
 Transducer s/n 140AB213859701  
 Parameter PM 2.5

### 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 <sub>o</sub> Factor	11095
Temp (°C)	-0.6
Press (ATM)	0.933

### Conversion from mmHg or "Hg to ATM (Atmospheres)

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

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

### Calibration

#### **Zero flow**

##### **Pump Off**

F-Main (l/min) 0.06  
 F-Aux (l/min) 0.17

##### **Pump On (Time to reach set points)**

**(45-60 Sec)** 37  
**(45-60 Sec)** 54

#### **Temperature/Pressure**

Measured Temp ( $\pm 1^\circ\text{C}$ ) 0.2  
 Measured Press ( $\pm 1.5\%$  ATM) 0.934

$\Delta^\circ\text{C}$  0.8  
 $\Delta \% \text{ ATM}$  0.1%

#### **Flow Audit**

Indicated Main/Aux Flow (l/min) 3.00 / 13.65  
 Total Flow = Main + Aux (l/min) 16.65  
 Measured Total Flow (l/min) 17.12  
 Measured Main Flow (l/min) 3.02

##### **$\Delta \% \text{ from Set-pt}$**

<b>(<math>\pm 2\%</math>)</b>	0.0%	/	0.1%
<b>(<math>\pm 2\%</math>)</b>	0.1%		
<b>(<math>\pm 1.0 \text{ l/min. (5.65\%)}</math>)</b>	-2.7%		
<b>(<math>\pm 0.2 \text{ l/min. (6.25\%)}</math>)</b>	-0.7%		

#### **Leak Check**

Main (< 0.15 l/min) NA  
 Aux (< 0.15 l/min) NA

**Actual leakage = Pump On - Pump Off**

NA

NA

#### **K<sub>o</sub> Factor**

Measured NA  
 K<sub>o</sub> Difference ( $\pm 2.5\%$ ) NA

**Start Time:** 7:20

**Finish Time:**

**8:20**

**Sample Inlet Cleaned:**

**YES**

**Sample Inlet Connected:**

**YES**

**Comments:**

Fadj Main = 0.945, Fadj Aux = 0.965

**Calibrator/s:**

Shea Beaton

**NO<sub>2</sub>**

## NOx - NO- NO<sub>2</sub> Calibration Report

### Station Information

Calibration Date	October 2, 2007	Previous Calibration	September 21, 2007
Company	Lakeland Ind & Comm. Assoc.	Plant/Location	LICA 1 - Cold Lake South
Start Time (MST)	7:05	End Time (MST)	13:35
Reason:	Monthly Calibration		
Barometric Pressure	700 mmHg	Station Temperature	23.0 Deg C
Cal Gas Concentration	NOx 49.8 ppm	NO 49.7 ppm	Cal Gas Expiry date 06/18/2009
DAS Output Voltage	0 - 5 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

Concentration Range	Before Calibration				After Calibration			
	723	ccm	317	Deg C	721	ccm	317	Deg C
Ozone Flow / Vacuum	OK	ccm	176.7	"Hg-A	OK	ccm	177.1	"Hg-A
HVPS	-821	Volts			-820	Volts		
Rx/ Temp / PMT Temp	49.4	Deg C	-2.4	Deg C	49.9	Deg C	-2.5	Deg C
Box Temp / IZS Temp	28.6	Deg C	OK	Deg C	28.3	Deg C	OK	Deg C
Offset	2.7	NOx	2.7	NO	2.7	NOx	2.7	NO
Slope	1.003	NOx	0.73	NO	1	NOx	0.725	NO

### Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O <sub>3</sub> Set Point	Calculated Concentration		Indicated Concentration			Correction Factor	
			NOx	NO	NOx	NO	NO <sub>2</sub>	NOx	NO
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
4959	40.2	N/A	400	400	404	403	1	0.9912	0.9917
4959	40.2	N/A	400	400	400	400	0	1.0011	0.9991
4959	40.2	N/A	400	400	399	399	0	1.0036	1.0016
								Converter Efficiency	
4959	40.2	275	400	N/A	396	146	250	99%	
4959	40.2	200	400	N/A	395	205	190	98%	
4959	40.2	100	400	N/A	396	300	96	97%	
4959	40.2	N/A	400	400	395	395	0	N/A	
								Correction Factor	
4974	25.2	N/A	251	251	249	250	0	1.0082	1.0021
4984	15.1	N/A	150	150	150	150	0	1.0028	1.0008
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
Linearity OK?		Yes	No	Sum of Least Squares			1.0047	1.0017	
Flows Checked on-site?		Yes	No	New Correction Factor			1.0036	1.0016	
				Average Converter Efficiency			98%		

### Before Calibration

### After Calibration

Auto Zero	0	NOx	0	NO <sub>2</sub>	0	NOx	0	NO <sub>2</sub>
Auto Span	299	NOx	297	NO <sub>2</sub>	290	NOx	287	NO <sub>2</sub>
YES								
Percent Change from Previous Calibration								

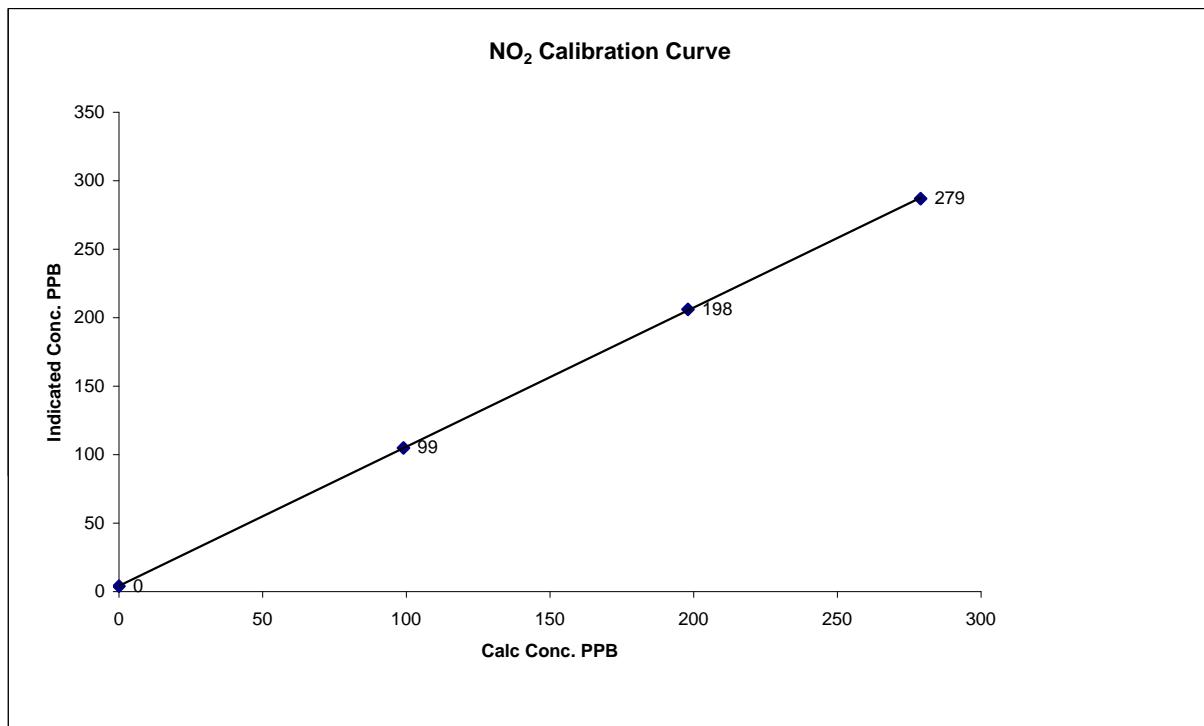
Notes: Power supply voltages +15 @ 15.1v, +5 @ 5.0v, -15 @ -15.1v, battery at 0.2v

Calibration Performed by: Shea Beaton

## NO<sub>2</sub> Calibration Curve

Calibration Date	October 2, 2007		
Company	<b>Lakeland Ind &amp; Comm. Assoc.</b>		
Plant / Location	<b>LICA 1 - Cold Lake South</b>		
Start Time (MST)	7:05	End Time (MST)	13:35

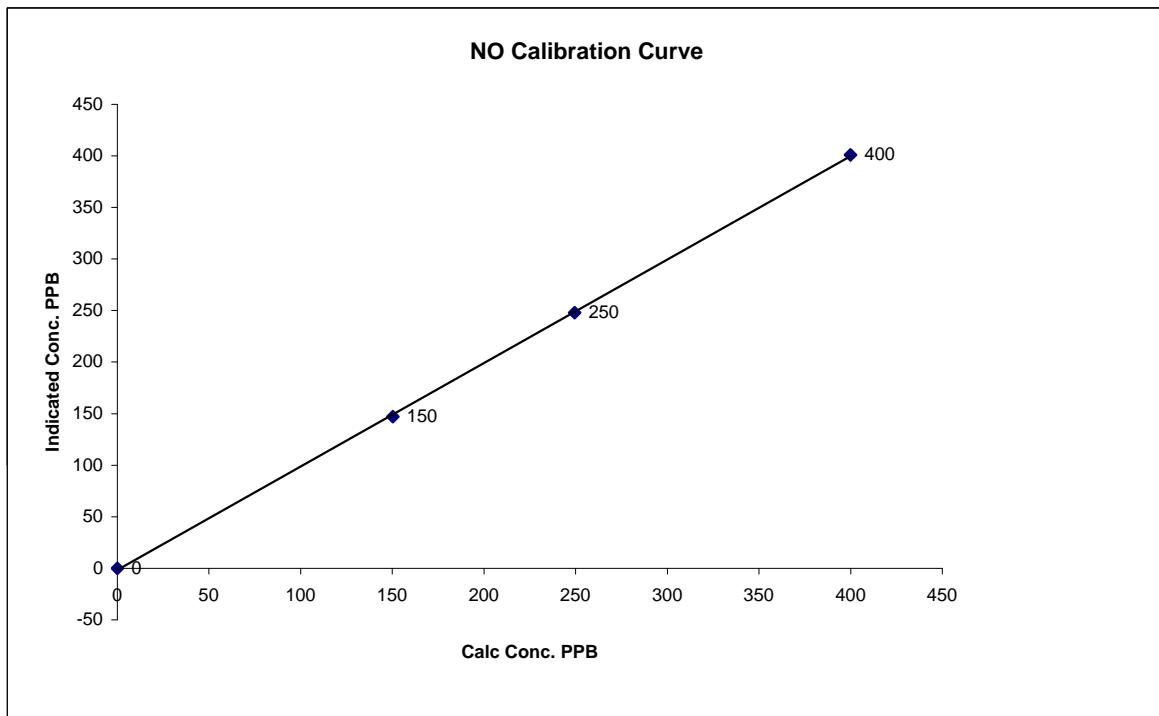
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient ( $\geq 0.995$ )	Slope (0.85 to 1.15)	Intercept ( $\pm 3\%$ F.S.)
0	0	N/A	0.999914	0.987350	-0.773275
99	96	1.0313			
194	190	1.0211			
253	250	1.0120			



## NO Calibration Curve

Calibration Date	October 2, 2007		
Company	Lakeland Ind & Comm. Assoc.		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	7:05	End Time (MST)	13:35

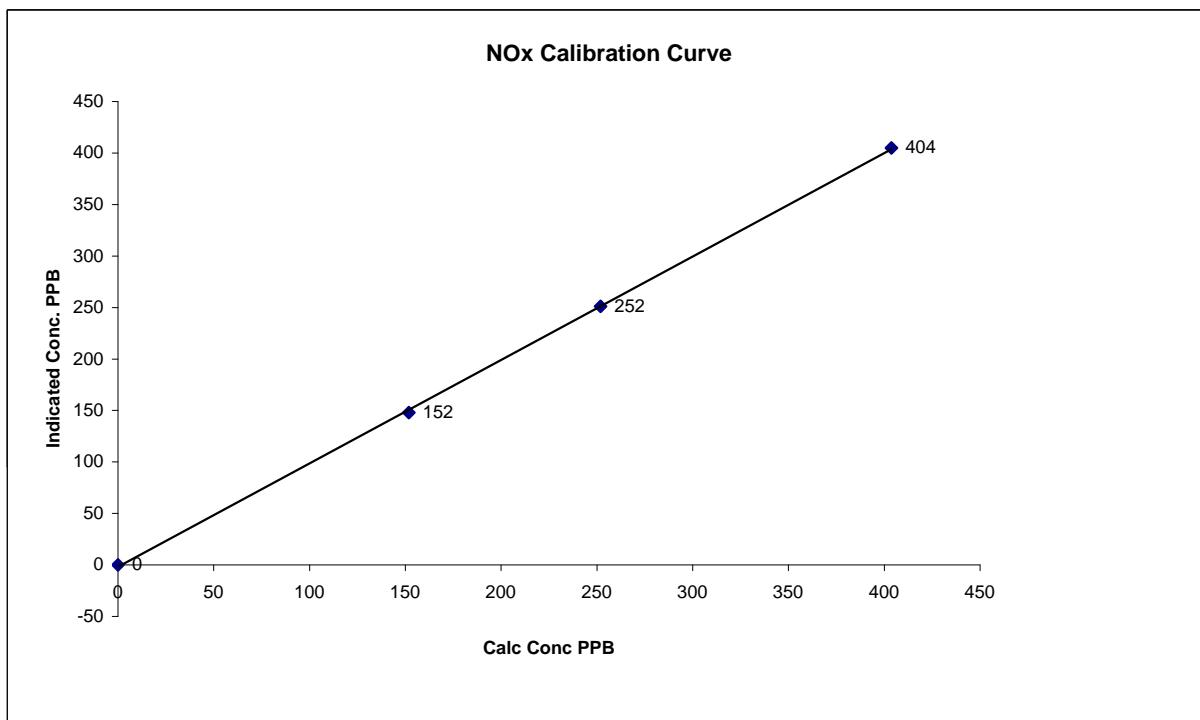
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient ( $\geq 0.995$ ) Slope Intercept	0.999996 1.000576 -0.190418
0	0	N/A		
150	150	1.0008		
251	250	1.0021		
400	400	0.9991		



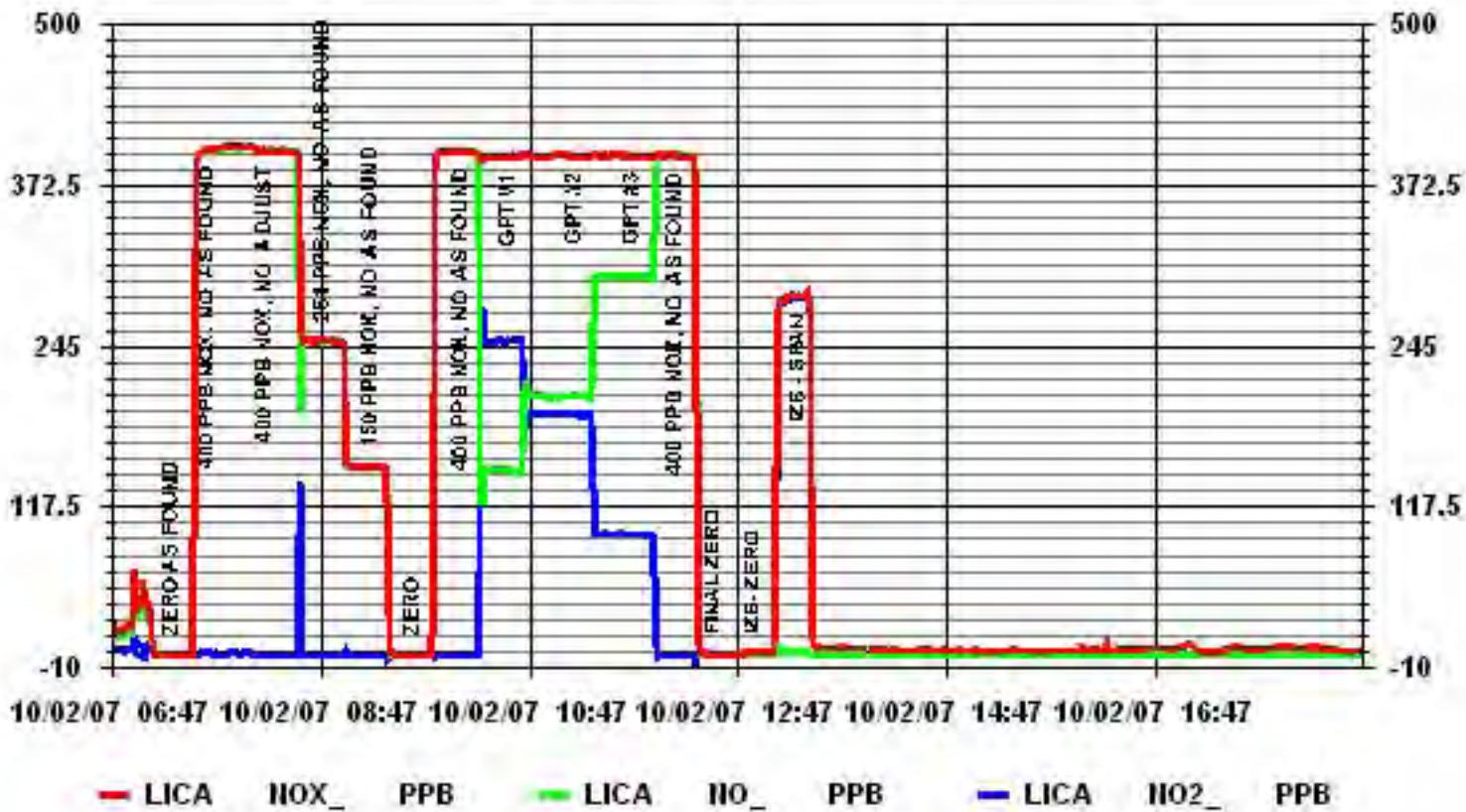
### NOx Calibration Curve

Calibration Date	October 2, 2007		
Company	<u>Lakeland Ind &amp; Comm. Assoc.</u>		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	7:05	End Time (MST)	13:35

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient ( $\geq 0.995$ ) Slope (0.85 to 1.15) Intercept ( $\pm 3\%$ F.S.)	0.999976 0.997973 -0.321523
0	0	N/A		
150	150	1.0028		
251	249	1.0082		
400	400	1.0011		



### 01 Minute Averages



# OZONE

## O<sub>3</sub> Calibration Report

### Station Information

Calibration Date	October 2, 2007	Previous Calibration	September 24, 2007
Company	<b>Lakeland Industry &amp; Community Association</b>		
Plant / Location	<b>LICA 1 - Cold Lake South</b>		
Start Time (MST)	12:45	End Time (MST)	16:40
Reason:		Monthly Calibration	
Barometric Pressure	700 mm Hg	Station Temperature	23 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:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		

### Analyzer Settings

Concentration Range	Before Calibration		After Calibration	
	33.4	691	34.1	691
Bench Temp/ Pressure	29%		29%	
O <sub>3</sub> Set Level	53.8	67.7	53.8	67.7
Bench Lamp/O3 Lamp	0.693 LPM	0.704 LPM	0.729 LPM	0.744 LPM
Sample Flow A/B	0.4	1.061	0.7	1.005
Offset / Slope				

### Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
5000	275	253	268	0.9440
ZERO	ZERO	0	0	N/A
5000	275	253	253	1.0000
5000	200	194	188	1.0319
5000	100	99	92	1.0761
ZERO	ZERO	0	0	N/A
				Sum of Least Squares
				N/A
				New Correction Factor
				1.0000

### Before Calibration

### After Calibration

Auto Zero	0	0
Auto Span	294	274
Sample Lines Connected		YES
Percent Change from Previous Calibration		-0.2%

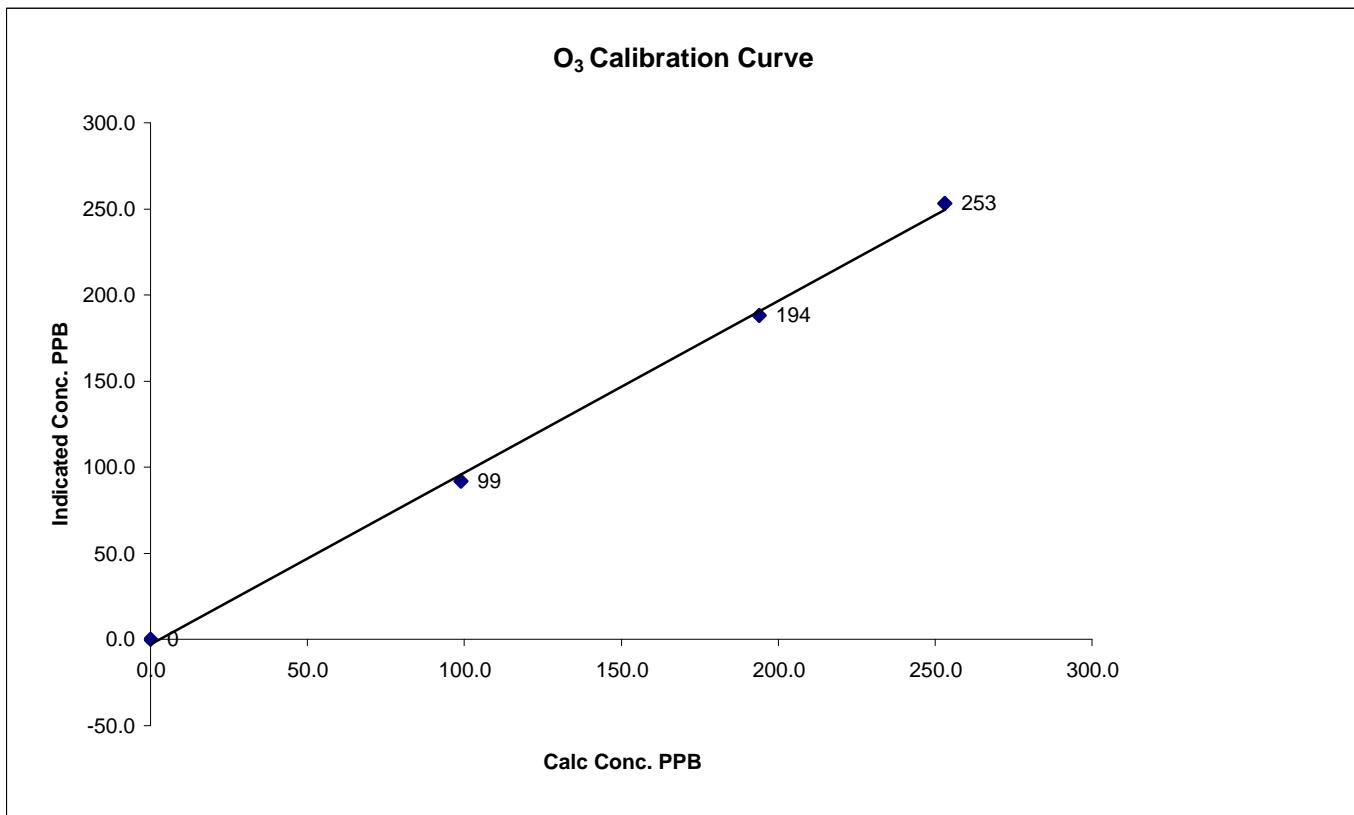
Notes: Connected newly rebuilt Thomas pump to analyzer in place of internal pump after 'As Found'.

Calibration Performed by: Shea Beaton

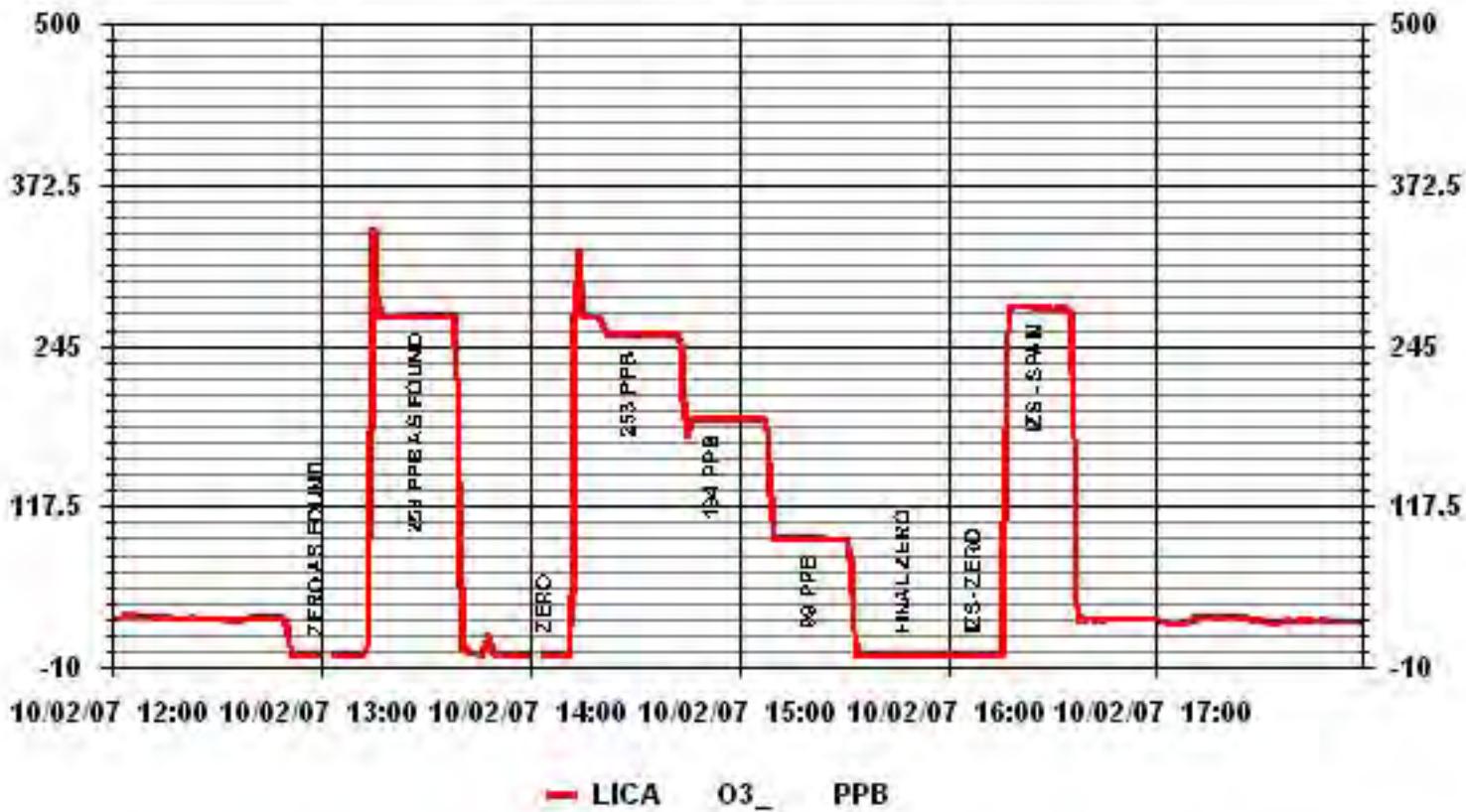
### O<sub>3</sub> Calibration Curve

Calibration Date	October 2, 2007		
Company	<b>Lakeland Industry &amp; Community Association</b>		
Plant / Location	<b>LICA 1 - Cold Lake South</b>		
Start Time (MST)	12:45	End Time (MST)	16:40

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995) (0.85 to 1.15)	0.998843
			Slope	(± 3% F.S.)	0.997765
			Intercept		-2.944958
0	0	n/a			
99	92	1.0761			
194	188	1.0319			
253	253	1.0000			



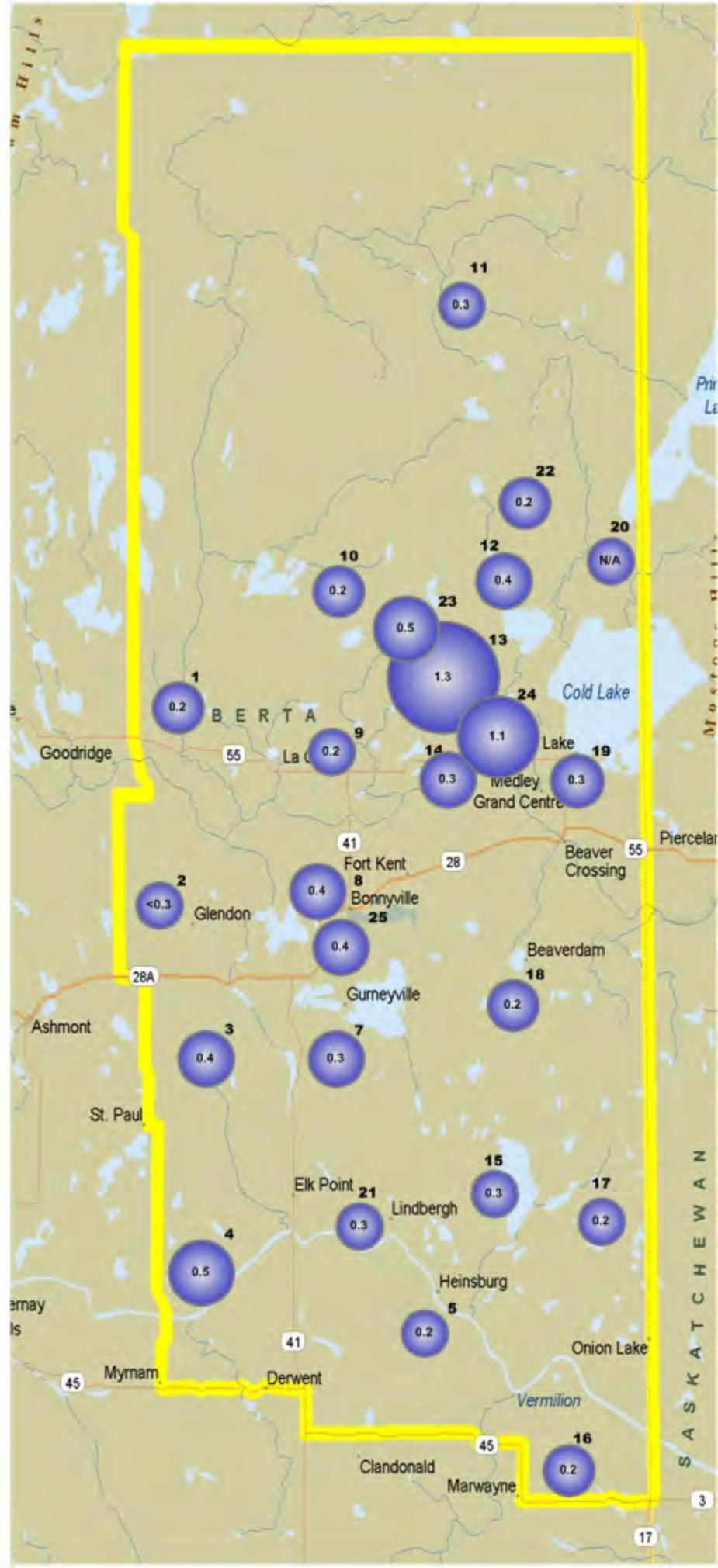
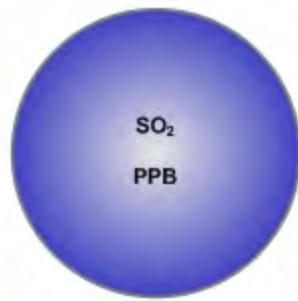
### 01 Minute Averages



**OCTOBER 2007**  
**LICA**  
**PASSIVE BUBBLE MAPS**

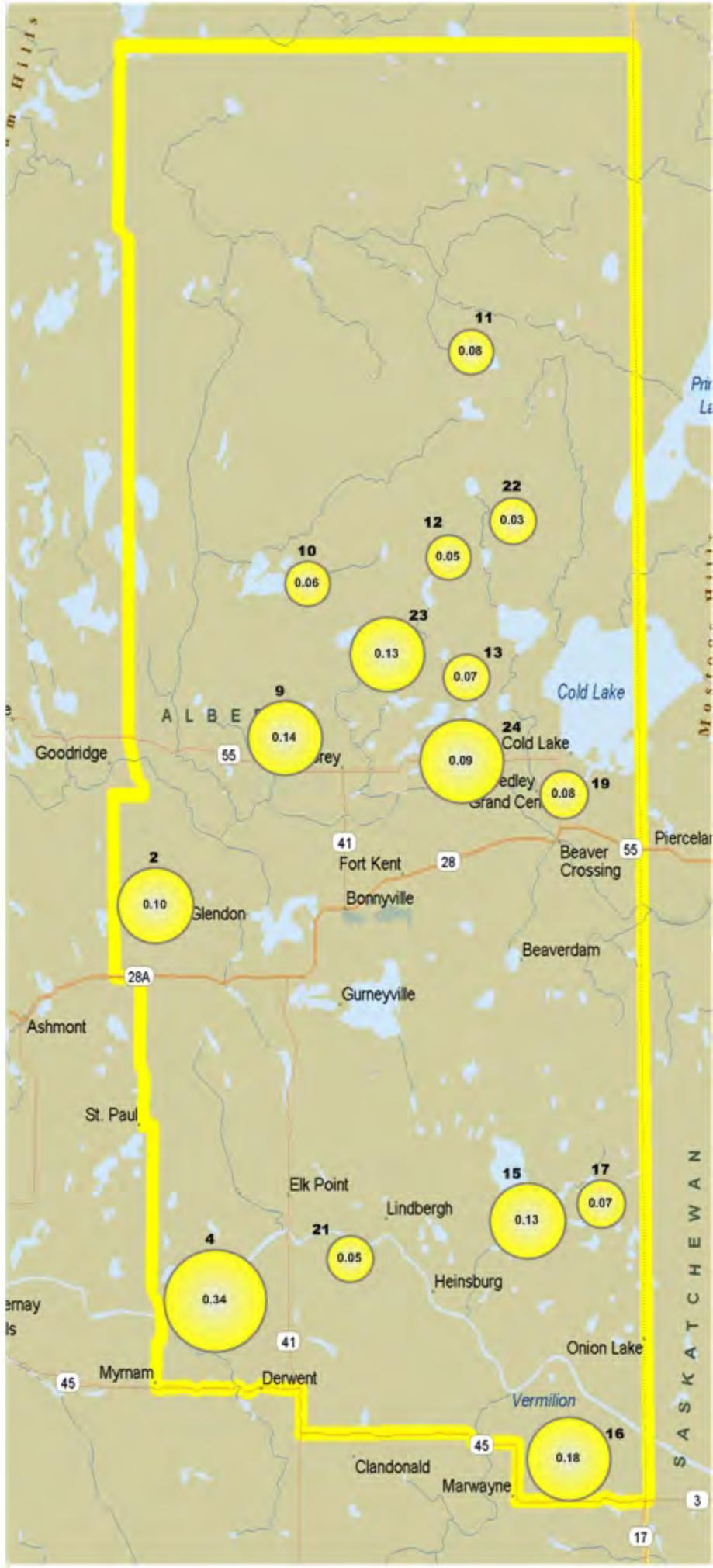
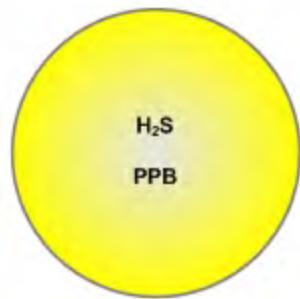
## PASSIVE BUBBLE MAP

October 2007



## PASSIVE BUBBLE MAP

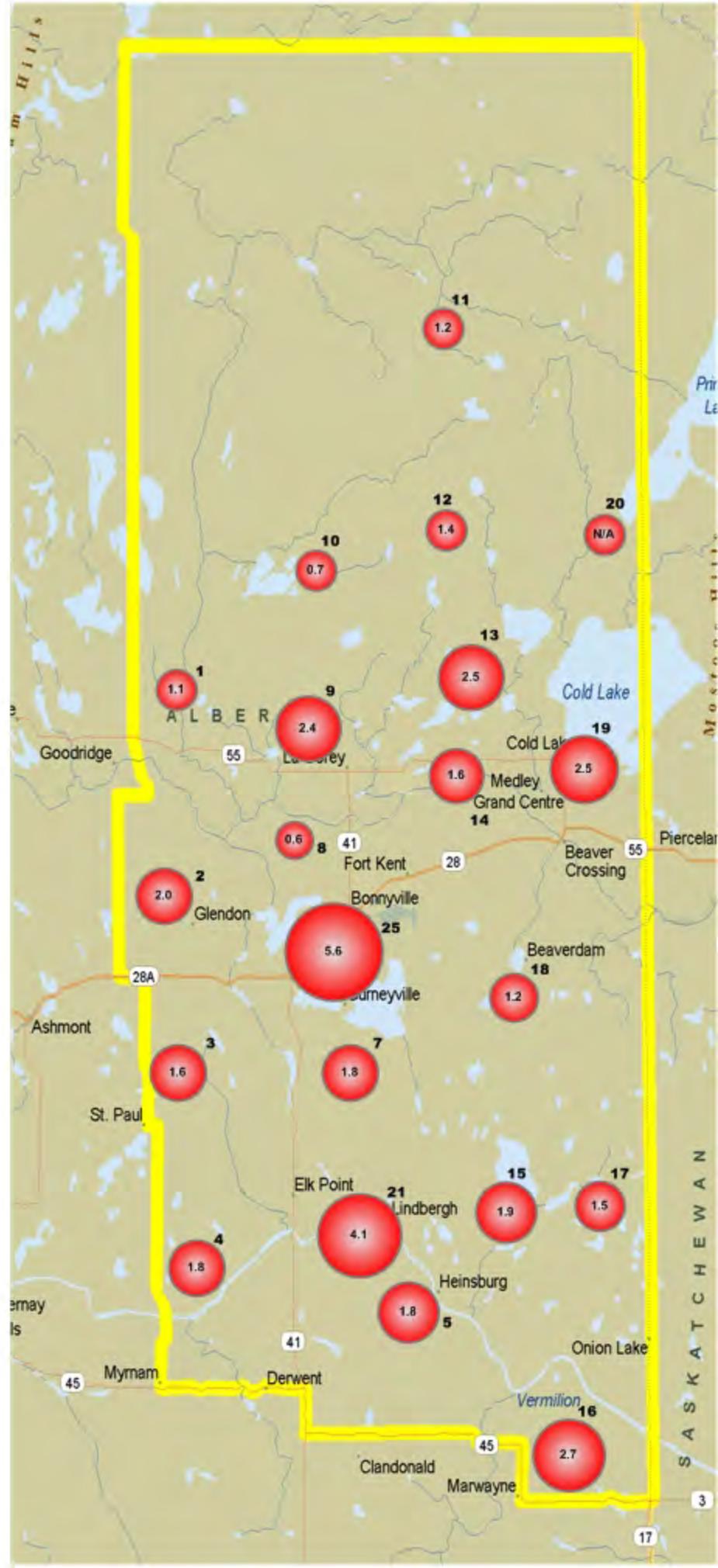
October 2007





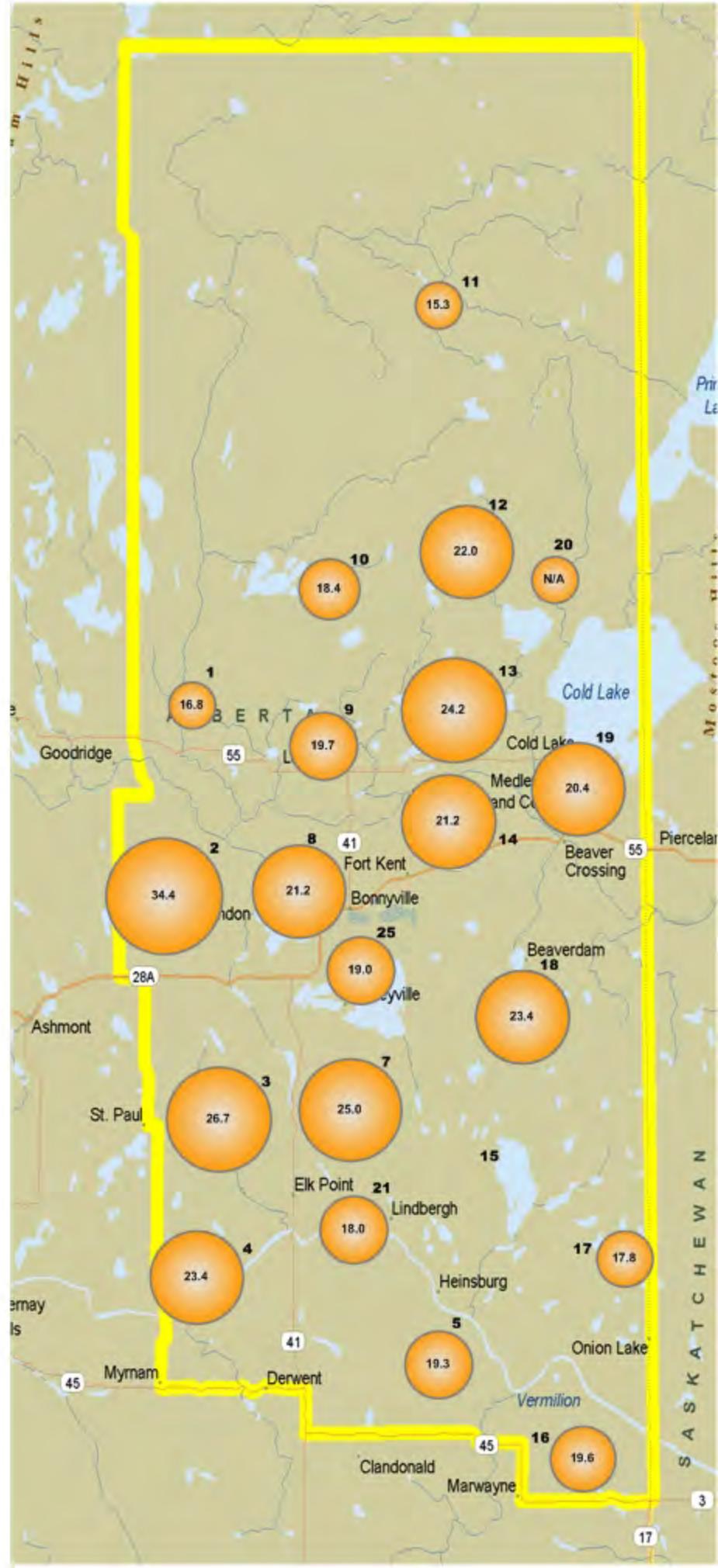
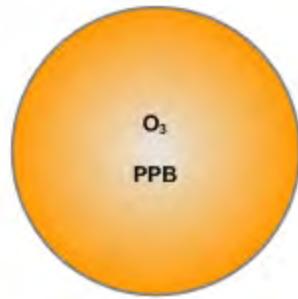
## PASSIVE BUBBLE MAP

October 2007



## PASSIVE BUBBLE MAP

October 2007



**OCTOBER 2007**  
**LICA PASSIVE NETWORK**  
**LAB ANALYSIS**

**Attention: MICHAEL BISAGA**

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION  
PO BOX 8237  
5006 - 50TH AVENUE  
BONNYVILLE, AB  
CANADA T9N 2J5

**Report Date: 2007/11/20**

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A753434**

**Received: 2007/10/31, 11:59**

Sample Matrix: Air

# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	1	2007/11/20	2007/11/20		EDM SOP-0320
NO2 Passive Analysis (1)	1	2007/11/20	2007/11/20		EDM SOP-0318
O3 Passive Analysis (1)	1	2007/11/06	2007/11/06		EDM SOP-0317
SO2 Passive Analysis (1)	1	2007/11/20	2007/11/20		EDM SOP-0319

Sample Matrix: Air

# Samples Received: 25

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	16	2007/11/20	2007/11/20		EDM SOP-0320
NO2 Passive Analysis (1)	22	2007/11/20	2007/11/20		EDM SOP-0318
O3 Passive Analysis (1)	22	2007/11/06	2007/11/06		EDM SOP-0317
SO2 Passive Analysis (1)	25	2007/11/20	2007/11/20		EDM SOP-0319

(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.

JODI HANSON, Project Manager, Customer Service  
Email: jodi.hanson@maxxamanalytics.com  
Phone# (780) 468-3500

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

**Attention: MICHAEL BISAGA**

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION  
PO BOX 8237  
5006 - 50TH AVENUE  
BONNYVILLE, AB  
CANADA T9N 2J5

**Report Date: 2007/11/20**

**CERTIFICATE OF ANALYSIS**

-2-

5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

Total cover pages: 2

Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332

Maxxam Job Number : PA753434  
 Report Date : 2007/11/20

Sample Description	Set Number	Matrix	Date Sampled	Calculated H2S ppb	Calculated NO2 ppb	Calculated O3 ppb
1	H71389	Air	2007/09/27	N/A	1.1	16.8
2	H71390	Air	2007/09/27	0.12	1.7	46.9
3	H71391	Air	2007/09/28	N/A	1.6	26.7
4	H71392	Air	2007/09/28	0.34	1.8	23.4
5	H71393	Air	2007/09/28	N/A	1.8	19.3
7	H71394	Air	2007/09/28	N/A	1.8	25.0
8	H71395	Air	2007/09/27	N/A	0.6	21.2
9	H71396	Air	2007/09/27	0.14	2.2	19.2
10	H71397	Air	2007/09/27	0.06	0.7	18.4
11	H71398	Air	2007/09/27	0.08	1.2	15.3
12	H71399	Air	2007/09/28	0.05	1.4	22.0
13	H71400	Air	2007/09/27	0.07	2.5	24.2
14	H71401	Air	2007/09/27	N/A	1.6	21.2
15	H71402	Air	2007/09/28	0.13	1.9	21.9
16	H71403	Air	2007/09/28	0.18	2.7	19.6
17	H71404	Air	2007/09/28	0.07	1.5	17.8
18	H71405	Air	2007/09/28	N/A	1.2	23.4
19	H71406	Air	2007/09/28	0.08	2.5	20.4
20	H71407	Air	2007/09/27	N/A	MISSING	MISSING
21	H71408	Air	2007/09/28	0.05	4.1	18.0
2A	H71409	Air	2007/09/27	0.08	2.2	21.9
9A	H71410	Air	2007/09/27	0.13	2.6	20.2
22	H71413	Air	2007/09/27	0.03	N/A	N/A
23	H71414	Air	2007/09/27	0.13	N/A	N/A
24	H71415	Air	2007/09/27	0.09	N/A	N/A
25	H71416	Air	2007/09/27	N/A	5.6	19.0

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION  
 Attention: MICHAEL BISAGA  
 Client Project #: OCTOBER 2007  
 P.O. #:  
 Site Reference: LICA

Maxxam Job Number : PA753434  
 Report Date : 2007/11/20

Sample Description	Set Number	Matrix	Date Sampled	Calculated SO2 ppb
1	H71389	Air	2007/09/27	0.2
2	H71390	Air	2007/09/27	0.4
3	H71391	Air	2007/09/28	0.4
4	H71392	Air	2007/09/28	0.5
5	H71393	Air	2007/09/28	0.2
7	H71394	Air	2007/09/28	0.3
8	H71395	Air	2007/09/27	0.4
9	H71396	Air	2007/09/27	0.2
10	H71397	Air	2007/09/27	0.2
11	H71398	Air	2007/09/27	0.3
12	H71399	Air	2007/09/28	0.4
13	H71400	Air	2007/09/27	1.3
14	H71401	Air	2007/09/27	0.3
15	H71402	Air	2007/09/28	0.3
16	H71403	Air	2007/09/28	0.2
17	H71404	Air	2007/09/28	0.2
18	H71405	Air	2007/09/28	0.2
19	H71406	Air	2007/09/28	0.3
20	H71407	Air	2007/09/27	MISSING
21	H71408	Air	2007/09/28	0.3
2A	H71409	Air	2007/09/27	<0.1
9A	H71410	Air	2007/09/27	0.2
22	H71413	Air	2007/09/27	0.2
23	H71414	Air	2007/09/27	0.5
24	H71415	Air	2007/09/27	1.1
25	H71416	Air	2007/09/27	0.4



LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION  
Attention: MICHAEL BISAGA  
Client Project #: OCTOBER 2007  
P.O. #:  
Site Reference: LICA

### Quality Assurance Report

Maxxam Job Number: PA753434

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1947377 LM1	Calibration Check	Calculated O3	2007/11/06		96	%	91 - 107
	SPIKE	Calculated O3	2007/11/06		100	%	N/A
	BLANK	Calculated O3	2007/11/06	<0.1		ppb	
1972207 SY	Calibration Check	Calculated H2S	2007/11/20		114	%	80 - 120
	SPIKE	Calculated H2S	2007/11/20		99	%	N/A
	BLANK	Calculated H2S	2007/11/20	<0.1		ppb	
1972208 DF4	Calibration Check	Calculated NO2	2007/11/20		99	%	76 - 118
	SPIKE	Calculated NO2	2007/11/20		104	%	N/A
	BLANK	Calculated NO2	2007/11/20	<0.1		ppb	
1972212 DF4	Calibration Check	Calculated SO2	2007/11/20		99	%	95 - 105
	SPIKE	Calculated SO2	2007/11/20		100	%	N/A
	BLANK	Calculated SO2	2007/11/20	<0.1		ppb	

N/A = Not Applicable

# **OCTOBER 2007**

# **PASSIVE FIELD DATA**

**LAKELAND INDUSTRY & COMMUNITY  
ASSOCIATION  
PASSIVE FIELD DATA**

SAMPLER	ID	START		END		NOTES
		DATE	TIME	DATE	TIME	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	1	09/27/07	10:00	10/28/07	11:05	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	2	09/27/07	09:30	10/28/07	10:30	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	3	09/28/07	16:30	10/29/07	15:25	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	4	09/28/07	15:55	10/29/07	14:55	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	5	09/28/07	14:25	10/29/07	13:40	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	7	09/28/07	17:20	10/29/07	16:10	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	8	09/27/07	08:40	10/28/07	09:55	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	9	09/27/07	14:15	10/28/07	15:50	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	10	09/27/07	11:30	10/28/07	12:15	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	11	09/27/07	12:45	10/28/07	14:00	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	12	09/28/07	08:40	10/28/07	17:15	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	13	09/27/07	17:00	10/28/07	18:15	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	14	09/27/07	07:45	10/28/07	09:05	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	15	09/28/07	13:00	10/29/07	12:10	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	16	09/28/07	13:40	10/29/07	12:55	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	17	09/28/07	12:15	10/29/07	11:20	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	18	09/28/07	11:15	10/29/07	10:30	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	19	09/28/07	10:10	10/28/07	08:15	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	20	09/27/07	18:15			SITE VANDALIZED
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	21	09/28/07	15:15	10/29/07	14:10	
H <sub>2</sub> S/SO <sub>2</sub>	22	09/27/07	15:50	10/28/07	17:05	
H <sub>2</sub> S/SO <sub>2</sub>	23	09/27/07	16:40	10/28/07	18:00	
H <sub>2</sub> S/SO <sub>2</sub>	24	09/27/07	17:20	10/28/07	18:35	
SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	25	09/27/07	08:20	10/28/07	09:40	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	2A	09/27/07	09:30	10/28/07	10:30	
H <sub>2</sub> S/SO <sub>2</sub> /NO <sub>2</sub> /O <sub>3</sub>	9A	09/27/07	14:15	10/28/07	15:50	