

Lakeland Industry & Community Association

Cold Lake Monitoring Site

Ambient Air Monitoring

Data Report

For

July 2010

(Revised)

Prepared By:



September 16, 2010

Lakeland Industry & Community Association

Cold Lake Monitoring Site

Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

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Monitoring Location: Cold Lake
Data Period: July 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

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

The 6-day analytical report for VOCs and PAHs:
Authorized by Petro Oh

Calibration Procedure

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

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

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

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

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

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Continuous Ambient Monitoring – July 2010

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION COLD LAKE SITE						MAXIMUM VALUES						OPERATIONAL TIME (PERCENT)	
						OBJECTIVES				EXCEEDENCES			MONTHLY AVERAGE
PARAMETER	1-HR	24-HR	1-HR	24-HR	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING	DAY		
SO ₂ (PPB)	172	57	0	0	0.00	1	10	9, 10	9.9, 9.9	345(NNW), 347(NNW)	0.1	10	99.6
TRS (PPB)	-	-	-	-	0.00	0	ALL	VAR	VAR	0VAR	0.0	ALL	99.6
NO ₂ (PPB)	212	106	0	0	1.18	9	9	10	8.5	243(WSW)	2.0	14	99.9
NO (PPB)	-	-	-	-	0.20	8	9	10	8.5	243(WSW)	0.9	20	99.9
NO _x (PPB)	-	-	-	-	1.53	16	9	10	8.5	243(WSW)	2.8	20	99.9
O ₃ (PPB)	82	-	0	-	20.00	48	30	13, 14	3.6, 2.7	285(WNW), 250(WSW)	30.8	12	99.9
THC (PPM)	-	-	-	-	1.93	3.3	25	6, 7	1.9, 3.3	239(WSW), 262(W)	2.2	28	98.1
PM 2.5 (UG/M ³)	-	30	-	0	6.20	41.9	14	16	8.6	268(W)	20.1	14	98.1
TEMPERATURE (DEG C)	-	-	-	-	16.68	28.2	29	14	6.8	226(SW)	21.6	29	99.9
RELATIVE HUMIDITY (%)	-	-	-	-	74.35	99.0	12	VAR	VAR	VAR	91.4	13	99.9
VECTOR WS (KPH)	-	-	-	-	4.81	15.1	17	10	-	262(W)	7.9	17	99.9
VECTOR WD (DEGREES)	-	-	-	-	255(WSW)	-	-	-	-	-	-	-	99.9

VAR-VARIOUS

Monthly Non-Continuous Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Passive Ambient Monitoring Network – July 2010

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM			NETWORK AVERAGE
PARAMETER	STATION	READING (PPB)	READING (PPB)
SO ₂	#14	1.0	0.3
H ₂ S	#5	0.43	0.15
NO ₂	#28	1.6	0.6
O ₃	#14	24.8	18.3

Volatile Volatile Organics Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Xontech Model 910A – June1, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – June 07, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – June 13, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – June 19, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – June 25, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

General Monthly Summary - Cold Lake

Equipment Operation

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

AQM STATION – LICA – COLD LAKE

Sulphur Dioxide (PPB)

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

No operational issues observed during the month. The expected span value was setup lower than it should be after the monthly calibration last month. The analyzer was working properly. A monthly calibration attempted to be performed on July 8th, but was aborted in order to check the calibrator flow. The monthly calibration was performed on July 13th, and the flows were measured manually. The inlet filter was changed before the monthly calibration was started on July 8th. One hour of data was invalidated due to a power failure this month. Data was corrected using daily zero information.

Total Reduced Sulphur (PPB)

- Analyzer make / model –TEI 450i, S/N: 812728560
- Converter - CD NOVA CDN 101, S/N: 250

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on July 8th. On July 13th, the SO₂scrubber material was changed following the as found points. A post-repair calibration was performed on July 14th. One hour of data was invalidated due to a power failure this month. Data was corrected using daily zero information.

Ozone (PPB)

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

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started. One hour of data was invalidated due to a power failure this month.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Total Hydrocarbon (PPM)

- Analyzer make / model -TECO 51C-LT, S/N: 427408718

No operational issues observed during the month. A power failure occurred on July 12th causing the analyzer to flame out. The analyzer was re-lit on July 13th. A total of 12 hours of data were invalidated. The inlet filter was changed before the monthly calibration was started on July 14th. The analyzer flamed out again on July 22nd, and it was re-lit on the same day. 2 hours of data were invalidated. One hour of data was invalidated due to a power failure this month. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

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

No operational issues observed during the month. A monthly calibration attempted to be performed on July 8th, but was aborted in order to check the calibrator flow. The monthly calibration was performed on July 13th. The inlet filter was changed before the calibration was started on July 13^h. One hour of data was invalidated due to a power failure this month. Data was corrected using daily zero information.

Particulate Matter 2.5 (ug/m³)

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

No operational issues observed during the month. A Teom audit was performed on July 14th. Both the FDMS filter and the Teom filter were replaced and the inlet was cleaned on July 14th. After the Teom filter was changed, the Teom readings were high; rechecked the flow, the result was OK. Restarted the Teom measurement cycle, the unit read normal. The Teom unit read abnormal on July 22nd; restarted the Teom and the reading went back to normal. One hour of data was invalidated due to a power failure this month. Data was corrected using Alberta air quality guideline for PM2.5 analyzer. If the data was between 0 to -3, the data was corrected to 0. If the data was below -3, the data was invalidated. 11 hours of data were invalidated as the data were below -3.0 ug/m³.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

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

- System make / model – Met One 50.5, S/N: F1644

No operational issues observed during the month. The wind system is reported as vector wind speed and vector wind direction. One hour of data was invalidated due to a power failure this month.

Relative Humidity (PERCENT)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month. One hour of data was invalidated due to a power failure this month.

Ambient Temperature (DEGC)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month. One hour of data was invalidated due to a power failure this month.

Trailer Temperature (DEGC)

- System make / model - R&R 61

No operational issues observed during the month. One hour of data was invalidated due to a power failure this month.

Datalogger

- System make / model - ESC 8832, S/N: 263

- Software make / version - ESC v 5.51a

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

Trailer

No issue was observed during this month.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly and daily calibrations, maintenance, and downtime. Five hours of data were within the Fair range, and all were due to PM2.5. The highest AQI value of O3 was 24 on July 30th, hour of 13 and 14. The highest AQI value of PM2.5 was 32 on July 14th, hour of 16.

Passive Network

No issue was observed during this month.

Volatile Organics (VOCs)

The volatile organics were sampled on July 1st, 7th, 13th, 19th, 25th and 31st. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle.

No VOCs lab result for July is included in this report as the data is not available when the monthly report is completed.

The results for July will be included in the monthly report next month.

The lab results for June are included in this report.

Polycyclic Aromatic Hydrocarbons (PAHs)

The PAHs were sampled on July 1st, 7th, 13th, 19th, 25th and 31st. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle. The values for the PAHs in this report were reported as ng/m3.

No PAHs lab result for July is included in this report as the data is not available when the monthly report is completed.

The results for July will be included in the monthly report next month

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Air Quality Index

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

AIR QUALITY INDEX (AQI)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
DAY	HOURLY	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	
1	7	5	4	4	4	6	7	9	10	12	14	-	-	16	16	-	16	17	16	12	7	4	3	3	17		
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	NA	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	O3_	O3_
2	4	6	7	6	5	9	10	11	13	15	-	18	16	15	-	16	20	17	16	12	14	13	14	12	20		
	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
3	12	10	9	8	6	5	6	9	11	12	12	13	-	-	13	13	14	14	13	13	11	10	9	8	14		
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
4	8	7	7	6	5	7	8	9	11	12	13	13	-	14	15	16	14	12	12	11	10	9	9	7	16		
	O3_	O3_	O3_	O3_	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
5	6	7	7	7	6	5	5	4	4	7	10	-	12	15	16	16	14	13	14	12	12	11	11	13	16		
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
6	12	13	12	8	4	8	9	10	10	11	-	11	12	14	14	14	-	15	15	12	8	9	6	6	16		
	O3_	O3_	O3_	O3_	PM2	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
7	5	5	4	2	3	5	6	12	13	-	14	17	17	17	17	17	17	16	15	13	10	6	6	5	17		
	O3_	O3_	PM2	PM2	PM2	PM2	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	PM2	O3_	O3_
8	4	5	5	7	4	6	6	8	-	14	15	14	-	-	-	-	12	12	12	11	6	9	7	4	15		
	PM2	PM2	O3_	O3_	O3_	O3_	PM2	O3_	NA	O3_	O3_	O3_	NA	NA	NA	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
9	2	2	2	3	3	1	5	-	11	13	13	12	12	12	13	11	11	12	12	11	7	7	15	12	15		
	O3_	PM2	PM2	PM2	PM2	PM2	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	PM2	PM2	PM2	PM2
10	8	5	3	3	5	8	-	11	12	14	15	15	16	17	17	17	16	-	17	13	9	4	6	5	17		
	PM2	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	PM2	O3_	O3_	O3_	O3_	PM2	PM2	O3_	O3_
11	7	6	5	3	6	-	9	7	9	13	14	14	16	17	16	17	18	20	18	16	13	13	12	13	20		
	PM2	PM2	PM2	PM2	PM2	NA	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
12	13	13	13	13	-	12	12	12	13	14	15	15	15	15	15	15	18	22	22	-	-	17	17	21	20	22	
	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	NA	O3_	O3_	O3_	O3_	O3_	O3_
13	17	14	14	-	17	15	13	14	18	17	18	15	-	-	-	-	-	-	11	9	5	4	5	5	18		
	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	NA	NA	NA	NA	NA	O3_	O3_	O3_	O3_	O3_	O3_	PM2	O3_
14	2	4	-	4	6	6	-	-	-	-	-	27	27	30	21	17	32	15	22	21	19	20	27	24	32		
	O3_	PM2	NA	O3_	O3_	PM2	NA	NA	NA	NA	NA	PM2	PM2	PM2	PM2	PM2	PM2	O3_	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2
15	22	-	17	19	13	15	12	15	17	17	15	16	14	16	16	16	14	14	16	9	12	9	12	9	22		
	PM2	NA	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2
16	-	3	1	2	4	5	5	6	10	13	15	15	12	12	13	14	12	11	8	7	8	6	5	-	15		
	NA	PM2	O3_	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_
17	5	5	2	5	3	3	4	5	8	10	11	12	11	11	10	10	10	10	11	13	10	8	-	7	13		
	PM2	PM2	O3_	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_
18	7	6	3	4	4	7	6	9	14	15	14	15	15	15	16	16	16	13	9	8	-	8	5	16			
	O3_	O3_	O3_	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	PM2	PM2	O3_	O3_
19	6	5	3	5	3	6	6	4	6	8	10	13	13	12	15	11	11	11	8	-	2	3	2	15			
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	PM2	PM2	PM2	O3_	O3_
20	2	4	2	4	4	3	5	4	8	12	15	17	19	19	16	15	12	11	-	7	3	5	4	19			
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3_	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	PM2	PM2	PM2	O3_	O3_
21	8	5	2	-	3	3	3	7	11	15	17	17	18	18	17	18	19	17	-	14	7	8	8	7	19		
	PM2	PM2	PM2	NA	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	PM2	PM2	O3_	O3_
22	6	5	4	7	4	6	9	11	12	14	16	19	21	-	-	19	19	-	18	15	9	9	7	3	21		
	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	NA	O3_	O3_	NA	O3_	O3_	O3_	O3_	PM2	PM2	PM2	O3_	O3_
23	2	4	6	4	2	4	7	12	14	18	21	22	22	20	21	-	21	20	17	9	6	8	8	8	22		
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	PM2	O3_	O3_	O3_	O3_
24	6	6	5	5	4	5	6	9	13	16	17	18	18	19	-	19	16	17	16	12	8	7	5	19			
	O3_	O3_	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
25	3	3	4	3	2	3	4	5	8	12	15	16	-	15	15	13	10	3	2	2	2	1	16				
	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	O3_	O3_	O3_
26	2	-	-	1	2	2	6	12	17	17	12	11	11	-	11	-	12	11	11	10	11	9	10	9	17		
	PM2	NA	NA	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
27	8	7	6	6	6	5	5	5	6	7	10	12	-	23	16	16	17	17	16	20	20	20	22	22	23		
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	PM2	PM2	O3_	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2
28	17	18	18	18	19	16	21	24	25	24	21	-	18	19	19	19	17	16	16	15	14	15	15	12	25		
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	PM2	PM2	PM2	PM2
29	8	10	12	12	11	7	9	11	13	16	-	17	19	21	21	22	22	20	16	14	9	10	8	10	22		
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	PM2	PM2	O3_	O3_
30	9	11	20	22	20	20	19	19	16	-	14	16	21	24	24	22	22	20	15	8	14	6	7	6	24		
	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	PM2	PM2	PM2	O3_	O3_
31	8	12	9	8	8	7	12	15	-	16	20	19	19	20	22	22	21	20	19	15	12	12	11	12	22		
	O3_	PM2	O3_	PM2	O3_	O3_	O3_	O3_	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	PM2	PM2	PM2	O3_	O3_
PEAK	22	18	20	22	20	20	21	24	25	24	21	27	27	30													

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24
3	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
4	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
6	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
7	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
8	0	0	0	0	0	0	0	0	IZS	0	0	0	C	C	M	M	0	0	0	0	0	0	0	0	0	0	0.0	22
9	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
10	0	0	0	0	0	0	IZS	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
11	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
12	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0.0	23
13	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0.0	24
14	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
15	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
16	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0.0	24
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0.0	24
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0.0	24
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24
26	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
27	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
28	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
30	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
31	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
HOURLY MAX	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
HOURLY AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

STATUS FLAG CODES

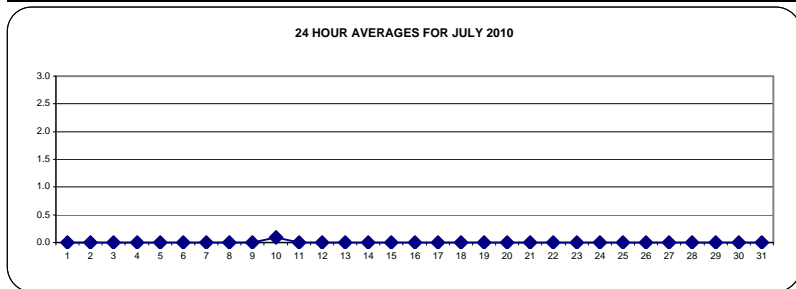
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

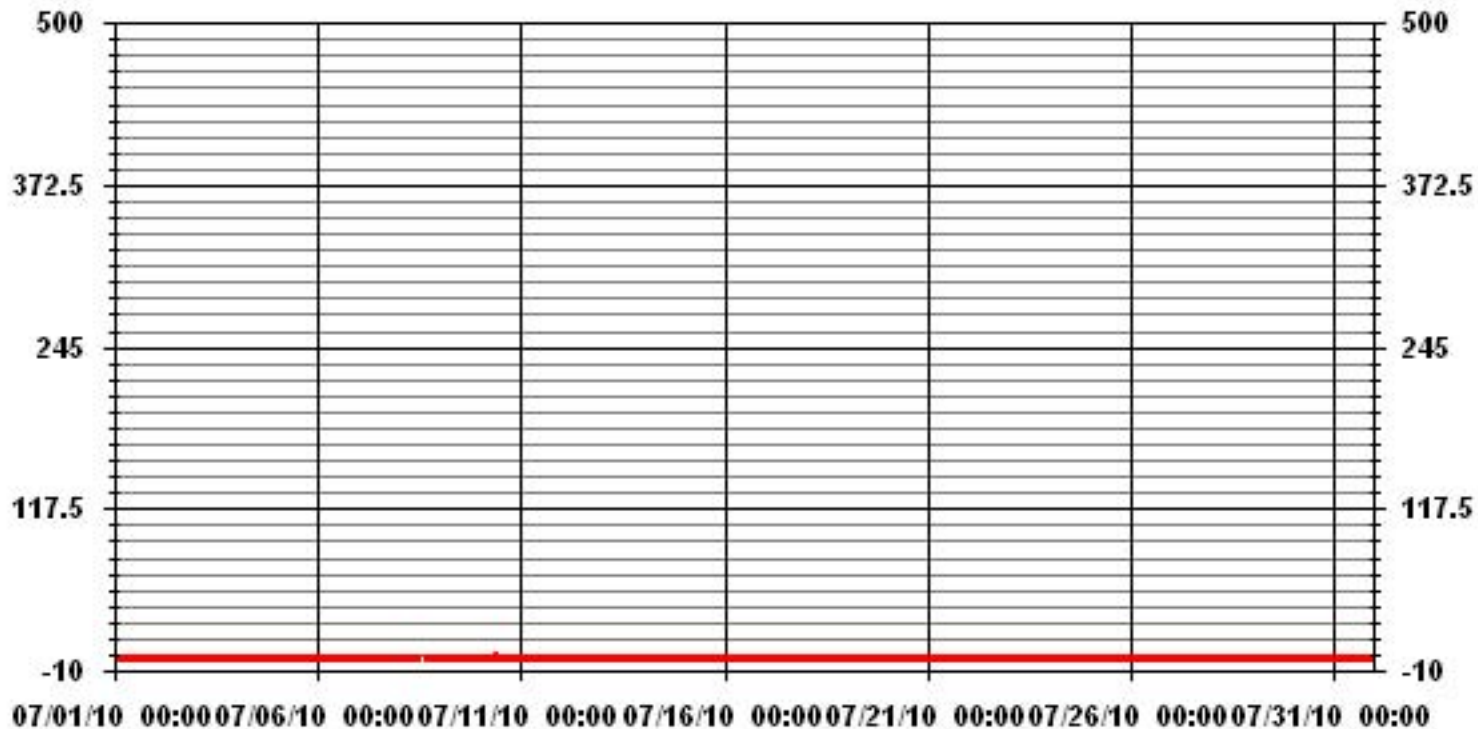
ALBERTA ENVIRONMENT:	1-HR	172	PPB	24-HR	57	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	2		
MAXIMUM 1-HR AVERAGE:	1 PPB @ HOUR(S) 9, 10 ON DAY(S) 10		
MAXIMUM 24-HR AVERAGE:	0.1 PPB ON DAY(S) 10		
IZS CALIBRATION TIME:	32 HRS	OPERATIONAL TIME:	741 HRS
MONTHLY CALIBRATION TIME:	6 HRS	AMD OPERATION UPTIME:	99.6 %
STANDARD DEVIATION:	0.05	MONTHLY AVERAGE:	0.00 PPB



01 Hour Averages



— LICA SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
7		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
8		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	21
9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
10		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	24
11		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
12		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	23
13		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24
16		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	24
17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
22		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	24
24		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
26		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
27		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24
28		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
30		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24
31		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
HOURLY MAX		0	0	0	0	0	0	1	1	3	2	1	1	1	1	0	0	1	1	0	1	0	0	0	0	0		
HOURLY AVG		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0			

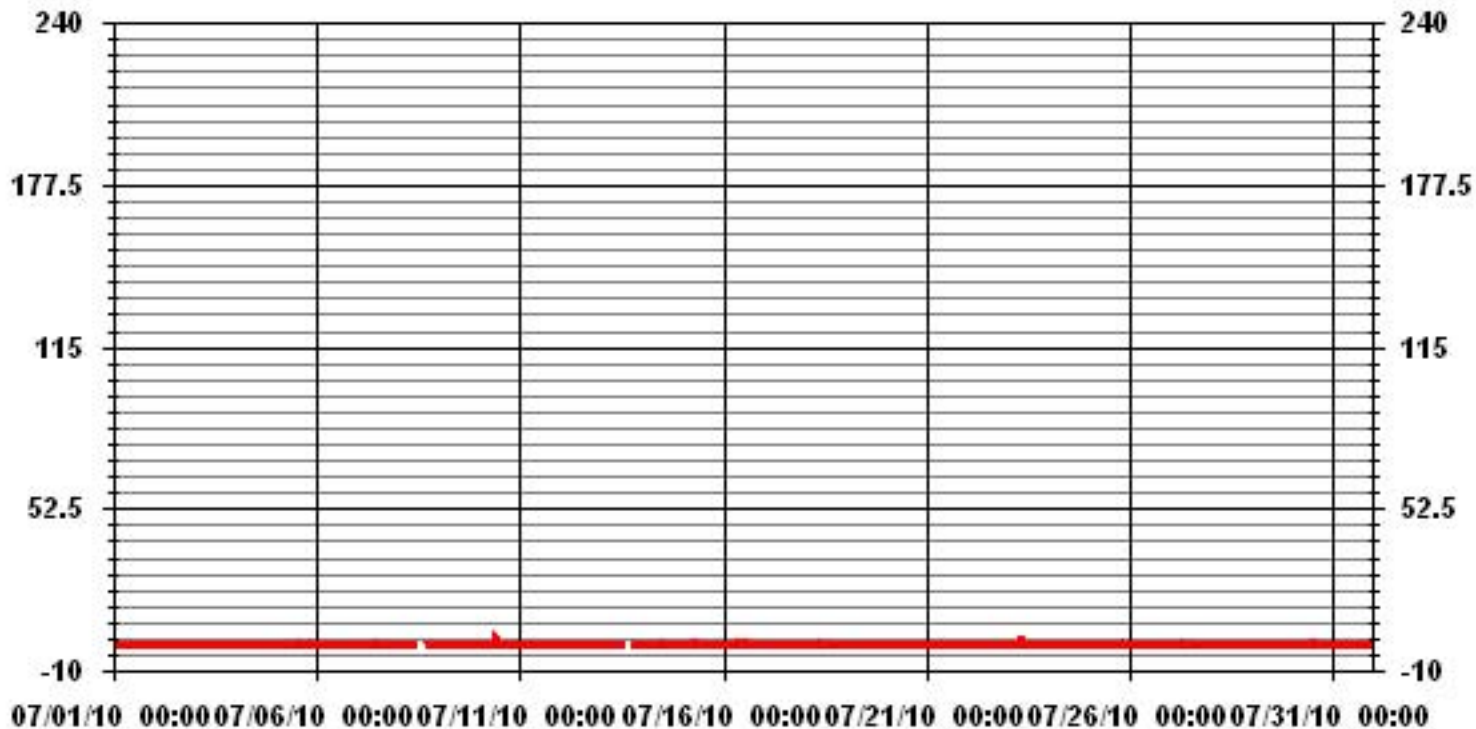
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	22					
MAXIMUM INSTANTANEOUS VALUE:	3	PPB	@ HOUR(S)	9	ON DAY(S)	10
IZS CALIBRATION TIME:	32	HRS		OPERATIONAL TIME:	740	HRS
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION:	0.24					

01 Hour Averages



— LICA SO2MAX PPB

LICA
 SO2_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	2.98	1.70	3.84	1.70	2.84	4.55	8.39	4.12	5.54	5.97	15.64	14.93	12.80	7.25	4.97	2.70	100.00
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 170	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.98	1.70	3.84	1.70	2.84	4.55	8.39	4.12	5.54	5.97	15.64	14.93	12.80	7.25	4.97	2.70	

Calm : .00 %

Total # Operational Hours : 703

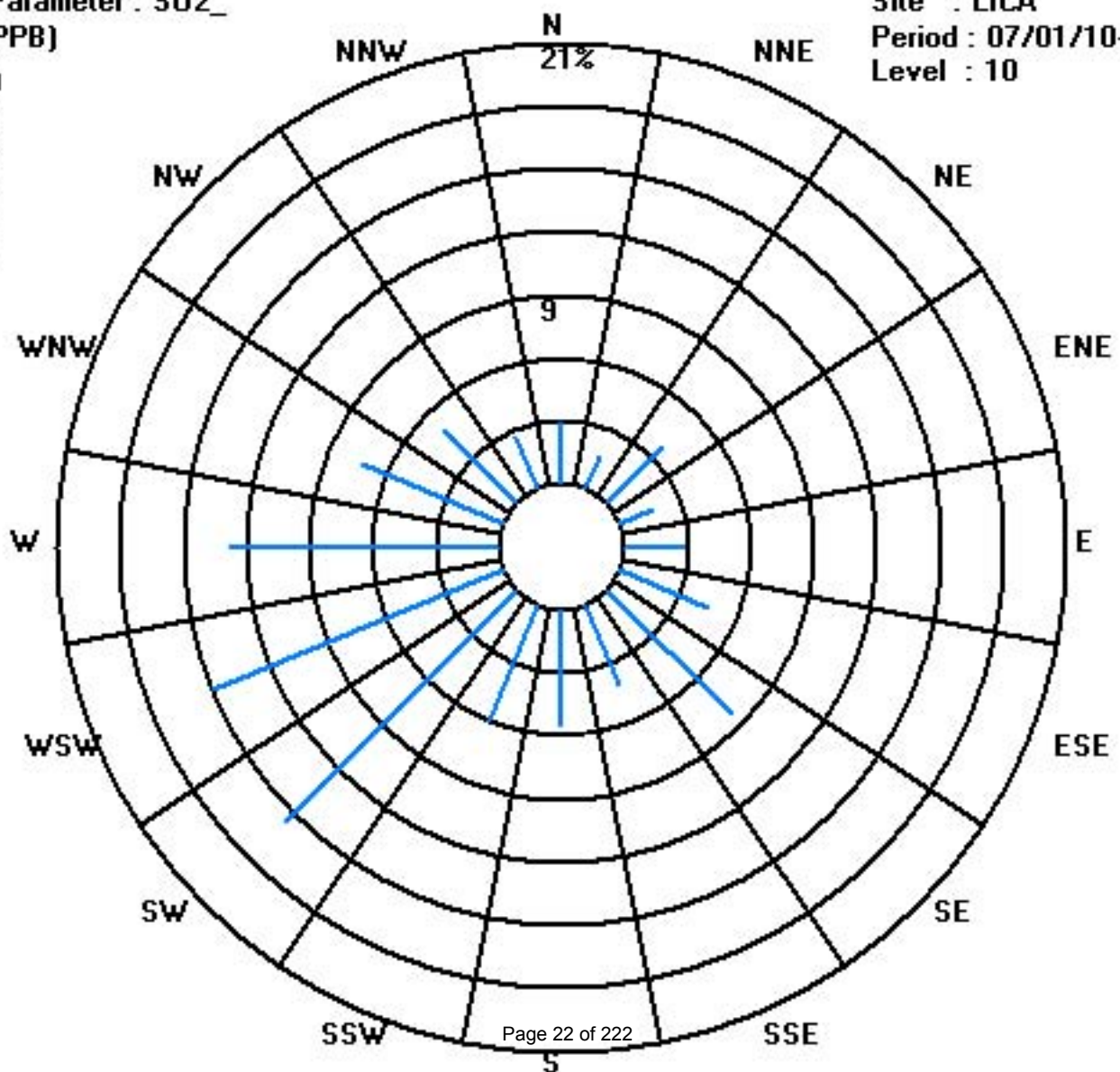
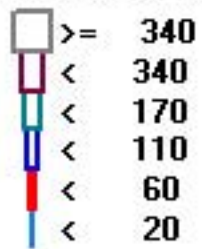
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	21	12	27	12	20	32	59	29	39	42	110	105	90	51	35	19	703
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	21	12	27	12	20	32	59	29	39	42	110	105	90	51	35	19	

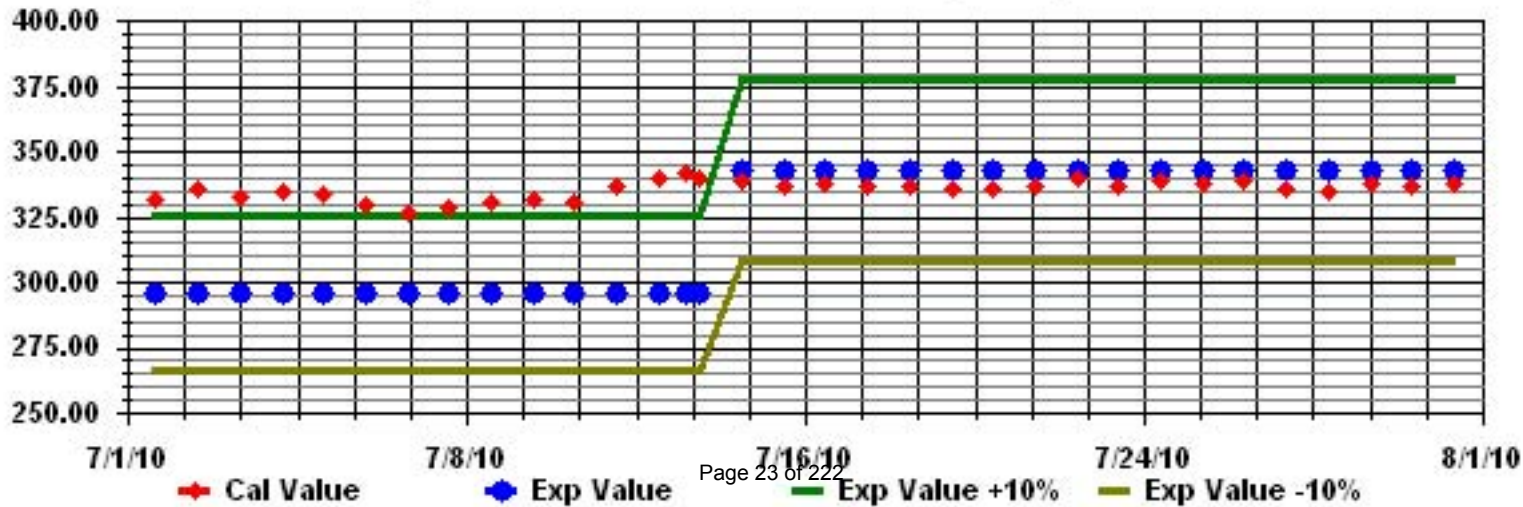
Calm : .00 %

Total # Operational Hours : 703

Class Limits (PPB)



Calibration Graph for Site: LICA Parameter: S02_ Sequence: S02 Phase: SPAN



Total Reduced Sulphur

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

TOTAL REDUCED SULPHUR (TRS) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
DAY	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	MAX.	AVG.	RDGS.		
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	23	
13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	22	
14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
18	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
19	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
22	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
23	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
24	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
25	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
26	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
28	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
29	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
HOURLY MAX		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
HOURLY AVG		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

STATUS FLAG CODES

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

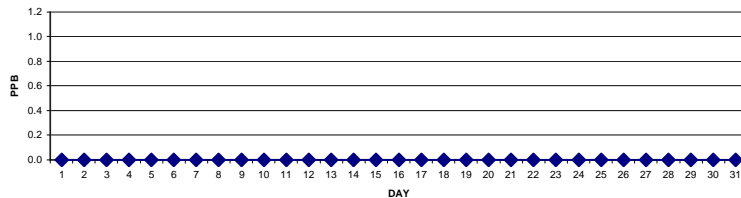
OBJECTIVE LIMIT:

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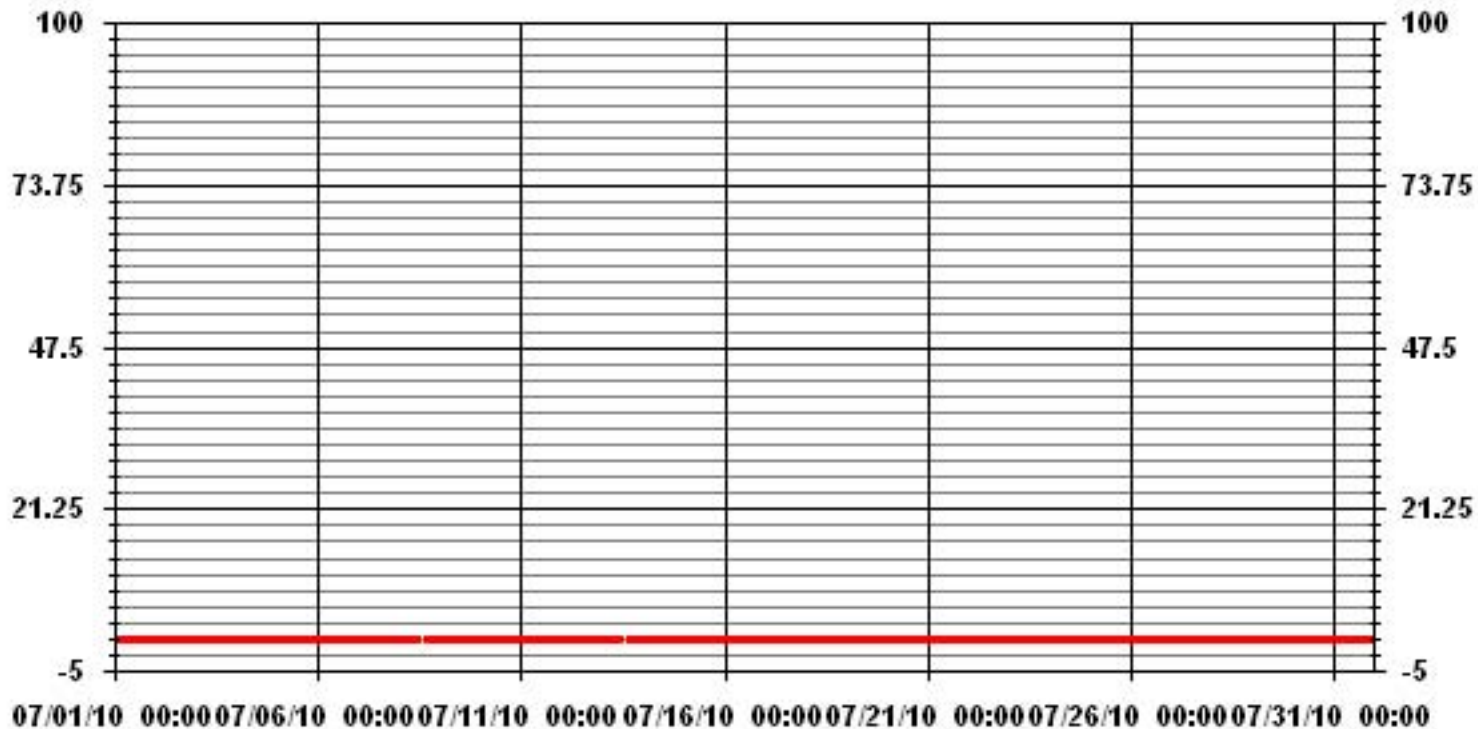
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	0					
MAXIMUM 1-HR AVERAGE:	0	PPB	@ HOUR(S)	ALL	ON DAY(S)	ALL
MAXIMUM 24-HR AVERAGE:	0.0	PPB			ON DAY(S)	ALL
				VAR-VARIOUS		
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	741	HRS	
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME:	99.6	%	
STANDARD DEVIATION:	0.00		MONTHLY AVERAGE:	0.00	PPB	

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA TRS_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR				
HOUR START		1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
HOUR END		1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY																														
1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
3		0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
4		0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
5		0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
6		0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
7		0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
8		0	0	0	0	0	0	0	0	IZS	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.0	24	
9		0	0	0	0	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
10		0	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
11		0	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
12		0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0.0	23	
13		0	0	0	IZS	0	0	0	0	0	0	0	0	C	C	M	M	0	0	0	0	0	0	0	0	0	0	0.0	22	
14		0	0	IZS	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
15		0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
16	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	IZS	0	0.0	24
17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0.0	24	
19		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	1	0.0	24	
20		1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	1	0.2	24	
21		0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	0.2	24	
22		0	0	0	0	0	1	0	0	0	0	0	0	C	0	0	0	0	0	IZS	0	0	0	0	0	0	1	0.0	24	
23		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24	
24		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
25		0	0	0	0	0	1	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
26		0	0	0	1	0	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
27		0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
28		0	0	0	0	1	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
29		0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
30		0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
31		0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
HOURLY MAX		1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
HOURLY AVG		0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

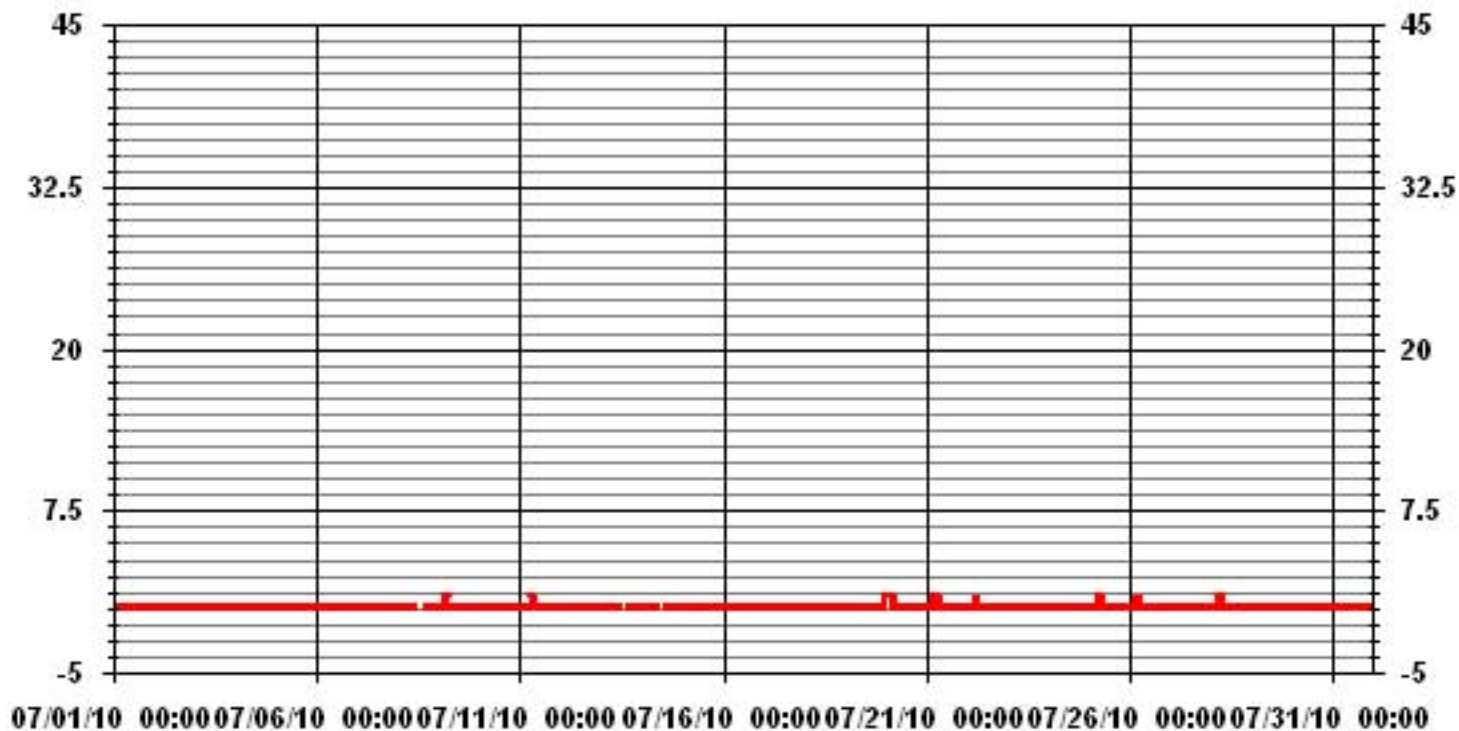
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	22					
MAXIMUM INSTANTANEOUS VALUE:	1	PPB	@ HOUR(S)	VAR	ON DAY(S)	VAR
					VAR - VARIOUS	
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	741	HRS	
MONTHLY CALIBRATION TIME:	13	HRS				
STANDARD DEVIATION:	0.17					

01 Hour Averages



— LICA TRSMAX PPB

LICA
 TRS_ / WD Joint Frequency Distribution (Percent)

July 2010

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	3.00	1.57	3.71	1.85	3.00	4.43	8.44	4.14	5.57	6.00	15.73	14.87	12.58	7.29	5.00	2.71	100.00
< 10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.00	1.57	3.71	1.85	3.00	4.43	8.44	4.14	5.57	6.00	15.73	14.87	12.58	7.29	5.00	2.71	

Calm : .00 %

Total # Operational Hours : 699

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	21	11	26	13	21	31	59	29	39	42	110	104	88	51	35	19	699
< 10																	
< 50																	
>= 50																	
Totals	21	11	26	13	21	31	59	29	39	42	110	104	88	51	35	19	

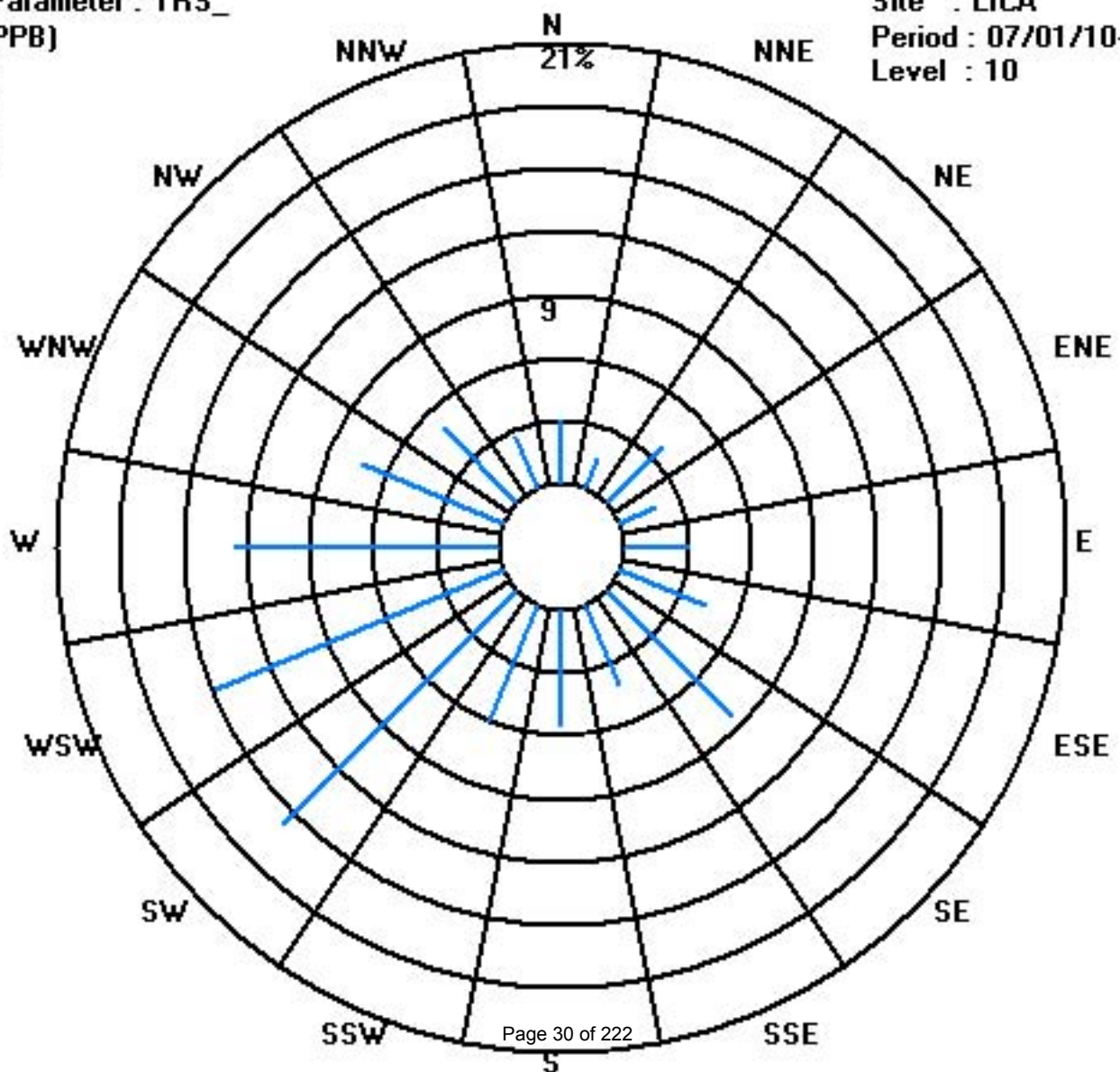
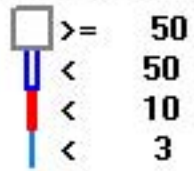
Calm : .00 %

Total # Operational Hours : 699

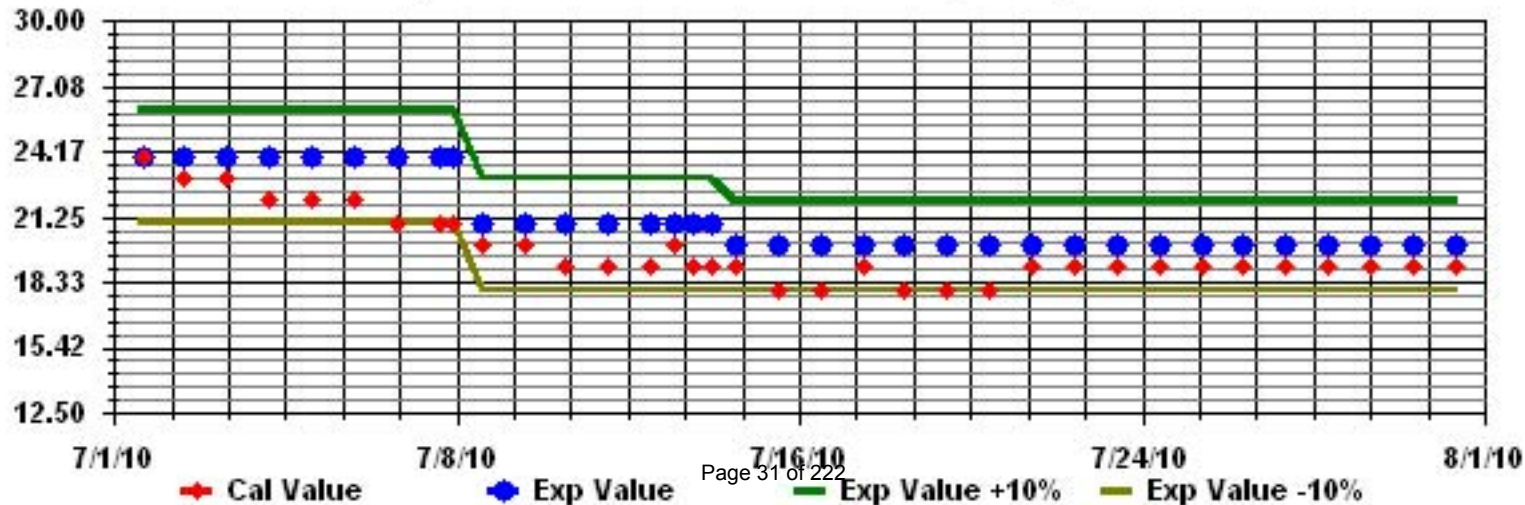
Class Limits (PPB)

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

Level : 10



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



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

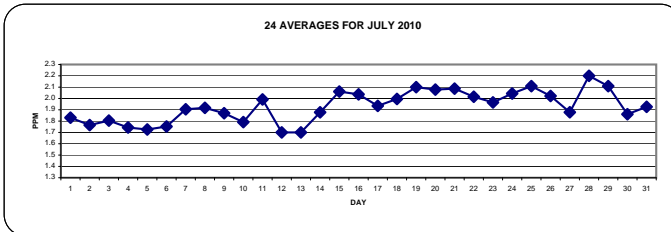
JULY 2010

TOTAL HYDROCARBONS (THC) hourly averages in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR				
DAY	DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
1	1	1.9	2	1.9	1.9	2.1	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	1.7	1.9	2	1.9	2.1	1.8	24			
2	2	1.9	2	1.8	1.9	1.9	1.8	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	1.7	1.8	2.0	1.8	24	
3	3	1.8	1.8	1.9	2	2.2	2.2	1.9	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	1.9	1.9	2.2	1.8	24		
4	4	2	2	1.8	1.8	1.8	1.9	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	1.7	1.7	1.7	1.7	1.8	2.0	1.7	24	
5	5	1.9	1.8	1.7	1.7	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	1.7	1.7	1.8	1.8	1.7	1.9	1.7	24		
6	6	1.8	1.8	1.7	1.8	1.8	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	2.1	2.1	1.8	24		
7	7	2.1	2.1	2.2	2.2	2.2	2.2	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	1.8	1.8	1.9	2.2	2.2	2.2	1.9	24		
8	8	2.3	2.5	2.4	2.1	2.5	2.1	2.1	2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.8	2.5	1.9	24	
9	9	1.8	1.8	1.9	2.1	2.1	2.4	2.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.9	1.9	2.6	1.9	24		
10	10	1.7	1.8	1.9	1.9	2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	1.9	2	2.1	2.1	1.8	24	
11	11	2.1	2.2	2.4	2.5	2.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	1.9	1.9	2	2.1	2.1	24	
12	12	1.8	1.9	1.9	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	18
13	13	N	N	N	N	N	N	C	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	18
14	14	2	2.1	1.7	1.9	1.9	2.2	C	C	C	C	C	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	2	2.2	1.9	24	
15	15	2.2	1.7	2.2	2.4	2.6	3.3	3.2	2.9	2.3	2	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	1.9	1.7	1.8	3.3	2.1	24
16	16	1.7	1.7	2	2.1	2.4	2.5	2.5	2.7	2.6	2.3	2	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	2.1	2	1.7	2.7	2.0	24	
17	17	2.1	2.3	2.3	2.3	2.3	2.3	2.4	2.2	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.9	1.9	1.9	1.9	2.1	2.4	1.9	24
18	18	2.3	2.4	2.5	2.3	2.5	2.7	2.4	2	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2	1.8	1.8	1.9	2	2.7	2.0	24		
19	19	2	2.5	2.5	2.5	3.2	2.8	2.4	2.3	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	1.9	2	2.1	3.2	2.1	24	
20	20	2.2	2.3	2.6	2.5	2.5	2.6	2.7	2.3	2.1	2.1	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	2	2	2.7	2.1	24	
21	21	2.1	2.3	2.5	2.7	2.7	2.6	2.4	2.2	2.1	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	1.9	2	2	2.7	2.1	24	
22	22	2.1	2.1	2.4	2.3	2.3	2.2	2.1	2.1	2	2	2	1.8	N	N	C	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.1	2.4	2.0	22	
23	23	2.2	2.3	2.2	2.3	2.3	2.4	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	1.9	1.9	2	2.4	2.0	24		
24	24	2.1	2.2	2.4	2.4	2.5	2.6	2.6	2.4	2.2	2	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.6	2.0	24			
25	25	2.2	2.2	2.2	2.1	2.2	2.3	3.3	3.3	2.2	2.2	2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2	2.1	2.4	3.3	2.1	24		
26	26	2.6	2.5	2.6	2.8	2.8	2.6	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	1.7	1.8	1.7	1.8	2.8	2.0	24		
27	27	1.7	1.8	1.8	1.8	1.8	1.8	2	2	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2	2.1	2.2	2.2	1.9	24		
28	28	2.4	2.4	2.5	2.7	2.9	3	3	2.5	2.1	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.1	3.0	2.2	24		
29	29	2.2	2.5	2.5	2.5	2.4	2.4	2.2	2.1	2	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.4	2.3	2.1	2.2	2.1	2.5	2.1	24	
30	30	2.1	2	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	1.8	2	2.1	2.3	2.5	2.5	1.9	24	
31	31	2.4	2	1.9	2	2.1	2.2	2	2	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	2	1.9	2.1	2.3	2.4	1.9	24	
HOURLY MAX		2.6	2.5	2.6	2.8	3.2	3.3	3.3	3.3	2.3	2.2	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.8	2.0	2.4	2.3	2.1	2.3	2.5					
HOURLY AVG		2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.1	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	2.0					

STATUS FLAG CODES

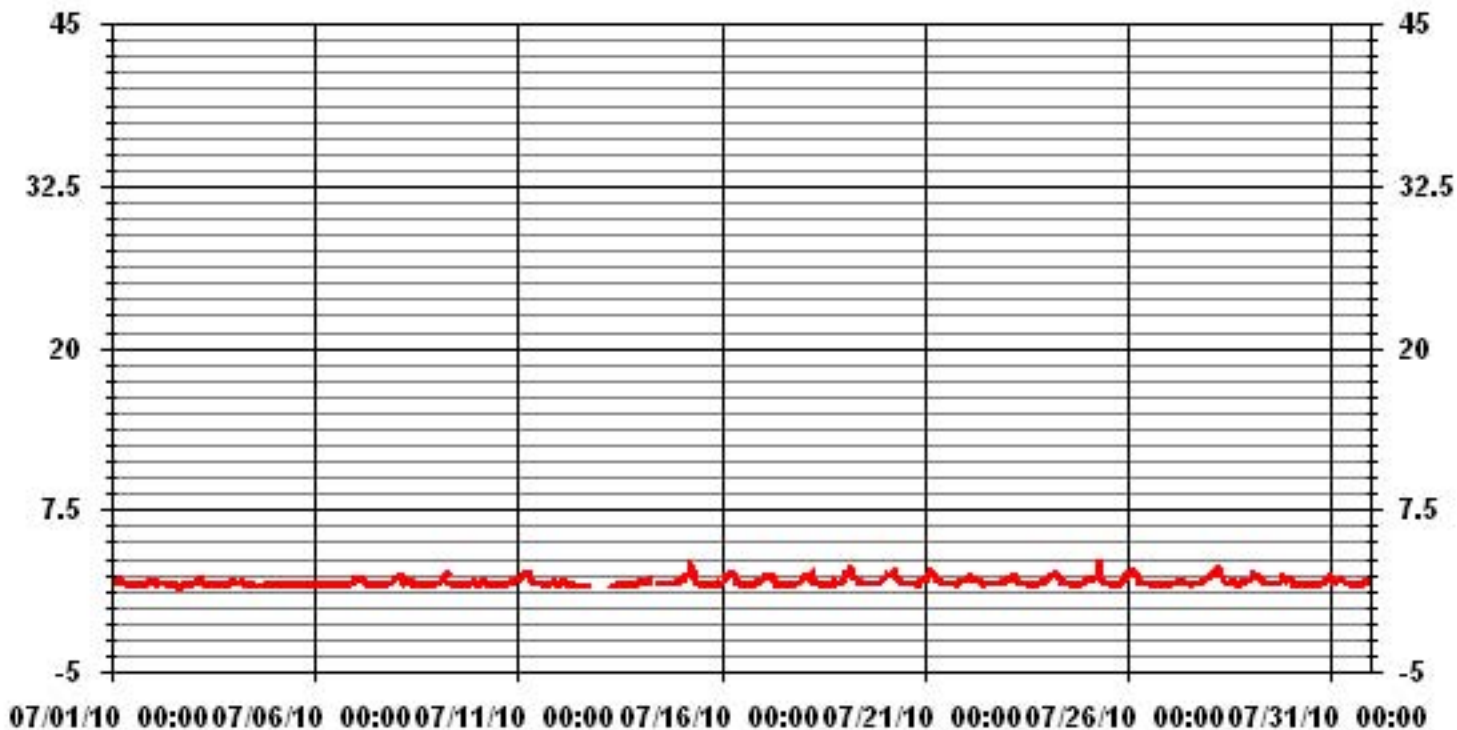
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE
BB	- BELOW BACKGROUND OF 1.5 PPM		



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	692
MAXIMUM 1-HR AVERAGE:	3.3 PPM @ HOUR(S) 6, 7 ON DAY(S) 25
MAXIMUM 24-HR AVERAGE:	2.2 PPM ON DAY(S) 28
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	0.29
OPERATIONAL TIME:	730 HRS
AMD OPERATION UPTIME:	98.1 %
MONTHLY AVERAGE:	1.93 PPM

01 Hour Averages



— LICA — THC — PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOURLY MAX	HOURLY AVG.	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																													
1		2.1	2.4	2.1	2.3	2.3	2.3	2.4	2	1.9	2	2.1	2	2.1	1.8	1.8	IZS	1.8	1.8	2.1	2.1	2	2.2	2.1	2	2.4	2.1	24	
2		2.1	2.1	1.9	2.3	2.3	2.2	1.9	1.9	2	1.9	1.8	1.9	1.7	1.9	IZS	2.1	1.9	2.1	2	2	2	2	2	2.1	2.3	2.0	24	
3		2	2.1	2.3	2.4	2.5	2.6	2.2	2	2.2	1.9	2.2	2.1	1.9	IZS	2	2	2.2	2	1.9	2.1	1.8	2.1	2	2.2	2.6	2.1	24	
4		2.4	2.1	2.2	2	2.2	2.1	2.3	2.1	2	2	2.1	IZS	1.9	1.7	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.9	2.4	2.0	24	
5		2.3	2	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.8	1.7	IZS	1.9	1.8	1.9	1.8	1.7	1.7	1.8	1.9	1.8	1.9	1.9	1.9	1.9	2.3	1.9	24
6		1.8	1.8	1.8	1.9	1.9	2	1.8	1.8	1.8	1.8	IZS	1.9	1.7	1.8	1.7	1.8	1.9	1.8	1.8	1.8	1.8	1.9	2	2.2	2.2	1.8	24	
7		2.3	2.3	2.4	2.4	2.3	2.3	1.8	1.8	IZS	2	2.1	2.2	2	1.9	2	3.3	2	2.2	1.8	2	2	2.4	2.4	3.3	2.2	24		
8		2.4	4.8	3.8	4.3	5.8	2.6	2.2	2.2	IZS	2.1	2	1.9	1.9	1.8	1.8	IZS	1.7	1.8	1.7	1.8	2.2	1.9	2.3	2.1	5.8	2.5	23	
9		2.1	2.2	2	2.8	2.3	2.8	2.8	IZS	2	1.9	2.8	1.9	1.8	1.9	1.7	1.7	1.7	1.7	1.7	1.9	2	2.2	2	2.1	2.8	2.1	24	
10		1.9	1.9	2	2	2.7	1.8	IZS	1.7	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2	2.5	2.1	2.1	2.7	1.9	24	
11		2.5	2.4	2.6	2.6	3	IZS	2.8	2.5	2.2	2.1	2	1.9	1.9	2	1.8	1.8	1.8	1.8	1.8	1.9	2	2.1	2.1	1.9	3	2.2	24	
12		1.9	2.1	2	2.1	IZS	1.9	1.8	1.8	1.8	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	P	N	N	N	N	N	2.1	1.8	18	
13		N	N	N	N	N	C	C	C	1.7	C	1.7	1.7	1.7	1.7	1.7	1.7	2.3	1.7	1.8	1.7	1.8	1.8	1.9	2	2.3	1.8	18	
14		2.1	2.2	IZS	2.1	2	2.4	C	C	C	C	C	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.1	2.4	2.4	2.0	24	
15		2.4	IZS	2.4	2.5	3.1	3.6	3.4	3.2	2.6	2.1	1.9	1.9	1.8	1.8	1.7	1.8	1.7	1.7	1.8	2	1.9	1.9	1.9	2	3.6	2.2	24	
16		IZS	2.1	2.4	2.6	2.6	2.6	2.9	2.8	2.5	2.6	2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2	2.2	2.1	IZS	2.9	2.2	24	
17		2.2	2.3	2.4	2.4	2.4	2.3	2.5	2.5	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	2	2.1	IZS	2.3	2.5	2.1	24	
18		2.3	2.6	2.6	2.5	2.6	2.9	2.8	2.2	1.9	1.8	1.8	1.8	2	1.8	1.8	1.8	1.8	1.8	1.8	2.9	2	1.9	IZS	2	2.1	2.9	2.2	24
19		2.6	2.7	2.7	2.8	3.7	3.3	2.6	2.4	2.2	2	2.1	1.9	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.9	IZS	2.1	2.2	2.3	3.7	2.3	24	
20		2.6	2.7	2.7	2.7	2.8	3	3	2.5	2.2	2.2	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	IZS	2.1	2	2.1	2.1	3	2.2	24	
21		2.2	2.5	2.6	2.9	2.9	2.8	2.6	2.3	2.2	2.1	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	IZS	2.1	2.2	2.3	2.2	2.2	2.9	2.2	24	
22		2.3	2.7	2.7	2.5	2.5	2.5	2.2	2.2	2.1	2	2	1.9	N	N	C	C	1.8	IZS	1.8	1.8	1.9	2	2.2	2.3	2.7	2.2	22	
23		2.5	2.7	2.5	2.5	2.5	2.7	2.5	2	1.9	1.9	1.8	1.9	1.9	1.9	2	1.9	IZS	1.8	1.8	1.9	2	2	2	2.1	2.7	2.1	24	
24		2.3	2.4	2.6	2.7	2.6	2.7	2.8	2.5	2.3	2.2	2	2	1.9	1.9	1.8	IZS	1.8	1.8	1.8	1.8	1.8	2	2	2.3	2.8	2.2	24	
25		2.3	2.3	2.3	2.2	2.3	2.6	4	3.9	2.5	2.2	2.2	1.9	1.9	1.9	IZS	1.8	1.8	1.8	1.8	1.8	2.3	2	2.3	2.4	2.5	4	2.3	24
26		2.9	2.7	2.8	3	3	3.1	2.5	2.3	1.8	1.9	1.8	1.9	1.8	IZS	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.1	2.2	24
27		1.8	1.8	1.8	1.8	1.9	1.9	2.2	2.1	2	1.9	1.8	1.8	IZS	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.2	2.2	2.3	2.4	2.4	2.0	24	
28		2.5	2.5	2.6	3	3.1	3.4	3.3	2.8	2.2	2.1	2	IZS	2	2.2	2.1	2	2	2	2	2	2.1	2.1	2	2.1	2.2	3.4	2.4	24
29		2.3	2.7	2.7	2.7	2.7	2.3	2.2	2	2	IZS	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	2	2.1	2.8	2.9	2.3	2.7	2.4	2.9	2.3	24
30		2.3	2.4	1.8	1.8	1.9	1.9	1.8	1.7	1.7	IZS	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.9	2.1	2.4	2.3	2.4	2.6	2.6	2.0	24	
31		2.7	2.1	2	2.2	2.3	2.5	2.4	2.1	IZS	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.2	2.2	2.4	2.5	2.5	2.7	2.1	24	
HOURLY MAX		3	5	4	4	6	4	4	4	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3				
HOURLY AVG		2.3	2.4	2.4	2.5	2.6	2.5	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.8	1.9	2.0	2.0	2.1	2.1	2.2			

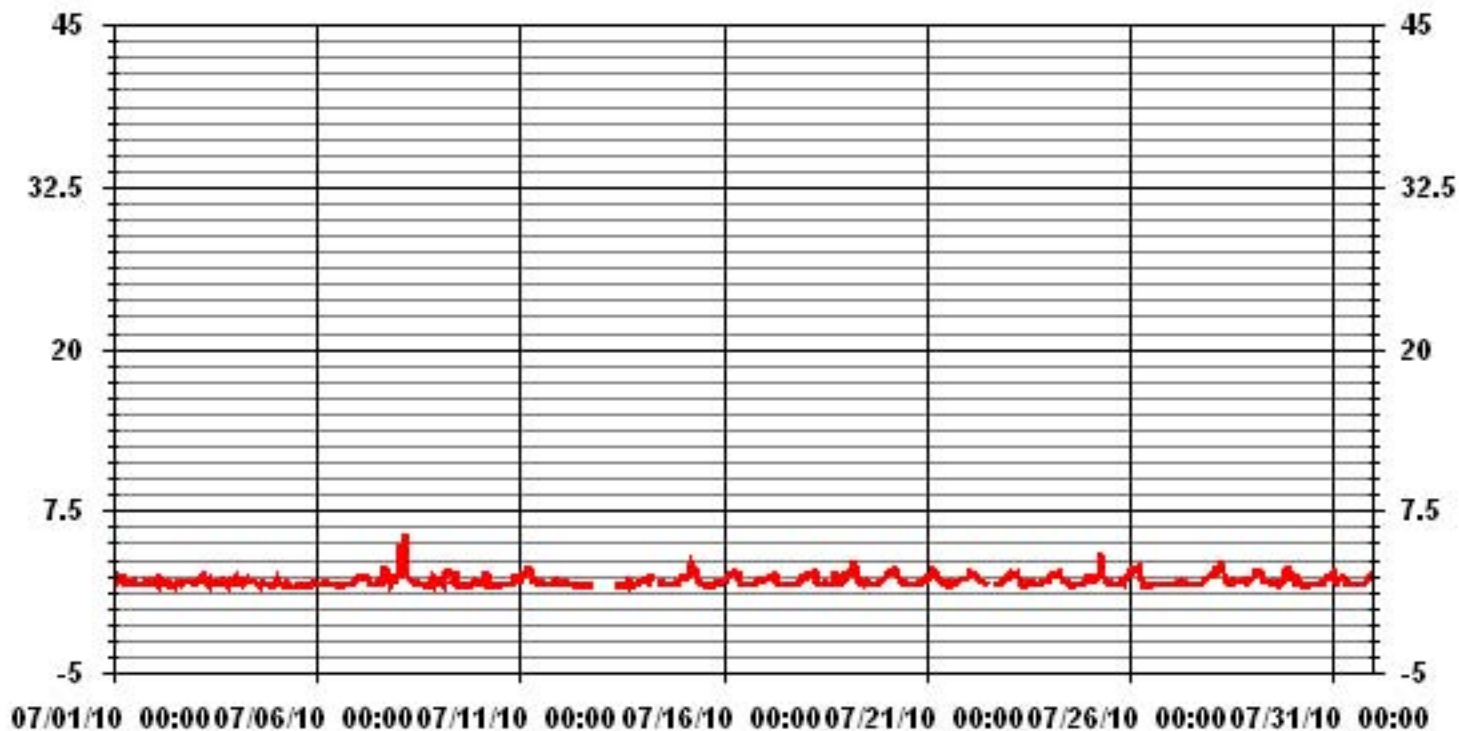
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	688					
MAXIMUM INSTANTANEOUS VALUE:	5.8	PPM	@ HOUR(S)	4	ON DAY(S)	8
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	729 HRS		
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION:	0.41					

01 Hour Averages



— LICA THCMAX PPM

LICA
 THC / WD Joint Frequency Distribution (Percent)

July 2010

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	3.03	1.58	3.32	1.44	3.03	4.47	8.23	4.19	5.63	5.92	15.46	15.31	12.71	7.08	4.76	2.74	98.98
< 10.0	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.43	.14	.14	.00	.14	.00	1.01
< 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.03	1.58	3.32	1.44	3.03	4.47	8.38	4.19	5.63	5.92	15.89	15.46	12.86	7.08	4.91	2.74	

Calm : .00 %

Total # Operational Hours : 692

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	21	11	23	10	21	31	57	29	39	41	107	106	88	49	33	19	685
< 10.0							1				3	1	1		1		7
< 50.0																	
>= 50.0																	
Totals	21	11	23	10	21	31	58	29	39	41	110	107	89	49	34	19	

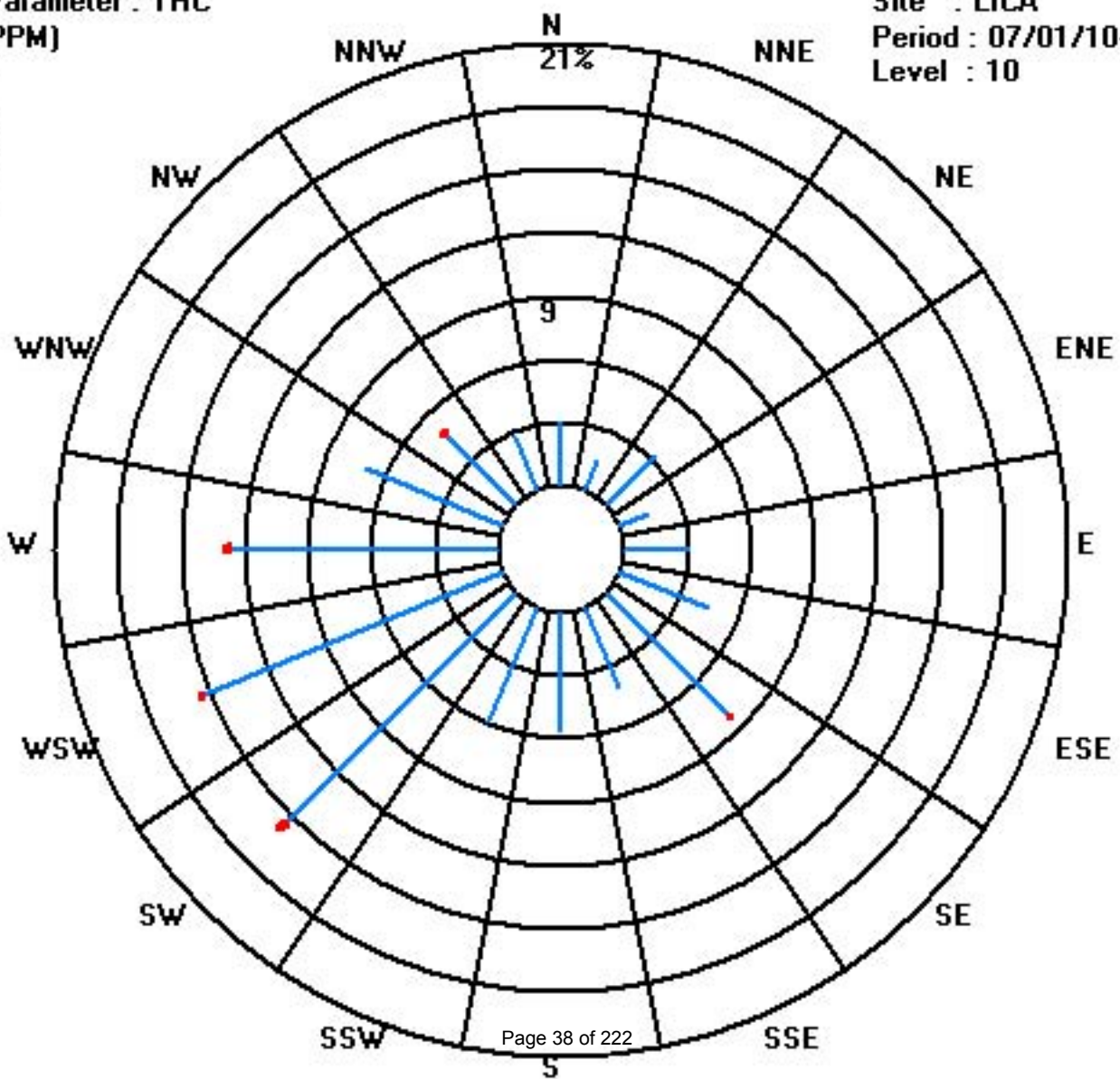
Calm : .00 %

Total # Operational Hours : 692

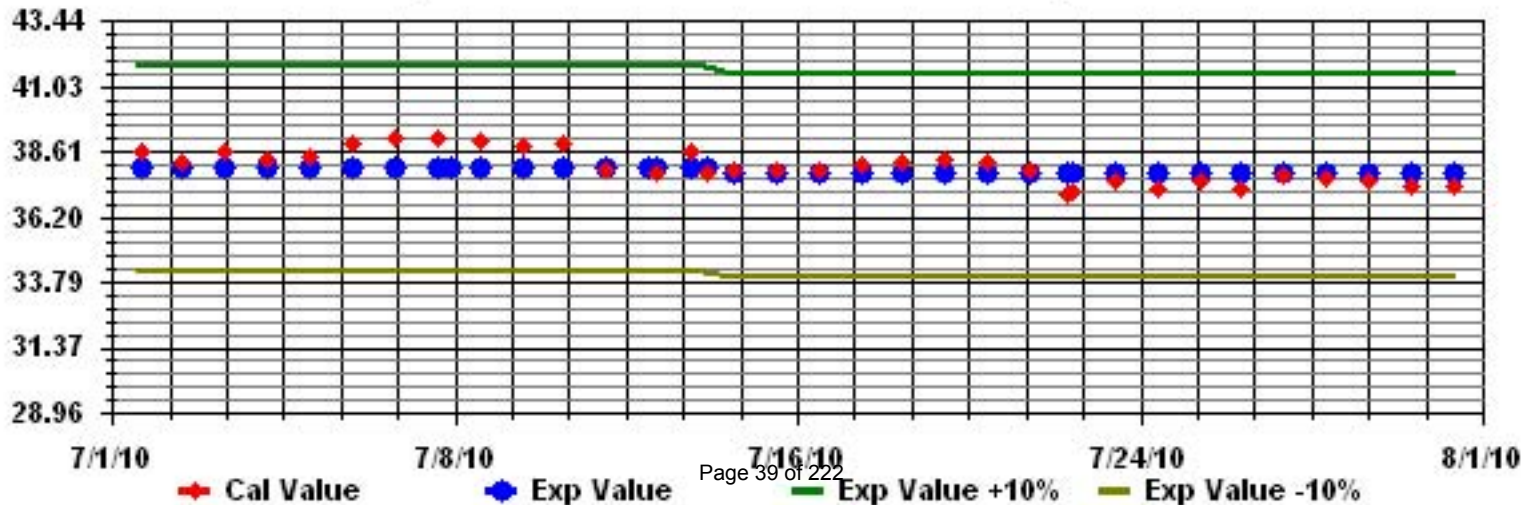
Class Limits (PPM)

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

Level : 10



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



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

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

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	DAILY	24-HOUR
HOURLY START	HOURLY END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																												
1		3.9	1.9	2.4	2.9	0.4	2.9	3.4	1.9	0	4.9	0.9	N	N	0	0.9	7.9	4.9	0.9	5.4	3.4	0.9	2.9	3.4	2.9	7.9	2.7	22
2		4.4	6.9	1.9	4.9	1.9	3.9	5.4	0.9	0	10.4	N	2.4	3.9	6.4	8.4	6.4	1.9	4.4	3.9	3.9	3.9	4.4	4.9	0	10.4	4.1	23
3		5.4	4.9	2.9	3.4	3.4	3.4	3.9	0.9	3.9	6.9	3.9	5.4	N	9.4	4.4	2.9	0.4	7.9	11.4	6.4	4.9	3.4	0	1.9	11.4	4.4	23
4		2.4	2.9	1.4	2.9	6.4	3.9	8.4	5.4	4.4	1.9	3.4	7.9	10.9	7.9	6.9	4.9	0	0.4	3.4	2.4	3.9	0	0.9	4.9	10.9	4.1	24
5		1.4	0.9	0.9	1.4	3.9	0	4.4	4.9	0.4	3.4	9.9	10.9	6.4	9.9	9.9	7.4	8.4	5.4	3.9	7.4	3.9	6.4	4.4	3.9	10.9	5.0	24
6		4.9	6.4	5.4	2.9	4.9	3.9	4.4	6.9	6.4	2.9	7.9	8.4	6.4	0	0	0.4	N	4.4	1.9	1.4	0	4.9	3.4	2.4	8.4	3.9	23
7		3.9	0.4	4.4	2.9	3.4	5.9	0.4	0	2.4	0	1.4	0.9	0.9	0.4	1.9	3.4	3.9	5.4	8.9	8.4	8.9	6.4	7.4	5.9	8.9	3.7	24
8		4.9	5.9	5.9	4.9	1.9	2.9	7.4	0	5.9	5.9	6.4	0.9	0	10.9	6.4	3.4	1.9	2.9	2.9	7.9	5.9	1.9	2.9	1.9	10.9	4.2	24
9		0.4	1.9	2.9	3.4	3.9	0	5.9	6.4	5.9	3.9	10.9	5.4	2.4	7.4	4.4	4.9	11.4	8.4	5.4	8.9	8.9	8.4	18.5	13.9	18.5	6.4	24
10		9.4	0.4	0	2.4	1.4	3.9	8.4	3.4	0.9	2.9	5.9	6.4	3.9	5.9	6.9	0.4	12.9	N	20.4	10.4	4.9	3.4	6.9	5.9	20.4	5.5	23
11		7.9	6.9	5.4	3.4	7.4	4.9	10.4	6.9	6.9	0.4	0.9	12.4	6.9	0.9	8.4	3.4	2.9	5.9	8.9	6.4	5.4	4.9	6.4	4.9	12.4	5.8	24
12		3.9	7.4	8.4	8.4	5.9	7.4	7.4	2.4	5.9	12.4	6.9	0.9	3.9	3.9	0	5.4	0.9	8.4	P	N	1.4	4.4	2.4	7.4	12.4	5.2	22
13		0	2.9	1.9	0	2.9	3.4	7.4	5.9	2.9	1.9	0	2.4	15.9	0.9	1.4	2.9	13.9	N	11.9	2.9	3.9	0.4	3.4	5.9	15.9	4.1	23
14		0.9	4.9	N	0	3.9	7.4	11.9	C	C	C	C	31.9	31.9	39.4	24.9	19.9	41.9	4.4	26.9	25.4	22.9	23.4	32.4	28.4	41.9	20.1	23
15		26.4	19.9	19.9	22.4	15.4	17.4	14.4	17.4	19.9	19.9	14.9	5.9	9.4	1.9	1.9	1.9	5.9	3.9	4.4	6.4	8.4	2.4	0.4	1.4	26.4	10.9	24
16		2.9	3.4	0	2.9	4.4	6.4	6.4	3.9	3.4	4.9	2.4	3.9	0.9	3.4	4.4	3.4	1.9	0.4	4.9	2.9	4.4	3.9	4.4	1.9	6.4	3.4	24
17		5.4	5.4	0.9	5.4	2.4	1.9	2.9	0.4	2.4	2.4	1.4	2.9	0.4	1.9	2.4	2.4	2.9	0.9	0	3.4	5.4	3.9	0	1.4	5.4	2.5	24
18		4.9	4.4	0.4	4.4	4.4	7.9	2.4	1.4	5.4	2.9	3.9	0.9	2.9	3.4	6.9	4.9	0	5.4	4.4	6.9	2.9	3.4	9.4	5.4	9.4	4.1	24
19		6.9	5.9	3.4	5.4	3.4	6.9	6.9	4.4	5.9	5.9	8.9	2.4	3.9	3.9	0.9	4.4	5.4	4.9	3.9	4.9	N	1.9	3.9	2.9	8.9	4.7	23
20		2.9	4.9	1.9	4.4	4.4	3.9	5.9	5.9	3.9	9.9	6.4	6.9	7.4	2.4	4.4	9.4	5.9	3.9	3.9	3.4	2.9	3.9	6.4	4.9	9.9	5.0	24
21		9.9	5.9	1.9	0	3.9	3.9	3.4	7.9	5.9	5.4	4.4	8.9	7.4	3.9	5.4	0.4	4.4	5.9	4.9	5.9	7.9	7.4	9.4	7.9	9.9	5.5	24
22		6.9	5.9	4.9	8.4	4.9	6.9	9.4	9.4	9.4	8.4	7.4	7.9	0	N	M	13.4	6.3	2.4	4	3.4	7.9	10.9	7.9	3.9	13.4	6.8	22
23		2.4	4.9	7.4	4.9	1.9	4.4	8.9	5.9	5.4	6.9	0	5.4	5.9	3.4	2.4	6.9	2.9	0.9	6.4	0.9	6.9	6.9	5.4	0.4	8.9	4.5	24
24		4.9	6.4	5.4	5.4	4.4	5.4	6.9	7.4	5.4	4.9	1.4	4.4	2.4	6.4	7.4	0.9	4.9	2.9	12.9	3.9	5.4	6.4	4.9	5.9	12.9	5.3	24
25		3.4	3.9	4.9	3.4	2.9	0	2.4	1.4	4.9	2.9	2.4	3.9	3.4	3.4	0	3.9	2.9	0	3.9	2.4	2.9	2.9	1.9	0	4.9	2.7	24
26		1.9	0	0	0.9	2.4	1.9	3.9	1.4	5.9	7.4	3.4	0	0	1.4	0.9	N	4.4	5.4	0	0	4.4	0	0.4	1.9	7.4	2.1	23
27		1.4	1.4	1.9	2.4	0.9	1.9	0	3.9	3.9	4.4	6.4	12.9	12.4	27.9	18.9	18	19.9	20.4	19.4	24.4	23.9	23.4	26.4	26.4	27.9	12.6	24
28		20.4	21.9	21.9	21.9	22.9	19.4	25.4	28.4	29.9	28.4	24.9	13.4	10.4	8.9	17.4	12.9	11.4	8.9	9.4	14.9	16.4	18	17.4	14.4	29.9	18.3	24
29		9.4	11.9	13.9	14.9	13.4	8.4	10.4	7.4	4.4	5.4	3.4	4.9	6.9	7.9	11.4	6.4	16.4	7.9	9.4	8.9	7.4	11.9	9.4	11.9	16.4	9.3	24
30		11.4	7.9	14.9	18.5	18	18.4	11.9	11.4	6.9	8.4	10.4	14.4	12.9	12.9	14.9	12.4	9.4	10.4	12.4	8.9	16.4	6.9	8.9	6.9	18.5	11.9	24
31		4.8	5.4	5.1	3.7	3.3	5.6	5.1	3.8	8.3	7.4	15.9	13.5	12.6	2.7	0	2.7	4.9	3.6	4.2	2.8	0	0	4.3	5.3	15.9	5.2	24
HOURLY MAX		26	22	22	22	23	19	25	28	30	28	25	32	32	39	25	20	42	20	27	25	24	23	32	28			
HOURLY AVG		5.8	5.6	5.1	5.6	5.3	5.6	7.0	5.6	5.9	6.5	6.1	7.0	6.6	6.6	6.1	5.9	7.2	5.1	7.5	6.7	6.8	6.1	7.0	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

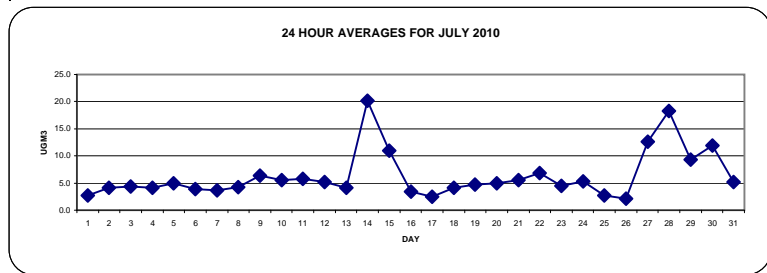
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:

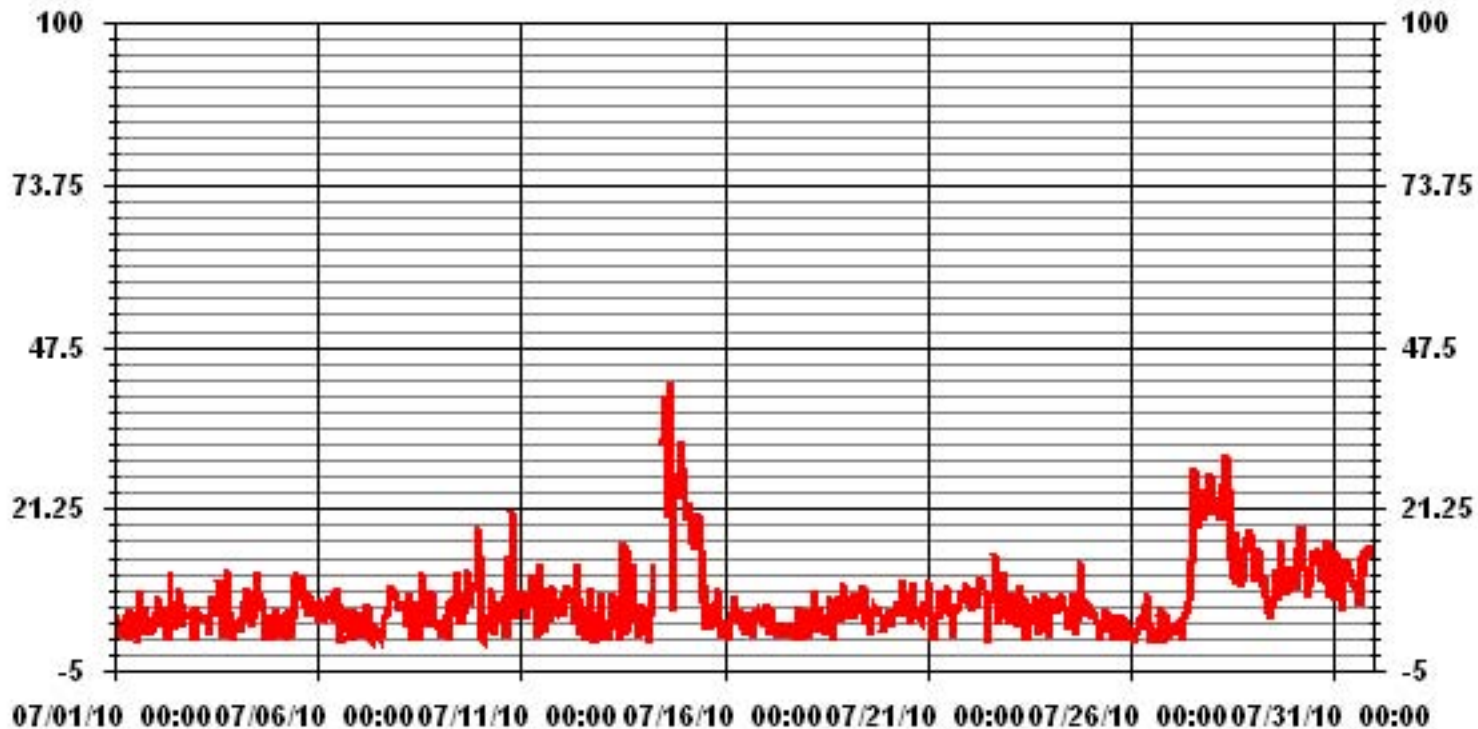
1-HR	-	ug/m ³	24-HR	30	ug/m ³
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-					
NUMBER OF 24-HR EXCEEDENCES:	0	PROPOSED CANADA WIDE GUIDELINE				
NUMBER OF NON-ZERO READINGS:	682					
MAXIMUM 1-HR AVERAGE:	41.9	UG/M ³	@ HOUR(S)	16	ON DAY(S)	14
MAXIMUM 24-HR AVERAGE:	20.1	UG/M ³			ON DAY(S)	14
IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	730	HRS	
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME:	98.1	%	
STANDARD DEVIATION:	5.94		MONTHLY AVERAGE:	6.20	UG/M ³	



01 Hour Averages



— LICA PM2 UG/M3

LICA
PM2 / WD Joint Frequency Distribution (Percent)

July 2010

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	3.03	1.92	3.99	1.51	3.03	4.40	8.26	4.13	5.92	6.06	15.28	15.28	11.84	7.16	4.54	2.89	99.31
< 60.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	.41	.00	.00	.00	.68
< 80.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 120.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.03	1.92	3.99	1.51	3.03	4.40	8.26	4.13	5.92	6.06	15.28	15.56	12.25	7.16	4.54	2.89	

Calm : .00 %

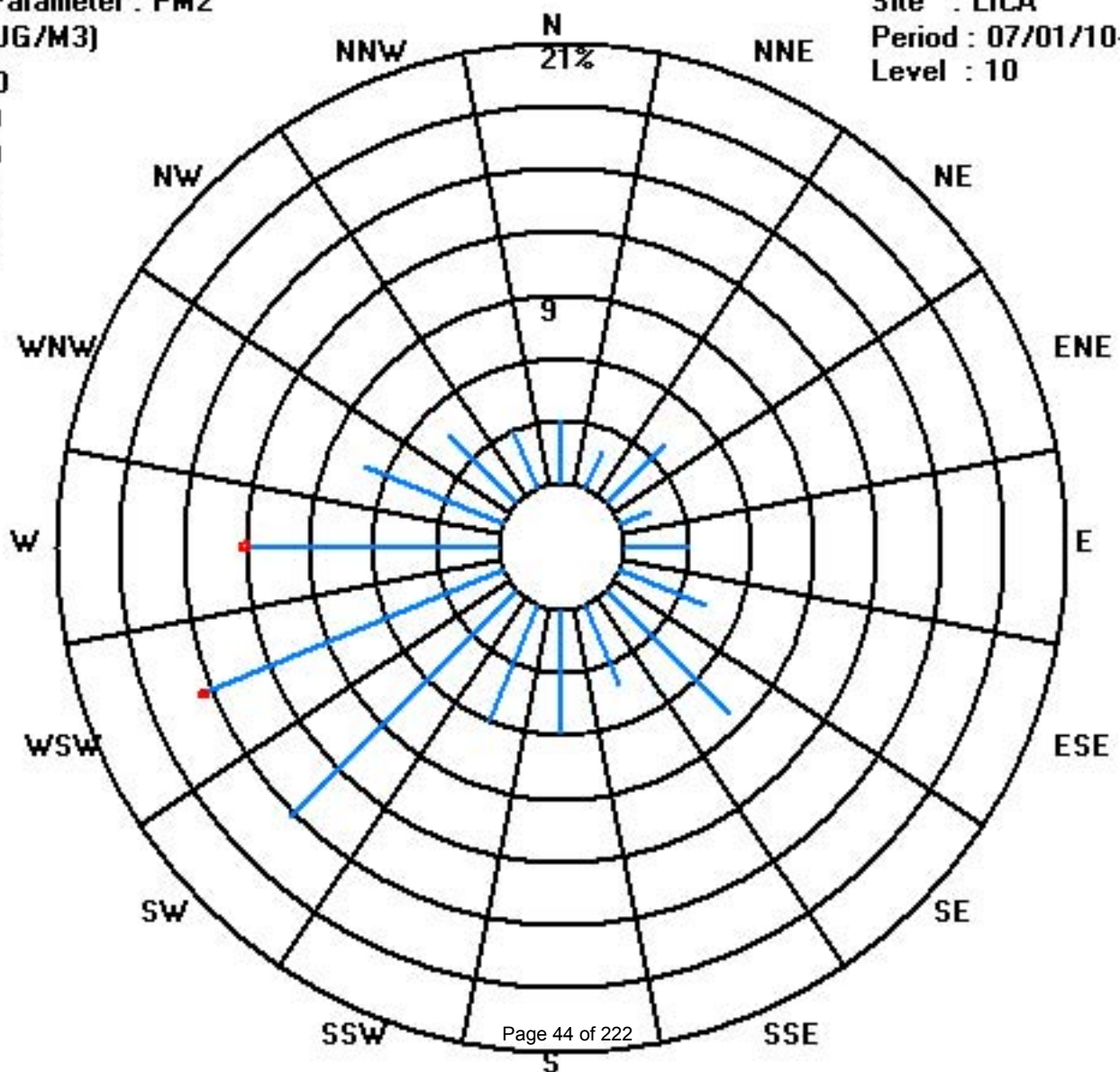
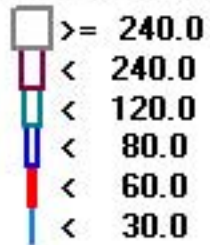
Total # Operational Hours : 726

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 30.0	22	14	29	11	22	32	60	30	43	44	111	111	86	52	33	21	721
< 60.0												2	3				5
< 80.0																	
< 120.0																	
< 240.0																	
>= 240.0																	
Totals	22	14	29	11	22	32	60	30	43	44	111	113	89	52	33	21	

Calm : .00 %

Total # Operational Hours : 726



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

NITROGEN DIOXIDE hourly averages in ppb

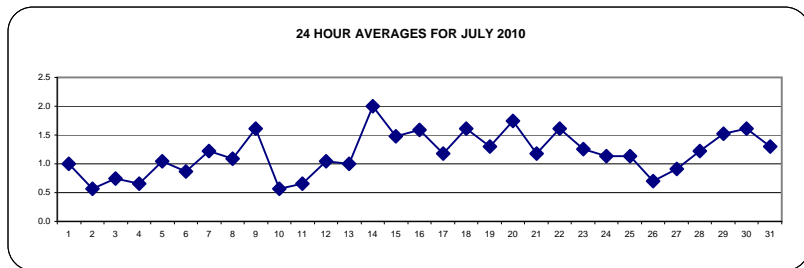
MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
1	2	2	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	3	3	2	3	1.0	24	
2	1	1	1	1	0	0	0	0	0	0	0	0	1	1	IZS	1	0	1	0	1	1	1	1	1	1	1	0.6	24
3	1	1	1	2	2	2	1	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	1	1	2	1	2	0.7	24
4	2	2	2	1	1	1	1	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	2	2	0.7	24
5	3	1	1	1	1	1	1	2	2	0	0	0	0	0	0	0	1	0	2	4	1	1	1	1	4	1.0	24	
6	2	3	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	2	3	0.9	24	
7	2	3	2	2	1	3	2	0	0	IZS	0	1	0	0	0	0	1	1	0	1	2	2	3	2	3	1.2	24	
8	1	1	1	1	1	2	2	2	IZS	2	1	0	0	0	C	1	2	1	1	1	1	1	1	1	2	1.1	24	
9	1	1	1	0	1	1	2	IZS	2	2	9	1	0	0	0	1	1	1	1	1	1	2	2	4	3	9	1.6	24
10	1	1	0	0	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	3	3	0.6	24
11	2	1	1	1	1	IZS	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	0.7	24
12	1	1	1	1	IZS	1	1	0	0	0	0	0	0	1	1	2	3	2	P	3	3	1	1	0	3	1.0	23	
13	1	1	1	IZS	1	1	1	1	1	1	1	0	C	C	C	C	C	C	C	2	1	1	1	1	1	2	1.0	24
14	2	3	IZS	4	4	3	3	1	1	2	3	3	1	1	1	1	1	1	1	2	2	1	2	3	4	2.0	24	
15	3	IZS	2	2	3	4	3	4	4	2	1	1	0	0	0	0	0	0	0	1	1	1	1	1	4	1.5	24	
16	IZS	1	1	2	2	2	3	2	3	3	1	1	1	0	0	1	2	1	1	1	2	3	2	IZS	3	1.6	24	
17	2	3	3	3	3	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	3	IZS	2	3	1.2	24	
18	3	3	5	4	4	4	3	2	1	0	1	0	0	0	0	0	0	0	1	1	1	IZS	2	2	5	1.6	24	
19	1	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	0	0	1	IZS	1	1	1	3	1.3	24	
20	1	1	1	1	2	2	5	5	4	2	1	1	1	1	0	1	1	1	1	1	IZS	1	3	2	2	5	1.7	24
21	1	1	1	0	1	2	4	1	1	1	1	0	0	0	0	0	0	1	IZS	3	2	2	2	3	4	1.2	24	
22	2	1	1	1	0	2	1	1	1	1	1	1	2	5	2	1	1	IZS	2	2	3	3	1	2	5	1.6	24	
23	3	1	1	1	1	2	3	2	2	2	1	1	1	0	0	0	0	IZS	1	0	1	2	2	1	1	3	1.3	24
24	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	IZS	0	0	1	2	3	3	1	1	3	1.1	24
25	1	1	1	1	1	2	3	3	2	1	1	0	0	0	IZS	0	0	0	0	0	4	3	1	1	4	1.1	24	
26	1	1	1	1	1	2	2	2	1	1	1	1	1	1	IZS	0	0	0	0	1	0	0	0	0	2	0.7	24	
27	0	0	1	0	1	1	2	1	1	1	0	1	IZS	1	1	1	0	0	1	1	2	2	2	1	2	0.9	24	
28	1	1	2	2	1	1	3	2	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	3	1.2	24	
29	1	1	1	1	1	2	3	1	1	1	IZS	1	1	1	1	1	1	1	2	2	3	4	2	2	4	1.5	24	
30	2	1	1	1	1	2	1	1	1	IZS	2	2	2	1	1	1	1	1	1	4	3	2	2	3	4	1.6	24	
31	3	2	2	1	2	2	2	2	IZS	1	1	1	0	0	0	1	1	0	1	1	3	2	1	1	3	1.3	24	
HOURLY MAX		3	3	5	4	4	4	5	5	4	3	9	3	2	5	2	2	3	2	2	4	4	4	4	3			
HOURLY AVG		1.6	1.5	1.4	1.3	1.5	1.7	2.1	1.5	1.2	0.9	1.0	0.7	0.5	0.5	0.3	0.5	0.6	0.5	0.7	1.3	1.7	1.8	1.5	1.6			

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

OBJECTIVE LIMIT:

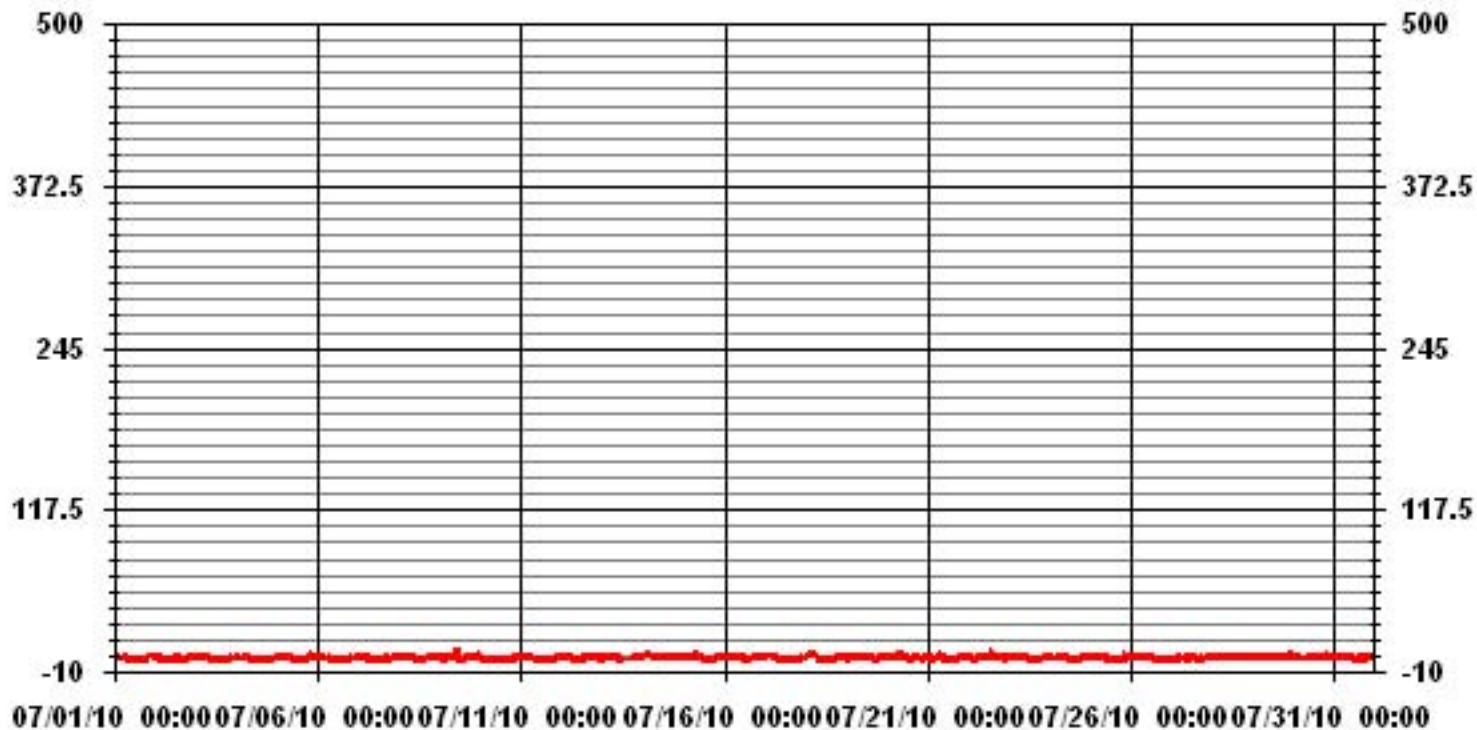
ALBERTA ENVIRONMENT:	1-HR	212	PPB	24-HR	106	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	521
MAXIMUM 1-HR AVERAGE:	9 PPB @ HOUR(S) 10 ON DAY(S) 9
MAXIMUM 24-HR AVERAGE:	2.0 PPB ON DAY(S) 14
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	1.05
OPERATIONAL TIME:	743 HRS
AMD OPERATION UPTIME:	99.9 %
MONTHLY AVERAGE:	1.18 PPB

01 Hour Averages



— LICA H02_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	2	2	2	2	2	2	2	1	2	1	1	0	0	0	0	IZS	1	1	1	2	4	4	4	3	4	4	1.7	24
2	2	2	1	2	1	1	1	1	2	1	1	2	1	2	IZS	2	1	3	1	2	3	4	1	1	4	4	1.7	24
3	2	1	1	2	3	3	2	1	3	1	1	0	1	IZS	1	0	0	0	1	1	1	2	3	2	3	4	1.4	24
4	2	2	3	2	2	1	1	1	1	1	0	0	IZS	1	1	1	0	0	1	0	1	1	2	4	4	1.2	24	
5	4	3	2	2	2	2	3	4	8	1	1	IZS	1	1	0	1	1	1	16	20	3	1	1	2	20	3.5	24	
6	4	4	3	7	2	2	2	1	1	1	IZS	2	1	1	1	1	1	1	2	2	3	2	4	7	2.1	24		
7	3	4	3	3	2	5	5	2	1	IZS	4	1	1	2	0	2	7	9	1	2	3	4	5	3	9	3.1	24	
8	2	2	1	1	2	3	3	3	IZS	3	1	5	0	1	C	4	4	2	3	2	2	3	1	1	5	2.2	24	
9	2	1	1	1	1	3	3	IZS	3	3	195	1	2	8	2	2	3	3	3	6	4	4	6	4	195	11.3	24	
10	3	1	1	1	2	1	IZS	1	1	1	1	1	0	0	0	0	0	1	1	1	6	7	3	4	7	1.6	24	
11	3	2	2	1	2	1	IZS	2	2	1	1	2	1	0	1	3	0	1	0	1	2	3	8	1	8	1.7	24	
12	1	1	1	1	IZS	1	1	6	6	2	1	2	5	8	6	5	12	4	P	12	11	12	7	1	12	4.8	23	
13	1	2	2	IZS	1	2	2	2	3	7	4	12	C	C	C	C	C	C	C	2	8	2	2	3	12	3.4	24	
14	3	4	IZS	5	4	4	4	16	2	4	4	4	3	2	1	1	1	3	3	3	4	2	5	4	16	3.7	24	
15	4	IZS	4	3	4	5	5	6	5	3	2	1	1	1	2	1	1	0	2	3	3	1	1	2	6	2.6	24	
16	IZS	2	2	3	4	4	3	10	4	3	2	1	3	2	1	1	4	3	2	4	3	5	2	IZS	10	3.1	24	
17	3	4	4	4	4	5	2	2	1	1	0	1	0	0	0	1	0	0	1	1	4	5	IZS	3	5	2.0	24	
18	3	4	6	5	5	5	4	3	1	1	2	3	1	1	0	3	4	0	3	2	4	IZS	3	2	6	2.8	24	
19	3	3	4	3	5	4	3	4	4	2	1	2	10	15	3	4	2	2	1	2	IZS	3	1	1	15	3.6	24	
20	1	2	2	2	3	6	6	8	5	4	3	2	6	2	1	5	2	3	1	IZS	2	6	3	3	8	3.4	24	
21	2	1	2	1	7	8	5	2	4	3	2	1	1	2	1	2	1	1	IZS	5	4	5	3	4	8	2.9	24	
22	3	2	1	2	1	5	2	6	1	1	8	3	C	10	4	3	7	IZS	5	11	6	5	3	3	11	4.2	24	
23	4	3	2	3	2	12	5	3	4	2	2	2	1	1	1	2	IZS	1	1	7	4	3	2	3	12	3.0	24	
24	3	3	2	2	2	2	2	2	2	1	1	1	1	1	IZS	3	1	2	2	6	7	3	2	7	2.3	24		
25	1	1	2	2	1	4	4	3	3	4	2	1	1	1	IZS	1	1	0	0	2	13	8	2	2	13	2.6	24	
26	2	2	1	3	1	2	3	3	2	2	2	1	2	IZS	1	1	1	1	1	2	1	1	1	1	3	1.6	24	
27	1	1	2	1	1	2	4	2	2	4	1	1	IZS	2	1	1	1	1	1	3	4	3	2	2	4	1.9	24	
28	2	2	3	3	2	2	4	4	3	2	1	IZS	2	5	2	2	3	2	5	3	4	5	1	1	5	2.7	24	
29	2	2	2	2	2	10	9	3	2	2	IZS	1	4	3	2	1	2	3	4	4	3	19	3	4	19	3.9	24	
30	3	2	1	1	2	2	5	2	3	IZS	3	3	3	2	2	2	1	1	2	9	5	4	4	4	9	2.9	24	
31	4	2	2	2	3	3	3	3	IZS	2	1	2	1	1	2	1	1	1	1	1	13	3	2	2	13	2.4	24	
HOURLY MAX	4	4	6	7	7	12	9	16	8	7	195	12	10	15	6	5	12	9	16	20	13	19	8	4				
HOURLY AVG	2.5	2.2	2.2	2.4	2.5	3.7	3.3	3.6	2.8	2.2	8.6	2.0	2.0	2.7	1.4	1.9	2.2	1.7	2.3	3.9	4.4	4.5	2.9	2.5				

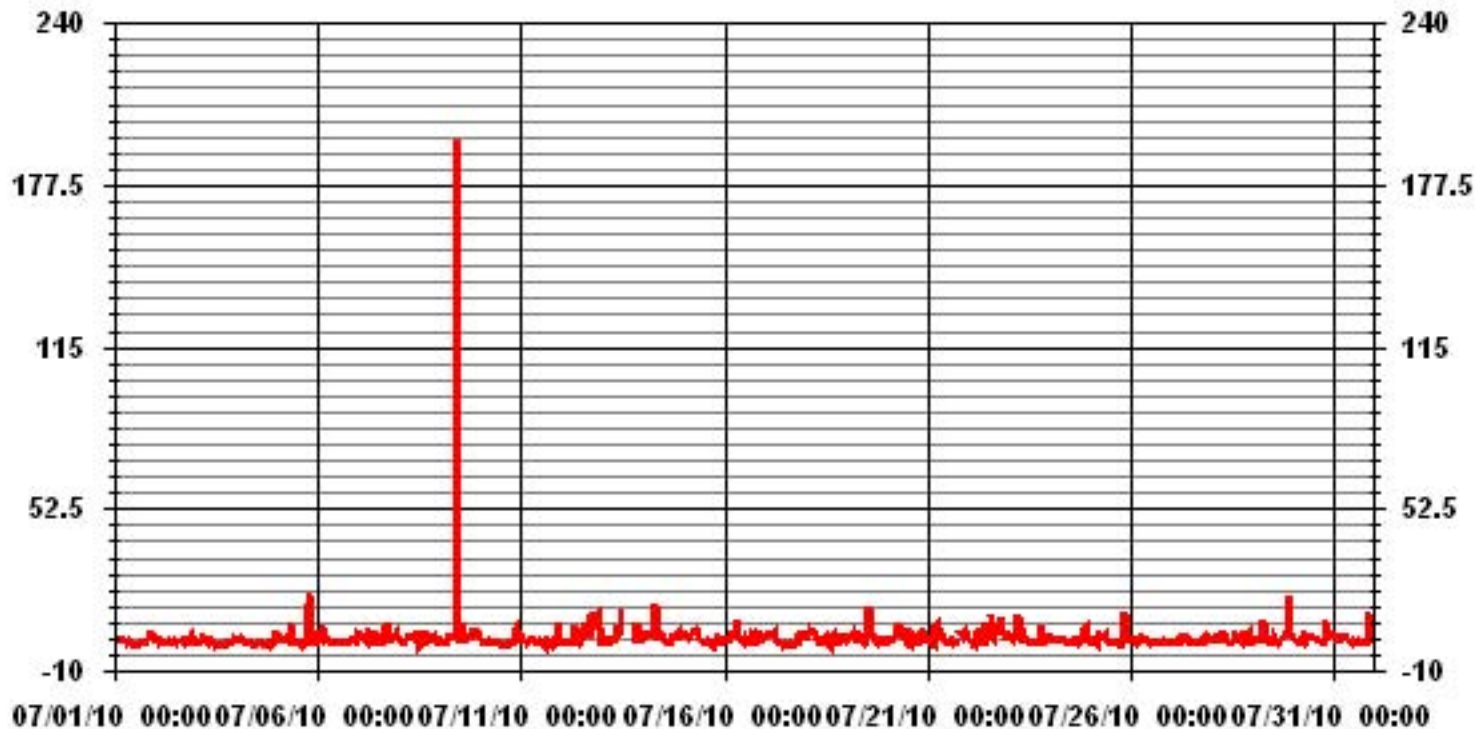
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	667					
MAXIMUM INSTANTANEOUS VALUE:	195	PPB	@ HOUR(S)	10	ON DAY(S)	9
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	743	HRS	
MONTHLY CALIBRATION TIME:	9	HRS				
STANDARD DEVIATION	7.64					

01 Hour Averages



— LICA NO2MAX PPB

LICA
 NO2_ / WD Joint Frequency Distribution (Percent)

July 2010

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	2.98	1.56	3.69	1.70	2.84	4.54	8.38	4.11	5.53	5.96	15.62	15.05	12.92	7.24	4.97	2.84	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.98	1.56	3.69	1.70	2.84	4.54	8.38	4.11	5.53	5.96	15.62	15.05	12.92	7.24	4.97	2.84	

Calm : .00 %

Total # Operational Hours : 704

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	21	11	26	12	20	32	59	29	39	42	110	106	91	51	35	20	704
< 110																	
< 210																	
>= 210																	
Totals	21	11	26	12	20	32	59	29	39	42	110	106	91	51	35	20	

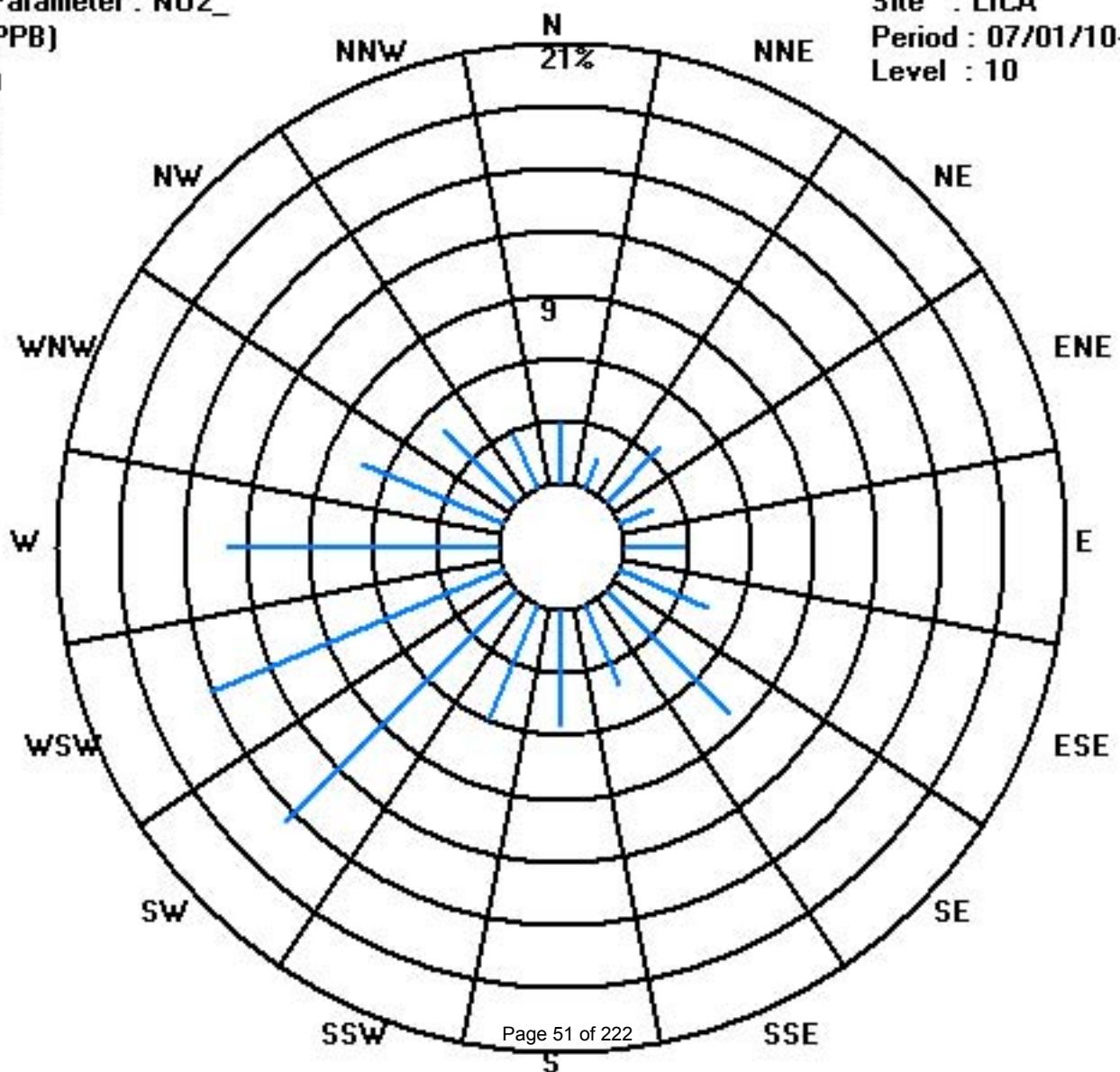
Calm : .00 %

Total # Operational Hours : 704

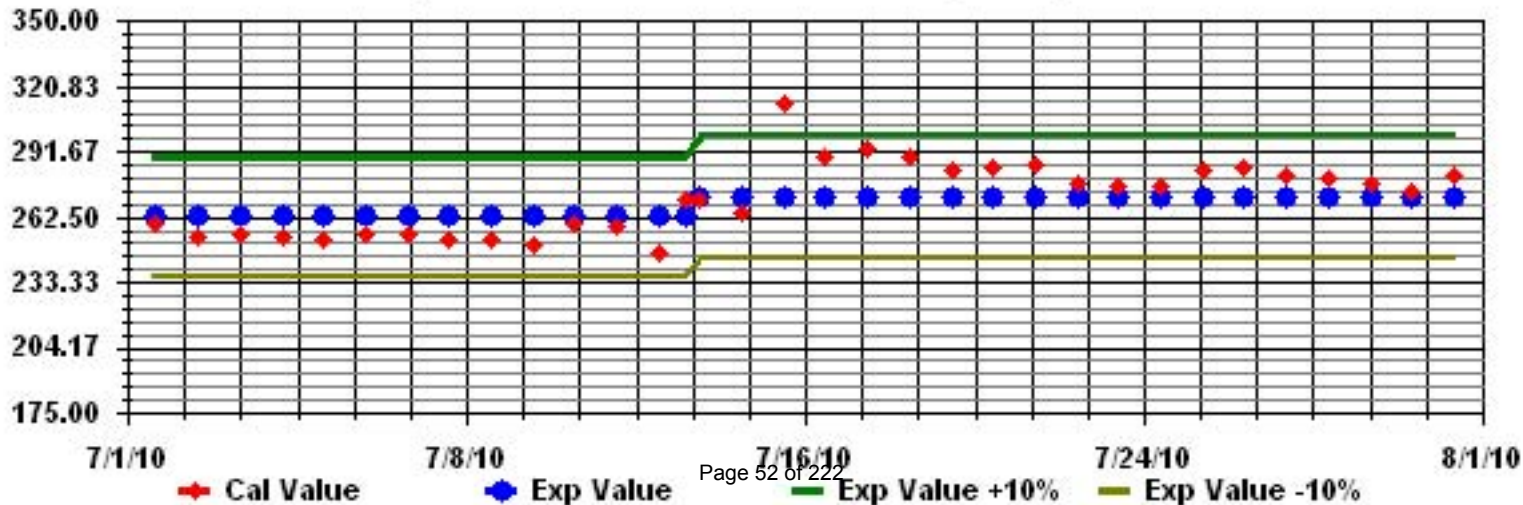
Class Limits (PPB)

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

Level : 10



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



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

NITRIC OXIDE hourly averages in ppb

MST

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

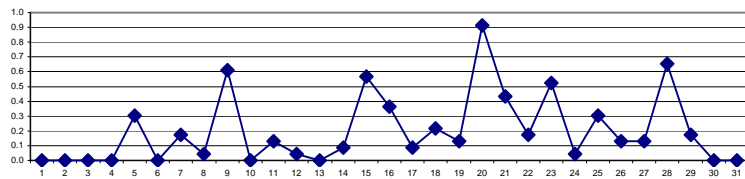
STATUS FLAG CODES

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

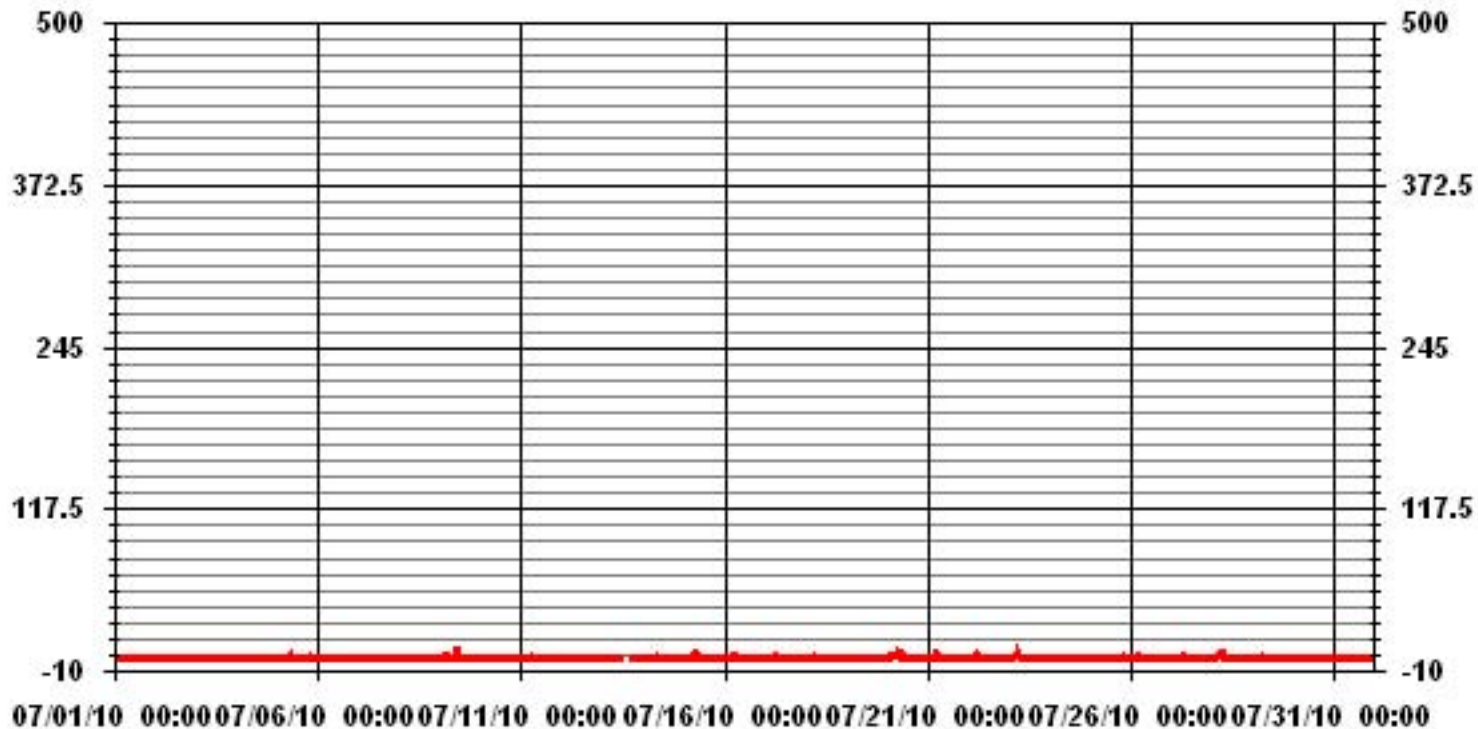
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	71					
MAXIMUM 1-HR AVERAGE:	8	PPB	@ HOUR(S)	10	ON DAY(S)	9
MAXIMUM 24-HR AVERAGE:	0.9	PPB			ON DAY(S)	20
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	743	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	99.9	%	
STANDARD DEVIATION:	0.77		MONTHLY AVERAGE:	0.20	PPB	

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA NO₂ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

NITRIC OXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	IZS	1	0	0	0	0	1	1	0	1	0.2	24	
2	0	0	0	0	0	0	0	3	2	0	0	1	1	1	IZS	1	1	0	0	0	0	0	0	0	3	0.4	24	
3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	2	0.1	24	
4	0	0	0	0	0	0	1	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
5	0	0	0	0	0	0	1	5	26	0	0	IZS	0	0	0	0	0	0	12	13	0	0	0	0	26	2.5	24	
6	0	0	0	3	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.1	24	
7	0	0	0	1	4	5	3	4	0	IZS	4	0	0	0	0	1	4	5	0	0	0	0	0	1	5	1.4	24	
8	0	0	0	0	0	0	1	0	IZS	1	0	6	0	0	C	5	3	0	0	0	0	2	0	0	6	0.8	24	
9	0	0	1	1	4	4	2	IZS	0	0	115	0	0	4	1	2	1	0	1	0	5	0	0	1	115	6.2	24	
10	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	1	7	0.4	24	
11	0	0	0	0	2	IZS	4	1	1	0	0	0	0	0	0	2	0	0	0	0	0	1	4	0	4	0.7	24	
12	0	0	0	0	IZS	0	1	1	4	25	2	1	8	9	28	17	4	0	P	2	0	0	0	0	28	4.6	23	
13	0	0	0	IZS	0	3	1	3	2	2	2	0	C	C	C	C	C	C	C	7	11	0	0	0	11	1.9	24	
14	0	1	IZS	0	0	0	0	55	0	1	0	0	3	0	0	0	0	0	2	1	0	0	0	0	55	2.7	24	
15	0	IZS	0	1	4	9	7	5	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9	1.3	24	
16	IZS	0	0	0	1	7	3	37	2	1	0	0	2	0	0	0	2	1	0	0	0	0	0	0	37	2.5	24	
17	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	2	0.2	24
18	0	0	0	0	0	4	3	2	0	0	0	0	0	0	0	2	3	0	0	0	0	0	IZS	0	4	0.6	24	
19	1	0	0	0	14	5	1	2	4	1	0	0	9	11	0	4	0	1	0	1	IZS	5	0	0	14	2.6	24	
20	1	1	1	1	6	6	7	11	5	3	2	0	2	0	0	2	0	1	0	IZS	0	1	0	0	11	2.2	24	
21	0	0	2	1	13	16	10	1	2	0	0	0	0	0	0	0	0	0	IZS	0	0	1	1	0	16	2.0	24	
22	0	0	0	0	3	14	2	8	1	0	11	16	C	17	0	3	0	IZS	1	7	1	0	1	3	17	4.0	24	
23	0	0	0	3	5	34	5	1	1	0	0	0	0	0	0	0	IZS	0	0	1	2	0	0	1	34	2.3	24	
24	0	0	0	0	2	2	1	0	1	2	0	0	0	0	0	IZS	1	0	0	0	3	2	0	0	3	0.6	24	
25	0	0	0	0	0	1	1	3	3	1	0	0	0	0	IZS	0	0	0	0	0	23	6	1	0	23	1.7	24	
26	0	0	0	0	2	6	3	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	6	0.5	24	
27	0	0	0	0	0	0	1	1	1	2	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
28	0	0	2	2	3	6	12	3	6	0	0	IZS	0	8	0	0	1	1	2	0	2	6	0	0	12	2.3	24	
29	1	0	0	0	1	21	5	1	0	0	IZS	0	1	4	0	0	0	0	0	0	0	38	0	0	38	3.1	24	
30	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
31	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	10	0.5	24	
HOURLY MAX	1	1	2	3	14	34	12	55	26	25	115	16	9	17	28	17	4	5	12	13	23	38	4	3				
HOURLY AVG	0.1	0.1	0.2	0.4	2.1	4.8	2.5	5.0	2.3	1.3	4.7	0.8	1.0	2.0	1.1	1.4	0.7	0.3	0.6	1.1	1.9	2.4	0.3	0.2				

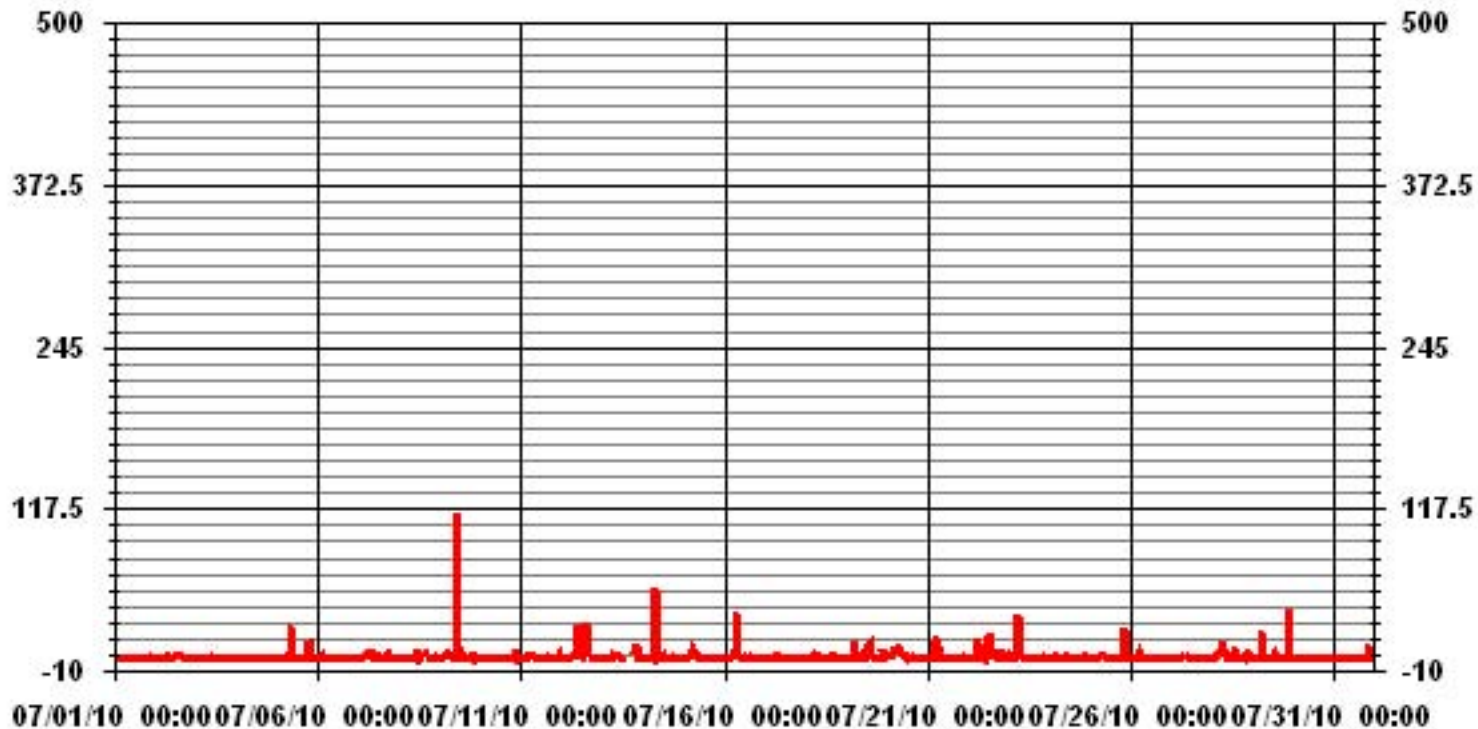
STATUS FLAG CODES

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:	215					
MAXIMUM INSTANTANEOUS VALUE:	115	PPB	@ HOUR(S)	10	ON DAY(S)	9
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	743	HRS	
MONTHLY CALIBRATION TIME:	9	HRS				
STANDARD DEVIATION	6.13					

01 Hour Averages



— LICA NOMAX PPB

LICA
NO_ / WD Joint Frequency Distribution (Percent)

July 2010

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	2.98	1.56	3.69	1.70	2.84	4.54	8.38	4.11	5.53	5.96	15.62	15.05	12.92	7.24	4.97	2.84	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.98	1.56	3.69	1.70	2.84	4.54	8.38	4.11	5.53	5.96	15.62	15.05	12.92	7.24	4.97	2.84	

Calm : .00 %

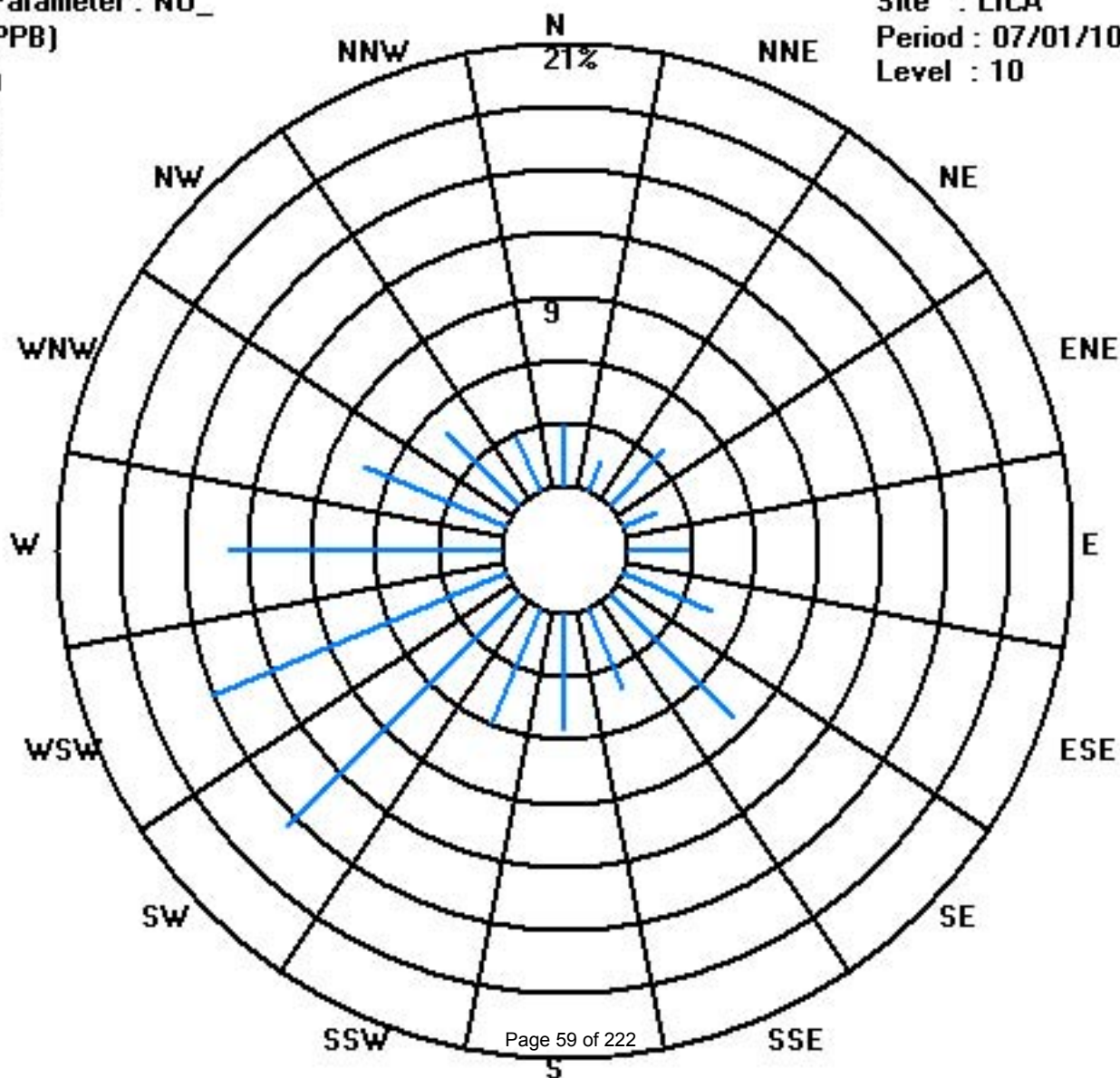
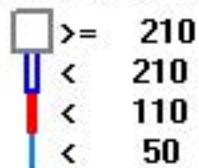
Total # Operational Hours : 704

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	21	11	26	12	20	32	59	29	39	42	110	106	91	51	35	20	704
< 110																	
< 210																	
>= 210																	
Totals	21	11	26	12	20	32	59	29	39	42	110	106	91	51	35	20	

Calm : .00 %

Total # Operational Hours : 704



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

OXIDES OF NITROGEN hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	2	2	1	2	2	2	2	2	1	1	0	0	0	0	0	IZS	0	0	0	1	2	3	3	2	3	1.2	24	
2	1	2	1	1	0	0	0	0	1	0	0	0	1	1	IZS	1	0	1	0	1	1	1	1	1	1	2	0.7	24
3	1	1	1	2	2	3	2	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	1	2	1	3	0.8	24	
4	2	2	2	1	1	1	2	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	2	2	0.7	24	
5	3	1	0	1	1	1	1	4	5	0	0	0	0	0	IZS	0	0	0	1	0	3	7	1	1	1	7	1.4	24
6	2	3	1	1	1	2	1	1	1	0	0	0	0	0	IZS	1	0	0	0	1	1	2	1	2	3	1.0	24	
7	2	3	2	2	2	5	4	1	0	IZS	1	1	0	0	0	0	2	1	0	1	2	2	3	2	5	1.6	24	
8	1	1	1	1	1	2	3	3	IZS	2	1	0	0	0	C	1	3	1	1	1	1	1	1	1	3	1.2	24	
9	1	1	1	1	3	5	4	IZS	3	2	16	1	0	1	1	1	2	1	1	1	2	2	4	3	16	2.5	24	
10	1	1	1	1	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	2	3	4	0.7	24
11	3	2	1	1	2	IZS	4	3	2	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	1.0	24	
12	1	1	0	0	IZS	1	1	1	0	0	0	0	1	2	2	2	3	2	P	3	3	1	1	0	3	1.1	23	
13	0	1	1	IZS	1	1	1	1	1	1	1	0	C	C	C	C	C	C	2	2	2	1	1	1	2	1.1	24	
14	2	3	IZS	4	4	3	3	3	1	2	3	3	2	1	1	1	1	1	1	2	2	1	2	3	4	2.1	24	
15	3	IZS	3	3	5	8	8	8	6	3	1	1	0	0	0	0	0	0	0	1	1	1	1	1	8	2.3	24	
16	IZS	2	1	3	3	5	5	6	5	3	1	1	2	0	0	1	2	1	1	1	2	3	2	IZS	6	2.3	24	
17	2	3	3	3	3	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0	1	3	IZS	2	4	1.4	24	
18	3	3	5	4	4	7	5	4	1	0	1	1	0	0	0	0	0	1	1	1	1	IZS	2	2	7	2.0	24	
19	2	3	3	2	3	3	2	4	2	1	1	1	1	2	1	1	1	1	1	1	IZS	2	1	1	4	1.7	24	
20	1	2	2	2	3	6	11	10	8	4	1	1	1	1	0	1	1	1	1	1	IZS	1	3	2	2	11	2.8	24
21	2	1	1	1	2	8	9	2	2	1	1	0	0	0	0	0	0	1	IZS	3	2	2	2	3	9	1.9	24	
22	2	1	1	1	1	5	2	2	1	1	1	1	2	6	2	2	1	IZS	3	2	3	3	1	2	6	2.0	24	
23	3	2	2	2	3	8	6	2	2	2	1	1	1	0	0	0	IZS	1	0	1	2	2	1	1	8	1.9	24	
24	2	2	2	2	2	2	2	2	2	1	1	1	0	0	0	IZS	0	0	1	2	3	3	1	1	3	1.4	24	
25	1	1	1	1	1	2	4	5	3	2	1	0	0	0	IZS	0	0	0	0	0	7	4	1	2	7	1.6	24	
26	2	2	1	2	2	3	3	2	1	1	1	1	1	IZS	0	0	0	0	0	1	0	0	0	0	3	1.0	24	
27	0	0	1	0	1	1	3	2	2	2	1	1	IZS	1	1	0	0	0	1	1	2	2	2	1	3	1.1	24	
28	1	1	2	5	4	5	9	4	2	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	9	2.0	24	
29	1	1	1	2	2	4	4	2	1	1	IZS	1	1	1	1	1	1	1	2	2	3	5	2	2	5	1.8	24	
30	2	1	1	1	1	1	2	1	1	IZS	2	3	2	1	1	1	1	1	1	4	3	3	2	3	4	1.7	24	
31	3	2	2	1	2	2	2	2	IZS	2	1	1	0	0	0	1	1	0	1	1	3	2	1	1	3	1.3	24	
HOURLY MAX	3	3	5	5	5	8	11	10	8	4	16	3	2	6	2	2	3	2	3	7	7	5	4	3				
HOURLY AVG	1.7	1.7	1.5	1.8	2.1	3.3	3.6	2.8	2.0	1.1	1.3	0.7	0.6	0.6	0.4	0.5	0.8	0.5	0.8	1.4	1.8	2.0	1.5	1.6				

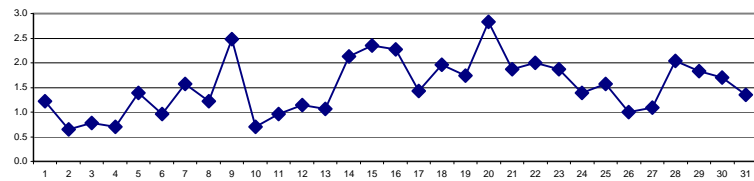
STATUS FLAG CODES

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

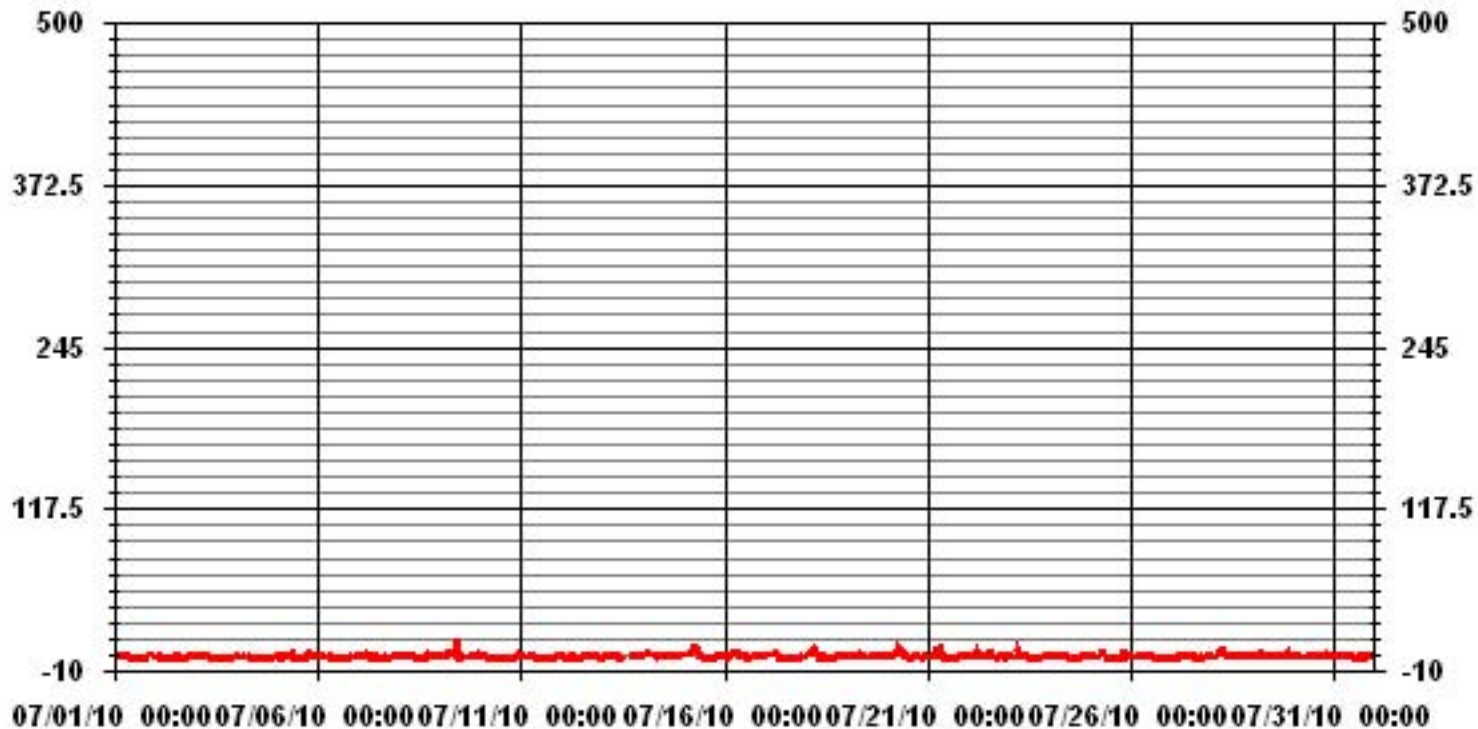
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	535
MAXIMUM 1-HR AVERAGE:	16 PPB @ HOUR(S) 10 ON DAY(S) 9
MAXIMUM 24-HR AVERAGE:	2.8 PPB ON DAY(S) 20
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	1.63
OPERATIONAL TIME:	743 HRS
AMD OPERATION UPTIME:	99.9 %
MONTHLY AVERAGE:	1.53 PPB

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
1	2	2	2	2	3	3	3	2	3	1	1	1	0	0	0	IZS	3	1	1	2	4	5	5	3	5	2.1	24	
2	3	2	1	2	1	1	1	3	3	1	1	3	2	4	IZS	3	3	3	1	2	3	4	2	1	4	2.2	24	
3	2	1	1	2	3	3	3	2	6	1	1	0	1	IZS	1	0	1	0	1	1	1	2	3	2	6	1.7	24	
4	2	2	3	2	2	2	2	2	2	1	1	1	IZS	1	1	2	0	0	1	0	1	1	2	4	4	1.5	24	
5	4	3	1	2	2	2	5	10	24	1	1	IZS	1	1	0	1	2	1	25	32	3	1	1	2	32	5.4	24	
6	4	4	3	11	2	3	2	2	1	1	IZS	3	1	1	1	1	1	1	1	2	2	3	2	4	11	2.4	24	
7	3	4	4	4	6	11	9	6	1	IZS	9	2	2	2	1	3	11	15	2	2	3	4	5	4	15	4.9	24	
8	2	2	2	1	2	3	4	4	IZS	4	2	11	1	2	C	8	8	3	3	2	2	5	2	2	11	3.4	24	
9	3	2	2	2	5	6	5	IZS	4	4	296	2	2	12	4	3	5	3	4	6	6	4	7	5	296	17.0	24	
10	3	1	1	1	2	1	IZS	1	1	1	1	1	0	1	0	0	0	1	1	1	7	12	4	4	12	2.0	24	
11	3	3	2	2	4	IZS	7	4	3	1	1	3	2	0	1	5	1	0	0	1	2	5	13	1	13	2.8	24	
12	2	1	1	2	IZS	2	2	6	6	3	3	3	9	12	8	8	16	4	P	14	12	12	7	1	16	6.1	23	
13	1	2	2	IZS	1	3	3	4	5	8	5	13	C	C	C	C	C	C	C	9	19	2	2	3	19	5.1	24	
14	3	5	IZS	5	5	5	5	49	3	5	5	5	5	2	2	1	1	4	4	5	4	2	5	5	49	5.9	24	
15	4	IZS	4	4	8	14	12	11	8	4	2	2	1	2	2	1	1	1	2	3	3	1	1	2	14	4.0	24	
16	IZS	2	3	4	4	10	7	33	6	5	3	1	5	3	1	1	5	4	3	5	4	5	2	IZS	33	5.3	24	
17	3	4	4	4	4	6	4	5	2	1	1	1	0	0	1	1	0	0	1	1	4	5	IZS	3	6	2.4	24	
18	3	4	6	5	5	10	8	6	1	1	3	4	2	1	0	6	6	0	3	2	4	IZS	3	3	10	3.7	24	
19	4	4	4	3	18	9	4	6	8	4	2	2	20	27	4	7	2	3	1	4	IZS	8	2	2	27	6.4	24	
20	2	3	3	3	10	10	13	19	9	7	4	2	8	3	1	8	3	3	2	IZS	2	7	4	3	19	5.6	24	
21	3	2	4	2	20	24	16	3	7	4	3	2	2	3	2	3	2	2	IZS	5	4	7	4	5	24	5.6	24	
22	3	2	2	2	4	16	4	14	3	1	18	14	C	18	5	6	8	IZS	6	18	7	6	3	5	18	7.5	24	
23	4	3	3	6	7	47	10	4	6	3	2	3	2	1	2	2	IZS	1	1	8	7	3	3	5	47	5.8	24	
24	3	3	3	2	4	4	4	2	3	3	2	1	1	1	2	IZS	4	1	2	2	9	9	3	2	9	3.0	24	
25	2	1	2	3	2	5	5	6	6	5	2	1	1	1	IZS	1	2	0	1	2	34	15	3	3	34	4.5	24	
26	2	2	2	3	3	8	6	4	3	2	2	2	3	IZS	1	2	1	1	1	2	1	1	1	1	8	2.3	24	
27	1	1	2	1	1	3	5	4	4	6	2	1	IZS	2	2	1	2	1	1	3	4	3	3	2	6	2.4	24	
28	2	2	6	6	5	8	15	8	9	2	1	IZS	3	14	3	3	4	3	8	3	6	12	2	1	15	5.5	24	
29	4	2	2	3	4	31	13	4	2	2	IZS	1	6	8	2	2	2	3	4	4	3	57	3	4	57	7.2	24	
30	3	2	1	1	1	2	5	2	3	IZS	4	3	4	2	3	2	1	1	2	10	5	5	4	4	10	3.0	24	
31	4	3	2	2	3	4	3	3	IZS	2	1	2	1	1	2	1	1	1	1	1	23	4	2	2	23	3.0	24	
HOURLY MAX	4	5	6	11	20	47	16	49	24	8	296	14	20	27	8	8	16	15	25	32	34	57	13	5				
HOURLY AVG	2.8	2.5	2.6	3.1	4.7	8.5	6.2	7.6	4.9	2.9	13.1	3.1	3.1	4.5	1.9	2.9	3.3	2.1	3.0	5.1	6.3	7.0	3.4	2.9				

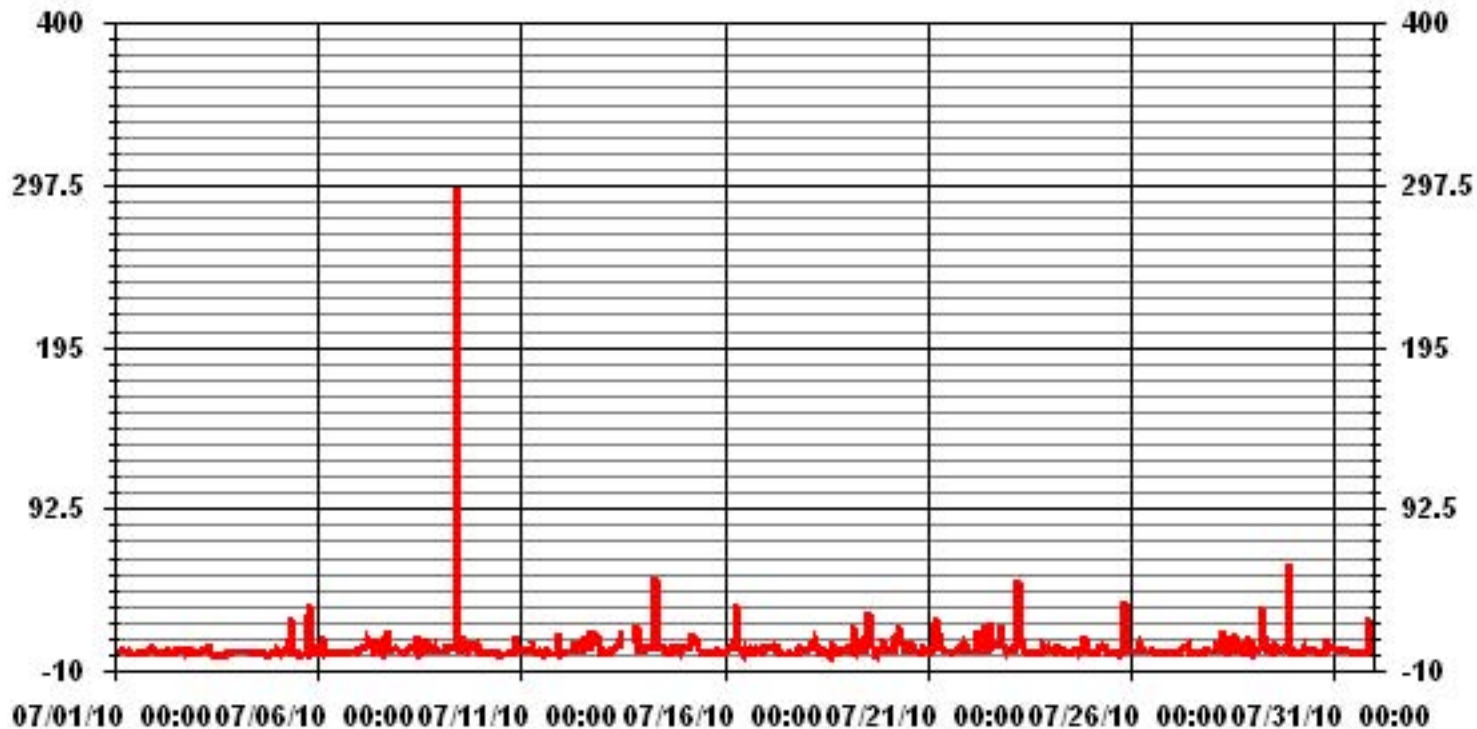
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	678
MAXIMUM INSTANTANEOUS VALUE:	296 PPB @ HOUR(S) 10 ON DAY(S) 9
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	9 HRS
STANDARD DEVIATION	12.21
OPERATIONAL TIME:	743 HRS

01 Hour Averages



— LICA NOXMAX PPB

LICA
 NOX_ / WD Joint Frequency Distribution (Percent)

July 2010

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	2.98	1.56	3.69	1.70	2.84	4.54	8.38	4.11	5.53	5.96	15.62	15.05	12.92	7.24	4.97	2.84	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.98	1.56	3.69	1.70	2.84	4.54	8.38	4.11	5.53	5.96	15.62	15.05	12.92	7.24	4.97	2.84	

Calm : .00 %

Total # Operational Hours : 704

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	21	11	26	12	20	32	59	29	39	42	110	106	91	51	35	20	704
< 110																	
< 210																	
>= 210																	
Totals	21	11	26	12	20	32	59	29	39	42	110	106	91	51	35	20	

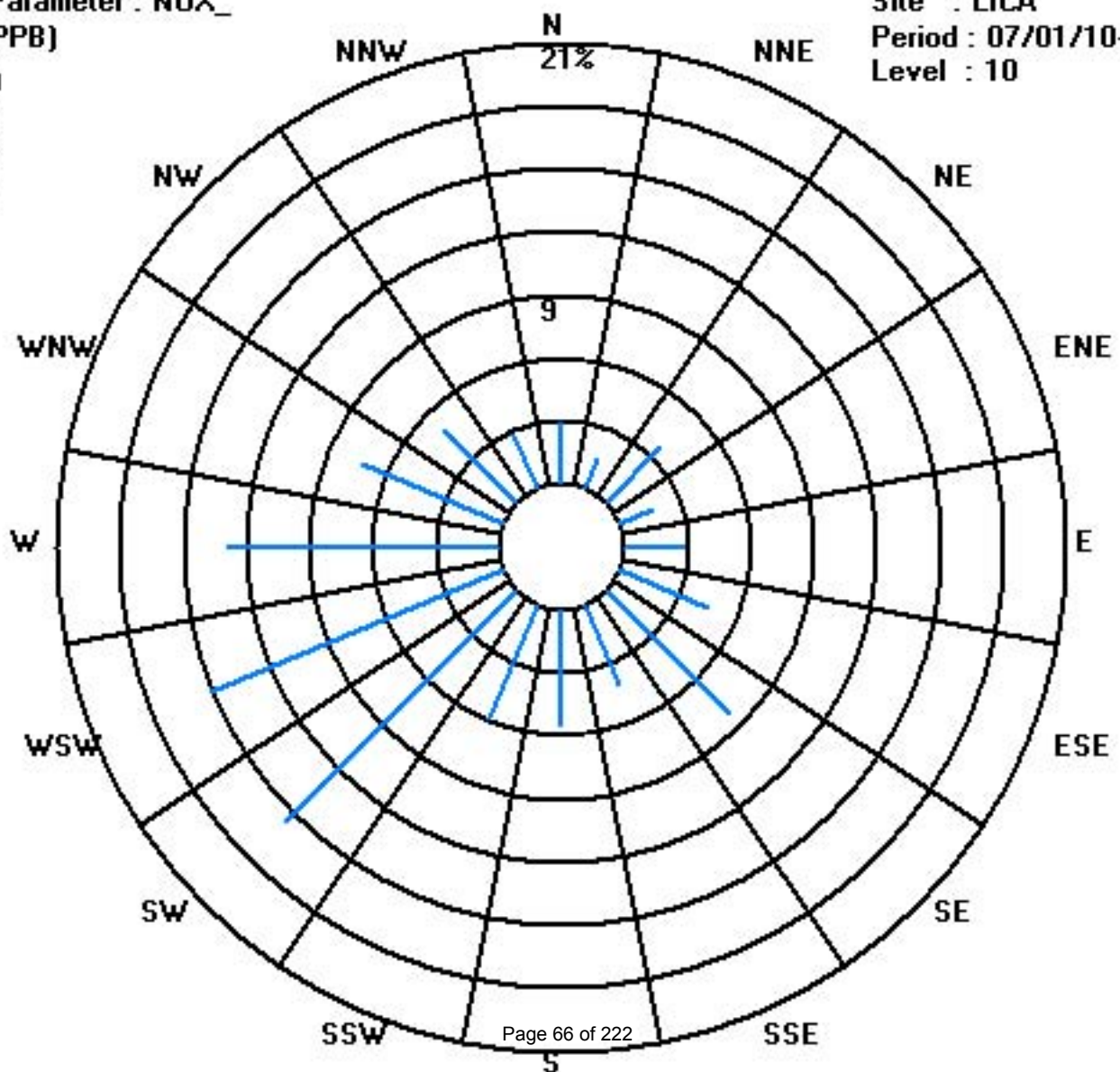
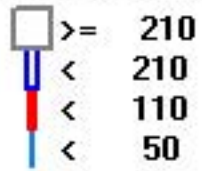
Calm : .00 %

Total # Operational Hours : 704

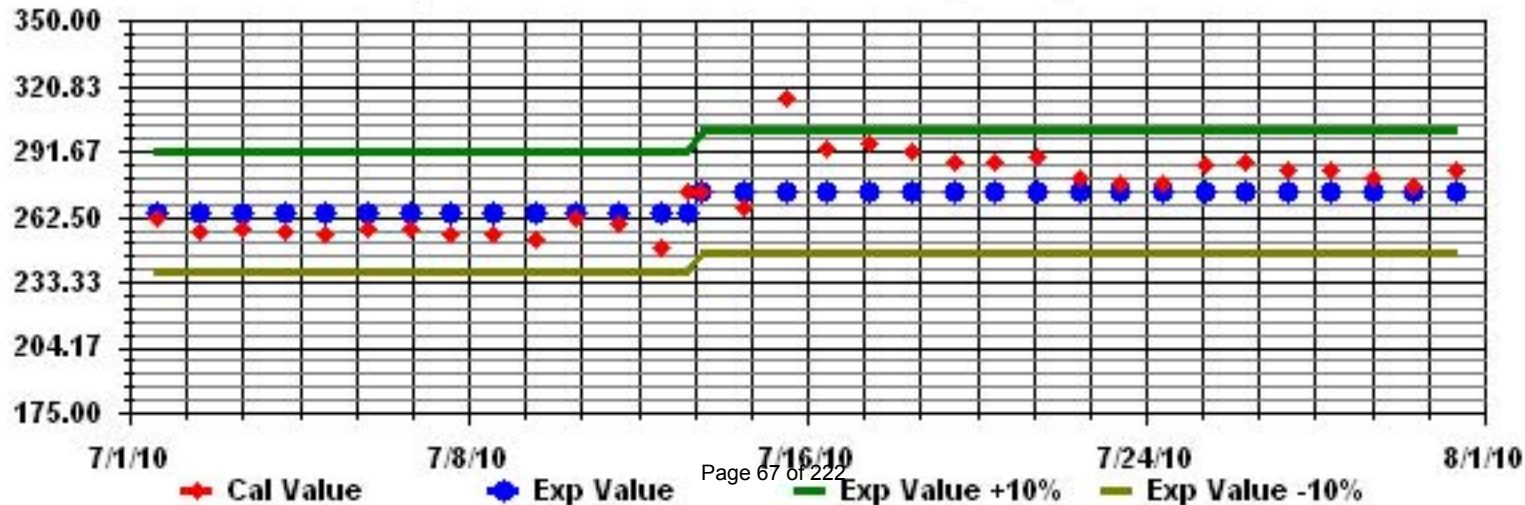
Class Limits (PPB)

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

Level : 10



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



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

OZONE (O₃) hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	RDGS.	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.		
DAY																												
1	14	9	8	7	7	11	14	17	20	24	28	29	30	31	32	IZS	32	33	32	23	13	7	4	5	33	18.7	24	
2	6	5	14	11	10	17	19	21	25	30	34	35	32	29	IZS	31	40	34	32	23	28	25	27	23	40	24.0	24	
3	23	20	18	16	11	10	12	17	21	23	23	25	26	IZS	25	25	27	27	26	25	22	19	17	16	27	20.6	24	
4	15	13	13	12	10	14	15	18	21	23	25	26	IZS	28	29	31	27	24	23	21	19	18	17	14	31	19.8	24	
5	11	13	14	13	11	10	10	8	8	14	19	IZS	24	29	31	31	28	26	28	24	23	21	22	25	31	19.3	24	
6	24	25	24	15	8	15	18	20	20	22	IZS	21	24	27	28	28	31	29	29	24	15	17	12	12	31	21.2	24	
7	10	10	5	1	0	2	11	23	26	IZS	28	34	34	34	33	34	33	31	30	26	20	11	7	5	34	19.5	24	
8	3	6	10	14	8	11	12	16	IZS	27	30	27	25	26	26	22	23	24	24	22	12	17	14	8	30	17.7	24	
9	4	2	0	0	0	2	9	IZS	22	26	25	24	23	24	26	22	22	24	24	22	13	9	6	8	26	14.7	24	
10	14	10	6	6	9	16	IZS	22	24	27	30	30	32	34	34	34	31	30	28	26	17	8	7	3	34	20.8	24	
11	3	2	1	0	0	IZS	6	14	18	26	28	28	31	33	32	33	35	40	36	31	26	25	24	25	40	21.6	24	
12	25	25	25	25	IZS	23	23	24	26	27	29	30	29	30	30	35	43	43	P	37	34	33	42	39	43	30.8	23	
13	34	28	28	IZS	33	29	26	27	36	34	35	29	30	33	23	23	24	22	21	18	10	7	9	6	36	24.6	24	
14	4	3	IZS	8	12	11	C	C	C	C	17	20	25	28	28	29	29	29	29	26	31	33	22	10	33	20.7	24	
15	10	IZS	2	1	1	2	3	8	19	29	30	31	28	28	32	32	31	31	28	28	31	17	23	18	32	20.1	24	
16	IZS	4	2	3	2	3	7	11	20	26	30	29	23	23	25	28	24	21	16	13	16	12	9	IZS	30	15.8	24	
17	9	6	4	6	6	6	7	9	16	20	22	24	22	21	20	20	20	20	22	25	19	16	IZS	14	25	15.4	24	
18	13	11	6	7	4	5	11	18	27	29	28	30	30	29	31	32	31	32	25	17	16	IZS	6	3	32	19.2	24	
19	3	5	3	2	3	4	6	6	12	16	20	25	26	24	29	22	21	21	22	16	IZS	1	0	0	29	12.5	24	
20	0	0	0	0	0	1	3	6	7	15	24	29	34	37	37	32	30	24	22	IZS	14	5	2	1	37	14.0	24	
21	1	0	0	0	0	1	6	14	21	29	33	34	35	35	34	35	37	34	IZS	27	14	15	8	4	37	18.1	24	
22	2	1	1	1	1	6	18	22	24	28	31	37	41	30	35	37	37	IZS	36	29	17	11	10	3	41	19.9	24	
23	2	2	2	0	0	1	7	23	28	36	41	43	43	40	42	41	IZS	42	40	34	18	11	16	16	43	23.0	24	
24	11	11	5	2	0	2	12	18	26	31	34	36	35	36	38	IZS	37	32	33	31	24	16	13	10	38	21.4	24	
25	5	4	3	4	3	6	8	10	16	24	29	31	30	32	IZS	30	29	29	26	20	6	2	2	1	32	15.2	24	
26	1	0	0	0	0	2	11	24	33	33	23	22	21	IZS	21	23	23	21	21	20	22	18	19	18	33	16.3	24	
27	16	14	12	12	12	10	9	9	11	14	19	24	IZS	32	31	31	29	30	31	25	16	9	5	3	32	17.6	24	
28	2	1	0	0	0	0	2	15	23	29	35	IZS	36	38	38	38	33	32	32	29	25	24	22	13	38	20.3	24	
29	11	5	3	2	2	6	13	22	26	31	IZS	34	37	41	42	44	43	39	31	28	17	14	9	9	44	22.1	24	
30	6	21	40	43	39	40	37	38	32	IZS	28	31	41	48	48	44	44	40	29	15	6	5	4	10	48	30.0	24	
31	15	22	17	7	16	13	24	29	IZS	32	39	38	38	40	43	43	42	40	37	29	14	7	5	2	43	25.7	24	
HOURLY MAX	34	28	40	43	39	40	37	38	36	36	41	43	43	48	48	44	44	43	40	37	34	33	42	39				
HOURLY AVG	9.9	9.3	8.9	7.3	6.9	9.3	12.4	17.6	21.7	25.9	28.2	29.5	30.5	31.7	31.8	31.4	31.2	30.1	28.0	24.5	18.6	14.4	12.8	10.8				

STATUS FLAG CODES

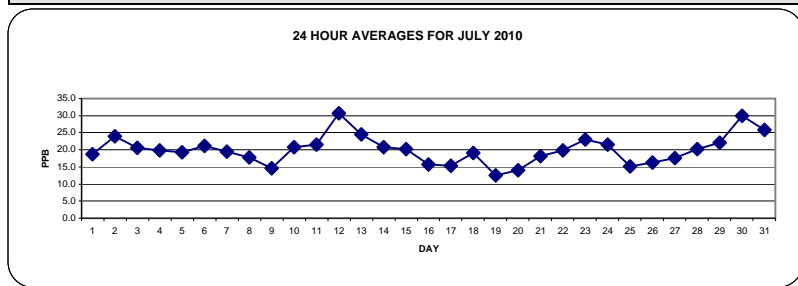
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

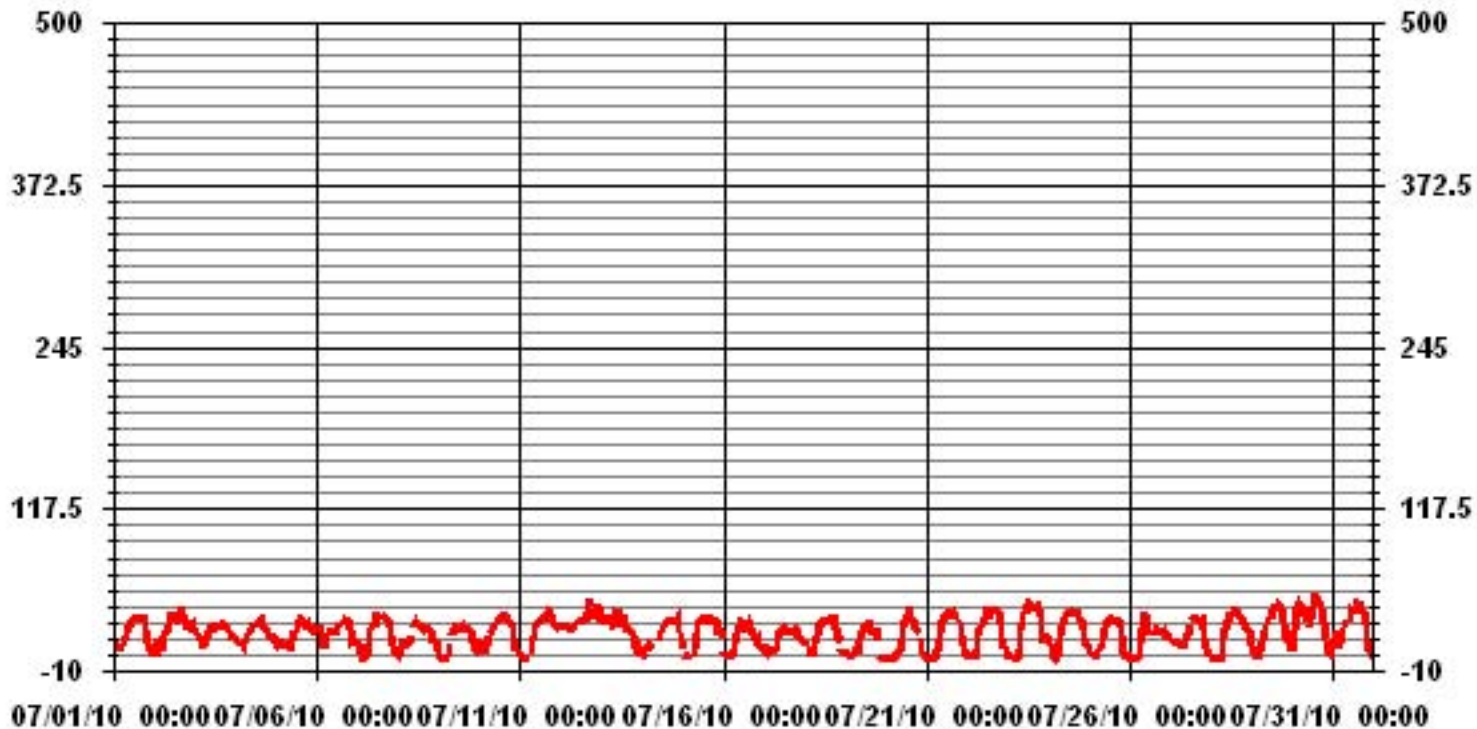
ALBERTA ENVIRONMENT: 1-HR 82 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	679		
MAXIMUM 1-HR AVERAGE:	48 PPB @ HOUR(S) 13, 14 ON DAY(S) 30		
MAXIMUM 24-HR AVERAGE:	30.8 PPB ON DAY(S) 12 VAR-VARIOUS		
IZS CALIBRATION TIME:	32 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	4 HRS	AMD OPERATION UPTIME	99.9 %
STANDARD DEVIATION	11.86	MONTHLY AVERAGE	20.00 PPB



01 Hour Averages



— LICA 03_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

OZONE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	18	12	10	10	10	13	17	19	22	27	30	30	32	33	34	IZS	34	35	35	30	20	11	7	9	35	21.7	24	
2	9	13	17	15	15	20	21	24	28	34	37	37	36	33	IZS	38	45	45	37	30	32	30	37	27	45	28.7	24	
3	27	25	20	19	13	11	15	19	24	25	24	27	28	IZS	26	26	28	28	27	26	23	21	18	18	28	22.5	24	
4	16	15	15	14	14	15	17	19	22	25	26	27	IZS	30	30	32	32	26	26	22	20	19	18	15	32	21.5	24	
5	12	14	15	15	12	11	12	10	11	19	21	IZS	29	31	33	40	32	28	30	28	26	22	24	27	40	21.8	24	
6	26	27	26	20	14	18	20	21	23	23	IZS	24	27	29	30	32	34	33	31	27	23	19	19	13	34	24.3	24	
7	12	11	10	3	2	4	22	25	27	IZS	32	37	37	36	35	36	35	33	32	30	24	16	11	9	37	22.6	24	
8	6	10	15	17	12	13	16	22	IZS	32	32	28	26	27	29	28	28	28	28	28	19	25	20	13	32	21.8	24	
9	6	4	1	1	0	6	11	IZS	25	28	33	26	25	26	27	26	26	27	26	24	18	14	10	16	33	17.7	24	
10	16	15	10	10	15	19	IZS	24	26	30	31	32	35	36	36	36	33	31	31	28	24	12	11	5	36	23.7	24	
11	5	4	2	1	1	IZS	12	16	23	28	30	30	33	35	34	35	38	42	40	34	29	26	25	26	42	23.9	24	
12	26	26	26	25	IZS	24	24	26	27	28	30	32	31	31	31	47	45	46	P	39	37	36	47	43	47	33.0	23	
13	39	34	36	IZS	35	30	28	33	39	41	37	35	31	34	34	24	27	25	24	20	18	12	15	9	41	28.7	24	
14	7	6	IZS	12	13	12	C	C	C	C	C	24	28	31	32	33	31	31	38	37	45	39	30	16	45	25.8	24	
15	17	IZS	4	3	3	2	6	14	28	33	33	33	31	31	34	34	33	32	31	36	34	26	26	26	36	23.9	24	
16	IZS	8	4	7	5	6	10	20	28	29	34	37	25	26	28	31	29	23	22	21	22	13	12	IZS	37	20.0	24	
17	10	8	6	7	7	7	8	13	19	21	24	25	24	22	21	21	21	21	24	27	24	19	IZS	15	27	17.1	24	
18	13	13	10	8	6	6	14	25	30	32	29	32	32	31	33	34	33	33	33	24	22	IZS	10	6	34	22.1	24	
19	6	6	5	3	4	7	7	8	15	18	23	31	31	28	32	25	23	22	24	24	IZS	2	1	1	32	15.0	24	
20	0	0	0	1	1	3	5	8	8	23	27	34	36	40	39	37	34	28	26	IZS	24	9	3	2	40	16.9	24	
21	1	1	1	1	2	3	12	21	25	34	35	36	37	38	36	37	38	35	IZS	32	21	20	15	8	38	21.3	24	
22	4	2	2	3	2	15	21	24	26	31	34	43	C	40	38	42	46	IZS	42	33	25	17	16	7	46	23.3	24	
23	3	8	5	2	1	3	16	29	32	42	43	46	46	42	44	44	IZS	44	43	39	26	17	20	19	46	26.7	24	
24	16	16	11	4	1	8	17	23	31	33	37	38	37	39	40	IZS	41	34	37	32	33	26	18	14	41	25.5	24	
25	8	8	6	7	5	9	10	12	21	27	32	33	32	33	IZS	32	30	30	29	24	13	4	4	2	33	17.9	24	
26	2	1	1	1	0	5	17	32	36	37	28	23	22	IZS	22	25	24	23	24	22	23	21	20	19	37	18.6	24	
27	17	15	13	13	12	12	10	11	13	17	24	27	IZS	36	34	34	30	32	32	29	20	14	10	5	36	20.0	24	
28	3	3	0	0	0	0	7	22	25	36	37	IZS	38	41	40	40	37	34	34	31	27	26	25	19	41	22.8	24	
29	15	12	6	4	6	11	18	26	29	32	IZS	37	41	44	44	47	45	47	36	33	24	23	14	13	47	26.4	24	
30	12	44	44	46	42	42	41	40	38	IZS	33	36	45	52	53	48	46	45	37	22	11	10	13	13	53	35.3	24	
31	20	25	25	15	20	20	29	30	IZS	37	42	40	41	43	45	44	45	42	41	34	29	12	9	4	45	30.1	24	
HOURLY MAX	39	44	44	46	42	42	41	40	39	42	43	46	46	52	53	48	46	47	43	39	45	39	47	43				
HOURLY AVG	12.4	12.9	11.5	9.6	9.1	11.8	16.0	21.2	25.0	29.4	31.4	32.4	32.7	34.4	34.3	34.8	34.1	32.8	31.7	28.9	24.5	18.7	16.9	14.0				

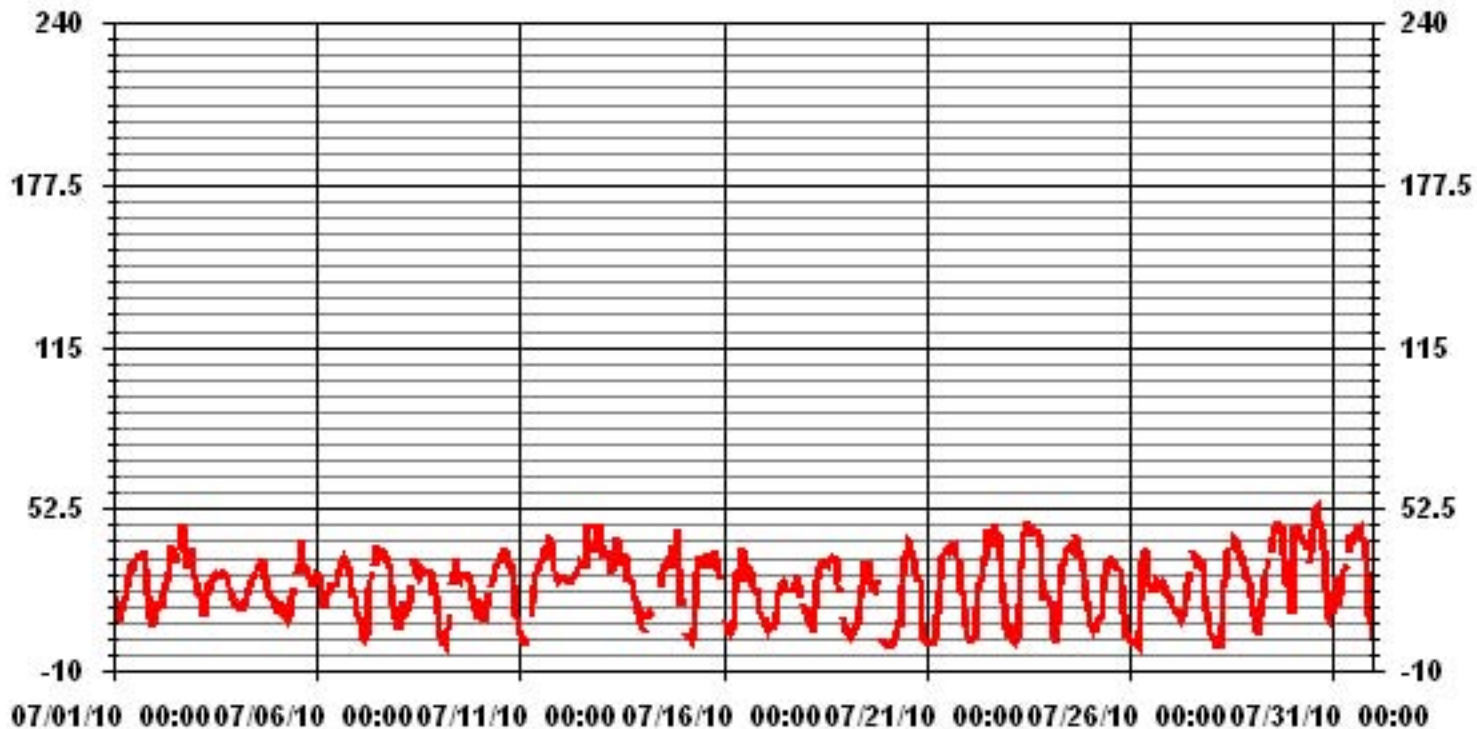
STATUS FLAG CODES

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:	696					
MAXIMUM INSTANTANEOUS VALUE:	53	PPB	@ HOUR(S)	14	ON DAY(S)	30
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	743	HRS	
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION	12.16					

01 Hour Averages



— LICA O3MAX PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	2.97	1.69	3.81	1.83	3.25	4.52	8.34	4.10	5.51	5.94	15.55	15.13	12.72	6.93	4.80	2.82	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.97	1.69	3.81	1.83	3.25	4.52	8.34	4.10	5.51	5.94	15.55	15.13	12.72	6.93	4.80	2.82	

Calm : .00 %

Total # Operational Hours : 707

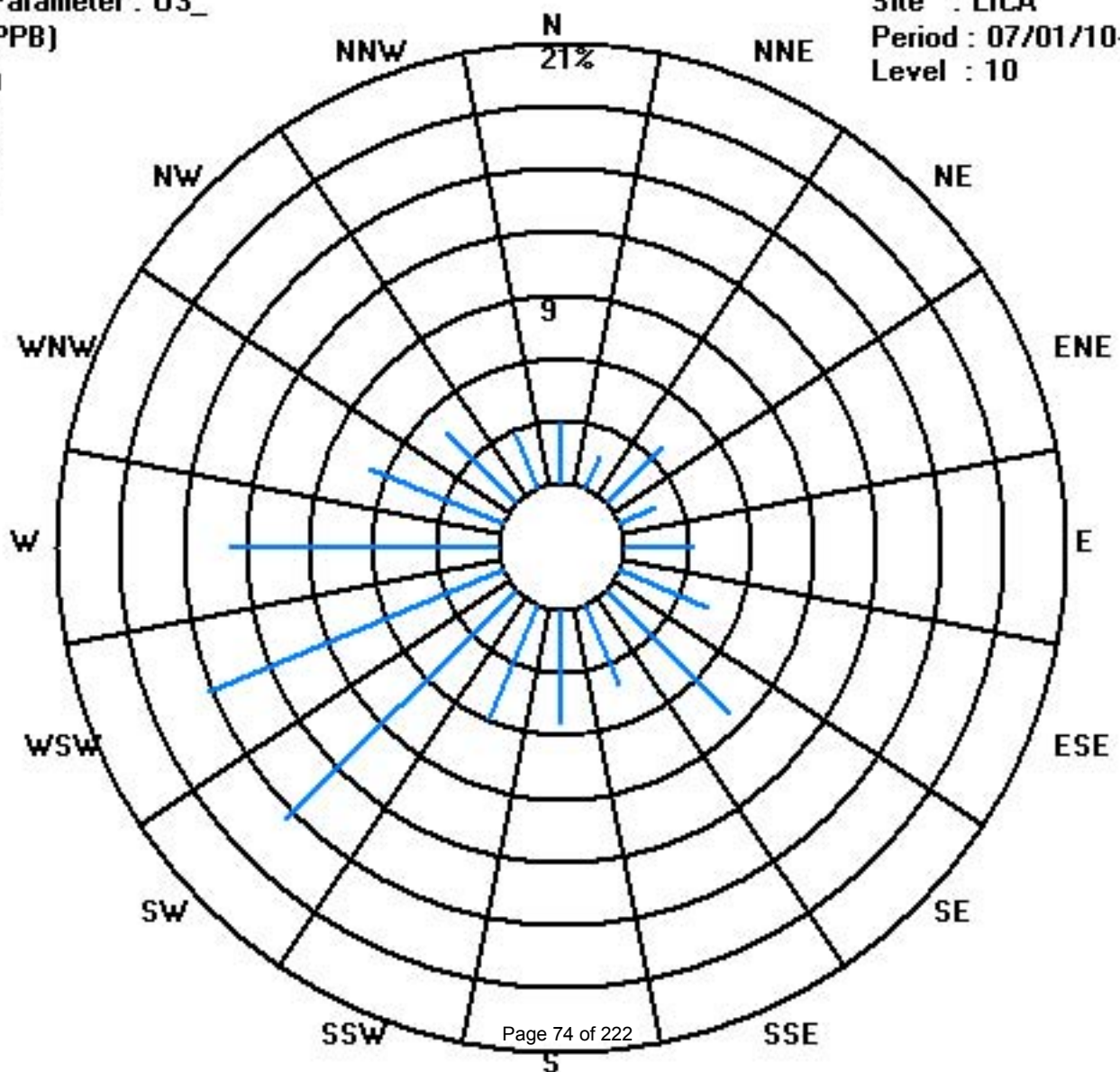
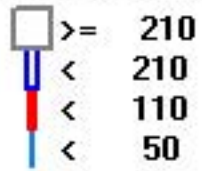
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	21	12	27	13	23	32	59	29	39	42	110	107	90	49	34	20	707
< 110																	
< 210																	
>= 210																	
Totals	21	12	27	13	23	32	59	29	39	42	110	107	90	49	34	20	

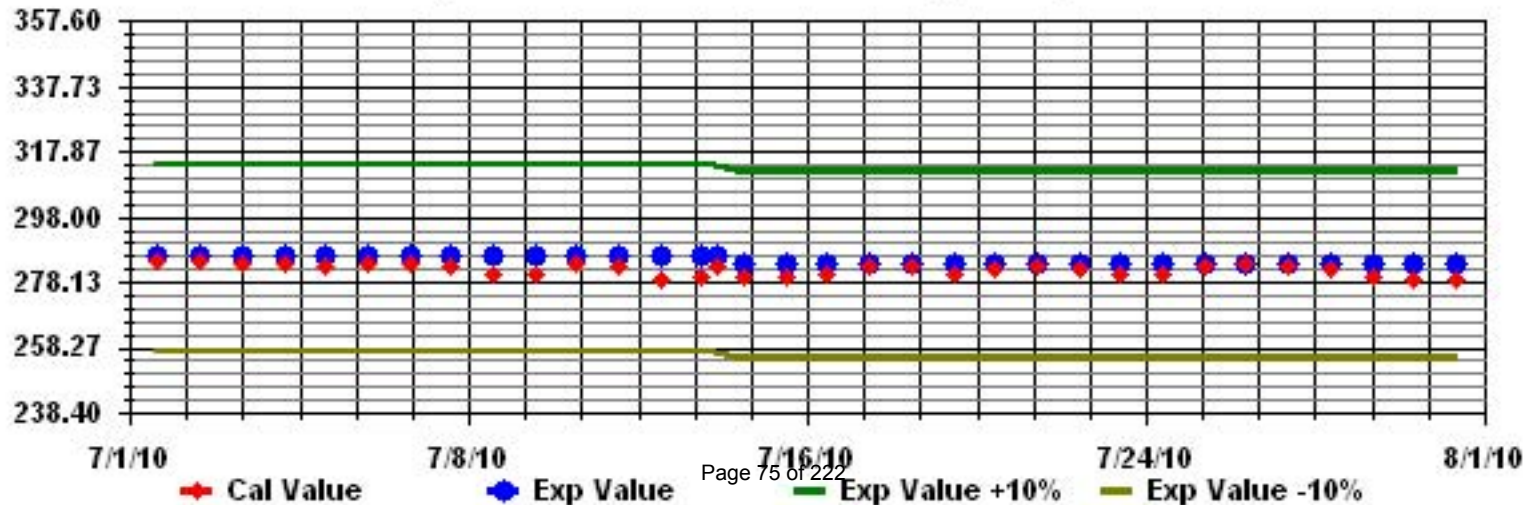
Calm : .00 %

Total # Operational Hours : 707

Class Limits (PPB)



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



Ambient Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

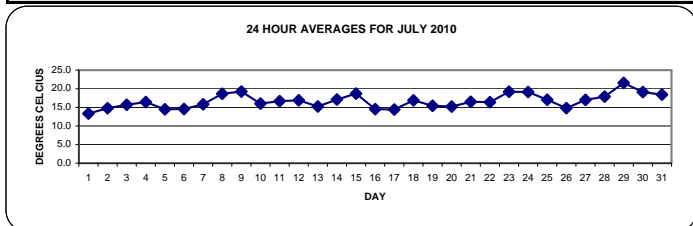
JULY 2010

AMBIENT TEMPERATURE hourly averages (Degrees C)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
DAY																													
1		7.6	6.4	5.9	5.7	5.8	8	10.2	12.4	14.1	15.4	16.5	17.6	18.2	19	19.3	19.5	18.8	19.1	18.7	16.7	14.2	11.8	10.2	8.9	19.5	13.3	24	
2		8.1	9	9.9	9	9.4	12.5	14.6	16.3	18.8	20.6	21.9	21.7	20.9	20.3	19.9	18.1	14.5	13.9	13.4	12.8	12.8	12.3	12.2	11.8	21.9	14.8	24	
3		11.8	11.4	11	10.5	9.9	10.9	12.5	14.8	16.6	17.6	18.4	18.5	18	18.2	19.1	19.8	19.8	19.3	19.3	18.9	17	15	14.4	13.8	19.8	15.7	24	
4		13.8	13	12.9	11.8	10.8	12.7	14.5	16.3	17.5	18.4	19.2	20	20.3	21.3	19.9	20.5	20	19.1	18.1	17.3	16.2	15.2	13.6	12.2	21.3	16.4	24	
5		11.2	11.9	12.1	11.9	11.7	11.8	12.1	12.1	12.5	13.5	14.5	16.7	18.6	19.3	20.2	17.1	16.4	17	16.6	15.6	14.7	13.8	13.4	12.9	20.2	14.5	24	
6		12.3	12.8	11.8	9.8	8.7	11.1	13.1	15.1	15.9	16.5	14.7	14.8	18.4	19.7	20.6	16.8	17.3	17.4	16.1	14.4	14.2	13.5	12.4	12.1	20.6	14.6	24	
7		11.8	11.5	10.7	9.4	8.9	11	13.1	14.5	15.4	16.5	17.9	18.6	19.5	20.3	20.5	21.4	21.4	20.8	20.7	19.2	18	14.2	12.8	11.8	21.4	15.8	24	
8		10.9	11.9	13.2	13.8	12.5	13.6	15.6	17.8	19.1	21.4	22.7	24	24.7	25.3	26	18.2	21.3	22.8	22.2	22	19.2	18.7	16.6	14.2	26.0	18.7	24	
9		13.1	12.2	11.4	10.5	10.4	13.9	16.5	19.4	22.2	23.7	24.3	25.2	26.4	27	26.7	23.4	22.5	23.1	21.7	20.2	18.6	17.2	16.2	15.9	27.0	19.2	24	
10		15.4	14.5	13.7	13.3	13.4	13.4	13.3	14.7	16	16.7	16.8	17.1	17.8	18.8	19.3	19.5	19.5	20.3	19.9	19.7	16.7	12.9	11.5	10.5	20.3	16.0	24	
11		9.5	8.5	7.8	7.4	7.1	7.7	12.1	15.7	18.6	20.5	21.5	20.9	21.6	23	21.9	22.7	22.4	22.3	21.8	20.4	18.3	16.6	15.9	15.9	23.0	16.7	24	
12		16	15.2	14.9	14.6	14.4	14.9	15.3	17	18.5	19.9	20.9	21.9	22.3	23	23	20.1	13.8	13.4	P	13.8	13.9	13.8	13.9	14.4	23.0	16.9	23	
13		13.9	13.9	13.9	14.2	14.8	15.2	15.4	15.5	15.7	16	17.1	17.8	18	18.3	16.1	14.5	15.1	14.8	14.5	14.5	14.4	14.1	14.2	14	18.3	15.2	24	
14		13.5	13.4	13.3	13.6	13.4	13.9	14.7	16.4	17.4	17.4	17.9	18	19.7	21.2	21.2	21.4	22.1	22.5	21.4	16.7	16.5	15.8	15.1	14.1	22.5	17.1	24	
15		13.7	12.8	12	12	12.1	13.7	14.9	17.9	20.2	22	22.9	23.9	24.7	25.1	25.5	25.7	25.7	25.6	24.2	18.7	15	13.8	13.5	13	25.7	18.7	24	
16		11.9	10.9	10.4	9.9	9.2	11.4	13.3	14.7	17.9	19.9	21	21.2	19	17.5	17.3	15.9	13.9	14	13.9	13.8	13.6	13.2	12.7	12.3	21.2	14.5	24	
17		11.5	10.6	9.7	9.5	9.4	9.7	10.6	12.6	15.2	17	17.7	17.3	17.3	17	17.1	16.7	17	17.3	17.8	17.2	15.6	14.7	13.7	13.7	17.8	14.4	24	
18		13.5	12.6	11.1	10.2	9.6	10.7	13.4	16.2	18	18.8	20.1	20.8	21.1	21.7	22.4	22.8	23.2	23.7	21.3	18.4	17.2	14.3	12.6	11.8	23.7	16.9	24	
19		11.5	12.5	12.7	12.3	12.7	13.9	15.1	16.7	18.3	19.1	20.1	21.1	21.2	18.3	13.1	13.6	14.6	16.9	17.2	17.9	14	12.8	12.7	12	21.2	15.4	24	
20		10.9	10.1	9.4	9.1	9.4	10.4	11.8	13.5	15.1	17.9	20.1	20.9	21.8	22.7	22.6	20.8	16.9	16.8	17.1	17.6	15.7	12.9	11.3	10.4	22.7	15.2	24	
21		9.5	8.9	8.4	8	7.7	10	13.3	15.8	18.3	19.7	20.8	21.4	22.4	23.2	23.6	23.4	24.4	21.1	20.3	18.9	16.1	14.9	13.6	12.5	24.4	16.5	24	
22		11.7	10.9	10.2	9.8	9.3	12.3	15.4	17.6	19.1	21	22.3	21.8	17.3	18.3	20.1	20.5	17.6	18.4	20.3	19.1	16.9	15.4	14.9	13.5	22.3	16.4	24	
23		12.6	11.8	11.8	11	10.7	13	16.5	18.6	20.1	22	23	23.6	24.4	25	25.3	25.2	25.5	24.6	23.9	22.7	19.1	17	16.8	16.4	25.5	19.2	24	
24		15.3	14.5	13.6	12.6	12	13	17	19.4	21.6	23.3	24.3	25.1	26	26.4	26.6	26.7	26.5	24.3	18.2	16	15.9	14.6	13.5	12.7	26.7	19.1	24	
25		11.6	10.8	10.2	10	10.2	11	12.2	13.3	17	20	21.5	22.4	22.9	23.4	23.8	23.7	23.4	23.8	23	21.7	16.8	13.5	11.9	10.9	23.8	17.0	24	
26		10.1	9.7	9.5	9.4	8.9	10.9	14.6	17.7	19.5	20.3	19.4	18.3	18.2	18.3	18.8	17.4	15.6	15.7	15.7	15.6	14	12.6	12.5	12.6	20.3	14.8	24	
27		12.7	12.3	11.8	11.3	10.9	11.6	12.5	13.9	15.3	17.5	19.7	21.2	21.7	22.5	23.3	23.5	23.5	23.1	22.2	20.2	17.2	14.8	13.3	12.2	23.5	17.0	24	
28		11.2	10.4	9.8	9.4	9	9.9	13.4	16.5	18.4	20.6	21.7	22.8	23.3	23.5	23.3	23.3	23.2	22.9	22.3	21	19.7	19	18.3	16.4	23.5	17.9	24	
29		15.9	14.9	13.9	13.8	13.5	15.3	17.9	20.2	21.8	24	24.8	26.3	27.1	27.9	28.2	28.1	27.9	27	26.6	25.7	22.5	20.1	17.5	16.9	28.2	21.6	24	
30		16.4	17.4	16.2	15.6	15.2	15.3	15.9	15.6	15.8	16.3	17.9	20.3	22.5	23.7	24.6	24.7	24.9	24.8	23.7	21.8	19	17.5	16.6	16.8	24.9	19.1	24	
31		16.8	17.3	16.2	14	13.7	13.5	15.8	17.3	18.4	20.1	21.6	22.3	23	20	20.5	21.7	22.7	22.9	22.8	21.1	17.7	15.3	14.2	13.3	23.0	18.4	24	
HOURLY MAX		16.8	17.4	16.2	15.6	15.2	15.3	17.9	20.2	22.2	24.0	24.8	26.3	27.1	27.9	28.2	28.1	27.9	27.0	26.6	25.7	22.5	20.1	18.3	16.9				
HOURLY AVG		12.4	12.1	11.6	11.1	10.8	12.1	14.1	16.0	17.7	19.1	20.1	20.8	21.2	21.6	21.6	20.9	20.4	20.3	19.8	18.4	16.5	14.9	13.9	13.2				

STATUS FLAG CODES

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

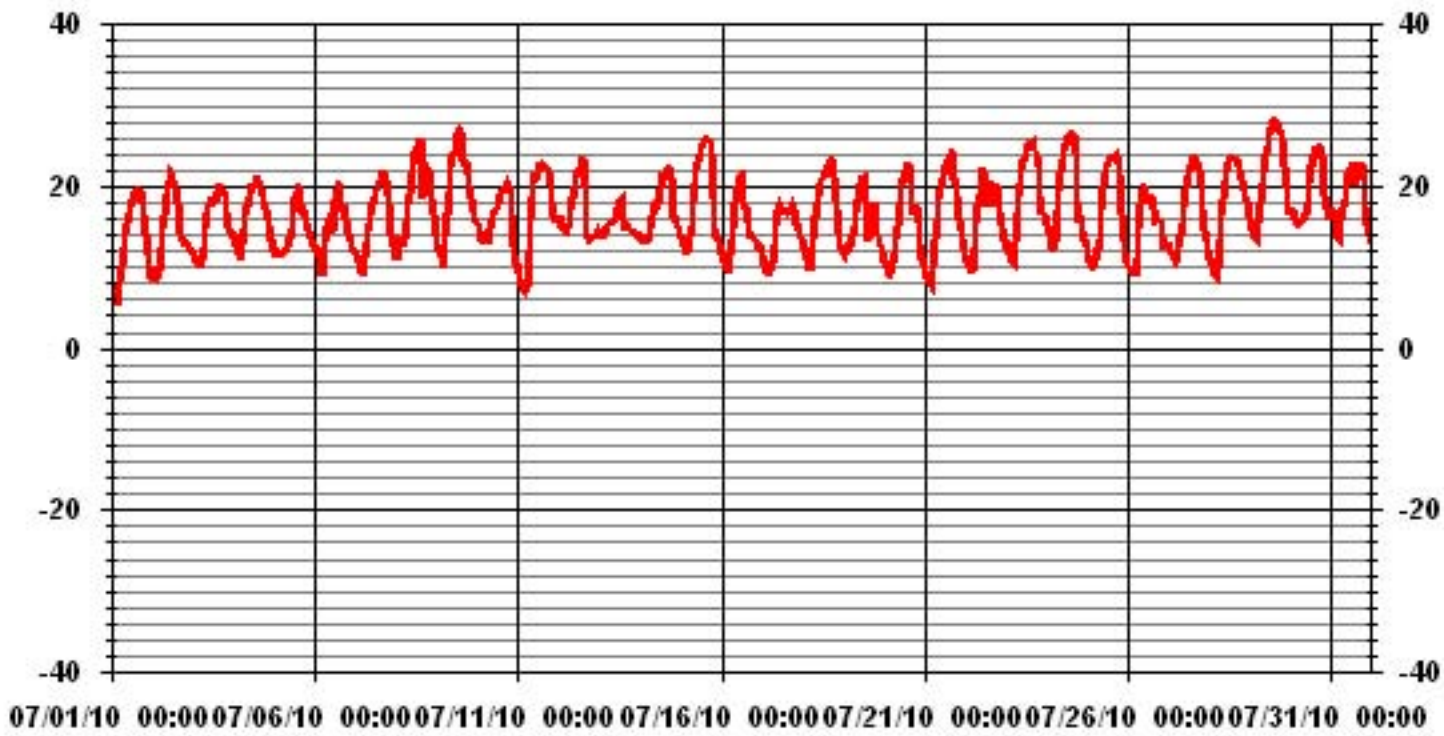


MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	5.7 °C	@ HOUR(S)	3	ON DAY(S)	1
MAXIMUM 1-HR AVERAGE:	28.2 °C	@ HOUR(S)	14	ON DAY(S)	29
MAXIMUM 24-HR AVERAGE:	21.6 °C			ON DAY(S)	29
VAR-VARIOUS					
CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	743 HRS		
		AMD OPERATION UPTIME:	99.9 %		
STANDARD DEVIATION:	4.62	MONTHLY AVERAGE:	16.68 °C		

* Outside detection limits of sensor.

01 Hour Averages



— LICA TPX DGC

Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

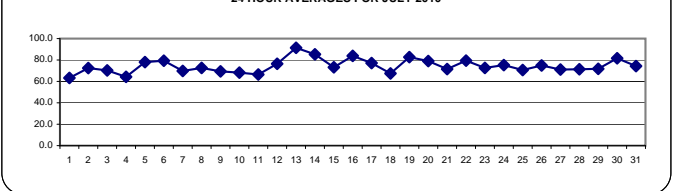
RELATIVE HUMIDITY hourly averages (%)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
HOUR START	HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.		
DAY																													
1		92.0	94.0	95.0	95.0	95.0	87.0	77.0	65.0	58.0	49.0	41.0	36.0	32.0	32.0	34.0	32.0	38.0	37.0	41.0	55.0	71.0	83.0	88.0	90.0	95.0	63.2	24	
2		91.0	89.0	80.0	84.0	85.0	71.0	65.0	61.0	56.0	51.0	46.0	45.0	50.0	55.0	56.0	63.0	70.0	80.0	87.0	94.0	89.0	91.0	87.0	93.0	94.0	72.5	24	
3		91.0	93.0	94.0	94.0	94.0	91.0	85.0	73.0	65.0	62.0	57.0	55.0	58.0	58.0	56.0	52.0	51.0	53.0	54.0	56.0	65.0	74.0	76.0	79.0	94.0	70.3	24	
4		81.0	85.0	85.0	89.0	92.0	83.0	77.0	69.0	61.0	56.0	52.0	49.0	47.0	43.0	48.0	43.0	45.0	49.0	53.0	57.0	61.0	65.0	72.0	80.0	92.0	64.3	24	
5		86.0	87.0	89.0	91.0	93.0	93.0	92.0	93.0	94.0	91.0	85.0	73.0	63.0	56.0	50.0	61.0	68.0	69.0	64.0	65.0	73.0	82.0	80.0	75.0	94.0	78.0	24	
6		78.0	76.0	82.0	91.0	94.0	88.0	80.0	74.0	72.0	71.0	83.0	85.0	69.0	60.0	53.0	75.0	67.0	67.0	74.0	89.0	92.0	94.0	94.0	96.0	96.0	79.3	24	
7		96.0	96.0	96.0	97.0	97.0	87.0	71.0	62.0	58.0	56.0	52.0	48.0	45.0	42.0	42.0	42.0	47.0	50.0	59.0	67.0	85.0	89.0	91.0	97.0	69.8	24		
8		93.0	92.0	90.0	92.0	95.0	93.0	85.0	75.0	70.0	63.0	55.0	48.0	45.0	43.0	42.0	80.0	68.0	61.0	63.0	65.0	82.0	73.0	79.0	90.0	95.0	72.6	24	
9		93.0	94.0	95.0	95.0	95.0	86.0	80.0	68.0	60.0	56.0	51.0	49.0	40.0	37.0	39.0	55.0	60.0	52.0	56.0	65.0	78.0	84.0	88.0	89.0	95.0	69.4	24	
10		94.0	95.0	97.0	97.0	95.0	89.0	84.0	72.0	64.0	59.0	54.0	52.0	48.0	43.0	41.0	41.0	44.0	43.0	46.0	49.0	66.0	84.0	89.0	91.0	97.0	68.2	24	
11		93.0	93.0	94.0	94.0	94.0	94.0	86.0	74.0	66.0	56.0	49.0	50.0	48.0	44.0	49.0	47.0	48.0	47.0	50.0	55.0	62.0	67.0	68.0	67.0	94.0	66.5	24	
12		66.0	69.0	69.0	71.0	73.0	72.0	72.0	70.0	69.0	67.0	65.0	62.0	63.0	61.0	62.0	70.0	92.0	95.0	P	98.0	99.0	99.0	99.0	99.0	96.0	99.0	76.5	23
13		97.0	98.0	98.0	96.0	95.0	95.0	96.0	96.0	91.0	90.0	85.0	82.0	79.0	75.0	84.0	93.0	91.0	91.0	90.0	90.0	93.0	97.0	95.0	96.0	98.0	91.4	24	
14		97.0	98.0	98.0	98.0	97.0	97.0	97.0	91.0	86.0	85.0	82.0	79.0	72.0	66.0	64.0	65.0	65.0	65.0	69.0	94.0	92.0	95.0	97.0	98.0	98.0	85.3	24	
15		99.0	99.0	99.0	99.0	99.0	99.0	99.0	91.0	81.0	71.0	63.0	58.0	49.0	38.0	31.0	32.0	32.0	33.0	40.0	69.0	90.0	95.0	95.0	95.0	99.0	73.2	24	
16		97.0	97.0	98.0	98.0	98.0	95.0	91.0	87.0	73.0	63.0	58.0	53.0	52.0	58.0	62.0	74.0	91.0	93.0	94.0	96.0	95.0	96.0	97.0	97.0	98.0	83.9	24	
17		97.0	98.0	98.0	97.0	97.0	96.0	94.0	88.0	76.0	66.0	61.0	60.0	60.0	62.0	63.0	66.0	65.0	63.0	60.0	62.0	74.0	79.0	84.0	85.0	98.0	77.1	24	
18		85.0	88.0	92.0	95.0	95.0	91.0	79.0	66.0	55.0	52.0	51.0	48.0	JULY	46.0	42.0	39.0	37.0	35.0	50.0	68.0	71.0	85.0	90.0	91.0	95.0	67.4	24	
19		93.0	92.0	91.0	93.0	93.0	90.0	88.0	83.0	75.0	71.0	64.0	57.0	57.0	70.0	80.0	88.0	88.0	80.0	74.0	74.0	94.0	96.0	97.0	97.0	97.0	82.7	24	
20		97.0	97.0	97.0	98.0	98.0	98.0	96.0	91.0	86.0	74.0	61.0	55.0	48.0	45.0	47.0	55.0	70.0	75.0	75.0	70.0	81.0	92.0	95.0	95.0	98.0	79.0	24	
21		95.0	96.0	96.0	96.0	96.0	91.0	83.0	79.0	72.0	63.0	55.0	52.0	48.0	43.0	43.0	45.0	39.0	52.0	56.0	67.0	84.0	85.0	89.0	92.0	96.0	71.5	24	
22		93.0	94.0	95.0	95.0	95.0	88.0	82.0	74.0	70.0	66.0	62.0	62.0	75.0	79.0	69.0	64.0	73.0	71.0	67.0	70.0	83.0	91.0	93.0	95.0	95.0	79.4	24	
23		96.0	97.0	98.0	97.0	97.0	93.0	84.0	76.0	71.0	60.0	57.0	57.0	55.0	52.0	49.0	47.0	46.0	50.0	52.0	61.0	80.0	88.0	89.0	90.0	98.0	72.6	24	
24		93.0	95.0	96.0	96.0	96.0	94.0	83.0	76.0	68.0	58.0	51.0	52.0	49.0	47.0	47.0	47.0	47.0	55.0	77.0	93.0	94.0	96.0	98.0	98.0	98.0	75.3	24	
25		98.0	98.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	85.0	60.0	53.0	46.0	40.0	37.0	35.0	37.0	38.0	38.0	41.0	48.0	75.0	88.0	91.0	93.0	99.0	70.6	24
26		95.0	95.0	95.0	95.0	95.0	90.0	80.0	75.0	65.0	58.0	54.0	57.0	58.0	59.0	60.0	62.0	72.0	77.0	74.0	70.0	71.0	79.0	80.0	81.0	95.0	74.9	24	
27		83.0	85.0	87.0	88.0	90.0	87.0	85.0	82.0	78.0	72.0	63.0	57.0	53.0	47.0	46.0	45.0	46.0	48.0	51.0	63.0	79.0	87.0	91.0	93.0	93.0	71.1	24	
28		94.0	94.0	94.0	94.0	95.0	93.0	84.0	75.0	70.0	63.0	54.0	50.0	47.0	49.0	52.0	53.0	57.0	56.0	60.0	67.0	72.0	74.0	78.0	87.0	95.0	71.3	24	
29		90.0	92.0	94.0	94.0	95.0	90.0	80.0	71.0	67.0	59.0	58.0	56.0	54.0	52.0	51.0	50.0	50.0	54.0	61.0	65.0	78.0	82.0	90.0	89.0	95.0	71.8	24	
30		91.0	83.0	91.0	92.0	96.0	95.0	90.0	90.0	91.0	92.0	87.0	78.0	68.0	60.0	58.0	56.0	56.0	58.0	68.0	81.0	92.0	95.0	96.0	95.0	96.0	81.6	24	
31		93.0	86.0	87.0	95.0	94.0	92.0	81.0	75.0	74.0	68.0	59.0	57.0	52.0	63.0	59.0	57.0	54.0	52.0	55.0	66.0	83.0	92.0	94.0	95.0	95.0	74.3	24	
HOURLY MAX		99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	94.0	92.0	87.0	85.0	79.0	79.0	84.0	93.0	92.0	95.0	94.0	98.0	99.0	99.0	99.0	98.0				
HOURLY AVG		91.5	91.8	92.5	93.7	94.3	90.9	85.2	78.4	72.0	65.5	60.4	57.2	54.2	52.4	52.2	56.0	58.4	59.5	61.7	70.4	80.2	86.2	88.6	90.3				

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

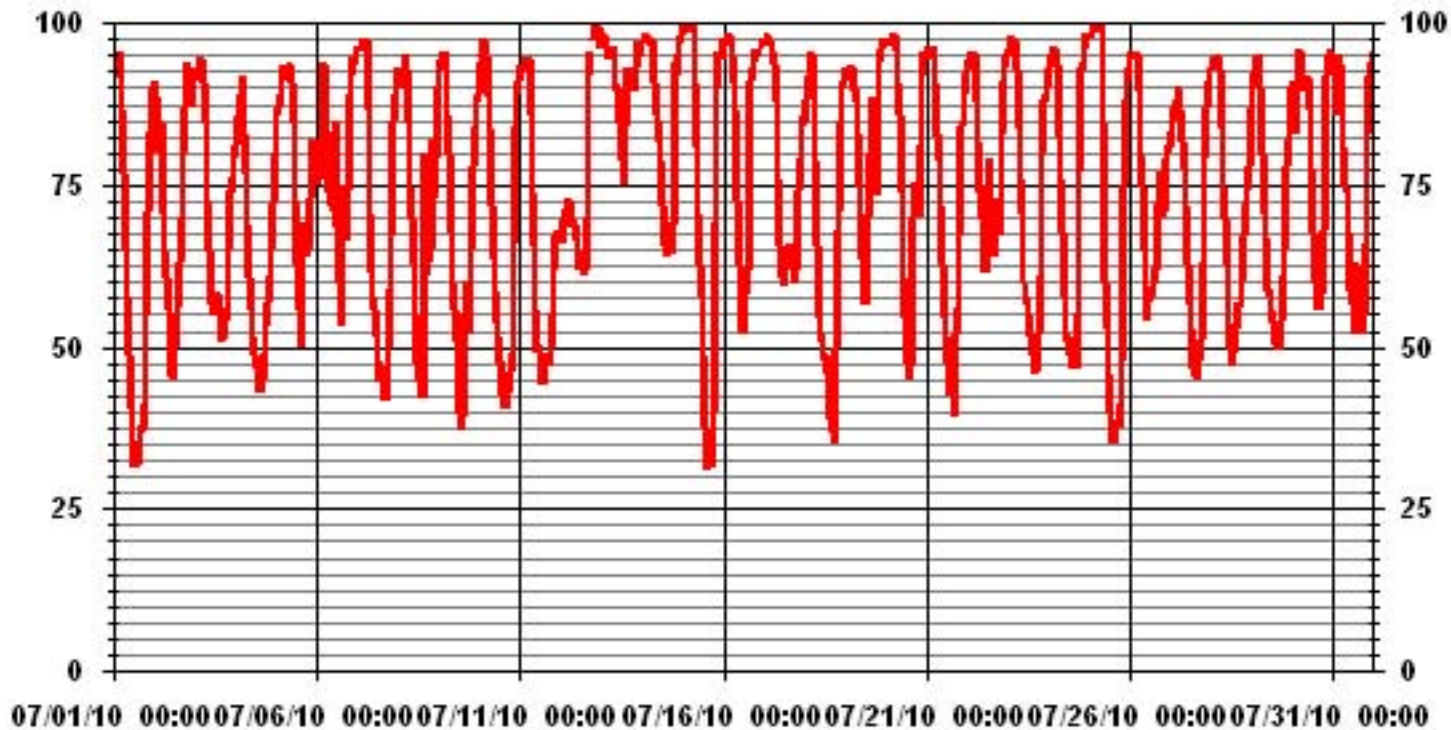
24 HOUR AVERAGES FOR JULY 2010



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	99.0	%	@ HOUR(S)	VAR	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	91.4	%			ON DAY(S)	13
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:		743	HRS
STANDARD DEVIATION:	18.74		AMD OPERATION UPTIME:		99.9	%
			MONTHLY AVERAGE:		74.35	%

01 Hour Averages



— LICA RH %FS

Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

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

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOURLY MAX	HOURLY AVG	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																													
1		2.6	2.6	2.4	2.3	2.5	3.8	5.8	6.3	6.5	6.8	5.8	6.4	7.6	6	4.7	3.6	4.3	3.2	3.2	0.9	0.9	1.2	0.7	0.3	7.6	3.3	24	
2		0.4	2	4.1	3.1	3.6	4.5	5.8	4.8	1.8	0.3	3.2	0.4	2.8	2.3	2.4	6.4	8.3	5.2	1.5	1.7	1.4	3.6	2.3	2.1	8.3	1.6	24	
3		4.1	2.3	1.9	3.4	3.8	3.8	4.4	9	8.2	9	11.6	13.4	11.1	11.6	11.5	12.6	11.5	10	9.5	7.5	5.2	4.6	4.5	4.6	13.4	6.8	24	
4		5.6	4.2	4.8	3.2	3.8	4.1	5.7	5.6	7.5	9.8	9.9	11.1	12.2	12.4	10.7	13.5	13.8	11.8	8.7	7.8	7.2	7.3	6.7	5.1	13.8	7.8	24	
5		4.6	5.5	5.8	6.1	5.3	4.7	4.9	4.1	5.3	5.8	5.5	7.5	9.6	10.5	12.1	9.6	9.3	12.9	11	5.7	4.6	7.2	6.8	5.6	12.9	7.1	24	
6		5.9	8.3	4.2	2.2	1.9	4.2	4.5	5.3	7.5	7.7	7.1	5.8	7.7	8.8	10.4	9.4	9.4	6.8	6.5	3.8	1.8	4	2.6	4.6	10.4	5.9	24	
7		4	5.5	1.2	1	0.8	1.9	3.2	4.9	4.7	3.8	2.7	6.4	7.1	8.8	8.9	8.2	8.1	7.1	6.2	5.1	3.5	2.5	3.3	1.3	8.9	4.6	24	
8		1.1	1.8	2.3	3.3	1.4	3.8	4.5	3.5	5.7	6.2	8.5	7.7	6.8	7.5	11.6	7.1	2.5	3.2	3.4	2.6	0.9	4.7	0.5	1.4	11.6	4.3	24	
9		0.3	0.5	0.2	0.5	0.4	1.6	4.4	4.5	3.9	6.8	8.5	7.5	9.1	10.3	7.8	2.4	6	5.5	4.1	1.9	0.7	0.7	0.2	1	10.3	3.7	24	
10		2	1	1.4	2.6	4.1	6.1	6.4	7.3	6.6	9.3	9.9	9.2	10	8.8	11	10.1	8.7	9.3	6.3	6.3	1.8	1	1.9	0.6	11.0	5.9	24	
11		0.4	1	0.6	0.9	0.8	0.4	1.3	2.8	2.3	3.6	4.5	5.3	3.8	5.1	5.6	7.4	5.5	5.6	4.8	4.5	5	6.1	6.4	8.2	8.2	3.8	24	
12		10.2	8.7	8.7	8	8.1	9.9	7.5	9.3	11.5	9.7	9.9	10.6	9.8	9.8	8.8	4.1	9.4	5.6	P	2.8	2.5	1.4	10.1	3.7	11.5	7.8	23	
13		2.1	0.7	4.3	5.6	8.4	8.8	8.7	9.4	7.8	7.3	9.7	13	12.3	12.4	10	9.6	7.4	4.9	5.2	4.5	0.7	1.2	1	2.4	13.0	6.6	24	
14		1.5	1.5	2.2	2.5	4	4.5	2.9	3.6	4.9	5.1	5.4	5.1	5.9	8.9	10.3	11.3	8.6	10.8	4.7	1.9	3.5	3.9	1.8	1.8	11.3	4.9	24	
15		0.9	0.8	1.2	0.2	1.5	0.6	1.9	1.7	2.9	3.6	7	5.8	9.9	13.3	11.9	10.2	9.8	9.3	5.4	10.8	3.7	1.3	4.1	2.5	13.3	5.0	24	
16		1.1	1.5	0.8	1.1	1.4	0.1	1.9	3	3.2	4.3	4.6	10.2	11.6	9.1	4.9	6.6	2.9	1.8	1.9	1.8	1.9	3.5	2.7	4.6	11.6	3.6	24	
17		4.5	3.5	2.8	3.8	4.5	3.7	4	5.3	11	12.5	15.1	13.9	14.6	11.2	10.4	9.4	9	9.7	8.8	8.9	7.3	6.9	4.9	4.3	15.1	7.9	24	
18		4.6	5.6	4.6	4.2	3.4	5	4.3	5	9.5	11.5	8.9	9.8	5.3	4.7	3.3	4.6	3.3	2.5	1.4	3.1	2.3	0.8	1.9	0.5	11.5	4.6	24	
19		1.2	0.4	0.2	1.1	0.7	1.5	0.4	0.7	0.9	2.2	3.2	2.5	6.4	4.9	9.4	3.9	6	7.6	5.5	1.2	1.2	0.3	0.5	0.9	9.4	2.6	24	
20		1.7	0.6	1.7	1.1	1.4	2.2	2.8	1.9	2.9	2.4	1.5	2.7	3.1	3.5	4.7	8.9	8.3	4.8	5.4	1.5	1.4	0.7	1.5	1.2	8.9	2.8	24	
21		0.8	0.3	0.2	1	0.2	0.5	0.7	1.1	0.5	1.5	2.2	4.6	3.1	3.1	4.2	2.5	2.3	7.6	4.1	2.1	0.3	1.8	1.3	0.5	7.6	1.9	24	
22		0.8	0.4	0.2	0.8	0.2	2.7	6.4	5	7.1	8	8.8	5.4	8.2	3.3	7.6	11.5	4.4	5.6	5	4.8	2.2	2.1	1.8	0.6	11.5	4.3	24	
23		0.9	1.9	0.6	0.9	0.7	0.4	1.5	3.3	3.4	0.7	1.5	1.8	4.6	5.4	5.7	7.4	7.7	9.4	6.5	3.4	1.9	1	1.6	2.1	9.4	3.1	24	
24		1.6	1.4	0.1	0	0.9	0.8	2.3	3.2	4.9	5.1	6.5	6.3	5.9	7.3	7.8	7.8	7.4	3.7	7.7	3.9	2.5	1	0.5	0.3	7.8	3.7	24	
25		0.2	0.3	0.3	0.6	0.3	2.4	1.9	3.3	4	5.8	6.1	6.3	6.9	9.2	9.3	7.2	7.9	8	6.6	3.3	1.1	0.6	1.1	0.4	9.3	3.9	24	
26		0.5	0.3	0.8	0.7	0.5	1.7	4	7.9	10.7	12.8	9.8	10.2	10.8	14.8	14.3	10.7	8.8	6.7	6	6.6	7.9	5.3	6.8	5.3	14.8	6.8	24	
27		6.9	7.1	6.2	6.7	4.8	2.3	5.2	6.3	6.5	7.2	9.9	9.3	6.8	6.7	6.2	6	6.2	6.5	6.4	3.8	2.6	1.2	0.5	0.5	9.9	5.5	24	
28		0.5	0.8	0.7	0.5	0	0.2	0.7	2.9	3.3	4.5	5.1	5.8	5	7.7	7.2	6.8	5	5.5	7.4	5.1	4.5	6.2	4.8	2.1	7.7	3.8	24	
29		2.3	1.1	0.6	0.7	1.4	2.4	2.9	2.1	4.9	5.2	6	4.6	5.6	6.9	6.8	5.3	5.8	3.8	2.9	2.9	1.1	0.8	1	1.2	6.9	3.3	24	
30		0.2	8.6	13	7.3	6.7	7.4	9.8	8.5	2.7	2	4.7	5.1	6.1	3.6	2.7	3.1	5.2	3.1	1.7	1.5	1.6	1.3	1.6	2.4	13.0	4.6	24	
31		4.6	6.4	1.4	1.9	3.6	2.6	4.2	6.7	7.5	7.1	8.4	8.3	11.7	8.3	7.1	3.5	4.9	7.7	4.9	2.8	0.5	0.9	0.4	0.9	11.7	4.8	24	
HOURLY MAX		10.2	8.7	13.0	8.0	8.4	9.9	9.8	9.4	11.5	12.8	15.1	13.9	14.6	14.8	14.3	13.5	13.8	12.9	11.0	10.8	7.9	7.3	10.1	8.2				
HOURLY AVG		2.5	2.8	2.6	2.5	2.6	3.2	4.0	4.8	5.5	6.1	6.8	7.2	7.8	7.9	8.0	7.4	7.0	6.6	5.4	4.0	2.7	2.7	2.8	2.4				

STATUS FLAG CODES

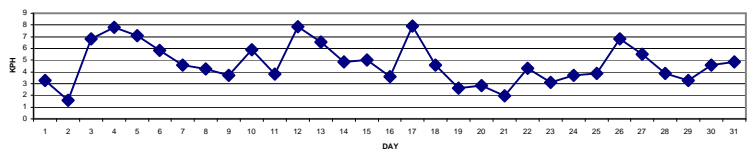
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION: November 5, 2008

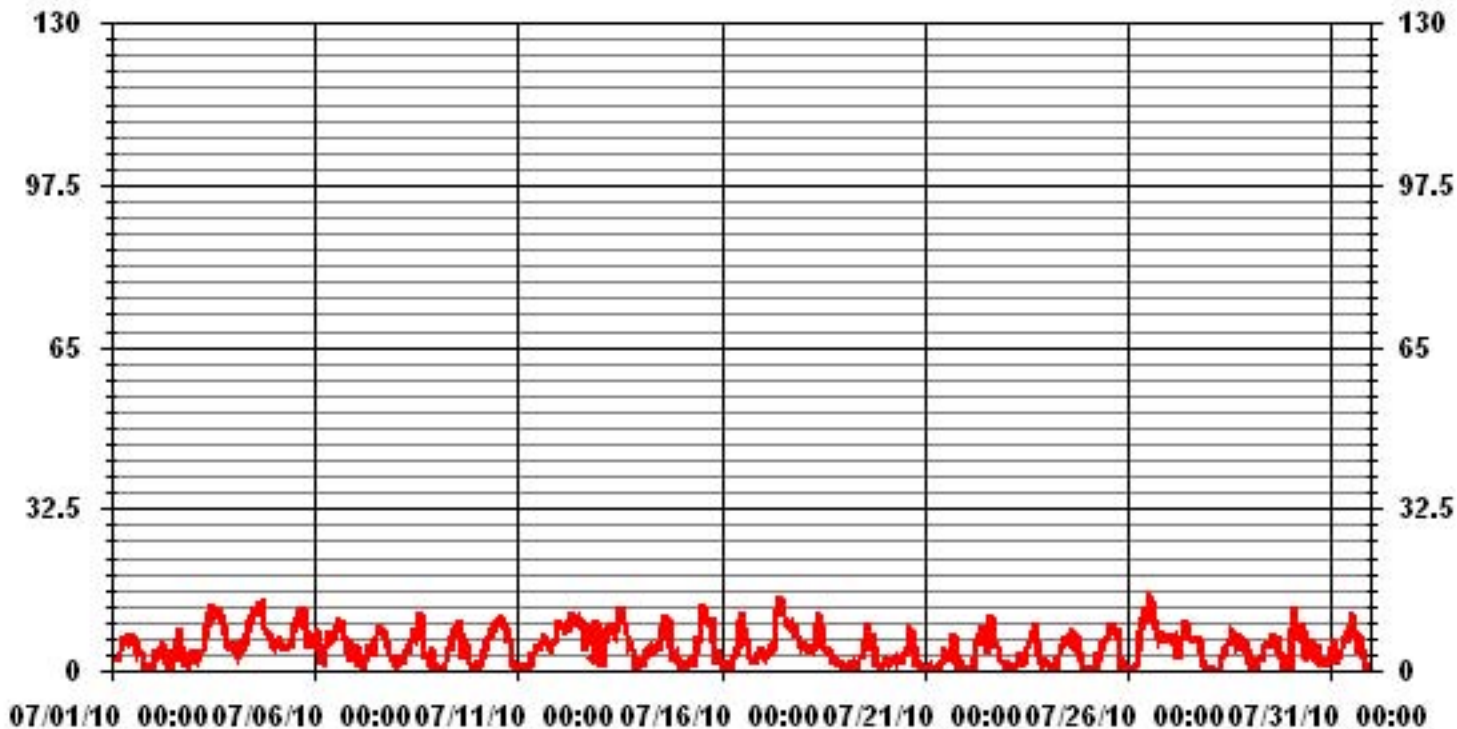
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	15.1	KPH	@ HOUR(S)	10	ON DAY(S)	17
MAXIMUM 24-HR AVERAGE:	7.9	KPH			ON DAY(S)	17
CALMS (≤ 0 KPH)	3.49	%				
MONTHLY CALIBRATION TIME:	0	HRS				
STANDARD DEVIATION:	3.37					
OPERATIONAL TIME:	743	HRS				
AMD OPERATION UPTIME:	99.9	%				
MONTHLY AVERAGE:	4.81	KPH				

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
HOUR START	HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	
DAY																											
1		6.6	5.5	4.5	4.2	5.8	7.9	10.5	10.5	10.7	11.8	13.6	13.9	14.6	14.3	12.1	11.4	8.9	8.3	6.9	2.6	2.3	2	2.8	2	14.6	
2		1.7	6	6.7	4.5	5.9	7.2	9.8	8.2	7.5	7.1	7.6	7.4	7.2	7.8	6.2	16.4	17.7	11.7	14.4	9.1	11.8	7.4	10.3	7.6	17.7	
3		10.2	6.2	4.7	5.3	5	6.2	10.1	14.2	12.4	15.3	16.4	20.1	19	18.6	24.5	21.3	17.6	16.2	17.6	14.4	8.7	8	7.2	7.6	24.5	
4		9.5	7	8.1	6.2	8.6	7.9	10.5	10.9	13.6	16.7	17.8	17.2	20.2	17.2	21.4	22.7	20.6	20.3	15	12.9	11.3	13.3	9.9	7.8	22.7	
5		8.3	8.8	10.2	9.8	8	8.8	9.6	6.9	8.2	12.4	10.1	13.3	16.2	20	18.2	24.9	12.4	27	21	10.6	7.1	11.4	10.8	10.9	27	
6		9.6	13.2	10.2	4.9	5.3	6.9	7.9	10.1	13.7	15.3	20.3	10.4	13.9	15.9	22.8	19.7	19.3	10.2	12.7	8.2	4.5	6.3	4.4	6.9	22.8	
7		6.4	8.4	4.1	2.9	3.4	3.3	8.2	8.1	10.2	9.2	10.3	12.9	15.3	19.1	16.1	15.3	15.7	10.6	10.7	8.1	5.4	4	5.3	3.8	19.1	
8		3.9	4	5.6	5.6	4.4	6.4	9.3	7.3	9.5	11.3	16.2	12.9	14.1	14	21.2	22.7	6.6	8	7.9	6.2	3	13.6	6.1	3.5	22.7	
9		3	1.8	1.6	1.5	1.2	6.6	7.3	7.6	7.1	13	14.5	14.2	15.1	16.5	16.5	9.2	10.4	9.9	7.1	6.7	5.5	3.8	3.6	7.2	16.5	
10		4.5	2.7	4.1	4.3	9.1	10	10	12.5	12.8	14.8	16.4	14.1	21.4	16.6	17.2	16.2	13.9	15.9	15	9.6	4.7	3.5	3.7	3.9	21.4	
11		3.2	3.5	2.3	1.9	4.6	2.4	4.5	6	6.9	10	9.4	9.6	12.3	11.3	12.8	14.7	11.1	10.6	9.2	6.5	6.9	8	8.9	11.3	14.7	
12		13.3	13.7	12.8	11	11.4	14.8	10.7	17.3	17.4	15.3	16.2	16.3	15	16.5	15	21.7	17.4	13.2	0	11.8	7.2	9.2	17.3	17.2	21.7	
13		6.7	2.5	7	9.1	11.6	12.8	13.5	13.8	13.5	15.3	15.2	18.9	18.4	20.5	17.5	17.5	14.8	11.5	7.5	6.7	4	5	4	4.6	20.5	
14		3.7	4.9	3.5	4.6	5.4	6.6	5.6	6.4	8.4	9	8.7	9.2	11.7	14.8	18	18.3	13.3	16.9	15.5	9	30.5	8	4.5	4	30.5	
15		5.4	4	4.2	3.7	5.4	4.6	4.7	5.1	7.3	8.9	12.6	10	15.6	21.1	19.6	17.8	14.9	16.7	10.8	29.1	17	6.9	9.3	7.5	29.1	
16		3.6	3.3	4.7	4.2	4.4	2.1	6.9	6.5	7.1	8.4	10.1	21.8	19.2	14.3	9.6	12.6	9.4	10	4.6	8.1	5.6	6.1	6.1	7.3	21.8	
17		6.8	6.4	4.8	6	7.8	5.4	7.5	9.7	17.2	20.7	20.9	25.6	20.6	17.4	16.3	17.5	14.7	15.7	16.5	16.4	10.4	9.4	7.2	6.8	25.6	
18		7.1	7.5	7	6.6	4.7	7.1	7.6	11.9	16.5	18.3	16.5	18.5	14.8	8.7	8.8	9.7	7.4	6.5	7.5	8.9	4.2	4.7	5.6	3.4	18.5	
19		5.4	2.5	3.6	6	4	5.3	2.8	2.9	4.8	6.8	8.5	8	14.1	18.7	20.2	7.1	8.4	15.8	12.6	3.9	4	2.7	2.6	2.8	20.2	
20		3.9	4.1	4	2.8	4	6.5	6.3	4.6	6	6.9	4.8	6.3	8.2	12.9	10.4	22.1	13.7	8.6	8.6	6.2	3.3	4.1	4.2	3.8	22.1	
21		3.2	2.6	2.5	2.2	3.1	3	4.1	5	6.5	6.5	9.5	9.2	10.2	10.7	9.2	7	12.9	14.2	8.1	4.4	2.9	8.3	4.2	2.8	14.2	
22		1.9	2.7	2.3	2.3	2.6	5.9	11.4	7.9	11.3	13.4	14.7	14.2	0	6.1	11.7	20.2	18.7	19.2	9.9	7.4	5.5	4	5.4	2.9	20.2	
23		3.1	5.3	4.3	2.9	2.7	3.2	3.6	5.6	7	5	5.9	9.3	10.3	12.9	10.3	13.9	12.7	15	14.9	7.2	4.3	2.6	4.1	4.2	15	
24		3.2	5	2.2	4	2.5	2.6	5.8	7	9	9.6	15.4	12.6	11.3	13.1	13.4	15	15.7	7.3	29.6	15.8	6.6	3.9	3.6	2.1	29.6	
25		2.2	2.5	2	3.2	8.4	6.2	4.5	8.2	6.7	9	11	12.9	14	16.9	16.2	13.2	14.5	14.2	14.4	8.4	2	1.6	3.4	1.3	16.9	
26		2.8	1.7	2.2	2.2	1.4	8.6	7.2	13.6	17.3	23.9	15.1	16.9	18.3	22.8	20.8	18	19.5	11.7	10.4	11.9	13.6	10.4	11.3	9	23.9	
27		11.1	10.7	10.3	10	8.8	4.8	11.8	10.2	10.7	11.9	16.2	14.9	10.8	13.7	11.8	10.9	10.9	12.6	10.5	6.7	4	3.3	1.8	2.1	16.2	
28		1.6	2.4	2	1.3	6.5	1.8	5.5	10.8	7.3	12.2	12.2	14.1	12.1	15	11.4	10.8	10	8.8	11.3	7.8	6.4	8.6	9.7	3.4	15	
29		4.2	2.2	3.7	2.8	4.7	6	5.9	6.2	10.2	11.1	11.6	9.2	10.7	13.4	12	10.3	11.2	8.7	4.5	6.1	4.9	4	5.1	3.7	13.4	
30		2.4	22.7	21.5	14.6	15.5	13.1	13.1	11.6	6.5	7.3	10.3	8.8	11.3	10.3	9.2	7.2	10.3	6.9	4	3.3	3.7	3.4	3.5	5.5	22.7	
31		6.8	11.2	5.4	4	6.3	4.3	7	10.4	13.6	11.7	15.9	16.9	17	15.7	13.7	9.9	10.9	15.8	7.6	5.8	4	3.2	4.3	4.1	17	
PEAK		13.3	22.7	21.5	14.6	15.5	14.8	13.5	17.3	17.4	23.9	20.9	25.6	21.4	22.8	24.5	24.9	20.6	27.0	29.6	29.1	30.5	13.6	17.3	17.2		

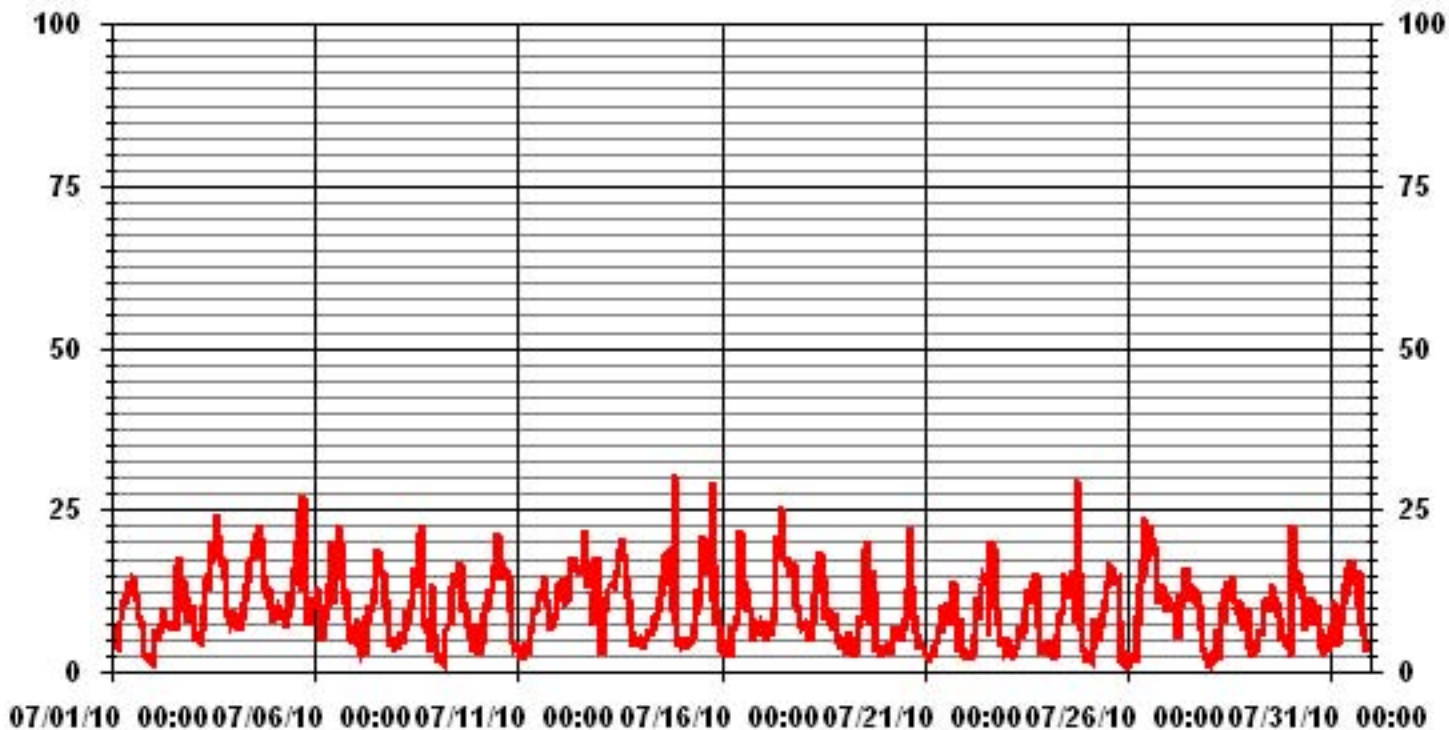
STATUS FLAG CODES

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

MAXIMUM INSTANTANEOUS READING	30.5	KPH	@ HOUR(S)	20
			ON DAY(S)	14

01 Hour Averages



— LICA WSMAX KPH

LICA
WSP / WD Joint Frequency Distribution (Percent)

July 2010

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	2.01	1.34	2.15	1.07	2.42	3.49	4.71	3.90	4.71	5.38	11.30	8.88	5.65	2.42	1.61	1.07	62.18
< 12.0	.80	.13	1.34	.40	.67	.80	2.82	.00	.67	.40	3.09	5.38	6.19	4.44	2.82	1.61	31.62
< 20.0	.00	.13	.26	.00	.00	.00	.00	.00	.00	.00	.13	1.07	.67	.26	.13	.00	2.69
< 29.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.82	1.61	3.76	1.48	3.09	4.30	7.53	3.90	5.38	5.78	14.53	15.34	12.51	7.13	4.57	2.69	

Calm : 3.49 %

Total # Operational Hours : 743

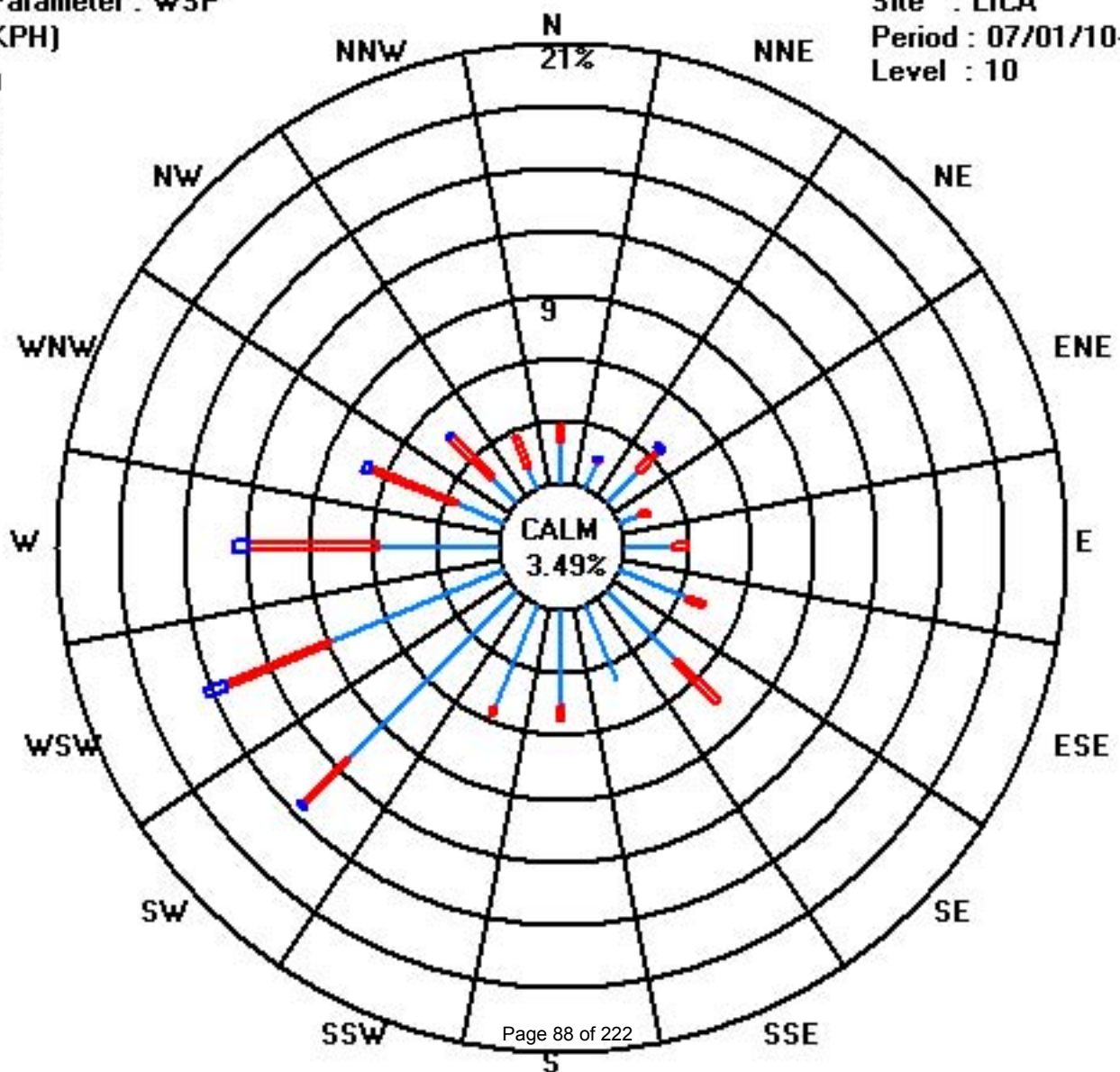
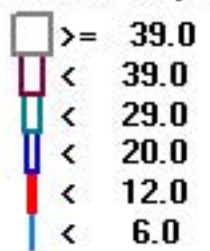
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	15	10	16	8	18	26	35	29	35	40	84	66	42	18	12	8	462
< 12.0	6	1	10	3	5	6	21		5	3	23	40	46	33	21	12	235
< 20.0		1	2								1	8	5	2	1		20
< 29.0																	
< 39.0																	
>= 39.0																	
Totals	21	12	28	11	23	32	56	29	40	43	108	114	93	53	34	20	

Calm : 3.49 %

Total # Operational Hours : 743

Class Limits (KPH)



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

VECTOR WIND DIRECTION (WD) hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR	24-HOUR AVG	QUADRANT	RDGS.
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	AVG.	QUADRANT	RDGS.	
DAY																												
1	212	147	221	225	211	212	223	229	232	232	213	214	231	216	191	186	153	180	198	155	118	97	97	188	209	SSW	24	
2	89	123	127	126	135	127	127	124	112	235	300	78	36	23	25	145	226	168	201	166	191	219	250	186	152	SSE	24	
3	127	144	175	227	230	230	233	249	247	251	249	249	255	261	261	267	269	268	273	264	237	236	229	235	251	WSW	24	
4	235	242	245	214	217	225	231	235	228	233	225	240	243	248	240	242	237	235	255	265	264	258	256	239	240	WSW	24	
5	236	252	257	255	254	266	309	298	313	328	336	331	322	309	317	286	253	287	310	287	254	266	272	290	290	WNW	24	
6	274	296	265	207	192	248	272	245	262	283	290	265	269	271	290	293	278	287	292	266	231	261	225	242	272	W	24	
7	236	253	253	196	170	271	8	354	18	46	38	310	313	295	278	289	278	273	272	255	243	217	230	218	286	WNW	24	
8	226	242	249	213	249	242	251	251	233	258	277	273	277	239	244	346	122	151	115	150	210	37	195	221	250	WSW	24	
9	144	123	146	87	85	240	237	231	225	225	243	238	234	226	221	42	68	50	34	6	228	28	129	46	231	SW	24	
10	38	332	276	290	354	345	3	10	2	345	347	349	341	317	325	337	326	320	314	312	294	216	224	189	335	NNW	24	
11	126	195	187	107	225	175	190	234	213	225	214	227	183	173	203	195	180	185	153	139	133	130	130	132	174	S	24	
12	131	128	126	128	127	124	124	124	112	120	123	107	92	107	282	328	348	P	100	328	109	53	60	109	109	ESE	23	
13	197	136	24	50	41	44	38	39	54	43	50	36	32	35	93	88	72	79	39	32	249	199	210	264	49	NE	24	
14	249	242	249	271	294	301	299	310	289	275	269	264	256	255	258	262	268	255	230	147	63	247	260	248	265	W	24	
15	270	211	231	209	237	223	221	226	262	258	272	251	256	258	267	271	270	259	245	248	346	188	199	296	258	WSW	24	
16	238	224	182	188	141	73	234	221	242	278	260	295	306	299	276	246	146	206	148	234	226	265	245	253	263	W	24	
17	248	239	227	234	237	232	227	249	261	269	262	275	292	287	275	284	291	300	282	282	256	252	256	267	269	W	24	
18	261	249	240	239	239	250	264	286	309	309	314	329	348	12	359	0	10	7	64	260	251	209	215	120	300	WNW	24	
19	190	335	9	173	130	147	147	271	162	211	253	167	290	154	220	322	346	42	47	314	197	240	222	233	251	WSW	24	
20	249	214	251	223	241	246	272	262	278	318	295	281	258	274	279	323	46	95	132	187	236	96	237	110	279	W	24	
21	211	225	72	255	163	358	233	225	152	131	146	123	154	201	211	203	266	10	21	45	318	306	129	94	149	SSE	24	
22	93	219	44	19	13	112	126	129	123	126	124	138	87	64	67	98	137	92	95	104	51	83	124	77	105	ESE	24	
23	70	231	119	110	92	309	1	3	6	359	190	163	214	224	234	243	246	225	227	210	171	161	169	193	224	SW	24	
24	210	233	225	191	117	194	164	182	158	175	196	181	188	186	169	182	177	190	312	122	43	132	199	13	180	S	24	
25	300	178	195	215	139	248	239	262	263	267	275	266	251	264	261	254	263	284	292	288	169	128	193	181	264	W	24	
26	162	82	145	116	121	233	237	236	237	260	294	262	245	250	250	268	272	258	306	279	283	281	289	272	261	W	24	
27	258	269	290	293	276	262	236	255	261	276	292	291	282	312	283	273	260	250	253	217	221	209	131	116	270	W	24	
28	195	126	117	90	328	230	319	129	150	154	155	151	166	134	138	136	136	140	129	124	125	128	130	119	137	SE	24	
29	119	71	353	100	116	115	123	190	223	222	218	211	228	240	226	237	221	225	223	230	43	134	243	80	215	SSW	24	
30	229	285	229	206	312	307	336	347	354	303	271	281	279	285	250	229	227	207	149	147	209	198	172	243	272	W	24	
31	217	236	246	169	226	232	220	235	244	242	246	266	292	8	21	28	324	300	304	324	302	191	189	234	272	W	24	
HOURLY AVG	300	335	353	293	354	358	336	354	354	359	347	349	348	317	359	346	346	348	314	324	346	306	289	296				

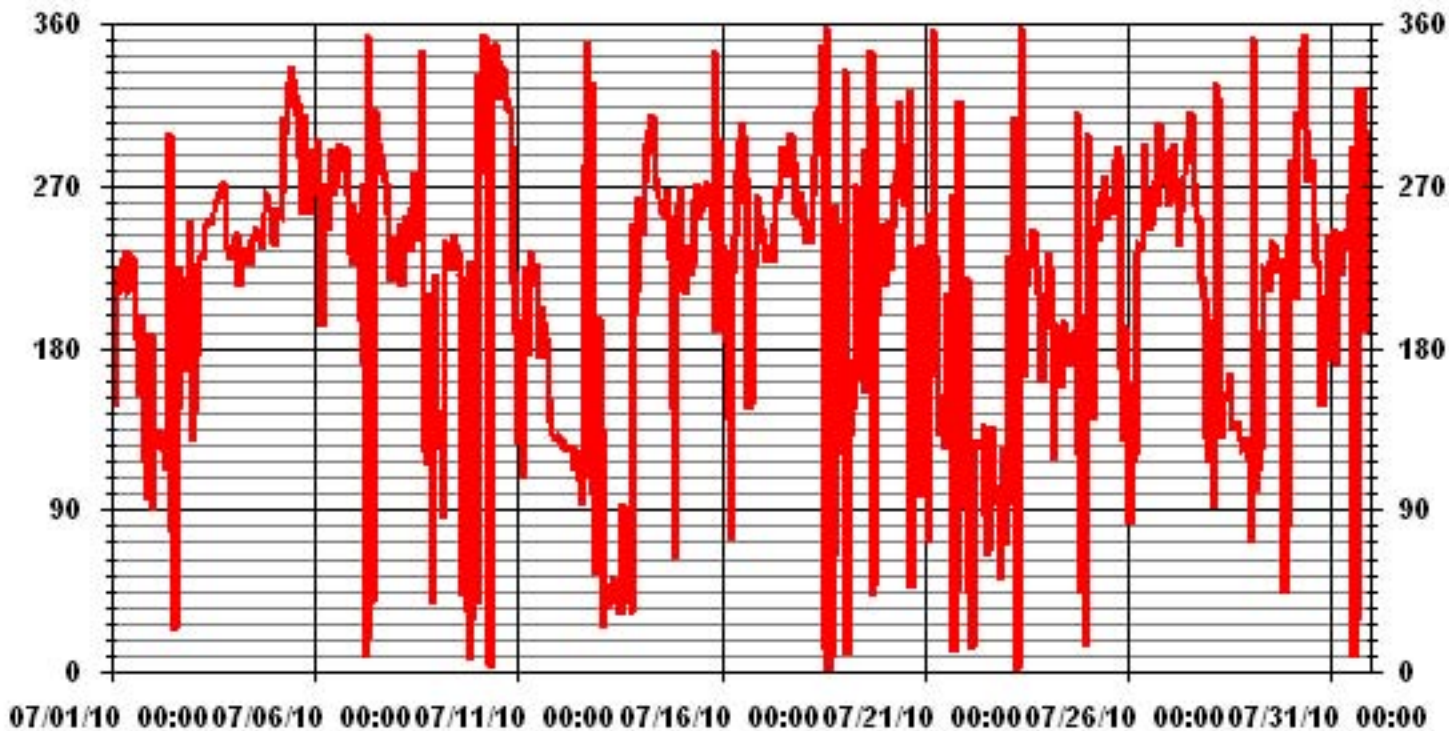
STATUS FLAG CODES

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

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

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	743	HRS
STANDARD DEVIATION	82.39		AMD OPERATION UPTIME	99.9	%
			MONTHLY AVERAGE	255	DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JULY 2010

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
DAY																								
1	27	24	20	26	30	26	22	24	26	29	39	39	35	40	48	53	30	33	31	34	46	25	43	37
2	51	25	11	13	16	27	20	27	54	58	45	66	45	43	29	32	31	33	76	46	62	39	60	39
3	47	36	37	20	14	19	25	20	27	23	22	21	21	21	23	21	22	22	22	19	19	19	24	22
4	23	20	20	22	15	21	24	26	24	24	26	27	23	23	23	22	21	21	22	20	21	19	17	16
5	18	18	20	19	19	21	17	18	14	20	25	28	28	20	20	21	18	19	15	20	17	19	19	18
6	18	17	25	32	32	22	29	32	25	22	18	23	27	25	25	28	22	21	17	22	29	21	18	15
7	17	17	54	42	44	25	26	25	38	50	69	34	32	27	24	26	24	21	19	15	14	14	15	47
8	24	25	44	27	40	21	23	22	24	27	25	26	29	30	26	40	51	33	31	25	53	34	54	36
9	55	47	55	42	53	49	20	22	29	25	21	25	24	25	23	47	21	22	23	56	50	68	45	61
10	41	21	25	16	25	19	19	23	24	22	23	24	29	25	19	23	21	21	18	15	28	42	22	41
11	57	30	48	28	43	48	50	35	46	47	39	30	39	46	32	35	41	37	35	24	13	12	13	14
12	13	13	12	13	13	15	17	17	17	24	25	21	24	24	23	28	22	44	P	32	30	43	17	30
13	37	48	20	26	20	19	19	20	20	21	21	21	22	21	22	20	20	29	20	21	56	53	44	22
14	46	39	32	17	15	12	18	23	24	19	24	21	25	24	23	22	22	19	47	62	40	30	34	44
15	49	57	43	48	62	48	33	52	31	35	24	31	26	22	23	23	22	20	19	21	28	37	38	34
16	44	30	57	46	31	53	34	24	36	23	42	31	17	19	25	23	34	39	52	73	31	17	23	14
17	12	14	15	17	18	22	24	22	21	22	21	22	19	22	21	22	19	16	20	20	16	15	15	21
18	18	14	12	13	12	16	26	27	20	21	27	27	45	37	54	41	50	38	41	32	21	46	43	75
19	56	42	39	54	56	51	63	55	55	55	41	61	26	41	23	37	18	21	21	37	44	51	29	28
20	38	49	31	41	38	47	32	35	35	41	64	47	49	45	43	24	21	24	16	39	50	48	61	49
21	47	64	72	48	48	58	43	51	71	69	69	41	47	57	41	61	55	22	28	28	42	33	44	45
22	34	44	66	33	46	23	17	21	20	21	23	31	24	26	21	21	35	26	23	22	26	26	40	48
23	41	50	60	66	58	66	45	28	37	61	72	67	41	36	31	26	26	21	22	23	26	33	48	36
24	32	51	51	67	48	42	33	37	35	34	37	44	42	39	40	38	38	32	56	37	30	46	64	63
25	70	58	64	55	52	35	38	26	29	24	30	30	27	24	26	28	26	21	19	29	20	38	23	54
26	38	64	37	58	46	35	23	24	23	21	22	23	22	21	22	20	21	20	17	19	18	18	19	20
27	18	18	17	15	20	37	23	22	26	23	23	29	29	29	32	28	25	23	17	21	19	24	48	45
28	33	30	41	40	78	68	43	50	40	41	39	41	41	28	26	22	25	26	11	13	12	11	14	16
29	16	38	59	50	43	44	36	46	34	35	35	42	33	30	29	30	22	25	19	23	40	54	61	55
30	58	24	24	26	28	18	17	17	39	32	44	30	32	53	60	52	27	30	29	29	19	36	35	19
31	21	21	49	26	18	17	24	22	23	28	28	28	20	30	30	46	33	20	15	15	32	27	44	51

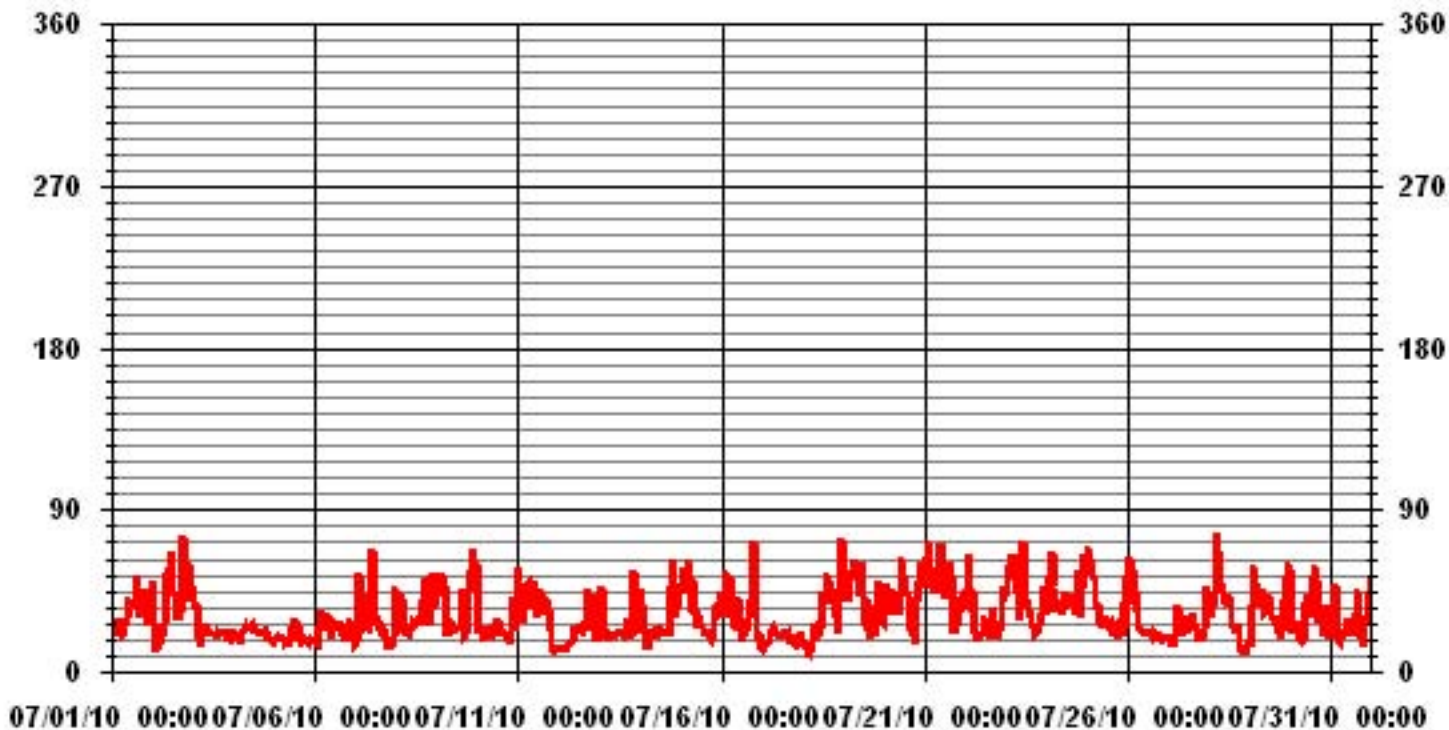
STATUS FLAG CODES

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

LAST CALIBRATION: November 5, 2008

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 743 HRS

01 Hour Averages



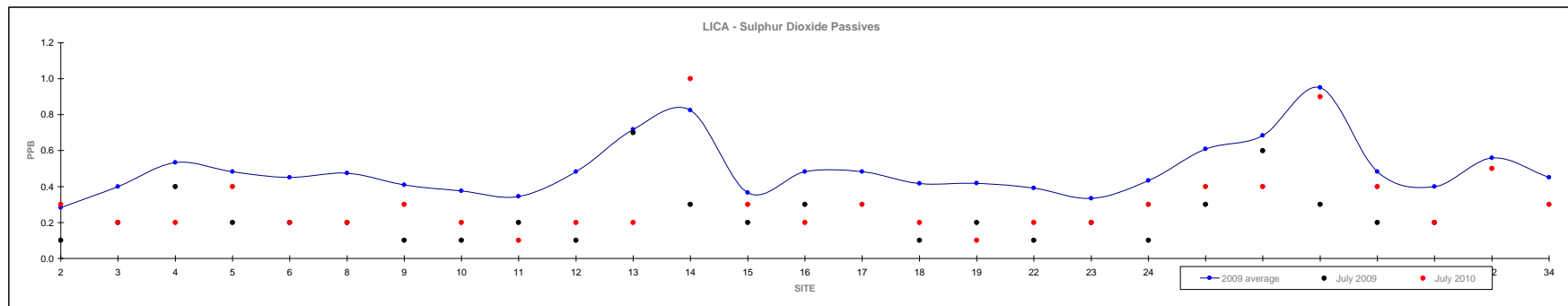
— LICA STDWDIR DEG

Non-Continuous Monitoring

Passive Summary Results for July 2010

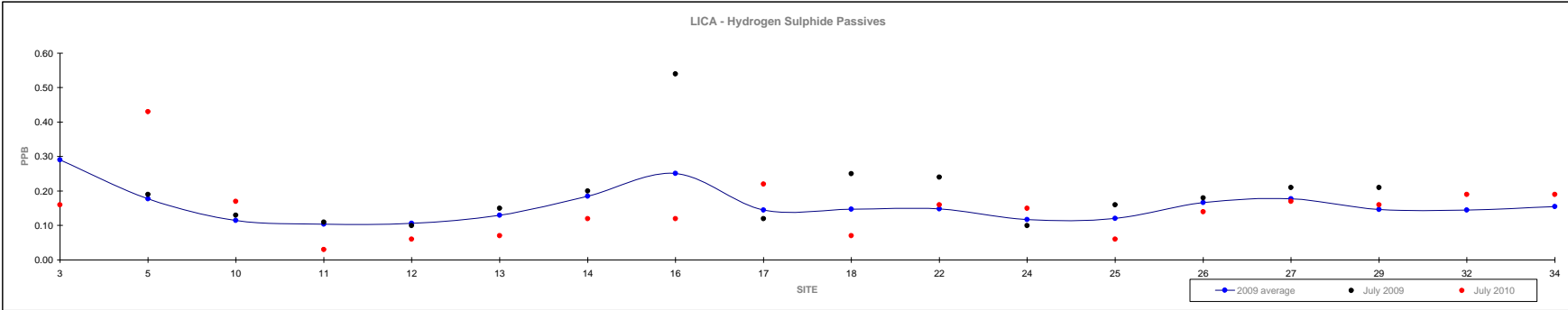
Lakeland Industry & Community Association

	Sulphur Dioxide ppb																												Reading	Site
	2009																												July 2010	
Mean	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	22	23	24	25	26	27	28	29	32	34	0.3	-	
Minimum	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.4	<0.1	#11	
Maximum	0.9	0.9	1.3	1.1	1.2	0.9	1.0	0.9	0.8	1.1	1.2	2.2	0.9	1.1	1.0	1.3	0.8	0.9	0.8	1.1	1.4	1.4	2.6	0.9	0.8	1.2	0.5	1.0	#14	



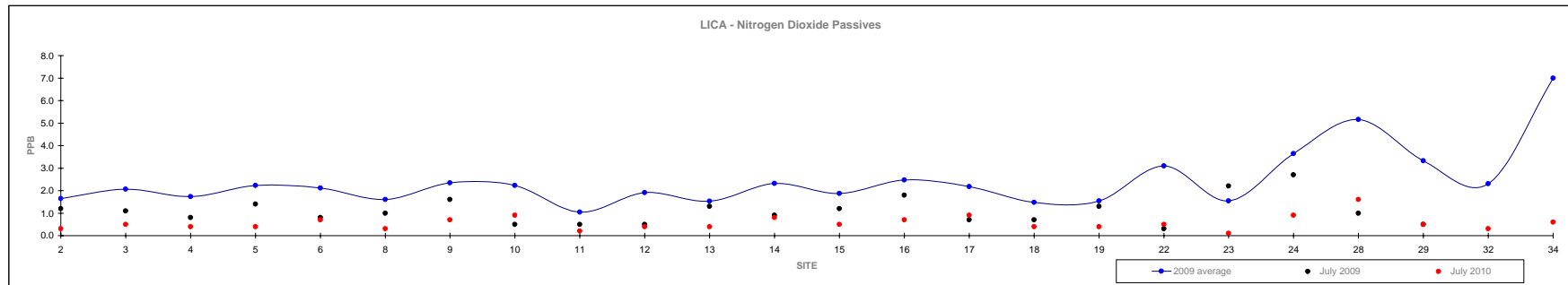
Passive Summary Results for July 2010 Lakeland Industry & Community Association

	Hydrogen Sulphide ppb															July 2010				
	3	5	10	11	12	13	14	16	17	18	22	24	25	26	27	29	32	34	Reading	Site
Mean	0.29	0.18	0.12	0.10	0.11	0.13	0.19	0.25	0.15	0.15	0.15	0.12	0.12	0.17	0.18	0.15	0.15	0.16	0.15	-
Minimum	0.05	0.09	0.03	0.03	0.05	0.03	0.11	0.07	0.08	0.05	0.04	0.06	0.03	0.06	0.07	0.04	0.10	0.10	0.03	#11
Maximum	0.80	0.29	0.20	0.16	0.21	0.20	0.30	0.54	0.26	0.29	0.24	0.24	0.18	0.28	0.35	0.28	0.19	0.21	0.43	#5



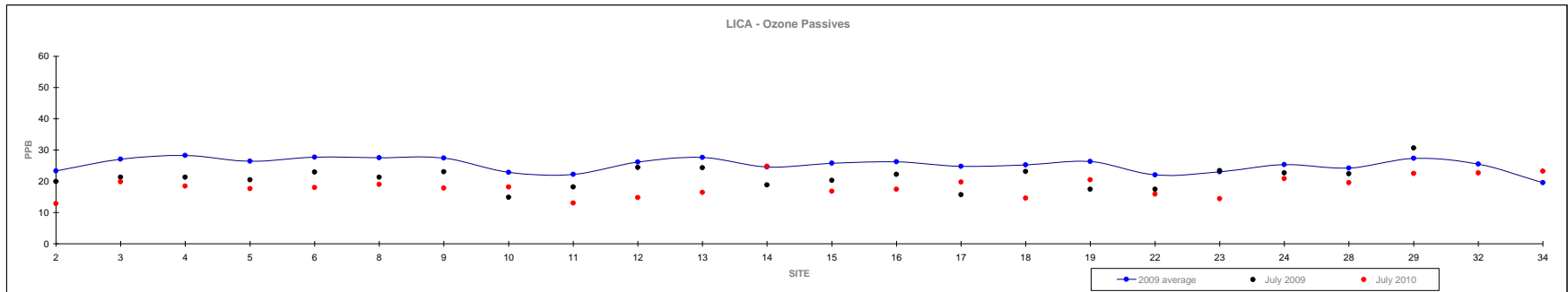
Passive Summary Results for July 2010 Lakeland Industry & Community Association

	Nitrogen Dioxide ppb																												July 2010	
	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	22	23	24	28	29	32	34	Reading	Site				
Mean	1.6	2.1	1.7	2.2	2.1	1.6	2.4	2.2	1.0	1.9	1.5	2.3	1.9	2.5	2.2	1.5	1.5	3.1	1.5	3.6	5.2	3.3	2.3	7.0	0.6	-				
Minimum	0.9	0.8	0.8	1.0	0.8	0.9	1.5	0.4	0.5	0.5	0.9	0.9	1.0	1.7	0.7	0.7	0.9	0.2	0.4	2.7	1.0	0.5	1.2	5.6	<0.1	#23				
Maximum	2.9	4.6	3.7	5.0	4.4	3.0	4.0	5.0	2.0	6.4	2.9	6.1	3.6	3.9	4.1	3.5	2.4	7.2	2.6	5.6	10.6	7.0	3.0	8.4	1.6	#28				



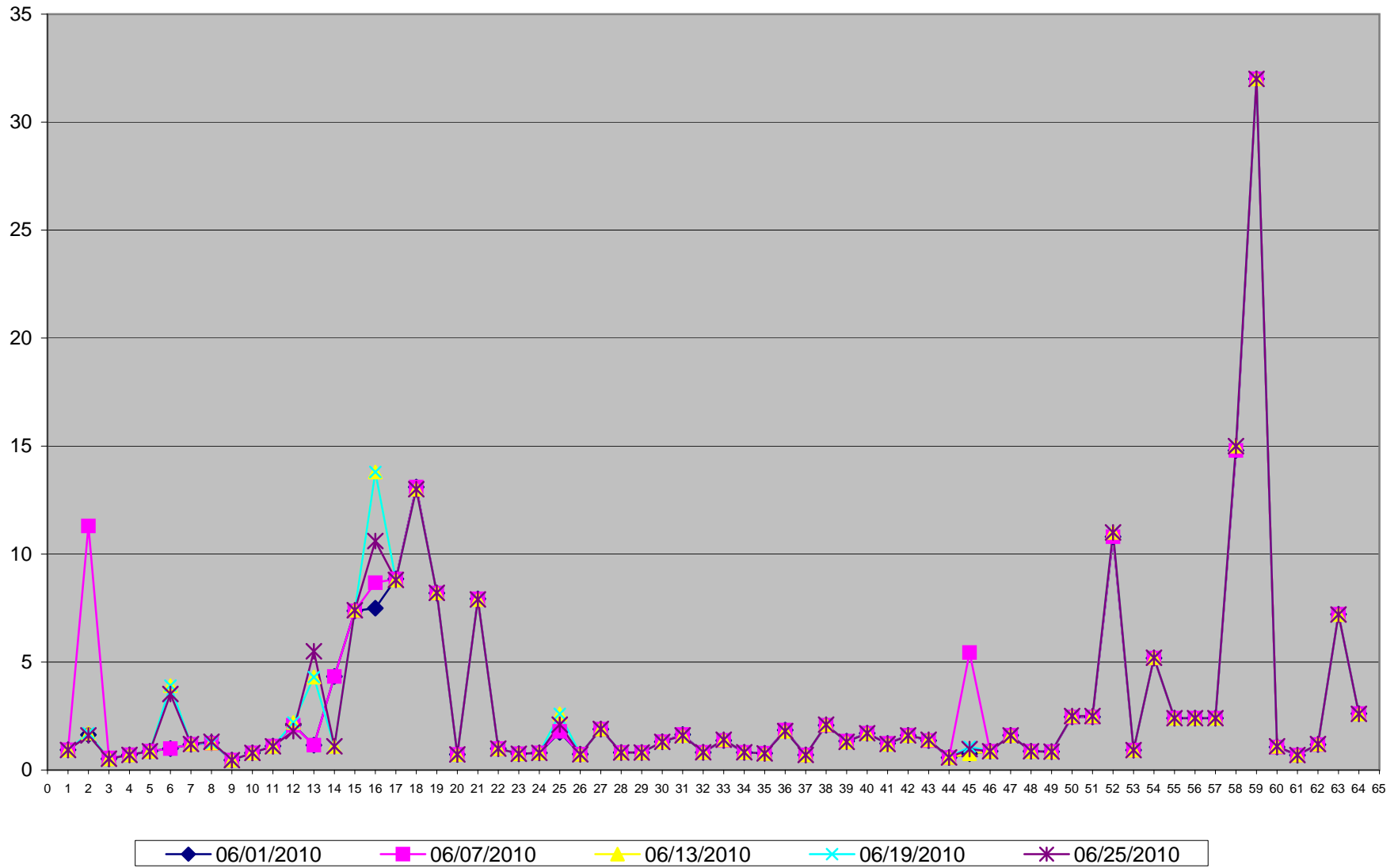
Passive Summary Results for July 2010 Lakeland Industry & Community Association

	Ozone ppb																												July 2010	
	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	22	23	24	28	29	32	34	Reading	Site				
Mean	23.3	27.1	28.3	26.5	27.7	27.5	27.5	22.8	22.2	26.2	27.6	24.6	25.8	26.2	24.8	25.2	26.3	22.0	23.0	25.3	24.2	27.3	25.5	19.6	18.3	-				
Minimum	13.3	17.9	17.3	16.0	17.7	15.4	14.9	12.0	14.6	17.3	15.5	14.8	15.5	15.1	13.8	17.7	14.7	13.6	15.3	12.5	14.8	17.8	24.7	18.5	12.8	#2				
Maximum	32.3	38.6	47.5	37.9	43.6	38.6	42.6	38.2	30.2	46.0	36.5	35.4	42.3	36.7	46.5	36.2	41.7	32.6	32.6	40.5	37.7	40.0	26.3	20.6	24.8	#14				



Volatile Organics

Volatile Organics in ug/m3 Site: LICA - Cold Lake South

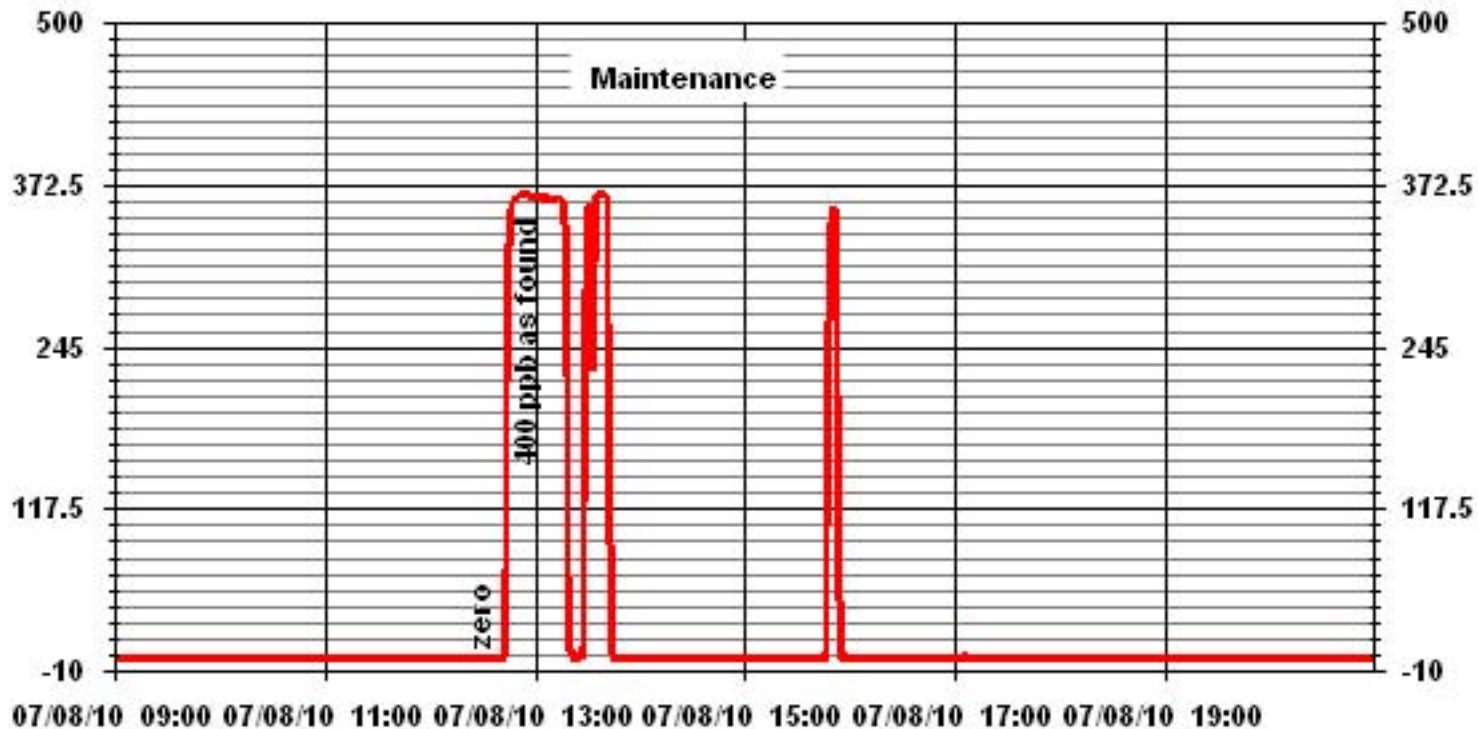


1	2,2,4-Trimethylpentane	33	1,1,2,2-Tetrachloroethane
2	Carbon Disulfide	34	cis-1,3-Dichloropropene
3	Propene	35	trans-1,3-Dichloropropene
4	Vinyl Acetate	36	1,2-Dichloropropane
5	Vinyl Bromide	37	Bromomethane
6	Dichlorodifluoromethane (FREON 12)	38	Bromoform
7	1,2-Dichlorotetrafluoroethane	39	Bromodichloromethane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

Calibration Reports

Sulphur Dioxide

01 Minute Averages



SO₂ Calibration Report

Station Information

Calibration Date	July 13, 2010	Previous Calibration	July 8, 2010
Company	Lakeland Community and Industry Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	14:02	End Time (MST)	18:04
Reason:	Monthly Calibration		
Barometric Pressure	704 mmHg	Station Temperature	22 Deg C
Cal Gas	52.2 ppm	Cal Gas Expiry date	19/12/2010
DAS Output Voltage	0 - 1 Volts		

Equipment Information

Analyzer Make / Model:	Thermon 43i	S/N :	806528242	Method:	UV absorbtion
Converter Make / Model:	NA	S/N :	NA		
Calibrator Make / Model:	EnviroNICS 6100	S/N :	4760	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	3485		
Flow Meter:	Bios DC-2	S/N :	1193		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb		
Sample Flow / Box Temp	443 ccm, 28.1 Deg C	444 ccm, 28.1 Deg C	
HVPS / Lamp Setting	-632, 743	-632, 742	
PMT / RxCell Temp	OK Deg C, 45.1 Deg C	OK Deg C, 45.2 Deg C	
Converter / IZS Temp	NA Deg C, 45.0 Deg C	NA Deg C, 45.0 Deg C	
Offset / Slope	5.3, 0.987	5.4, 1.007	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5006	0	0	0	N/A
5005	39.5	409	400	1.0219
5005	39.5	409	412	0.9921
5004	19.5	203	206	0.9836
5007	10.1	105	107	0.9821
5006	0	0	0	N/A
Sum of Least Squares				0.9900
New Correction Factor				0.9921

Before Calibration

After Calibration

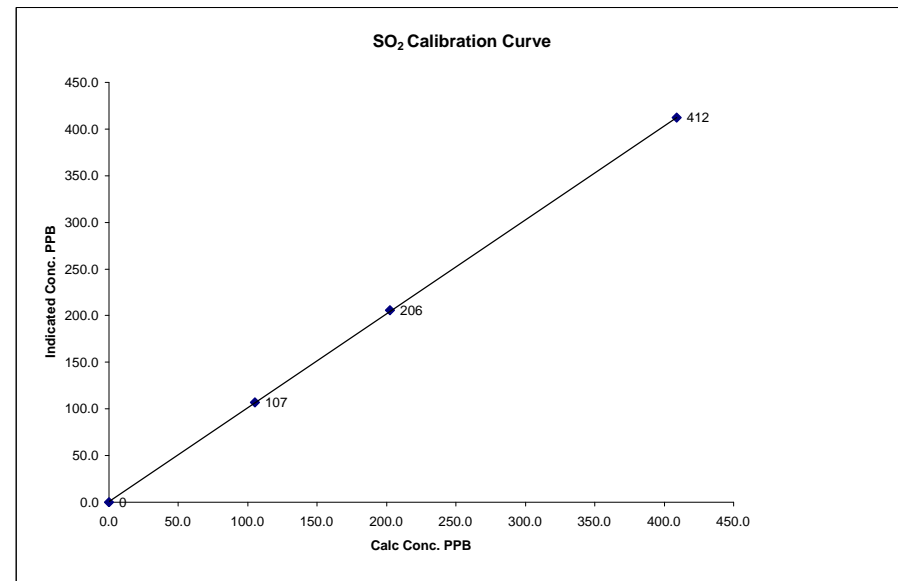
Auto Zero	0.1	0.1
Auto Span	341	343
Sample Lines Connected	YES	
Percent Change from Previous Calibration	-	

Calibration Performed by: Shea Beaton / Ting Xu

SO₂ Calibration Curve

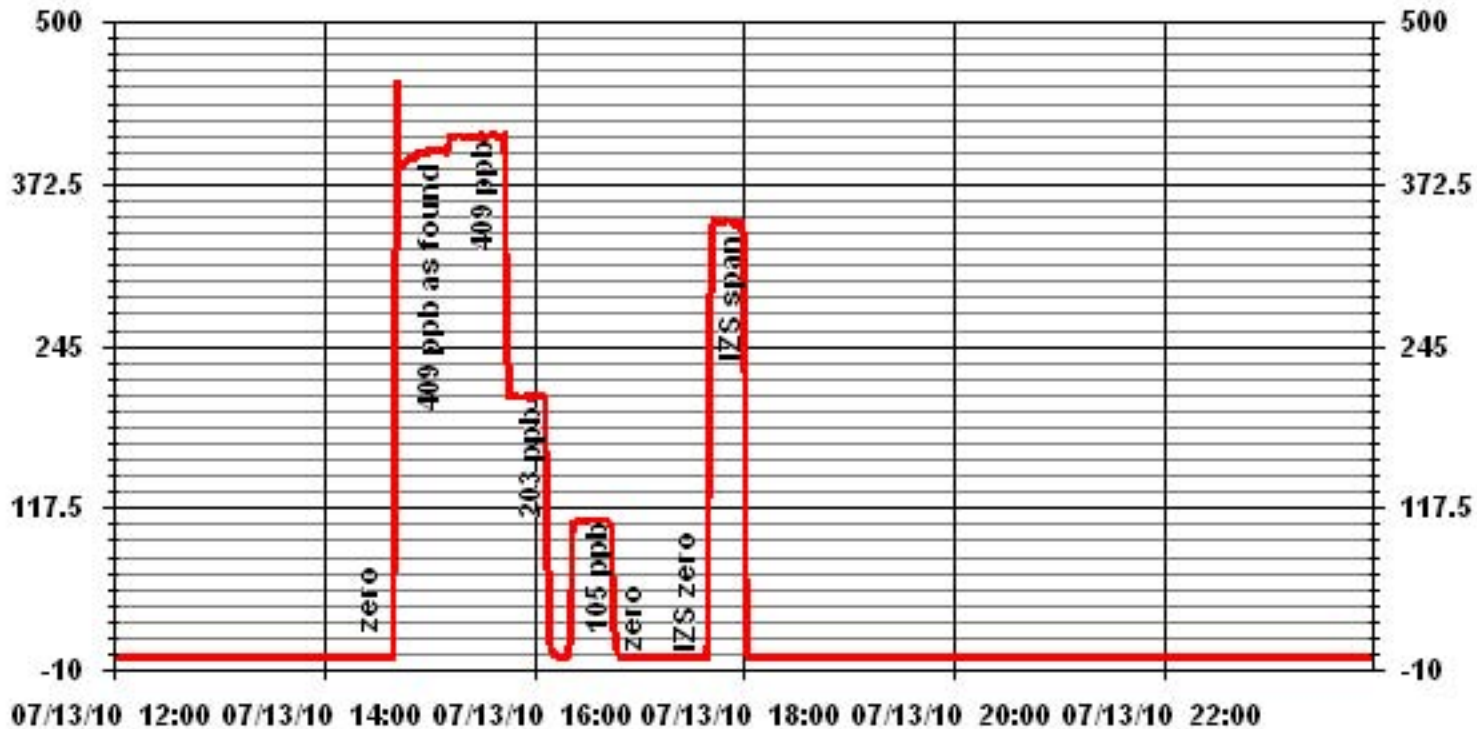
Calibration Date	July 13, 2010
Company	Lakeland Community and Industry Association
Plant / Location	LICA 1 - Cold Lake South
Start Time (MST)	14:02
End Time (MST)	18:04

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15)	Intercept (± 3% F.S.)
0	0	n/a	0.999976	1.007547
105	107	0.9821		0.784640
203	206	0.9836		
409	412	0.9921		



Notes:

01 Minute Averages



Total Reduced Sulphur

**TRS Calibration Report
Station Information**

Calibration Date	July 8, 2010	Previous Calibration	June 2, 2010
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	12:05	End Time (MST)	16:25
Reason:	Monthly Calibration		
Barometric Pressure	715 mm Hg	Station Temperature	22 Deg C
Cal Gas	10.8 ppm	Cal Gas Expiry date	June 22, 2010
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 4501	S/N :	812728560	Method:	Fluorescent
Converter Make / Model:	CD Nova CDN 101	S/N :	250		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	3485		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 100 ppb		
Sample Flow / Box Temp	357 ccm, 30.6 Deg C	355 ccm, 31.2 Deg C	
HVPS / Lamp Setting	-623.1, 756	-623.1, 756	
PMT / RxCell Temp	OK, 45.0 Deg C	OK, 45.0 Deg C	
Converter / IZS Temp	849, 45.0 Deg C	850, 45.0 Deg C	
Offset / Slope	11.4, 1.184	11.2, 1.166	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4998	0	0	0	N/A
4962	37	80	78	1.0248
4962	37	80	80	0.9992
4983	18.5	40	40	0.9987
4987	10.6	23	23	0.9960
4998	0	0	0	N/A
Sum of Least Squares				0.9989
New Correction Factor				0.9992

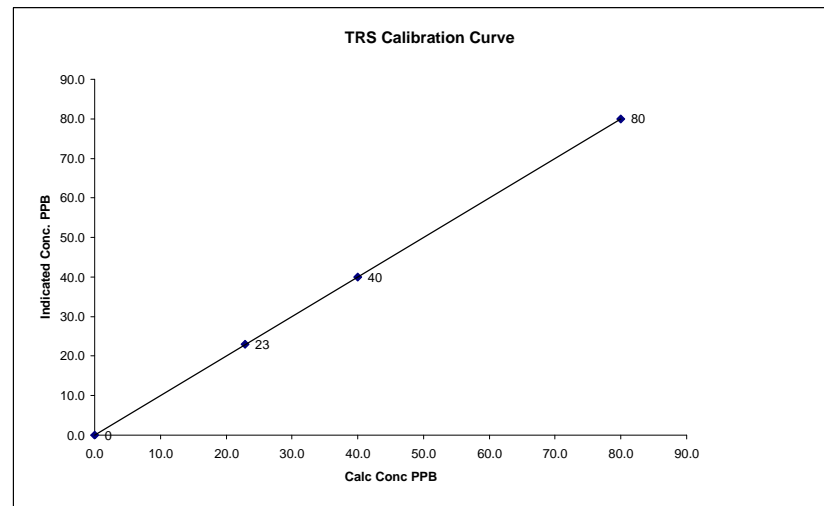
	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	21	21
Sample Lines Connected		YES
Percent Change from Previous Calibration		-3.7%

Calibration Performed by: Shea Beaton

TRS Calibration Curve

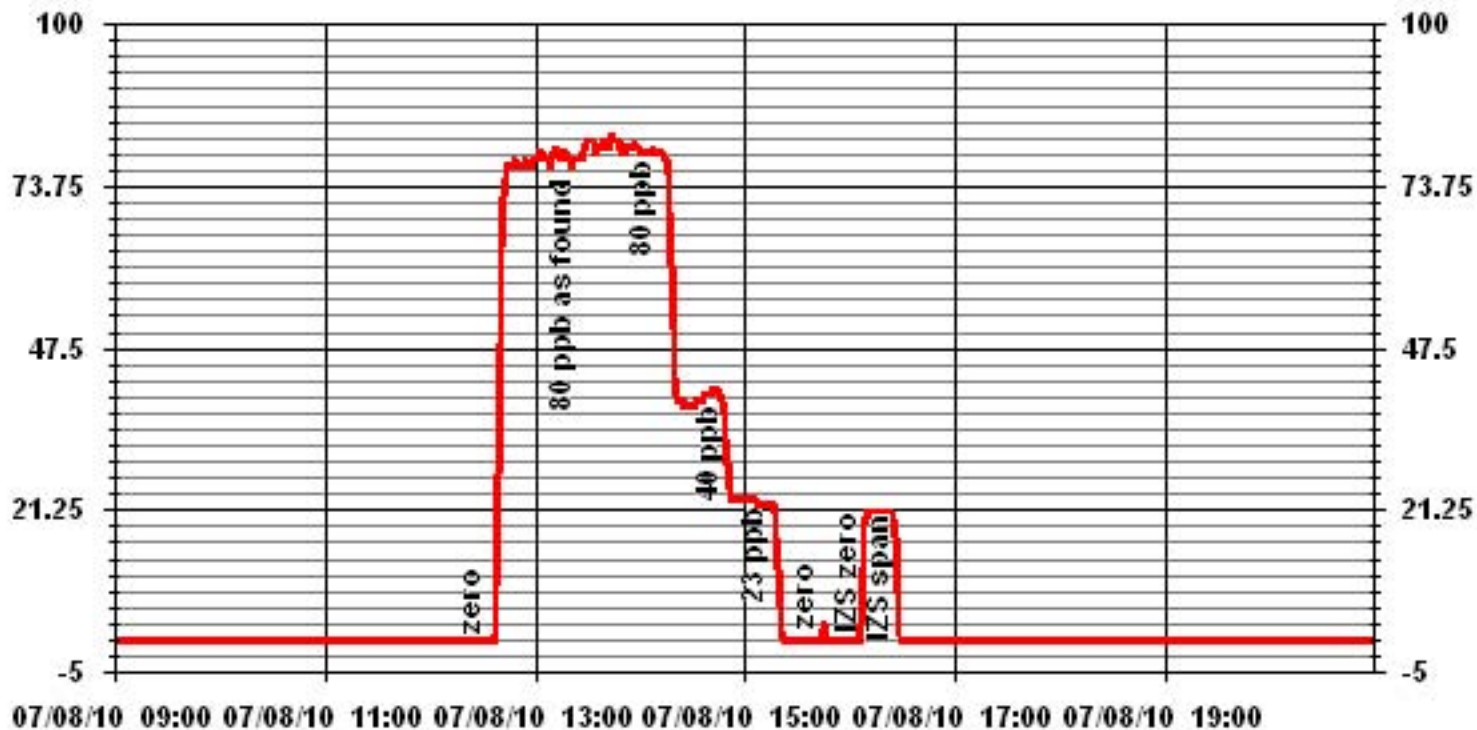
Calibration Date	July 8, 2010
Company	Lakeland Industry & Community Association
Plant / Location	LICA 1 - Cold Lake South
Start Time (MST)	12:05
End Time (MST)	16:25

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999999
0	0	n/a	Intercept	(± 3% F.S.)	1.000546
23	23	0.9960			
40	40	0.9987			
80	80	0.9992			

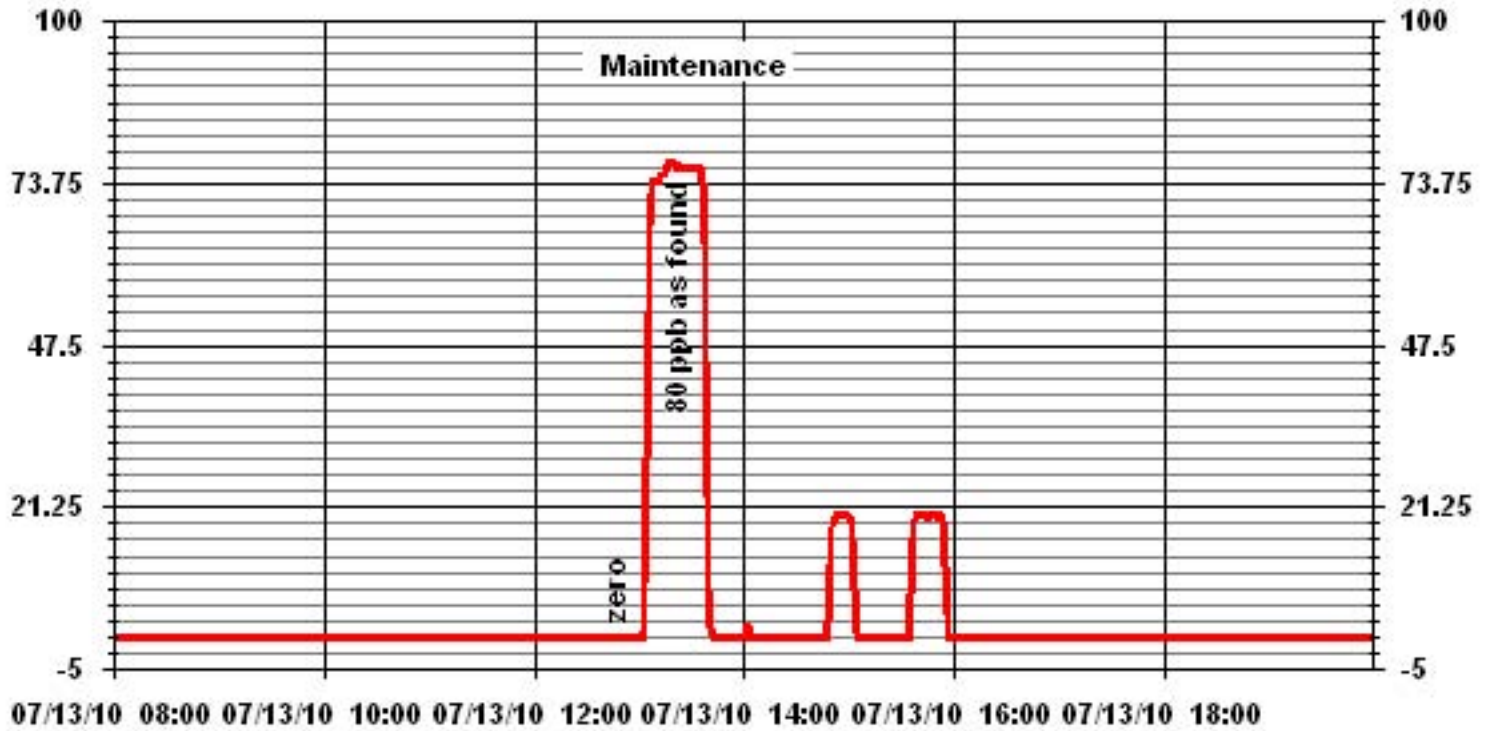


Notes:

01 Minute Averages



01 Minute Averages



**TRS Calibration Report
Station Information**

Calibration Date	July 14, 2010	Previous Calibration	July 8, 2010
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	10:18	End Time (MST)	13:14
Reason:	Post Repair Calibration		
Barometric Pressure	710 mm Hg	Station Temperature	22 Deg C
Cal Gas	10.8 ppm	Cal Gas Expiry date	June 22, 2010
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 4501	S/N :	812728560	Method:	Fluorescent
Converter Make / Model:	CD Nova CDN 101	S/N :	250		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	3485		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0 - 100 ppb						
Sample Flow / Box Temp	356 ccm	31 Deg C		355 ccm	32.2 Deg C		
HVPS / Lamp Setting	-623.5	756		-623.1	756		
PMT / RxCell Temp	OK Deg C	45.3 Deg C		OK Deg C	45.0 Deg C		
Converter / IZS Temp	849 Deg C	45.0 Deg C		849 Deg C	45.0 Deg C		
Offset / Slope	11.2	1.166		11.2	1.166		

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4998	0	0	0	N/A
4963	37	80	80	0.9990
4982	18.5	40	40	0.9989
4988	10.6	23	23	0.9958
4998	0	0	0	N/A
Sum of Least Squares				0.9988
New Correction Factor				0.9990

Before Calibration

After Calibration

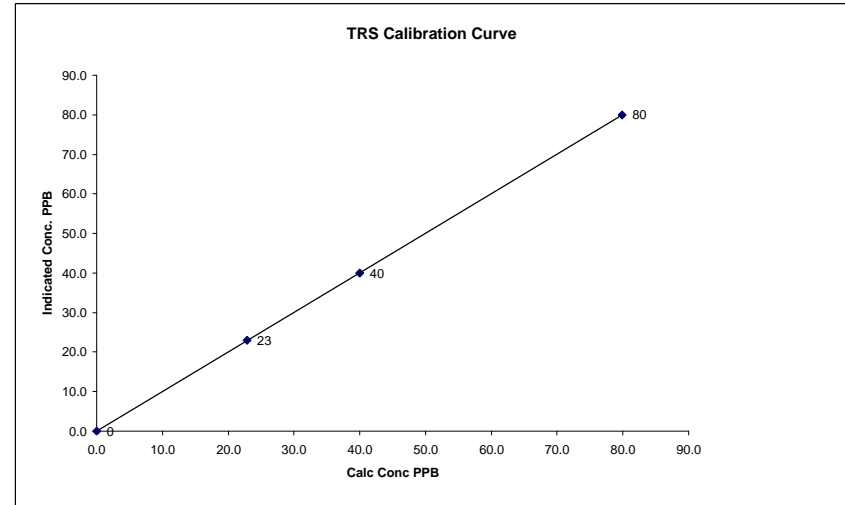
Auto Zero	0.2	0.1
Auto Span	20	20
Sample Lines Connected		YES
Percent Change from Previous Calibration		-

Calibration Performed by: Shea Beaton / Ting Xu

TRS Calibration Curve

Calibration Date	July 14, 2010
Company	Lakeland Industry & Community Association
Plant / Location	LICA 1 - Cold Lake South
Start Time (MST)	10:18
End Time (MST)	13:14

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999999
0	0	n/a	Intercept	(± 3% F.S.)	1.000726
23	23	0.9958			
40	40	0.9989			
80	80	0.9990			



Notes: _____

Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	July 14, 2010	Previous Calibration	June 3, 2010
Company:	Lakeland Industry and Community Association		
Plant / Location:	LICA1/Cold Lake		
Start Time (MST)	6:50	End Time (MST)	10:40
Reason:	Monthly Calibration		
Barometric Pressure:	710 mmHg	Station Temperature:	22 Deg C
Calibrator:	API 700	S/N:	831
Cal Gas Concentration:	207Prop/602Meth	ppm	Cal Gas Expiry Date: 8/21/2011
DAS make & Model:	ESC 8832	S/N :	3485
Output Voltage Range:	0 - 10 VDC		

Analyzer Information

Make / Model	TECO 51C-LT	S/N :	51CLT-42740-8718	Method	Flame Ionization
--------------	-------------	-------	------------------	--------	------------------

Analyzer Settings

	Before Calibration	After Calibration
Concentration Range	0 - 50 ppm	0 - 50 ppm
Sample Pressure	6.5 psi	6.5 psi
Hydrogen Pressure	8 psi	8 psi
Air Pressure	20 psi	20 psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
1999	0	0.0	0.1	N/A
1999	0	0.0	0.0	N/A
1999	70	39.6	40.8	0.9712
1999	70	39.6	40.0	0.9907
1999	35	20.2	19.9	1.0128
1999	20	11.6	11.2	1.0359
1999	0	0.0	0.0	N/A
			Correction Factor:	0.9907

Percent Change

Previous Calibration Correction Factor:	0.9927
Current Correction Factor Before Span Adjust:	0.9712
Percent Change:	2.2%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.1	0.0
Auto Span	38.6	37.8
Sample Lines Connected		YES

Cylinder Pressures

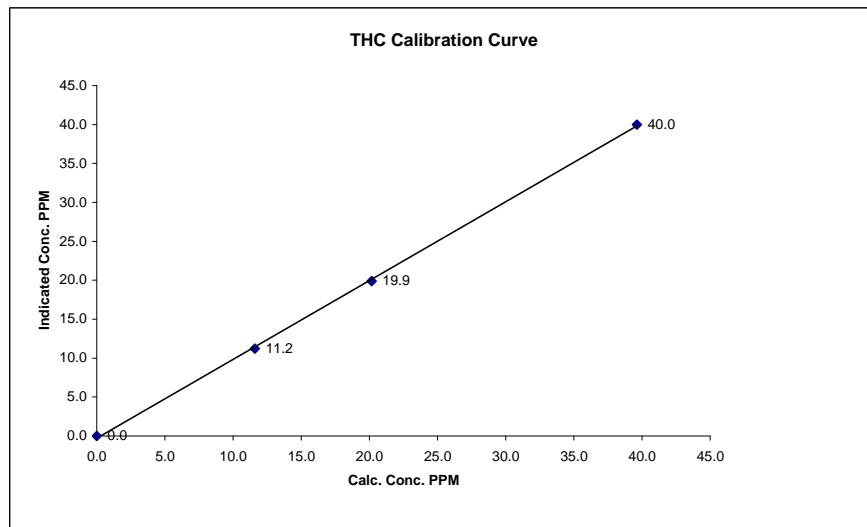
Span	1350 psi
Hydrogen	750 psi
Zero Air	32 psi Maxxam-owned API 701 zero air supply with catalytic oxidizer

Calibration Performed by: Shea Beaton / Ting Xu

THC Calibration Curve

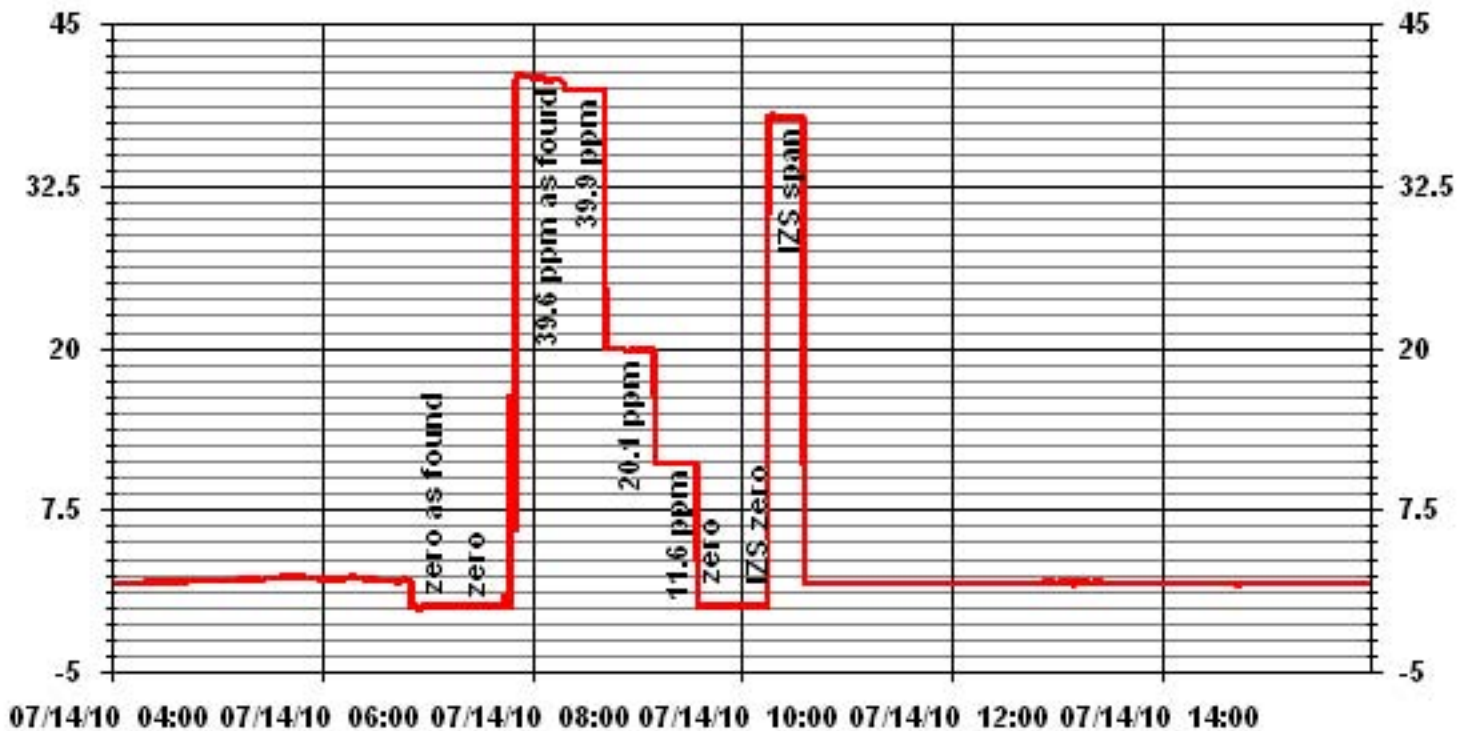
Calibration Date	July 14, 2010
Company	Lakeland Industry and Community Association
Plant / Location	LICA1/Cold Lake
Start Time (MST)	6:50
End Time (MST)	10:40

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999738
0.0	0.0		Intercept	(0.85 to 1.15)	1.012013
11.6	11.2	1.0359		(± 3% F.S.)	-0.285169
20.2	19.9	1.0128			
39.6	40.0	0.9907			



Notes:

01 Minute Averages



Particulate Matter 2.5

TEOM 1405F Audit

	<u>Station</u>		<u>Audit Transfer Standard</u>
Date:	July 14, 2010	Make/Model:	Bios DC-2
Station Name:	LICA 1	Serial Number:	1193
Location:	Cold Lake South	Cell s/n:	2272
Operator:	LICA	Thermometer s/n:	Hg Thermometer 990

	<u>Sampler</u>		<u>Set-up and current Sampler readings</u>
Make/Model	Thermo Scientific Series 1405F	F-Main Set Pt (l/min)	3.00
Unit #	AMU 1775	F-Aux Set Pt (l/min)	13.67
Unit s/n	1405A201620804	Filter Load (%)	28.0%
Firmware Ver.	1.52	K _o Factor	14578.0
Parameter	PM 2.5 (with FDMS)	Temp (°C)	16.4
		Press (ATM)	0.932

Conversion from mmHg or "Hg to ATM (Atmospheres)

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

Note: Tolerances are noted as BOLD in Brackets

Audit

Status			
Noise <0.10ug	0.008	Warnings	None
Pump Vacuum <0.40atm	0.34		
Temperature/Pressure			
Measured Temp (± 2 °C)	16.7	D °C	-0.3
Measured Press (± 0.01atm)	0.934	DATM	-0.002
Flow Audit			
Indicated Main Flow (l/min)	3.00	Main Flow Drift (±10.0%)	NA
Measured Main Flow (l/min)	3.08	Flow Adjusted to Measured?	No
Indicated Bypass Flow (l/min)	13.67	Bypass Flow Drift (±10.0%)	2.19%
Measured Bypass Flow (l/min)	13.59	Flow Adjusted to Measured?	No
Leak Check		Instrument Setup	
Main (< 0.15 l/min)	NA	Flow Control = Active	
Aux (< 0.6 l/min)	NA	Report Conditions = Standard (25.0 C and 1atm)	
K_o Factor			
Measured	NA		
K _o Difference (± 2.5%)	NA		

Start Time: 8:30 **Finish Time:** 11:02

Sample Inlet Cleaned: Yes **New Filters Installed:** Yes
New Filter Loading %: 16.3%

Comments: _____

Auditor/s: Shea Beaton / Ting Xu

Nitrogen Dioxide

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	July 13, 2010	Previous Calibration	June 3, 2010
Company	LICA	Plant/Location	LICA 1 - Cold Lake South
Start Time (MST)	12:34	End Time (MST)	18:04
Reason:	Monthly Calibration	Other	
Barometric Pressure	704 mmHg	Station Temperature	23 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO 51.6 ppm	Cal Gas Expiry date 19-Dec-10
DAS Output Voltage	0 - 10	Volts	Chart Rec. Output NA Volts

Equipment Information

Analyzer Make / Model:	TECO 42C	S/N :	427408716	Method:	Chemiluminescent
Calibrator Make / Model:	Envionics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	3485		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	Envionics 2000	S/N :	1991		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0 - 500			ppb			
Sample Flow/Conv. Temp	713	ccm	317	Deg C	707	ccm	318.0
Ozone Flow / Vacuum	OK	ccm	177.5	"Hg-A	OK	ccm	175.8
HVPS / A ZERO	-820	Volts	NA	MV	-820	Volts	NA
Rx/ Temp / PMT Temp	49.9	Deg C	-2.5	Deg C	49.7	Deg C	-2.5
Box Temp / IZS Temp	27.5	Deg C	OK	Deg C	28.4	Deg C	OK
Offset	3.7	NOx	3.4	NO	4	NOx	3.7
Slope	1.003	NOx	0.873	NO	1.006	NOx	0.940
NO2 COEF / Conv Efficiency	0.998	NO2	NA		0.998	NO2	NA

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
2997	0.0	----	0	0	0	0	0	0	----	----
2984	23.3	----	401	400	----	372	371	1	1.0789	1.0776
2984	23.3	----	401	400	----	402	400	3	0.9984	0.9995
2978	11.7	----	203	202	----	202	201	1	1.0035	1.0046
3000	5.8	----	100	100	----	101	100	1	0.9896	0.9957
3000	0.0	----	0	0	0	1	0	0	----	----

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		
2978	23.3	----	402	401	----	404	402	2	----	----
2978	23.3	300	402	----	325	403	79	325	1.0000	100.00%
2981	23.3	150	402	----	144	404	260	144	1.0000	100.00%
2978	23.3	75	402	----	64	404	340	64	1.0000	100.00%

Linearity	Sum of Least Squares	NOx= 0.999	NO= 1.000	NO2= 1.000
OK?	Yes No	Correction Factors:	NOx= 0.9984	NO= 0.9995
			Average Converter Efficiency= 100.00%	

	Before Calibration				After Calibration			
Auto Zero	0.1	NOx	0.1	NO2	0.1	NOx	0.4	NO2
Auto Span	250	NOx	248	NO2	274	NOx	272	NO2
	Sample Lines Connected				YES			

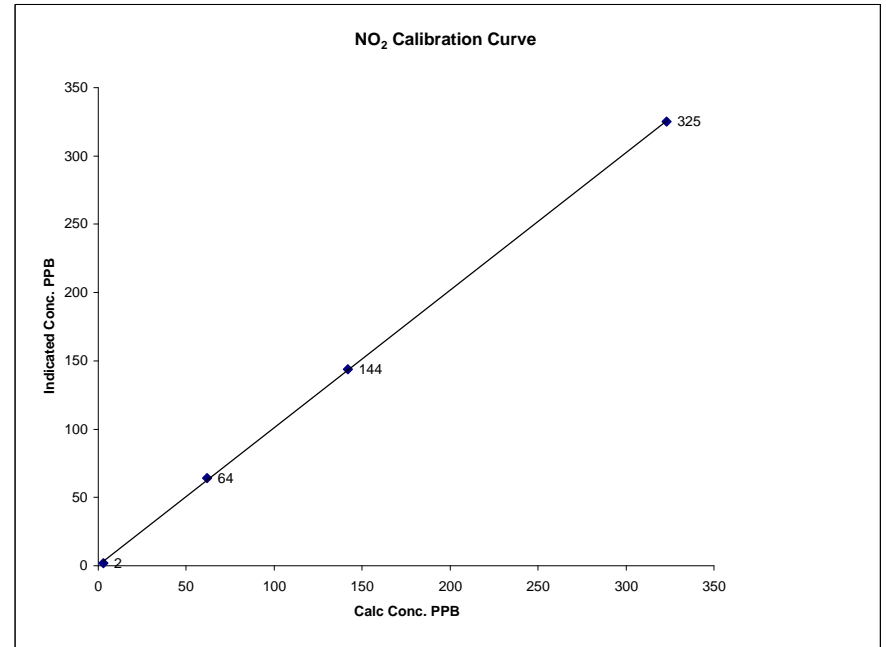
Notes

Calibration Performed by: Shea Beaton / Ting Xu

NO2 Calibration Curve

Calibration Date	July 13, 2010	LICA	
Company		LICA 1 - Cold Lake South	
Plant / Location		LICA 1 - Cold Lake South	
Start Time (MST)	12:34	End Time (MST)	18:04

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999929
ppb	ppb		Slope	(0.85 to 1.15)	1.006684
3	2	N/A	Intercept	(± 3% F.S.)	0.36433
62	64	0.9688			
142	144	0.9861			
323	325	0.9938			

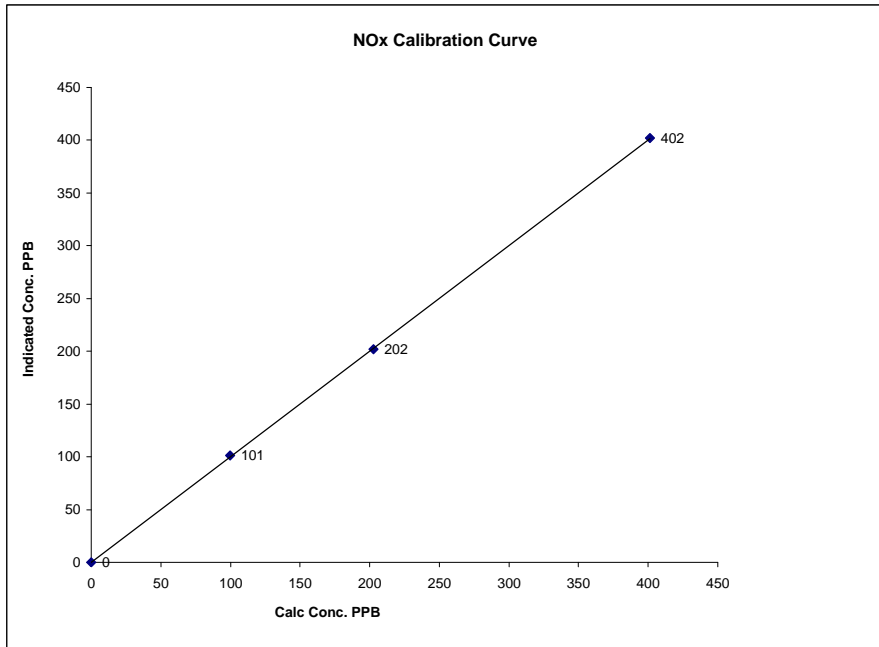


Notes:

NOx Calibration Curve

Calibration Date July 13, 2010
 Company LICA
 Plant / Location LICA 1 - Cold Lake South
 Start Time (MST) 12:34 End Time (MST) 18:04

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999980
0	0	N/A	Slope	(0.85 to 1.15)	1.000575
100	101	0.9896	Intercept	(± 3% F.S.)	0.14727
203	202	1.0035			
401	402	0.9984			

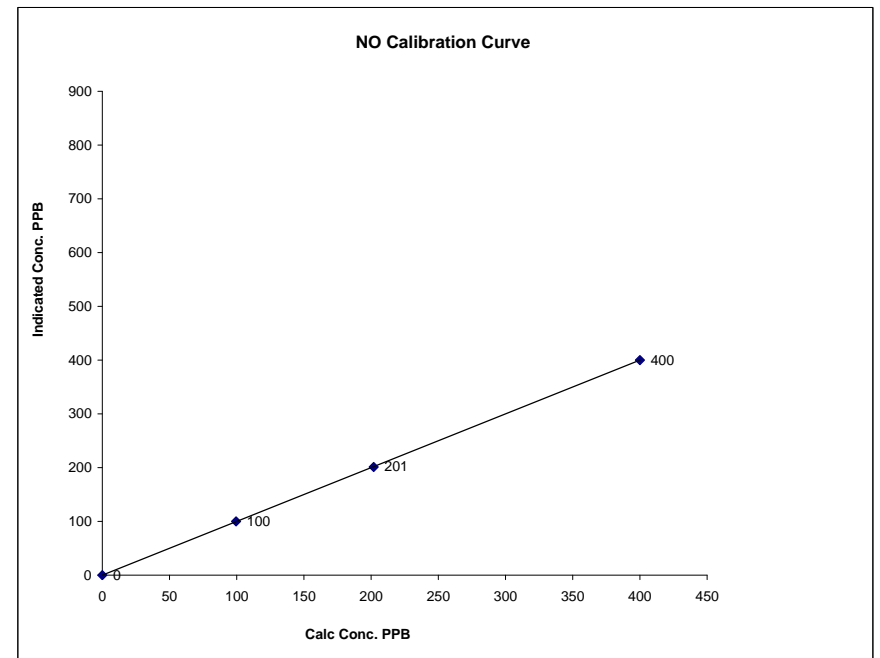


Notes:

NO Calibration Curve

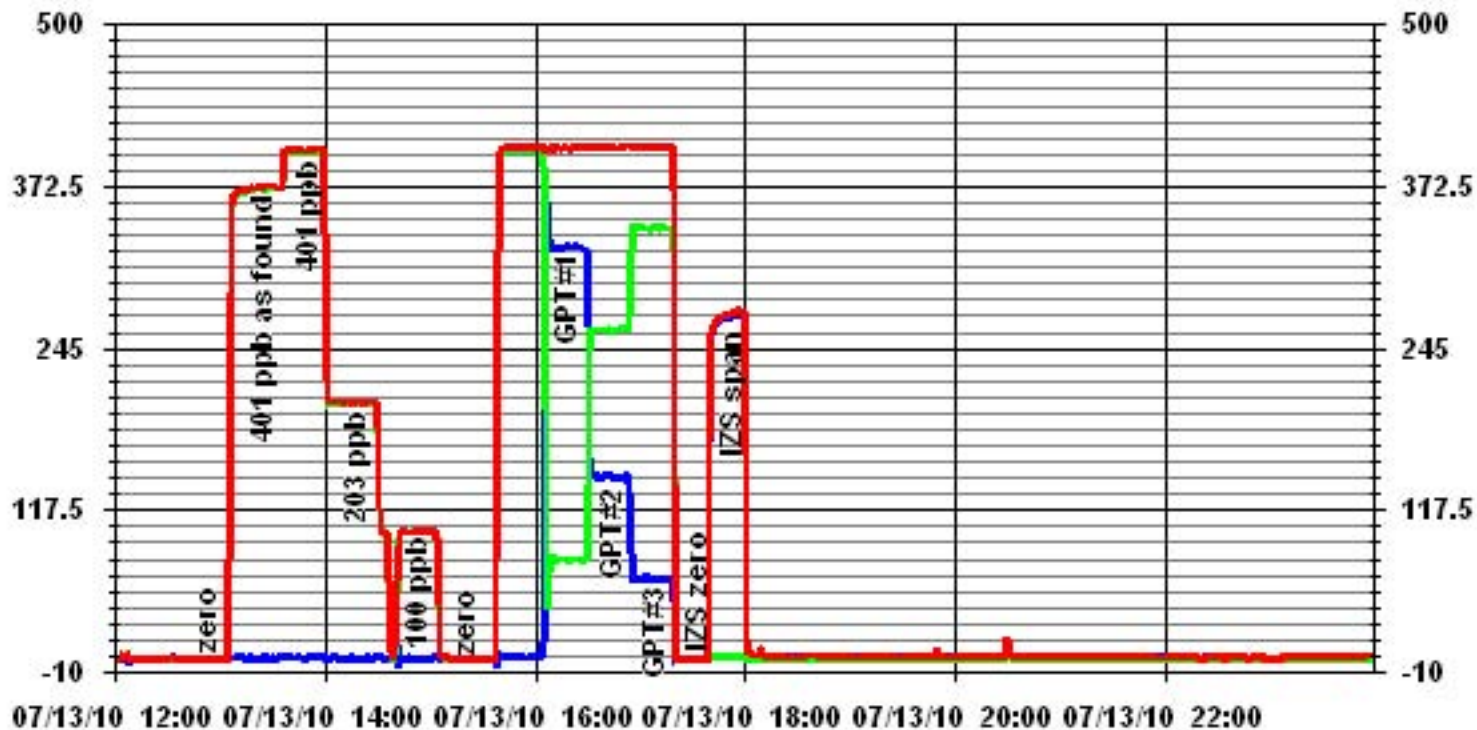
Calibration Date July 13, 2010
 Company LICA
 Plant / Location LICA 1 - Cold Lake South
 Start Time (MST) 12:34 End Time (MST) 18:04

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999988
0	0	N/A	Slope	(0.85 to 1.15)	1.000150
100	100	0.9957	Intercept	(± 3% F.S.)	-2.1031
202	201	1.0046			
400	400	0.9995			



Notes:

01 Minute Averages



Ozone

O₃ Calibration Report

Station Information

Calibration Date	July 14, 2010	Previous Calibration	June 3, 2010
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	6:26	End Time (MST)	10:06
Reason:	Monthly Calibration		
Barometric Pressure	710 mm Hg	Station Temperature	22 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 49i	S/N :	700419951	Method:	Fluorescent
Calibrator Make / Model:	Enviroincs 2000	S/N :	1991	Method:	GPT
DAS Make / Model:	ESC 8832	S/N :	3485		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500			
Cell A Flow/ Cell B Flow	737 ccm	751 ccm	742 ccm	757 ccm
Pressure	701 mmHg		709.5 mmHg	
Bench Lamp Temp	53.5 Deg C		53.5 Deg C	
O ₃ Lamp/Box Temp	67.6 Deg C	28.3 Deg C	67.6 Deg C	27.9 Deg C
Offset / Slope	0.7	1.01	0.7	1.013

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3000	0	0	0	N/A
3003	350	323	321	1.0062
3003	350	323	324	0.9969
3002	150	142	138	1.0290
3008	75	62	60	1.0333
3007	0	0	0	N/A
Sum of Least Squares				N/A
New Correction Factor				0.9969

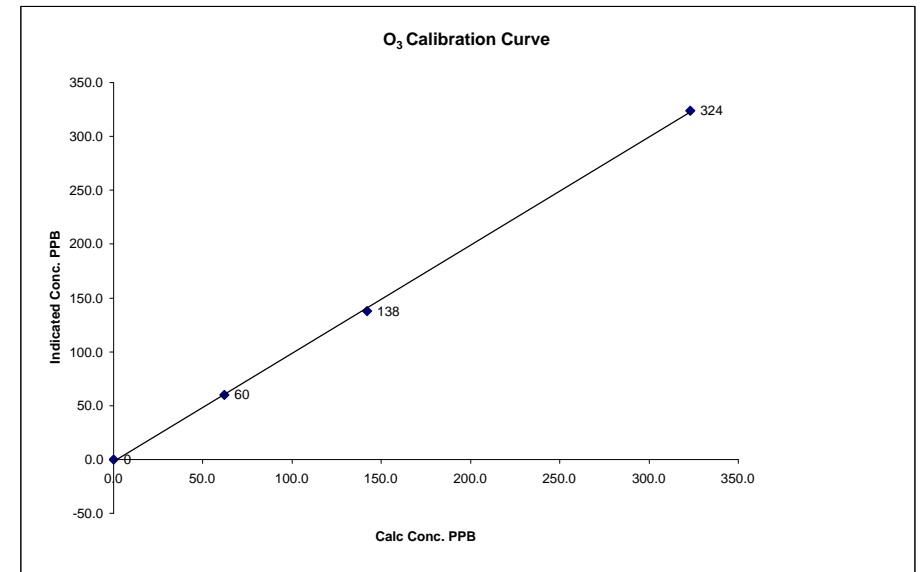
	Before Calibration	After Calibration
Auto Zero	-0.3	-0.3
Auto Span	281	284
Sample Lines Connected		YES
Percent Change from Previous Calibration		-1.0%

Calibration Performed by: Shea Beaton / Ting Xu

O₃ Calibration Curve

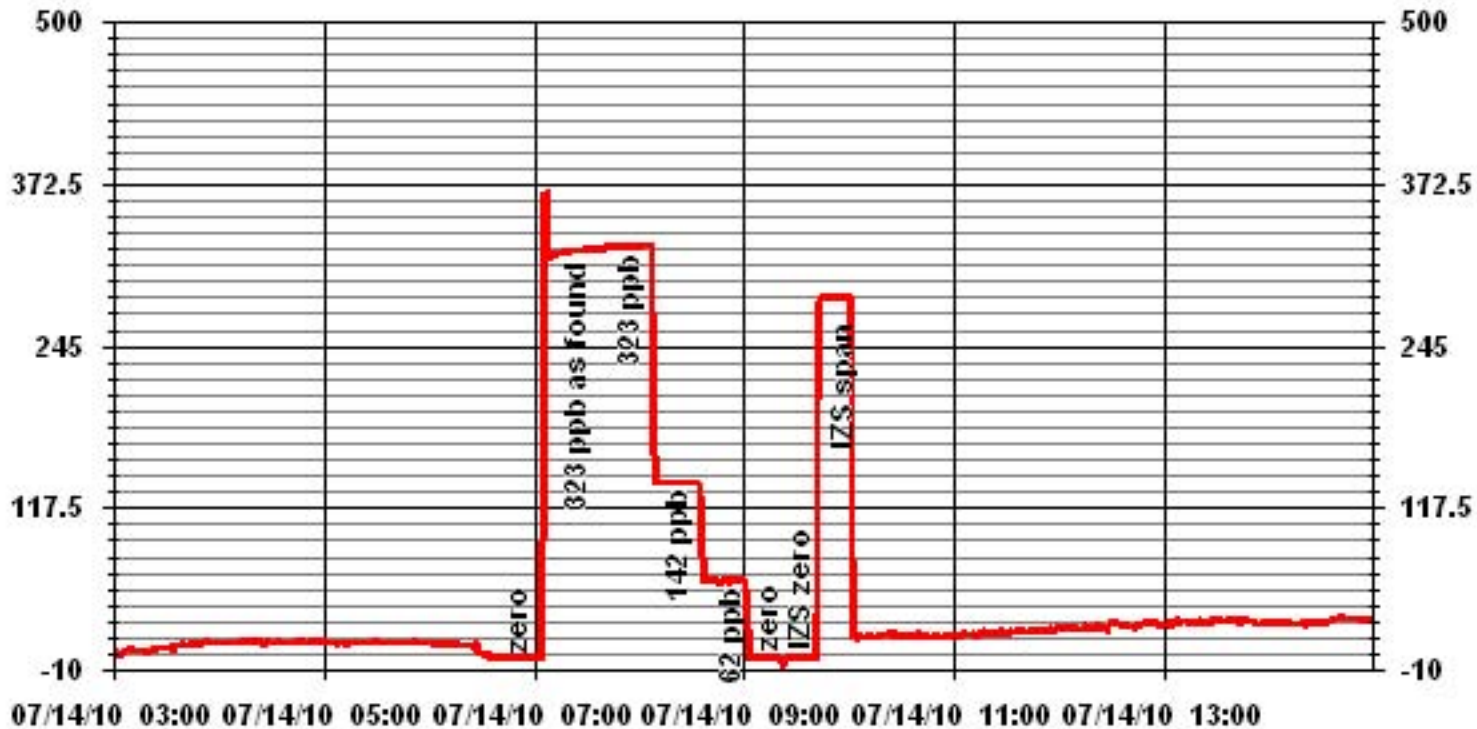
Calibration Date	July 14, 2010		
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	6:26	End Time (MST)	10:06

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15)	Intercept (± 3% F.S.)	
0	0	n/a			0.999776
62	60	1.0333			1.004919
142	138	1.0290			
323	324	0.9969			-1.898073



Notes:

01 Minute Averages



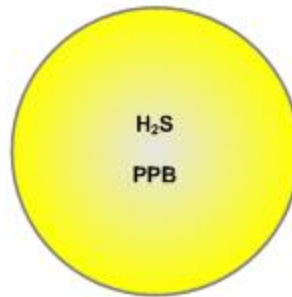
Passive Bubble Maps

Lakeland Industry & Community Association H₂S Passive Bubble Map

JULY 2010

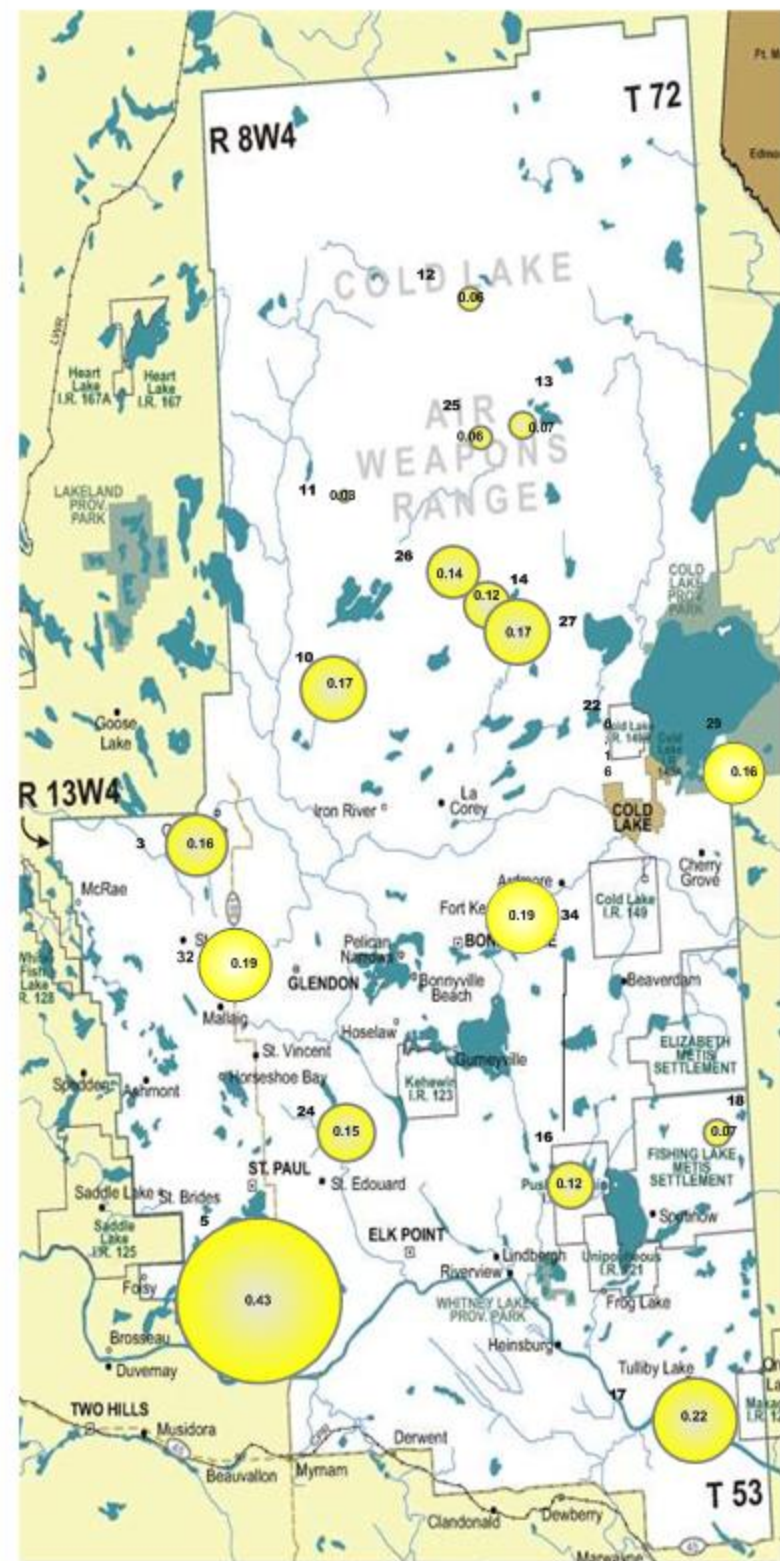
PASSIVE STATIONS

		DUPLICATE
3 – Therien	0.16 PPB	NA
5 – Lake Eliza	0.42 PPB	0.43 PPB
10 – La Corey	0.16 PPB	0.18 PPB
11 – Wolf Lake	0.03 PPB	NA
12 – Foster Creek	0.06 PPB	0.05 PPB
13 – Primrose	0.07 PPB	NA
14 – Maskwa	0.11 PPB	0.13 PPB
16 – Frog Lake	0.12 PPB	NA
17 – Clear Range	0.20 PPB	0.23 PPB
18 – Fishing Lake	0.07 PPB	NA
22 – Cold Lake South	0.16 PPB	NA
24 – Fort George	0.15 PPB	0.15 PPB
25 – Burnt Lake	0.06 PPB	NA
26 – Mahihkan	0.12 PPB	0.16 PPB
27 – Mahkeses	0.17 PPB	NA
29 – Cold Lake South 2	0.16 PPB	0.16 PPB
32 – St. Lina	0.19 PPB	NA
34 – Portable	0.19 PPB	NA



Summary

Minimum : 0.03 PPB – Wolf Lake
 Maximum: 0.43 PPB – Lake Eliza
 Average: 0.15 PPB *Includes Duplicates



Lakeland Industry & Community Association NO₂ Passive Bubble Map

JULY 2010

PASSIVE STATIONS

		DUPLICATE
2 – Sand River	0.3 PPB	NA
3 – Therien	0.4 PPB	0.5 PPB
4 – Flat Lake	0.4 PPB	NA
5 – Lake Eliza	0.4 PPB	0.3 PPB
6 – Telegraph Creek	0.7 PPB	NA
8 – Muriel-Kehewin	0.3 PPB	0.3 PPB
9 – Dupre	0.7 PPB	NA
10 – La Corey	0.9 PPB	0.9 PPB
11 – Wolf Lake	0.2 PPB	NA
12 – Foster Creek	0.4 PPB	0.4 PPB
13 – Primrose	0.4 PPB	NA
14 – Maskwa	0.7 PPB	0.8 PPB
15 – Ardmore	0.5 PPB	NA
16 – Frog Lake	0.6 PPB	0.7 PPB
17 – Clear Range	0.9 PPB	NA
18 – Fishing Lake	0.4 PPB	0.3 PPB
19 – Beaverdam	0.4 PPB	NA
22 – Cold Lake South	0.5 PPB	NA
23 – Medley-Martineau	<0.1 PPB	<0.1 PPB
24 – Fort George	0.9 PPB	NA
28 – Town of Bonnyville	1.6 PPB	1.6 PPB
29 – Cold Lake South 2	0.5 PPB	NA
32 – St. Lina	0.3 PPB	NA
34 – Portable	0.6 PPB	NA



Summary

Minimum : <0.1 PPB – Medley-Martineau
Maximum: 1.6 PPB – Town of Bonnyville
Average: 0.6 PPB *Includes Duplicates

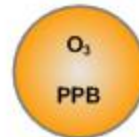


Lakeland Industry & Community Association O₃ Passive Bubble Map

JULY 2010

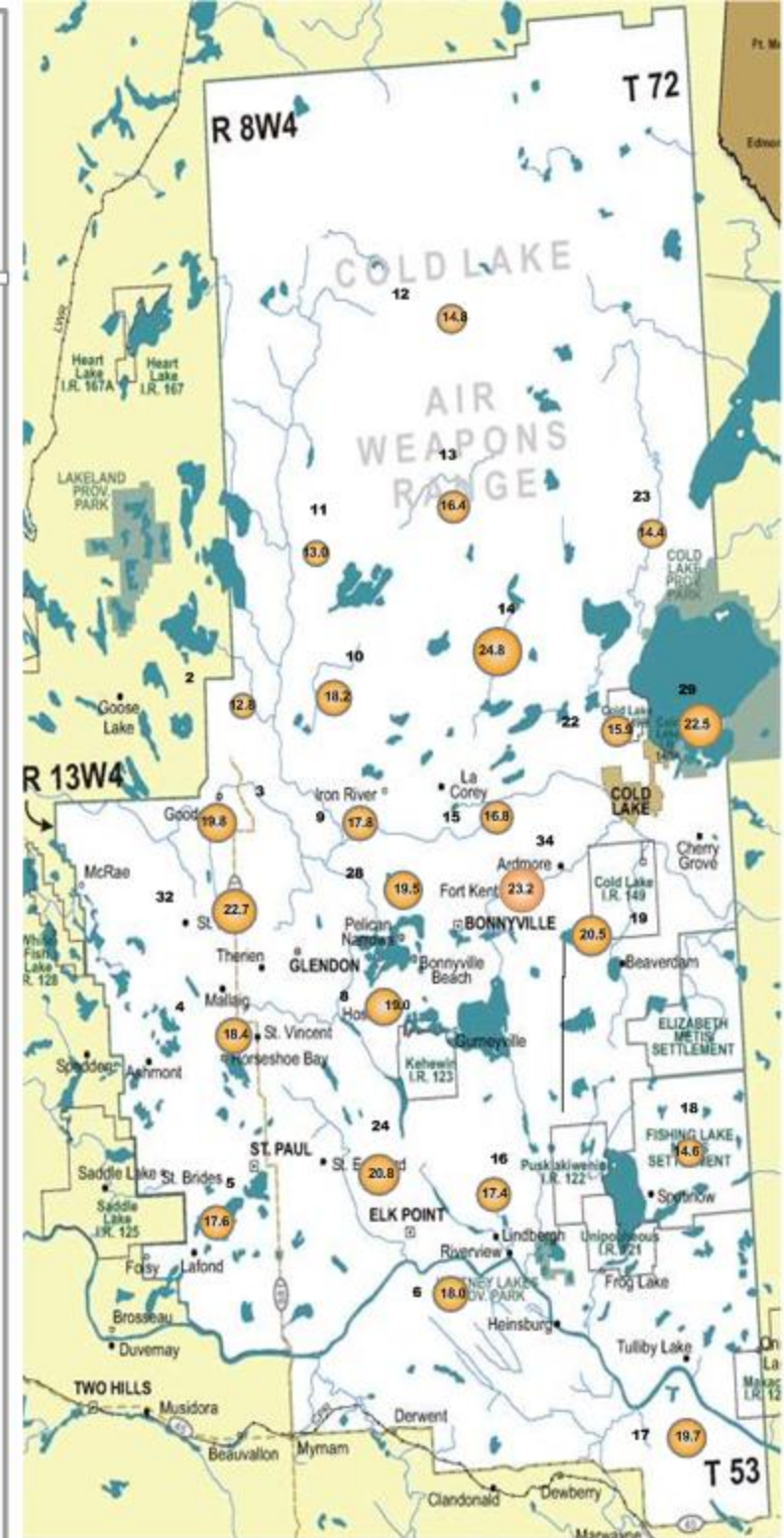
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	12.8 PPB	NA
3 – Therien	18.9 PPB	20.7 PPB
4 – Flat Lake	18.4 PPB	NA
5 – Lake Eliza	17.5 PPB	17.6 PPB
6 – Telegraph Creek	18.0 PPB	NA
8 – Muriel-Kehewin	19.0 PPB	18.9 PPB
9 – Dupre	17.8 PPB	NA
10 – La Corey	18.1 PPB	18.3 PPB
11 – Wolf Lake	13.0 PPB	NA
12 – Foster Creek	15.1 PPB	14.5 PPB
13 – Primrose	16.4 PPB	NA
14 – Maskwa	24.7 PPB	24.8 PPB
15 – Ardmore	16.8 PPB	NA
16 – Frog Lake	17.2 PPB	17.5 PPB
17 – Clear Range	19.7 PPB	NA
18 – Fishing Lake	14.9 PPB	14.3 PPB
19 – Beaverdam	20.5 PPB	NA
22 – Cold Lake South	15.9 PPB	NA
23 – Medley-Martineau	14.9 PPB	13.8 PPB
24 – Fort George	20.8 PPB	NA
28 – Town of Bonnyville	20.8 PPB	18.1 PPB
29 – Cold Lake South 2	22.5 PPB	NA
32 – St. Lina	22.7 PPB	NA
34 – Portable	23.2 PPB	NA



Summary

Minimum : 12.8 PPB –Sand River
 Maximum: 24.8 PPB –Maskwa
 Average: 18.3 PPB *Includes Duplicates



Lakeland Industry & Community Association SO₂ Passive Bubble Map

JULY 2010

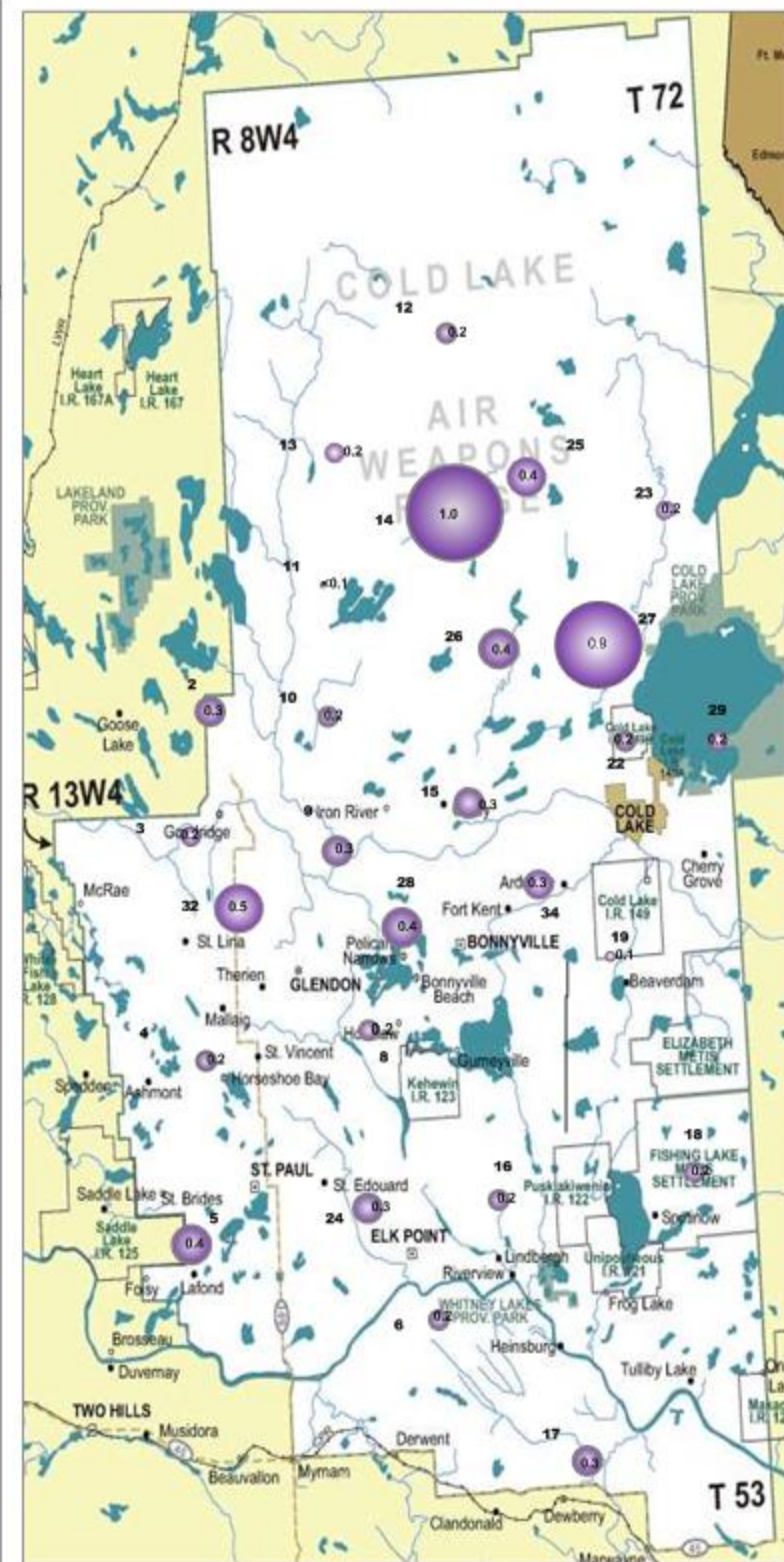
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	0.3 PPB	NA
3 – Therien	0.2 PPB	0.2 PPB
4 – Flat Lake	0.2 PPB	NA
5 – Lake Eliza	0.3 PPB	0.4 PPB
6 – Telegraph Creek	0.2 PPB	NA
8 – Muriel-Kehewin	0.2 PPB	0.1 PPB
9 – Dupre	0.3 PPB	NA
10 – La Corey	0.2 PPB	0.2 PPB
11 – Wolf Lake	<0.1 PPB	NA
12 – Foster Creek	0.2 PPB	0.1 PPB
13 – Primrose	0.2 PPB	NA
14 – Maskwa	1.0 PPB	1.0 PPB
15 – Ardmore	0.3 PPB	NA
16 – Frog Lake	0.2 PPB	0.2 PPB
17 – Clear Range	0.3 PPB	NA
18 – Fishing Lake	0.1 PPB	0.2 PPB
19 – Beaverdam	0.1 PPB	NA
22 – Cold Lake South	0.2 PPB	NA
23 – Medley-Martineau	0.2 PPB	0.1 PPB
24 – Fort George	0.3 PPB	NA
25 – Burnt Lake	0.4 PPB	0.3 PPB
26 – Mahikan	0.4 PPB	NA
27 – Mahkeses	0.9 PPB	0.8 PPB
28 – Town of Bonnyville	0.4 PPB	NA
29 – Cold Lake South 2	0.2 PPB	0.2 PPB
32 – St. Lina	0.5 PPB	NA
34 – Portable	0.3 PPB	NA



Summary

Minimum : <0.1 PPB – Wolf Lake
Maximum: 1.0 PPB – Maskwa
Average: 0.3 PPB *Includes Duplicates



Passive Field Data

Field Notes

ID	SAMPLER	START		END		NOTES
		DATE	TIME	DATE	TIME	
2	SO ₂ /NO ₂ /O ₃	06/30/10	07:55	07/28/10	08:345	
2A (Dup)	NA	NA	NA	NA	NA	
3	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	07:15	07/28/10	07:45	
3A (Dup)	SO ₂ /NO ₂ /O ₃	06/30/10	07:15	07/28/10	07:45	
4	SO ₂ /NO ₂ /O ₃	07/01/10	11:55	07/29/10	12:50	
4A (Dup)	NA	NA	NA	NA	NA	
5	H ₂ S/SO ₂ /NO ₂ /O ₃	07/01/10	10:20	07/29/10	12:00	
5A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	07/01/10	10:20	07/29/10	12:00	
6	SO ₂ /NO ₂ /O ₃	07/01/10	09:40	07/28/10	10:25	
6A (Dup)	NA	NA	NA	NA	NA	
8	SO ₂ /NO ₂ /O ₃	07/01/10	12:50	07/29/10	13:50	
8A (Dup)	SO ₂ /NO ₂ /O ₃	07/01/10	12:50	07/29/10	13:50	
9	SO ₂ /NO ₂ /O ₃	06/30/10	17:30	07/28/10	18:45	
9A (Dup)	NA	NA	NA	NA	NA	
10	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	08:45	07/28/10	09:25	
10A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	08:45	07/28/10	09:25	
11	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	09:35	07/28/10	10:25	
11A (Dup)	NA	NA	NA	NA	NA	
12	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	11:00	07/28/10	12:00	
12A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	11:00	07/28/10	12:00	
13	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	12:35	07/28/10	13:55	
13A (Dup)	NA	NA	NA	NA	NA	
14	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	13:50	07/28/10	14:55	
14A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	13:50	07/28/10	14:55	
15	SO ₂ /NO ₂ /O ₃	06/30/10	16:50	07/28/10	18:10	
15A (Dup)	NA	NA	NA	NA	NA	
16	H ₂ S/SO ₂ /NO ₂ /O ₃	07/01/10	08:00	07/29/10	08:40	
16A (Dup)	SO ₂ /NO ₂ /O ₃	07/01/10	08:00	07/29/10	08:40	

ID	SAMPLER	START		END		NOTES
		DATE	TIME	DATE	TIME	
17	H ₂ S/SO ₂ /NO ₂ /O ₃	07/01/10	08:50	07/29/10	09:35	
17A (Dup)	H ₂ S	07/01/10	08:50	07/29/10	09:35	
18	H ₂ S/SO ₂ /NO ₂ /O ₃	07/01/10	07:15	07/29/10	07:45	
18A (Dup)	SO ₂ /NO ₂ /O ₃	07/01/10	07:15	07/29/10	07:45	
19	SO ₂ /NO ₂ /O ₃	07/01/10	06:20	07/29/10	06:30	
19A (Dup)	NA	NA	NA	NA	NA	
22	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	15:55	07/28/10	17:20	
22A (Dup)	NA	NA	NA	NA	NA	
23	SO ₂ /NO ₂ /O ₃	06/30/10	10:05	07/28/10	16:30	
23A (Dup)	SO ₂ /NO ₂ /O ₃	06/30/10	10:05	07/28/10	16:30	
24	H ₂ S/SO ₂ /NO ₂ /O ₃	07/01/10	10:40	07/29/10	11:15	
24A (Dup)	H ₂ S	07/01/10	10:40	07/29/10	11:15	
25	H ₂ S/SO ₂	06/30/10	12:15	07/28/10	13:25	
25A (Dup)	SO ₂	06/30/10	12:15	07/28/10	13:25	
26	H ₂ S/SO ₂	06/30/10	13:25	07/28/10	14:40	
26A (Dup)	H ₂ S	06/30/10	13:25	07/28/10	14:40	
27	H ₂ S/SO ₂	06/30/10	14:10	07/28/10	15:25	
27A (Dup)	SO ₂	06/30/10	14:10	07/28/10	15:25	
28	SO ₂ /NO ₂ /O ₃	07/01/10	13:20	07/29/10	14:25	
28A (Dup)	NO ₂ /O ₃	07/01/10	13:20	07/29/10	14:25	
29	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	15:55	07/28/10	17:20	
29A (Dup)	H ₂ S/SO ₂	06/30/10	15:55	07/28/10	17:20	
32	H ₂ S/SO ₂ /NO ₂ /O ₃	06/30/10	06:30	07/28/10	07:05	
32A (Dup)	NA	NA	NA	NA	NA	
34	H ₂ S/SO ₂ /NO ₂ /O ₃	06/28/10	10:00	07/29/10	15:25	
34A (Dup)	NA	NA	NA	NA	NA	

Passive Network Laboratory Analysis



Your Project #: 2010/06/30 - 2010/07/28
Site:LICA

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

Report Date: 2010/08/17

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B065708
Received: 2010/08/03, 15:13

Sample Matrix: Air
Samples Received: 43

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
H2S Passive Analysis (1)	25	2010/08/16	2010/08/16	EINDSOP-00150	Tang.Passive H2S in
H2S Passive Analysis (1)	1	2010/08/17	2010/08/17	EINDSOP-00150	Tang.Passive H2S in
NO2 Passive Analysis (1)	10	2010/08/10	2010/08/16	EINDSOP-00148	Tang Passive NO2 in
NO2 Passive Analysis (1)	24	2010/08/11	2010/08/16	EINDSOP-00148	Tang Passive NO2 in
O3 Passive Analysis (1)	34	2010/08/09	2010/08/16	EINDSOP-00197	EPA 300 R2.1
SO2 Passive Analysis (1)	39	2010/08/11	2010/08/16	EINDSOP-00149	Tang Passive SO2 in

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

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

Encryption Key

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

LEVI MANCHAK,
Email:
Phone# (780) 378-8500

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

Total cover pages: 1

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		V90999	V91005	V91010	V91011	V91013		
Sampling Date		2010/06/30 07:55	2010/06/30 07:15	2010/06/30 07:15	2010/07/01 11:55	2010/07/01 10:20		
	Units	2	3	3A (DUP)	4	5	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb		0.16			0.42	0.02	4180380
Calculated NO2	ppb	0.3	0.4	0.5	0.4	0.4	0.1	4166901
Calculated O3	ppb	12.8	18.9	20.7	18.4	17.5	0.1	4163512
Calculated SO2	ppb	0.3	0.2	0.2	0.2	0.3	0.1	4169710

RDL = Reportable Detection Limit

Maxxam ID		V91014	V91015	V91016	V91017	V91018		
Sampling Date		2010/07/01 10:20	2010/07/01 09:40	2010/07/01 12:50	2010/07/01 12:50	2010/06/30 17:30		
	Units	5A (DUP)	6	8	8A (DUP)	9	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.44					0.02	4180380
Calculated NO2	ppb	0.3	0.7	0.3	0.3	0.7	0.1	4166901
Calculated O3	ppb	17.6	18.0	19.0	18.9	17.8	0.1	4163512
Calculated SO2	ppb	0.4	0.2	0.2	0.1	0.3	0.1	4169710

RDL = Reportable Detection Limit

Maxxam ID		V91020	V91021	V91022	V91023	V91024		
Sampling Date		2010/06/30 08:45	2010/06/30 08:45	2010/06/30 09:35	2010/06/30 11:00	2010/06/30 11:00		
	Units	10	10A (DUP)	11	12	12A (DUP)	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.16	0.18	0.03	0.06	0.05	0.02	4180380
Calculated NO2	ppb	0.9	0.9	0.2	0.4	0.4	0.1	4169694
Calculated O3	ppb	18.1	18.3	13.0	15.1	14.5	0.1	4163512
Calculated SO2	ppb	0.2	0.2	<0.1	0.2	0.1	0.1	4169710

RDL = Reportable Detection Limit

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		V91025	V91026	V91027		V91028		
Sampling Date		2010/06/30 12:35	2010/06/30 13:50	2010/06/30 13:50		2010/06/30 16:50		
	Units	13	14	14A (DUP)	QC Batch	15	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.07	0.11	0.13	4180380		0.02	4180380
Calculated NO2	ppb	0.4	0.7	0.8	4169694	0.5	0.1	4169694
Calculated O3	ppb	16.4	24.7	24.8	4163512	16.8	0.1	4163512
Calculated SO2	ppb	0.2	1.0	1.0	4169710	0.3	0.1	4169711
RDL = Reportable Detection Limit								

Maxxam ID		V91029		V91030	V91032	V91033		
Sampling Date		2010/07/01 08:00		2010/07/01 08:00	2010/07/01 08:50	2010/07/01 08:50		
	Units	16	QC Batch	16A (DUP)	17	17A (DUP)	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.12	4180380		0.20	0.23	0.02	4180380
Calculated NO2	ppb	0.6	4169694	0.7	0.9		0.1	4169694
Calculated O3	ppb	17.2	4163512	17.5	19.7		0.1	4163550
Calculated SO2	ppb	0.2	4169711	0.2	0.3		0.1	4169711
RDL = Reportable Detection Limit								

Maxxam ID		V91034	V91035	V91036	V91037	V91038		
Sampling Date		2010/07/01 07:15	2010/07/01 07:15	2010/07/01 06:20	2010/06/30 15:55	2010/06/30 15:05		
	Units	18	18A (DUP)	19	22	23	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.07			0.16		0.02	4180380
Calculated NO2	ppb	0.4	0.3	0.4	0.5	<0.1	0.1	4169694
Calculated O3	ppb	14.9	14.3	20.5	15.9	14.9	0.1	4163550
Calculated SO2	ppb	0.1	0.2	0.1	0.2	0.2	0.1	4169711
RDL = Reportable Detection Limit								

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		V91039	V91040	V91041	V91042	V91043		
Sampling Date		2010/07/01 10:40	2010/07/01 10:40	2010/06/30 12:15	2010/06/30 12:15	2010/06/30 13:25		
	Units	24	24A (DUP)	25	25A (DUP)	26	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.15	0.15	0.06		0.12	0.02	4180380
Calculated NO2	ppb	0.9					0.1	4169694
Calculated O3	ppb	20.8					0.1	4163550
Calculated SO2	ppb	0.3		0.4	0.3	0.4	0.1	4169711
RDL = Reportable Detection Limit								

Maxxam ID		V91044	V91045	V91046	V91047	V91048		
Sampling Date		2010/06/30 13:25	2010/06/30 14:10	2010/06/30 14:10	2010/07/01 13:20	2010/07/01 13:20		
	Units	26A (DUP)	27	27A (DUP)	28	28A (DUP)	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.16	0.17				0.02	4180380
Calculated NO2	ppb				1.6	1.6	0.1	4169694
Calculated O3	ppb				20.8	18.1	0.1	4163550
Calculated SO2	ppb		0.9	0.8	0.4		0.1	4169711
RDL = Reportable Detection Limit								

Maxxam ID		V91049	V91050	V91054	V91055	V91990		
Sampling Date		2010/06/30 15:55	2010/06/30 15:55	2010/06/30 06:35	2010/06/28 10:00	2010/06/28 10:00		
	Units	29	29A (DUP)	32	34	23A (DUP)	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.16	0.16	0.19	0.19		0.02	4180380
Calculated NO2	ppb	0.5		0.3	0.6	<0.1	0.1	4169694
Calculated O3	ppb	22.5		22.7	23.2	13.8	0.1	4163550
Calculated SO2	ppb	0.2	0.2	0.5	0.3	0.1	0.1	4169711
RDL = Reportable Detection Limit								

General Comments

Results relate only to the items tested.

Quality Assurance Report
 Maxxam Job Number: PB065708

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
4163512 OZ	Calibration Check	Calculated O3	2010/08/09		101	%	91 - 107
	Spiked Blank	Calculated O3	2010/08/09		99	%	N/A
	Method Blank	Calculated O3	2010/08/09	<0.1		ppb	
4163550 OZ	Calibration Check	Calculated O3	2010/08/09		100	%	91 - 107
	Spiked Blank	Calculated O3	2010/08/09		100	%	N/A
	Method Blank	Calculated O3	2010/08/09	<0.1		ppb	
4166901 DF4	Calibration Check	Calculated NO2	2010/08/10		99	%	76 - 118
	Spiked Blank	Calculated NO2	2010/08/10		96	%	N/A
	Method Blank	Calculated NO2	2010/08/10	<0.1		ppb	
4169694 DF4	Calibration Check	Calculated NO2	2010/08/11		100	%	76 - 118
	Spiked Blank	Calculated NO2	2010/08/11		97	%	N/A
	Method Blank	Calculated NO2	2010/08/11	<0.1		ppb	
4169710 DF4	Calibration Check	Calculated SO2	2010/08/11		101	%	95 - 105
	Spiked Blank	Calculated SO2	2010/08/11		105	%	N/A
	Method Blank	Calculated SO2	2010/08/11	<0.1		ppb	
4169711 DF4	Calibration Check	Calculated SO2	2010/08/11		100	%	95 - 105
	Spiked Blank	Calculated SO2	2010/08/11		105	%	N/A
	Method Blank	Calculated SO2	2010/08/11	<0.1		ppb	
4180380 TM5	Calibration Check	Calculated H2S	2010/08/16		100	%	80 - 120
	Spiked Blank	Calculated H2S	2010/08/16		100	%	N/A

Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Validation Signature Page

Maxxam Job #: B065708

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



LINDA LIN, Supervisor, Centre for Passive Sampling Technology

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Volatile Organics Laboratory Analysis

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: 7912
 Station ID: Lica 1 Canister Installation Date/Time: May 31, 10 @ 09:00 mst
 Field Sample ID: LICA VOC/CLS /June 1, 10 Canister Removal Date/Time: June 2, 10 @ 09:30 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
01-Jun-10	06/01/2010 0:00	06/02/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	594	??

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	17

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC # 2308

- Pump pressure gauge not reading right, was replaced 3 weeks ago. Sampler still working fine.

Technician Signiture: Shea Beaton



Your C.O.C. #: 2308

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/06/17

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B072160

Received: 2010/06/05, 13:47

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/15	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/15	BRL SOP-00304	EPA TO-15

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

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

Encryption Key

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

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

=====
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Total cover pages: 1

Maxxam Job #: B072160
 Report Date: 2010/06/17

RESULTS OF ANALYSES OF AIR

Maxxam ID		GC1817	GC1818	
Sampling Date		2010/06/01	2010/06/01	
COC Number		2308	2308	
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	LICA VOC/PORT/JUNE 1, 10 - S2396	QC Batch

Volatile Organics				
Pressure on Receipt	psig	16	22	2180443

QC Batch = Quality Control Batch

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1817				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2180496
Carbon Disulfide	ppbv	0.52	0.50	1.63	1.56	2180496
Propene	ppbv	<0.30	0.30	<0.516	0.516	2180496
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2180496
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2180496
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2180496
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2180496
Chloromethane	ppbv	0.61	0.30	1.26	0.620	2180496
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2180496
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2180496
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2180496
Trichlorofluoromethane (FREON 11)	ppbv	0.37	0.20	2.09	1.12	2180496
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2180496
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2180496
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2180496
2-Propanone	ppbv	3.15	0.80	7.49	1.90	2180496
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2180496
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2180496
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2180496
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2180496
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2180496
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2180496
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2180496
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2180496
Methylene Chloride(Dichloromethane)	ppbv	0.50	0.30	1.74	1.04	2180496
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2180496
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2180496
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2180496
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2180496
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1817				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2180496
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2180496
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2180496
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2180496
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2180496
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2180496
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2180496
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2180496
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2180496
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2180496
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2180496
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2180496
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2180496
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2180496
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2180496
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2180496
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2180496
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2180496
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2180496
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2180496
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2180496
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2180496
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2180496
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2180496
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2180496
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2180496
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2180496
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2180496
QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1817				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	98		N/A	N/A	2180496
D5-Chlorobenzene	%	96		N/A	N/A	2180496
Difluorobenzene	%	99		N/A	N/A	2180496

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

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1818				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/PORT/JUNE 1, 10 - S2396	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2180496
Carbon Disulfide	ppbv	0.54	0.50	1.70	1.56	2180496
Propene	ppbv	<0.30	0.30	<0.516	0.516	2180496
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2180496
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2180496
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2180496
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2180496
Chloromethane	ppbv	0.61	0.30	1.25	0.620	2180496
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2180496
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2180496
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2180496
Trichlorofluoromethane (FREON 11)	ppbv	0.35	0.20	1.96	1.12	2180496
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2180496
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2180496
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2180496
2-Propanone	ppbv	4.29	0.80	10.2	1.90	2180496
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2180496
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2180496
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2180496
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2180496
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2180496
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2180496
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2180496
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2180496
Methylene Chloride(Dichloromethane)	ppbv	0.50	0.30	1.75	1.04	2180496
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2180496
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2180496
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2180496
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2180496
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1818				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/PORT/JUNE 1, 10 - S2396	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2180496
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2180496
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2180496
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2180496
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2180496
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2180496
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2180496
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2180496
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2180496
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2180496
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2180496
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2180496
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2180496
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2180496
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2180496
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2180496
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2180496
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2180496
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2180496
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2180496
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2180496
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2180496
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2180496
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2180496
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2180496
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2180496
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2180496
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2180496
QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1818				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/PORT/JUNE 1, 10 - S2396	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	95		N/A	N/A	2180496
D5-Chlorobenzene	%	93		N/A	N/A	2180496
Difluorobenzene	%	96		N/A	N/A	2180496

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

Maxxam Job #: B072160
 Report Date: 2010/06/17

Test Summary

Maxxam ID GC1817
Sample ID LICA VOC/CLS/JUNE 1, 10 - 7912
Matrix AIR
Collected 2010/06/01
Shipped
Received 2010/06/05

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2180443	N/A	2010/06/15	LSY
Volatile Organics in Air (TO-15)	GC/MS	2180496	N/A	2010/06/15	LSY

Maxxam ID GC1818
Sample ID LICA VOC/PORT/JUNE 1, 10 - S2396
Matrix AIR
Collected 2010/06/01
Shipped
Received 2010/06/05

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2180443	N/A	2010/06/15	LSY
Volatile Organics in Air (TO-15)	GC/MS	2180496	N/A	2010/06/15	LSY

Maxxam Job #: B072160
Report Date: 2010/06/17

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB072160

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2180496 LSY	Spiked Blank	Bromochloromethane	2010/06/15		108	%	60 - 140
		D5-Chlorobenzene	2010/06/15		110	%	60 - 140
		Difluorobenzene	2010/06/15		110	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/15		92	%	70 - 130
		Carbon Disulfide	2010/06/15		94	%	70 - 130
		Propene	2010/06/15		95	%	70 - 130
		Vinyl Acetate	2010/06/15		108	%	70 - 130
		Vinyl Bromide	2010/06/15		96	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/06/15		87	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/06/15		86	%	70 - 130
		Chloromethane	2010/06/15		93	%	70 - 130
		Vinyl Chloride	2010/06/15		98	%	70 - 130
		Chloroethane	2010/06/15		98	%	70 - 130
		1,3-Butadiene	2010/06/15		82	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/06/15		101	%	70 - 130
		Trichlorotrifluoroethane	2010/06/15		99	%	70 - 130
		Ethanol	2010/06/15		111	%	70 - 130
		2-propanol	2010/06/15		98	%	70 - 130
		2-Propanone	2010/06/15		99	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/15		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/15		88	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/15		88	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/15		99	%	70 - 130
		Ethyl Acetate	2010/06/15		94	%	70 - 130
		1,1-Dichloroethylene	2010/06/15		98	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/15		97	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/15		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/15		86	%	70 - 130
		Chloroform	2010/06/15		99	%	70 - 130
		Carbon Tetrachloride	2010/06/15		112	%	70 - 130
		1,1-Dichloroethane	2010/06/15		96	%	70 - 130
		1,2-Dichloroethane	2010/06/15		99	%	70 - 130
		Ethylene Dibromide	2010/06/15		97	%	70 - 130
		1,1,1-Trichloroethane	2010/06/15		105	%	70 - 130
		1,1,2-Trichloroethane	2010/06/15		98	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/15		90	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/15		107	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/15		113	%	70 - 130
		1,2-Dichloropropane	2010/06/15		92	%	70 - 130
		Bromomethane	2010/06/15		91	%	70 - 130
		Bromoform	2010/06/15		110	%	70 - 130
		Bromodichloromethane	2010/06/15		103	%	70 - 130
		Dibromochloromethane	2010/06/15		105	%	70 - 130
		Heptane	2010/06/15		93	%	70 - 130
		Trichloroethylene	2010/06/15		95	%	70 - 130
		Tetrachloroethylene	2010/06/15		98	%	70 - 130
		Benzene	2010/06/15		94	%	70 - 130
		Toluene	2010/06/15		97	%	70 - 130
		Ethylbenzene	2010/06/15		94	%	70 - 130
		p+m-Xylene	2010/06/15		95	%	70 - 130
		o-Xylene	2010/06/15		96	%	70 - 130
		Styrene	2010/06/15		92	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/15		91	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/15		87	%	70 - 130
		4-ethyltoluene	2010/06/15		94	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB072160

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2180496 LSY	Spiked Blank	Chlorobenzene	2010/06/15		93	%	70 - 130	
		Benzyl chloride	2010/06/15		116	%	70 - 130	
1,3-Dichlorobenzene		2010/06/15		92	%	70 - 130		
1,4-Dichlorobenzene		2010/06/15		90	%	70 - 130		
1,2-Dichlorobenzene		2010/06/15		85	%	70 - 130		
1,2,4-Trichlorobenzene		2010/06/15		83	%	70 - 130		
Hexachlorobutadiene		2010/06/15		82	%	70 - 130		
Hexane		2010/06/15		92	%	70 - 130		
Cyclohexane		2010/06/15		94	%	70 - 130		
Tetrahydrofuran		2010/06/15		93	%	70 - 130		
1,4-Dioxane		2010/06/15		85	%	70 - 130		
Method Blank		Bromochloromethane	2010/06/15			96	%	60 - 140
		D5-Chlorobenzene	2010/06/15			93	%	60 - 140
	Difluorobenzene	2010/06/15			97	%	60 - 140	
	2,2,4-Trimethylpentane	2010/06/15	<0.20			ppbv		
	Carbon Disulfide	2010/06/15	<0.50			ppbv		
	Propene	2010/06/15	<0.30			ppbv		
	Vinyl Acetate	2010/06/15	<0.20			ppbv		
	Vinyl Bromide	2010/06/15	<0.20			ppbv		
	Dichlorodifluoromethane (FREON 12)	2010/06/15	<0.20			ppbv		
	1,2-Dichlorotetrafluoroethane	2010/06/15	<0.17			ppbv		
	Chloromethane	2010/06/15	<0.30			ppbv		
	Vinyl Chloride	2010/06/15	<0.18			ppbv		
	Chloroethane	2010/06/15	<0.30			ppbv		
	1,3-Butadiene	2010/06/15	<0.50			ppbv		
	Trichlorofluoromethane (FREON 11)	2010/06/15	<0.20			ppbv		
	Trichlorotrifluoroethane	2010/06/15	<0.15			ppbv		
	Ethanol	2010/06/15	<2.3			ppbv		
	2-propanol	2010/06/15	<3.0			ppbv		
	2-Propanone	2010/06/15	<0.80			ppbv		
	Methyl Ethyl Ketone (2-Butanone)	2010/06/15	<3.0			ppbv		
	Methyl Isobutyl Ketone	2010/06/15	<3.2			ppbv		
	Methyl Butyl Ketone (2-Hexanone)	2010/06/15	<2.0			ppbv		
	Methyl t-butyl ether (MTBE)	2010/06/15	<0.20			ppbv		
	Ethyl Acetate	2010/06/15	<2.2			ppbv		
	1,1-Dichloroethylene	2010/06/15	<0.25			ppbv		
	cis-1,2-Dichloroethylene	2010/06/15	<0.19			ppbv		
	trans-1,2-Dichloroethylene	2010/06/15	<0.20			ppbv		
	Methylene Chloride(Dichloromethane)	2010/06/15	0.47, RDL=0.30			ppbv		
	Chloroform	2010/06/15	<0.15			ppbv		
	Carbon Tetrachloride	2010/06/15	<0.30			ppbv		
	1,1-Dichloroethane	2010/06/15	<0.20			ppbv		
	1,2-Dichloroethane	2010/06/15	<0.20			ppbv		
	Ethylene Dibromide	2010/06/15	<0.17			ppbv		
	1,1,1-Trichloroethane	2010/06/15	<0.30			ppbv		
	1,1,2-Trichloroethane	2010/06/15	<0.15			ppbv		
	1,1,2,2-Tetrachloroethane	2010/06/15	<0.20			ppbv		
	cis-1,3-Dichloropropene	2010/06/15	<0.18			ppbv		
trans-1,3-Dichloropropene	2010/06/15	<0.17			ppbv			
1,2-Dichloropropane	2010/06/15	<0.40			ppbv			
Bromomethane	2010/06/15	<0.18			ppbv			
Bromoform	2010/06/15	<0.20			ppbv			
Bromodichloromethane	2010/06/15	<0.20			ppbv			
Dibromochloromethane	2010/06/15	<0.20			ppbv			
Heptane	2010/06/15	<0.30			ppbv			

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB072160

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2180496 LSY	Method Blank	Trichloroethylene	2010/06/15	<0.30		ppbv	
		Tetrachloroethylene	2010/06/15	<0.20		ppbv	
		Benzene	2010/06/15	<0.18		ppbv	
		Toluene	2010/06/15	<0.20		ppbv	
		Ethylbenzene	2010/06/15	<0.20		ppbv	
		p+m-Xylene	2010/06/15	<0.37		ppbv	
		o-Xylene	2010/06/15	<0.20		ppbv	
		Styrene	2010/06/15	<0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/06/15	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/06/15	<0.50		ppbv	
		4-ethyltoluene	2010/06/15	<2.2		ppbv	
		Chlorobenzene	2010/06/15	<0.20		ppbv	
		Benzyl chloride	2010/06/15	<1.0		ppbv	
		1,3-Dichlorobenzene	2010/06/15	<0.40		ppbv	
		1,4-Dichlorobenzene	2010/06/15	<0.40		ppbv	
		1,2-Dichlorobenzene	2010/06/15	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/06/15	<2.0		ppbv	
		Hexachlorobutadiene	2010/06/15	<3.0		ppbv	
		Hexane	2010/06/15	<0.30		ppbv	
		Cyclohexane	2010/06/15	<0.20		ppbv	
		Tetrahydrofuran	2010/06/15	<0.40		ppbv	
		1,4-Dioxane	2010/06/15	<2.0		ppbv	
		Xylene (Total)	2010/06/15	<0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: S2294
 Station ID: Lica 1 Canister Installation Date/Time: June 6, 10 @ 10:58 mst
 Field Sample ID: LICA VOC/CLS /June 7, 10 Canister Removal Date/Time: June 10, 10 @ 11:10 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
07-Jun-10	06/07/2010 0:00	06/08/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	594	??

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	18

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC #

- Pump pressure gauge not reading right, was replaced May 13. Sampler still working fine.

Technician Signiture: Shea Beaton



Your C.O.C. #: 4707

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/06/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B075789

Received: 2010/06/12, 13:04

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/14	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/14	BRL SOP-00304	EPA TO-15

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

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

Encryption Key

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

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

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

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Total cover pages: 1

Maxxam Job #: B075789
 Report Date: 2010/06/21

RESULTS OF ANALYSES OF AIR

Maxxam ID		GE0081	GE0082	
Sampling Date		2010/06/07	2010/06/07	
COC Number		4707	4707	
	Units	LICA VOC/CLS/JUNE7,10 - S7794	LICA VOC/PORT/JUNE7,10 - 7786	QC Batch

Volatile Organics				
Pressure on Receipt	psig	16	20	2179475

QC Batch = Quality Control Batch

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0081				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/CLS/JUNE7,10 - S7794	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2179495
Carbon Disulfide	ppbv	3.62	0.50	11.3	1.56	2179495
Propene	ppbv	0.33	0.30	0.559	0.516	2179495
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2179495
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2179495
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2179495
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2179495
Chloromethane	ppbv	0.60	0.30	1.24	0.620	2179495
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2179495
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2179495
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2179495
Trichlorofluoromethane (FREON 11)	ppbv	0.37	0.20	2.07	1.12	2179495
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2179495
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2179495
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2179495
2-Propanone	ppbv	3.65	0.80	8.67	1.90	2179495
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2179495
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2179495
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2179495
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2179495
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2179495
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2179495
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2179495
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2179495
Methylene Chloride(Dichloromethane)	ppbv	0.51	0.30	1.79	1.04	2179495
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2179495
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2179495
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2179495
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2179495
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0081				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/CLS/JUNE7,10 - S7794	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2179495
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2179495
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2179495
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2179495
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2179495
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2179495
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2179495
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2179495
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2179495
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2179495
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2179495
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2179495
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2179495
Toluene	ppbv	1.45	0.20	5.44	0.753	2179495
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2179495
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2179495
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2179495
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2179495
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2179495
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2179495
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2179495
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2179495
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2179495
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2179495
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2179495
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2179495
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2179495
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2179495
QC Batch = Quality Control Batch						

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0081				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/CLS/JUNE7,10 - S7794	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	84		N/A	N/A	2179495
D5-Chlorobenzene	%	82		N/A	N/A	2179495
Difluorobenzene	%	83		N/A	N/A	2179495

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

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0082				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/PORT/JUNE7,10 - 7786	RDL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2179495
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2179495
Propene	ppbv	0.52	0.30	0.895	0.516	2179495
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2179495
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2179495
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2179495
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2179495
Chloromethane	ppbv	0.57	0.30	1.18	0.620	2179495
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2179495
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2179495
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2179495
Trichlorofluoromethane (FREON 11)	ppbv	0.36	0.20	2.04	1.12	2179495
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2179495
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2179495
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2179495
2-Propanone	ppbv	3.63	0.80	8.62	1.90	2179495
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2179495
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2179495
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2179495
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2179495
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2179495
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2179495
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2179495
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2179495
Methylene Chloride(Dichloromethane)	ppbv	0.52	0.30	1.81	1.04	2179495
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2179495
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2179495
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2179495
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2179495

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0082				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/PORT/JUNE7,10 - 7786	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2179495
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2179495
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2179495
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2179495
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2179495
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2179495
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2179495
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2179495
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2179495
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2179495
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2179495
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2179495
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2179495
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2179495
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2179495
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2179495
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2179495
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2179495
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2179495
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2179495
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2179495
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2179495
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2179495
Hexane	ppbv	0.41	0.30	1.44	1.06	2179495
Cyclohexane	ppbv	0.66	0.20	2.27	0.688	2179495
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2179495
1,4-Dioxane	ppbv	8.8	2.0	31.7	7.21	2179495
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2179495
QC Batch = Quality Control Batch						

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0082				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/PORT/JUNE7,10 - 7786	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	82		N/A	N/A	2179495
D5-Chlorobenzene	%	82		N/A	N/A	2179495
Difluorobenzene	%	83		N/A	N/A	2179495

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

Maxxam Job #: B075789
 Report Date: 2010/06/21

Test Summary

Maxxam ID GE0081
Sample ID LICA VOC/CLS/JUNE7,10 - S7794
Matrix AIR
Collected 2010/06/07
Shipped
Received 2010/06/12

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2179475	N/A	2010/06/14	LSY
Volatile Organics in Air (TO-15)	GC/MS	2179495	N/A	2010/06/14	LSY

Maxxam ID GE0082
Sample ID LICA VOC/PORT/JUNE7,10 - 7786
Matrix AIR
Collected 2010/06/07
Shipped
Received 2010/06/12

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2179475	N/A	2010/06/14	LSY
Volatile Organics in Air (TO-15)	GC/MS	2179495	N/A	2010/06/14	LSY

Maxxam Job #: B075789
Report Date: 2010/06/21

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB075789

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2179495 LSY	Spiked Blank	Bromochloromethane	2010/06/14		103	%	60 - 140
		D5-Chlorobenzene	2010/06/14		105	%	60 - 140
		Difluorobenzene	2010/06/14		104	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/14		92	%	70 - 130
		Carbon Disulfide	2010/06/14		95	%	70 - 130
		Propene	2010/06/14		96	%	70 - 130
		Vinyl Acetate	2010/06/14		108	%	70 - 130
		Vinyl Bromide	2010/06/14		95	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/06/14		86	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/06/14		85	%	70 - 130
		Chloromethane	2010/06/14		93	%	70 - 130
		Vinyl Chloride	2010/06/14		99	%	70 - 130
		Chloroethane	2010/06/14		98	%	70 - 130
		1,3-Butadiene	2010/06/14		81	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/06/14		97	%	70 - 130
		Trichlorotrifluoroethane	2010/06/14		97	%	70 - 130
		Ethanol	2010/06/14		112	%	70 - 130
		2-propanol	2010/06/14		97	%	70 - 130
		2-Propanone	2010/06/14		97	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/14		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/14		87	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/14		86	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/14		99	%	70 - 130
		Ethyl Acetate	2010/06/14		94	%	70 - 130
		1,1-Dichloroethylene	2010/06/14		96	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/14		97	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/14		96	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/14		85	%	70 - 130
		Chloroform	2010/06/14		96	%	70 - 130
		Carbon Tetrachloride	2010/06/14		106	%	70 - 130
		1,1-Dichloroethane	2010/06/14		95	%	70 - 130
		1,2-Dichloroethane	2010/06/14		95	%	70 - 130
		Ethylene Dibromide	2010/06/14		94	%	70 - 130
		1,1,1-Trichloroethane	2010/06/14		100	%	70 - 130
		1,1,2-Trichloroethane	2010/06/14		96	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/14		90	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/14		105	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/14		109	%	70 - 130
		1,2-Dichloropropane	2010/06/14		93	%	70 - 130
		Bromomethane	2010/06/14		91	%	70 - 130
		Bromoform	2010/06/14		107	%	70 - 130
		Bromodichloromethane	2010/06/14		99	%	70 - 130
		Dibromochloromethane	2010/06/14		101	%	70 - 130
		Heptane	2010/06/14		91	%	70 - 130
		Trichloroethylene	2010/06/14		94	%	70 - 130
		Tetrachloroethylene	2010/06/14		96	%	70 - 130
		Benzene	2010/06/14		93	%	70 - 130
		Toluene	2010/06/14		96	%	70 - 130
		Ethylbenzene	2010/06/14		93	%	70 - 130
		p+m-Xylene	2010/06/14		94	%	70 - 130
		o-Xylene	2010/06/14		94	%	70 - 130
		Styrene	2010/06/14		92	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/14		89	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/14		86	%	70 - 130
		4-ethyltoluene	2010/06/14		91	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB075789

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2179495 LSY	Spiked Blank	Chlorobenzene	2010/06/14		93	%	70 - 130
		Benzyl chloride	2010/06/14		115	%	70 - 130
		1,3-Dichlorobenzene	2010/06/14		90	%	70 - 130
		1,4-Dichlorobenzene	2010/06/14		88	%	70 - 130
		1,2-Dichlorobenzene	2010/06/14		85	%	70 - 130
		1,2,4-Trichlorobenzene	2010/06/14		86	%	70 - 130
		Hexachlorobutadiene	2010/06/14		82	%	70 - 130
		Hexane	2010/06/14		94	%	70 - 130
		Cyclohexane	2010/06/14		94	%	70 - 130
		Tetrahydrofuran	2010/06/14		93	%	70 - 130
		1,4-Dioxane	2010/06/14		85	%	70 - 130
	Method Blank	Bromochloromethane	2010/06/14		89	%	60 - 140
		D5-Chlorobenzene	2010/06/14		89	%	60 - 140
		Difluorobenzene	2010/06/14		91	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/14	<0.20		ppbv	
		Carbon Disulfide	2010/06/14	<0.50		ppbv	
		Propene	2010/06/14	<0.30		ppbv	
		Vinyl Acetate	2010/06/14	<0.20		ppbv	
		Vinyl Bromide	2010/06/14	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/06/14	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/06/14	<0.17		ppbv	
		Chloromethane	2010/06/14	<0.30		ppbv	
		Vinyl Chloride	2010/06/14	<0.18		ppbv	
		Chloroethane	2010/06/14	<0.30		ppbv	
		1,3-Butadiene	2010/06/14	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/06/14	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/06/14	<0.15		ppbv	
		Ethanol	2010/06/14	<2.3		ppbv	
		2-propanol	2010/06/14	<3.0		ppbv	
		2-Propanone	2010/06/14	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/06/14	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/06/14	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/06/14	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/06/14	<0.20		ppbv	
		Ethyl Acetate	2010/06/14	<2.2		ppbv	
		1,1-Dichloroethylene	2010/06/14	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/06/14	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/06/14	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/06/14	0.43, RDL=0.30		ppbv	
		Chloroform	2010/06/14	<0.15		ppbv	
		Carbon Tetrachloride	2010/06/14	<0.30		ppbv	
		1,1-Dichloroethane	2010/06/14	<0.20		ppbv	
		1,2-Dichloroethane	2010/06/14	<0.20		ppbv	
		Ethylene Dibromide	2010/06/14	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/06/14	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/06/14	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/06/14	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/06/14	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/06/14	<0.17		ppbv	
		1,2-Dichloropropane	2010/06/14	<0.40		ppbv	
		Bromomethane	2010/06/14	<0.18		ppbv	
		Bromoform	2010/06/14	<0.20		ppbv	
		Bromodichloromethane	2010/06/14	<0.20		ppbv	
		Dibromochloromethane	2010/06/14	<0.20		ppbv	
		Heptane	2010/06/14	<0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB075789

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2179495 LSY	Method Blank	Trichloroethylene	2010/06/14	<0.30		ppbv	
		Tetrachloroethylene	2010/06/14	<0.20		ppbv	
		Benzene	2010/06/14	<0.18		ppbv	
		Toluene	2010/06/14	<0.20		ppbv	
		Ethylbenzene	2010/06/14	<0.20		ppbv	
		p+m-Xylene	2010/06/14	<0.37		ppbv	
		o-Xylene	2010/06/14	<0.20		ppbv	
		Styrene	2010/06/14	<0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/06/14	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/06/14	<0.50		ppbv	
		4-ethyltoluene	2010/06/14	<2.2		ppbv	
		Chlorobenzene	2010/06/14	<0.20		ppbv	
		Benzyl chloride	2010/06/14	<1.0		ppbv	
		1,3-Dichlorobenzene	2010/06/14	<0.40		ppbv	
		1,4-Dichlorobenzene	2010/06/14	<0.40		ppbv	
		1,2-Dichlorobenzene	2010/06/14	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/06/14	<2.0		ppbv	
		Hexachlorobutadiene	2010/06/14	<3.0		ppbv	
		Hexane	2010/06/14	<0.30		ppbv	
		Cyclohexane	2010/06/14	<0.20		ppbv	
		Tetrahydrofuran	2010/06/14	<0.40		ppbv	
		1,4-Dioxane	2010/06/14	<2.0		ppbv	
		Xylene (Total)	2010/06/14	<0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: 7791
 Station ID: Lica 1 Canister Installation Date/Time: June 11, 10 @ 09:00 mst
 Field Sample ID: LICA VOC/ CLS /June 13, 10 Canister Removal Date/Time: June 14, 10 @ 07:15 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
13-Jun-10	06/13/2010 0:00	06/14/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	594	??

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	20

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC # 4706

- Pump pressure gauge not reading right, was replaced May 13. Sampler still working fine.

Technician Signiture: Shea Beaton



Your C.O.C. #: 4706

Attention: Michael Bisaga
Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B078354
Received: 2010/06/17, 08:37

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/21	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/21	BRL SOP-00304	EPA TO-15

Sample Matrix: PUF AND FILTER
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/06/18	2010/07/23	BRL SOP-00201	CARB429(ARBM1,M2)mod

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

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

Encryption Key

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

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

=====



Your C.O.C. #: 4706

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

-2-

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

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Total cover pages: 2

Page 2 of 15

Page 175 of 222

Maxxam Job #: B078354
 Report Date: 2010/07/28

RESULTS OF ANALYSES OF AIR

Maxxam ID		GF2209	GF2210	
Sampling Date		2010/06/13 00:00	2010/06/13 00:00	
COC Number		4706	4706	
	Units	LICA VOC/CLS/JUNE 13,10 - 7791	LICA VOC/PORT/JUNE 13,10 -S2241	QC Batch
Volatile Organics				
Pressure on Receipt	psig	18	20	2185777
QC Batch = Quality Control Batch				

Maxxam Job #: B078354
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GF2211	GF2212		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA PUF/CLS/JUNE 13,10	LICA PUF/PORT/JUNE 13,10	RDL	QC Batch

Semivolatile Organics					
1-Methylnaphthalene	ug	<0.10	<0.10	0.10	2183826
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2183826
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2183826
2-Methylantracene	ug	<0.10	<0.10	0.10	2183826
2-Methylnaphthalene	ug	0.12	0.16	0.10	2183826
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2183826
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2183826
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2183826
Acenaphthene	ug	<0.050	<0.050	0.050	2183826
Acenaphthylene	ug	<0.050	<0.050	0.050	2183826
Anthracene	ug	<0.050	<0.050	0.050	2183826
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2183826
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2183826
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2183826
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2183826
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2183826
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2183826
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2183826
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2183826
Biphenyl	ug	<0.10	<0.10	0.10	2183826
Chrysene	ug	<0.050	<0.050	0.050	2183826
Coronene	ug	<0.10	<0.10	0.10	2183826
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2183826
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2183826
Fluoranthene	ug	<0.050	<0.050	0.050	2183826
Fluorene	ug	0.070	<0.050	0.050	2183826
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2183826
m-Terphenyl	ug	<0.10	<0.10	0.10	2183826
Naphthalene	ug	0.098	0.108	0.072	2183826
o-Terphenyl	ug	<0.10	<0.10	0.10	2183826
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: B078354
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GF2211	GF2212		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA PUF/CLS/JUNE 13,10	LICA PUF/PORT/JUNE 13,10	RDL	QC Batch

Perylene	ug	<0.10	<0.10	0.10	2183826
Phenanthrene	ug	0.394	0.158	0.050	2183826
p-Terphenyl	ug	<0.10	<0.10	0.10	2183826
Pyrene	ug	<0.050	<0.050	0.050	2183826
Quinoline	ug	<0.40	<0.40	0.40	2183826
Tetralin	ug	<0.10	<0.10	0.10	2183826
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	58	60		2183826
D10-Fluoranthene	%	102	102		2183826
D10-Fluorene (FS)	%	44 (1)	40 (1)		2183826
D10-Phenanthrene	%	86	86		2183826
D12-Benzo(a)anthracene	%	116	112		2183826
D12-Benzo(a)pyrene	%	88	84		2183826
D12-Benzo(b)fluoranthene	%	92	92		2183826
D12-Benzo(ghi)perylene	%	90	92		2183826
D12-Benzo(k)fluoranthene	%	84	84		2183826
D12-Chrysene	%	86	84		2183826
D12-Indeno(1,2,3-cd)pyrene	%	88	90		2183826
D12-Perylene	%	84	82		2183826
D14-Dibenzo(a,h)anthracene	%	80	80		2183826
D14-Terphenyl (FS)	%	83	79		2183826
D8-Acenaphthylene	%	70	72		2183826
D8-Naphthalene	%	64	66		2183826

QC Batch = Quality Control Batch
 (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B078354
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GF2209	GF2210		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA VOC/CLS/JUNE 13,10 - 7791	LICA VOC/PORT/JUNE 13,10 -S2241	RDL	QC Batch

Volatile Organics					
2,2,4-Trimethylpentane	ppbv	<0.20	<0.20	0.20	2185831
Carbon Disulfide	ppbv	<0.50	<0.50	0.50	2185831
Propene	ppbv	<0.30	<0.30	0.30	2185831
Vinyl Acetate	ppbv	<0.20	<0.20	0.20	2185831
Vinyl Bromide	ppbv	<0.20	<0.20	0.20	2185831
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	<0.20	0.20	2185831
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	<0.17	0.17	2185831
Chloromethane	ppbv	0.60	0.58	0.30	2185831
Vinyl Chloride	ppbv	<0.18	<0.18	0.18	2185831
Chloroethane	ppbv	<0.30	<0.30	0.30	2185831
1,3-Butadiene	ppbv	<0.50	<0.50	0.50	2185831
Trichlorofluoromethane (FREON 11)	ppbv	0.39	0.38	0.20	2185831
Trichlorotrifluoroethane	ppbv	<0.15	<0.15	0.15	2185831
Ethanol	ppbv	<2.3	<2.3	2.3	2185831
2-propanol	ppbv	<3.0	<3.0	3.0	2185831
2-Propanone	ppbv	4.66	3.50	0.80	2185831
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	<3.0	3.0	2185831
Methyl Isobutyl Ketone	ppbv	<3.2	<3.2	3.2	2185831
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	<2.0	2.0	2185831
Methyl t-butyl ether (MTBE)	ppbv	<0.20	<0.20	0.20	2185831
Ethyl Acetate	ppbv	<2.2	<2.2	2.2	2185831
1,1-Dichloroethylene	ppbv	<0.25	<0.25	0.25	2185831
cis-1,2-Dichloroethylene	ppbv	<0.19	<0.19	0.19	2185831
trans-1,2-Dichloroethylene	ppbv	<0.20	<0.20	0.20	2185831
Methylene Chloride(Dichloromethane)	ppbv	0.57	0.62	0.30	2185831
Chloroform	ppbv	<0.15	<0.15	0.15	2185831
Carbon Tetrachloride	ppbv	<0.30	<0.30	0.30	2185831
1,1-Dichloroethane	ppbv	<0.20	<0.20	0.20	2185831
1,2-Dichloroethane	ppbv	<0.20	<0.20	0.20	2185831
Ethylene Dibromide	ppbv	<0.17	<0.17	0.17	2185831

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B078354
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GF2209	GF2210		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA VOC/CLS/JUNE 13,10 - 7791	LICA VOC/PORT/JUNE 13,10 -S2241	RDL	QC Batch

1,1,1-Trichloroethane	ppbv	<0.30	<0.30	0.30	2185831
1,1,2-Trichloroethane	ppbv	<0.15	<0.15	0.15	2185831
1,1,2,2-Tetrachloroethane	ppbv	<0.20	<0.20	0.20	2185831
cis-1,3-Dichloropropene	ppbv	<0.18	<0.18	0.18	2185831
trans-1,3-Dichloropropene	ppbv	<0.17	<0.17	0.17	2185831
1,2-Dichloropropane	ppbv	<0.40	<0.40	0.40	2185831
Bromomethane	ppbv	<0.18	<0.18	0.18	2185831
Bromoform	ppbv	<0.20	<0.20	0.20	2185831
Bromodichloromethane	ppbv	<0.20	<0.20	0.20	2185831
Dibromochloromethane	ppbv	<0.20	<0.20	0.20	2185831
Heptane	ppbv	<0.30	<0.30	0.30	2185831
Trichloroethylene	ppbv	0.33	<0.30	0.30	2185831
Tetrachloroethylene	ppbv	<0.20	<0.20	0.20	2185831
Benzene	ppbv	<0.18	<0.18	0.18	2185831
Toluene	ppbv	<0.20	<0.20	0.20	2185831
Ethylbenzene	ppbv	<0.20	<0.20	0.20	2185831
p+m-Xylene	ppbv	<0.37	<0.37	0.37	2185831
o-Xylene	ppbv	<0.20	<0.20	0.20	2185831
Styrene	ppbv	<0.20	<0.20	0.20	2185831
1,3,5-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2185831
1,2,4-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2185831
4-ethyltoluene	ppbv	<2.2	<2.2	2.2	2185831
Chlorobenzene	ppbv	<0.20	<0.20	0.20	2185831
Benzyl chloride	ppbv	<1.0	<1.0	1.0	2185831
1,3-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2185831
1,4-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2185831
1,2-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2185831
1,2,4-Trichlorobenzene	ppbv	<2.0	<2.0	2.0	2185831
Hexachlorobutadiene	ppbv	<3.0	<3.0	3.0	2185831
Hexane	ppbv	<0.30	<0.30	0.30	2185831
Cyclohexane	ppbv	<0.20	<0.20	0.20	2185831
Tetrahydrofuran	ppbv	<0.40	<0.40	0.40	2185831
QC Batch = Quality Control Batch					

Maxxam Job #: B078354
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GF2209	GF2210		
Sampling Date		2010/06/13	2010/06/13		
		00:00	00:00		
COC Number		4706	4706		
	Units	LICA	LICA	RDL	QC Batch
		VOC/CLS/JUNE	VOC/PORT/JUNE		
		13,10 - 7791	13,10 -S2241		

1,4-Dioxane	ppbv	<2.0	<2.0	2.0	2185831
Xylene (Total)	ppbv	<0.60	<0.60	0.60	2185831
Surrogate Recovery (%)					
Bromochloromethane	%	77	77		2185831
D5-Chlorobenzene	%	74	75		2185831
Difluorobenzene	%	78	79		2185831

QC Batch = Quality Control Batch

Maxxam Job #: B078354
 Report Date: 2010/07/28

Test Summary

Maxxam ID GF2209
Sample ID LICA VOC/CLS/JUNE 13,10 - 7791
Matrix AIR
Collected 2010/06/13
Shipped
Received 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2185777	N/A	2010/06/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2185831	N/A	2010/06/21	LSY

Maxxam ID GF2210
Sample ID LICA VOC/PORT/JUNE 13,10 -S2241
Matrix AIR
Collected 2010/06/13
Shipped
Received 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2185777	N/A	2010/06/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2185831	N/A	2010/06/21	LSY

Maxxam ID GF2211
Sample ID LICA PUF/CLS/JUNE 13,10
Matrix PUF AND FILTER
Collected 2010/06/13
Shipped
Received 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2183826	2010/07/23	2010/07/23	JIW

Maxxam ID GF2212
Sample ID LICA PUF/PORT/JUNE 13,10
Matrix PUF AND FILTER
Collected 2010/06/13
Shipped
Received 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2183826	2010/06/18	2010/07/23	JIW

Maxxam Job #: B078354
Report Date: 2010/07/28

GENERAL COMMENTS

Sample GF2211-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Sample GF2212-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2183826 JIW	Spiked Blank	D10-2-Methylnaphthalene	2010/07/23		70	%	50 - 150
		D10-Fluoranthene	2010/07/23		86	%	50 - 150
		D10-Phenanthrene	2010/07/23		78	%	50 - 150
		D12-Benzo(a)anthracene	2010/07/23		96	%	50 - 150
		D12-Benzo(a)pyrene	2010/07/23		80	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/07/23		88	%	50 - 150
		D12-Benzo(ghi)perylene	2010/07/23		84	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/07/23		84	%	50 - 150
		D12-Chrysene	2010/07/23		90	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/07/23		80	%	50 - 150
		D12-Perylene	2010/07/23		82	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/07/23		70	%	50 - 150
		RPD	D8-Acenaphthylene	2010/07/23		74	%
	D8-Naphthalene		2010/07/23		88	%	50 - 150
	RPD	Acenaphthene	2010/07/23		82	%	60 - 130
		Acenaphthene	2010/07/23	8.3		%	50
	Spiked Blank	Acenaphthylene	2010/07/23		80	%	60 - 130
		Acenaphthylene	2010/07/23	7.4		%	50
	Spiked Blank	Anthracene	2010/07/23		71	%	60 - 130
		Anthracene	2010/07/23	3.1		%	50
	Spiked Blank	Benzo(a)anthracene	2010/07/23		79	%	60 - 130
		Benzo(a)anthracene	2010/07/23	3.9		%	50
	Spiked Blank	Benzo(a)pyrene	2010/07/23		74	%	60 - 130
		Benzo(a)pyrene	2010/07/23	3.3		%	50
	Spiked Blank	Benzo(b)fluoranthene	2010/07/23		81	%	60 - 130
		Benzo(b)fluoranthene	2010/07/23	0.9		%	50
	Spiked Blank	Benzo(g,h,i)perylene	2010/07/23		79	%	60 - 130
		Benzo(g,h,i)perylene	2010/07/23	3.1		%	50
	Spiked Blank	Benzo(k)fluoranthene	2010/07/23		85	%	60 - 130
		Benzo(k)fluoranthene	2010/07/23	3.8		%	50
	Spiked Blank	Chrysene	2010/07/23		89	%	60 - 130
		Chrysene	2010/07/23	7.0		%	50
	Spiked Blank	Dibenz(a,h)anthracene	2010/07/23		71	%	60 - 130
		Dibenz(a,h)anthracene	2010/07/23	7.1		%	50
	Spiked Blank	Fluoranthene	2010/07/23		87	%	60 - 130
		Fluoranthene	2010/07/23	0.3		%	50
	Spiked Blank	Fluorene	2010/07/23		79	%	60 - 130
		Fluorene	2010/07/23	6.2		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/07/23		73	%	60 - 130
		Indeno(1,2,3-cd)pyrene	2010/07/23	4.4		%	50
Spiked Blank	Naphthalene	2010/07/23		86	%	60 - 130	
	Naphthalene	2010/07/23	10.0		%	50	
Spiked Blank	Phenanthrene	2010/07/23		76	%	60 - 130	
	Phenanthrene	2010/07/23	3.0		%	50	
Spiked Blank	Pyrene	2010/07/23		82	%	60 - 130	
	Pyrene	2010/07/23	0.6		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/07/23		70	%	50 - 150	
	D10-Fluoranthene	2010/07/23		90	%	50 - 150	
	D10-Phenanthrene	2010/07/23		78	%	50 - 150	
	D12-Benzo(a)anthracene	2010/07/23		96	%	50 - 150	
	D12-Benzo(a)pyrene	2010/07/23		82	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/07/23		88	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/07/23		84	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/07/23		84	%	50 - 150	
D12-Chrysene	2010/07/23		90	%	50 - 150		

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2183826 JIW	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/07/23		80	%	50 - 150	
		D12-Perylene	2010/07/23		84	%	50 - 150	
		D14-Dibenzo(a,h)anthracene	2010/07/23		72	%	50 - 150	
		D8-Acenaphthylene	2010/07/23		72	%	50 - 150	
		D8-Naphthalene	2010/07/23		84	%	50 - 150	
		1-Methylnaphthalene	2010/07/23	<0.10			ug	
		1-Methylphenanthrene	2010/07/23	<0.10			ug	
		2-Chloronaphthalene	2010/07/23	<0.10			ug	
		2-Methylanthracene	2010/07/23	<0.10			ug	
		2-Methylnaphthalene	2010/07/23	<0.10			ug	
		3-Methylcholanthrene	2010/07/23	<2.0			ug	
		7,12-Dimethylbenzo(a)anthracene	2010/07/23	<0.10			ug	
		9,10-Dimethylanthracene	2010/07/23	<0.40			ug	
		Acenaphthene	2010/07/23	<0.050			ug	
		Acenaphthylene	2010/07/23	<0.050			ug	
		Anthracene	2010/07/23	<0.050			ug	
		Benzo(a)anthracene	2010/07/23	<0.050			ug	
		Benzo(a)fluorene	2010/07/23	<0.10			ug	
		Benzo(a)pyrene	2010/07/23	<0.050			ug	
		Benzo(b)fluoranthene	2010/07/23	<0.050			ug	
		Benzo(b)fluorene	2010/07/23	<0.10			ug	
		Benzo(e)pyrene	2010/07/23	<0.10			ug	
		Benzo(g,h,i)perylene	2010/07/23	<0.050			ug	
		Benzo(k)fluoranthene	2010/07/23	<0.050			ug	
		Biphenyl	2010/07/23	<0.10			ug	
		Chrysene	2010/07/23	<0.050			ug	
		Coronene	2010/07/23	<0.10			ug	
		Dibenz(a,h)anthracene	2010/07/23	<0.050			ug	
		Dibenzo(a,e)pyrene	2010/07/23	<0.20			ug	
		Fluoranthene	2010/07/23	<0.050			ug	
		Fluorene	2010/07/23	<0.050			ug	
		Indeno(1,2,3-cd)pyrene	2010/07/23	<0.050			ug	
		m-Terphenyl	2010/07/23	<0.10			ug	
		Naphthalene	2010/07/23	<0.072			ug	
		o-Terphenyl	2010/07/23	<0.10			ug	
		Perylene	2010/07/23	<0.10			ug	
		Phenanthrene	2010/07/23	<0.050			ug	
		p-Terphenyl	2010/07/23	<0.10			ug	
		Pyrene	2010/07/23	<0.050			ug	
		Quinoline	2010/07/23	<0.40			ug	
Tetralin	2010/07/23	<0.10			ug			
2185831 LSY	Spiked Blank	Bromochloromethane	2010/06/21		107	%	60 - 140	
		D5-Chlorobenzene	2010/06/21		107	%	60 - 140	
		Difluorobenzene	2010/06/21		109	%	60 - 140	
		2,2,4-Trimethylpentane	2010/06/21		93	%	70 - 130	
		Carbon Disulfide	2010/06/21		94	%	70 - 130	
		Propene	2010/06/21		95	%	70 - 130	
		Vinyl Acetate	2010/06/21		108	%	70 - 130	
		Vinyl Bromide	2010/06/21		95	%	70 - 130	
		Dichlorodifluoromethane (FREON 12)	2010/06/21		87	%	70 - 130	
		1,2-Dichlorotetrafluoroethane	2010/06/21		86	%	70 - 130	
		Chloromethane	2010/06/21		93	%	70 - 130	
		Vinyl Chloride	2010/06/21		99	%	70 - 130	
		Chloroethane	2010/06/21		99	%	70 - 130	
		1,3-Butadiene	2010/06/21		82	%	70 - 130	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
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Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2185831 LSY	Spiked Blank	Trichlorofluoromethane (FREON 11)	2010/06/21		98	%	70 - 130
		Trichlorotrifluoroethane	2010/06/21		97	%	70 - 130
		Ethanol	2010/06/21		112	%	70 - 130
		2-propanol	2010/06/21		96	%	70 - 130
		2-Propanone	2010/06/21		101	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/21		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/21		87	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/21		85	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/21		99	%	70 - 130
		Ethyl Acetate	2010/06/21		94	%	70 - 130
		1,1-Dichloroethylene	2010/06/21		97	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/21		97	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/21		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/21		86	%	70 - 130
		Chloroform	2010/06/21		97	%	70 - 130
		Carbon Tetrachloride	2010/06/21		109	%	70 - 130
		1,1-Dichloroethane	2010/06/21		96	%	70 - 130
		1,2-Dichloroethane	2010/06/21		97	%	70 - 130
		Ethylene Dibromide	2010/06/21		95	%	70 - 130
		1,1,1-Trichloroethane	2010/06/21		102	%	70 - 130
		1,1,2-Trichloroethane	2010/06/21		97	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/21		89	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/21		106	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/21		110	%	70 - 130
		1,2-Dichloropropane	2010/06/21		92	%	70 - 130
		Bromomethane	2010/06/21		91	%	70 - 130
		Bromoform	2010/06/21		105	%	70 - 130
		Bromodichloromethane	2010/06/21		101	%	70 - 130
		Dibromochloromethane	2010/06/21		102	%	70 - 130
		Heptane	2010/06/21		94	%	70 - 130
		Trichloroethylene	2010/06/21		94	%	70 - 130
		Tetrachloroethylene	2010/06/21		96	%	70 - 130
		Benzene	2010/06/21		94	%	70 - 130
		Toluene	2010/06/21		96	%	70 - 130
		Ethylbenzene	2010/06/21		92	%	70 - 130
		p+m-Xylene	2010/06/21		93	%	70 - 130
		o-Xylene	2010/06/21		94	%	70 - 130
		Styrene	2010/06/21		83	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/21		85	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/21		83	%	70 - 130
		4-ethyltoluene	2010/06/21		89	%	70 - 130
		Chlorobenzene	2010/06/21		92	%	70 - 130
		Benzyl chloride	2010/06/21		115	%	70 - 130
		1,3-Dichlorobenzene	2010/06/21		87	%	70 - 130
		1,4-Dichlorobenzene	2010/06/21		85	%	70 - 130
		1,2-Dichlorobenzene	2010/06/21		81	%	70 - 130
		1,2,4-Trichlorobenzene	2010/06/21		83	%	70 - 130
		Hexachlorobutadiene	2010/06/21		82	%	70 - 130
		Hexane	2010/06/21		94	%	70 - 130
		Cyclohexane	2010/06/21		94	%	70 - 130
		Tetrahydrofuran	2010/06/21		93	%	70 - 130
		1,4-Dioxane	2010/06/21		84	%	70 - 130
	Method Blank	Bromochloromethane	2010/06/21		91	%	60 - 140
		D5-Chlorobenzene	2010/06/21		86	%	60 - 140
		Difluorobenzene	2010/06/21		93	%	60 - 140

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2185831 LSY	Method Blank	2,2,4-Trimethylpentane	2010/06/21	<0.20		ppbv	
		Carbon Disulfide	2010/06/21	<0.50		ppbv	
		Propene	2010/06/21	<0.30		ppbv	
		Vinyl Acetate	2010/06/21	<0.20		ppbv	
		Vinyl Bromide	2010/06/21	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/06/21	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/06/21	<0.17		ppbv	
		Chloromethane	2010/06/21	<0.30		ppbv	
		Vinyl Chloride	2010/06/21	<0.18		ppbv	
		Chloroethane	2010/06/21	<0.30		ppbv	
		1,3-Butadiene	2010/06/21	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/06/21	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/06/21	<0.15		ppbv	
		Ethanol	2010/06/21	<2.3		ppbv	
		2-propanol	2010/06/21	<3.0		ppbv	
		2-Propanone	2010/06/21	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/06/21	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/06/21	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/06/21	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/06/21	<0.20		ppbv	
		Ethyl Acetate	2010/06/21	<2.2		ppbv	
		1,1-Dichloroethylene	2010/06/21	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/06/21	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/06/21	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/06/21	0.49, RDL=0.30		ppbv	
		Chloroform	2010/06/21	<0.15		ppbv	
		Carbon Tetrachloride	2010/06/21	<0.30		ppbv	
		1,1-Dichloroethane	2010/06/21	<0.20		ppbv	
		1,2-Dichloroethane	2010/06/21	<0.20		ppbv	
		Ethylene Dibromide	2010/06/21	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/06/21	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/06/21	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/06/21	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/06/21	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/06/21	<0.17		ppbv	
		1,2-Dichloropropane	2010/06/21	<0.40		ppbv	
		Bromomethane	2010/06/21	<0.18		ppbv	
		Bromoform	2010/06/21	<0.20		ppbv	
		Bromodichloromethane	2010/06/21	<0.20		ppbv	
		Dibromochloromethane	2010/06/21	<0.20		ppbv	
		Heptane	2010/06/21	<0.30		ppbv	
		Trichloroethylene	2010/06/21	<0.30		ppbv	
		Tetrachloroethylene	2010/06/21	<0.20		ppbv	
		Benzene	2010/06/21	<0.18		ppbv	
		Toluene	2010/06/21	<0.20		ppbv	
		Ethylbenzene	2010/06/21	<0.20		ppbv	
		p+m-Xylene	2010/06/21	<0.37		ppbv	
		o-Xylene	2010/06/21	<0.20		ppbv	
		Styrene	2010/06/21	<0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/06/21	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/06/21	<0.50		ppbv	
		4-ethyltoluene	2010/06/21	<2.2		ppbv	
		Chlorobenzene	2010/06/21	<0.20		ppbv	
		Benzyl chloride	2010/06/21	<1.0		ppbv	
		1,3-Dichlorobenzene	2010/06/21	<0.40		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2185831 LSY	Method Blank	1,4-Dichlorobenzene	2010/06/21	<0.40		ppbv	
		1,2-Dichlorobenzene	2010/06/21	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/06/21	<2.0		ppbv	
		Hexachlorobutadiene	2010/06/21	<3.0		ppbv	
		Hexane	2010/06/21	<0.30		ppbv	
		Cyclohexane	2010/06/21	<0.20		ppbv	
		Tetrahydrofuran	2010/06/21	<0.40		ppbv	
		1,4-Dioxane	2010/06/21	<2.0		ppbv	
		Xylene (Total)	2010/06/21	<0.60		ppbv	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: 7813
 Station ID: Lica 1 Canister Installation Date/Time: June 17,2010@14:35mst
 Field Sample ID: LICA VOC/ CLS /June 19, 10 Canister Removal Date/Time: June 21,2010@12:50 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
19-Jun-10	06/19/2010 0:00	06/20/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	598	??

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	18.5

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC # 2309

- Pump pressure gauge not reading right, was replaced May 13. Sampler still working fine.

Technician Signiture: Shea Beaton



Your C.O.C. #: 2309

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/29

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B083433

Received: 2010/06/25, 09:18

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/28	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (ug/m3)	2	N/A	2010/07/29	BRL SOP-00304	EPA TO15 Calculated
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/28	BRL SOP-00304	EPA TO-15

Sample Matrix: PUF AND FILTER

Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/06/29	2010/07/23	BRL SOP-00201	CARB429(ARBM1,M2)mod

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

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

Encryption Key

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

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



Your C.O.C. #: 2309

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/29

CERTIFICATE OF ANALYSIS

-2-

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Maxxam Job #: B083433
 Report Date: 2010/07/29

RESULTS OF ANALYSES OF AIR

Maxxam ID		GH8491	GH8492	
Sampling Date		2010/06/19	2010/06/19	
COC Number		2309	2309	
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	QC Batch

Volatile Organics				
Pressure on Receipt	psig	18	21	2192691

QC Batch = Quality Control Batch

Maxxam Job #: B083433
 Report Date: 2010/07/29

CALCULATED VOLATILE ORGANICS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch

Calculated Parameters					
2,2,4-Trimethylpentane	ug/m3	<0.93	<0.93	0.93	2220828
Carbon Disulfide	ug/m3	1.7	<1.6	1.6	2220828
Propene	ug/m3	<0.52	<0.52	0.52	2220828
Vinyl Acetate	ug/m3	<0.70	<0.70	0.70	2220828
Vinyl Bromide	ug/m3	<0.87	<0.87	0.87	2220828
Dichlorodifluoromethane (FREON 12)	ug/m3	3.91	4.10	0.99	2220828
1,2-Dichlorotetrafluoroethane	ug/m3	<1.2	<1.2	1.2	2220828
Chloromethane	ug/m3	1.25	1.22	0.62	2220828
Vinyl Chloride	ug/m3	<0.46	<0.46	0.46	2220828
Chloroethane	ug/m3	<0.79	<0.79	0.79	2220828
1,3-Butadiene	ug/m3	<1.1	<1.1	1.1	2220828
Trichlorofluoromethane (FREON 11)	ug/m3	2.2	2.1	1.1	2220828
Ethanol	ug/m3	<4.3	<4.3	4.3	2220828
Trichlorotrifluoroethane	ug/m3	<1.1	<1.1	1.1	2220828
2-propanol	ug/m3	<7.4	<7.4	7.4	2220828
2-Propanone	ug/m3	13.8	12.2	1.9	2220828
Methyl Ethyl Ketone (2-Butanone)	ug/m3	<8.8	<8.8	8.8	2220828
Methyl Isobutyl Ketone	ug/m3	<13	<13	13	2220828
Methyl Butyl Ketone (2-Hexanone)	ug/m3	<8.2	<8.2	8.2	2220828
Methyl t-butyl ether (MTBE)	ug/m3	<0.72	<0.72	0.72	2220828
Ethyl Acetate	ug/m3	<7.9	<7.9	7.9	2220828
1,1-Dichloroethylene	ug/m3	<0.99	<0.99	0.99	2220828
cis-1,2-Dichloroethylene	ug/m3	<0.75	<0.75	0.75	2220828
trans-1,2-Dichloroethylene	ug/m3	<0.79	<0.79	0.79	2220828
Methylene Chloride(Dichloromethane)	ug/m3	2.6	2.0	1.0	2220828
Chloroform	ug/m3	<0.73	<0.73	0.73	2220828
Carbon Tetrachloride	ug/m3	<1.9	<1.9	1.9	2220828
1,1-Dichloroethane	ug/m3	<0.81	<0.81	0.81	2220828
1,2-Dichloroethane	ug/m3	<0.81	<0.81	0.81	2220828
Ethylene Dibromide	ug/m3	<1.3	<1.3	1.3	2220828
1,1,1-Trichloroethane	ug/m3	<1.6	<1.6	1.6	2220828

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

CALCULATED VOLATILE ORGANICS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch
1,1,2-Trichloroethane	ug/m3	<0.82	<0.82	0.82	2220828
1,1,2,2-Tetrachloroethane	ug/m3	<1.4	<1.4	1.4	2220828
cis-1,3-Dichloropropene	ug/m3	<0.82	<0.82	0.82	2220828
trans-1,3-Dichloropropene	ug/m3	<0.77	<0.77	0.77	2220828
1,2-Dichloropropane	ug/m3	<1.8	<1.8	1.8	2220828
Bromomethane	ug/m3	<0.70	<0.70	0.70	2220828
Bromoform	ug/m3	<2.1	<2.1	2.1	2220828
Bromodichloromethane	ug/m3	<1.3	<1.3	1.3	2220828
Dibromochloromethane	ug/m3	<1.7	<1.7	1.7	2220828
Trichloroethylene	ug/m3	<1.6	<1.6	1.6	2220828
Tetrachloroethylene	ug/m3	<1.4	<1.4	1.4	2220828
Benzene	ug/m3	<0.58	<0.58	0.58	2220828
Toluene	ug/m3	1.08	<0.75	0.75	2220828
Ethylbenzene	ug/m3	<0.87	<0.87	0.87	2220828
p+m-Xylene	ug/m3	<1.6	<1.6	1.6	2220828
o-Xylene	ug/m3	<0.87	<0.87	0.87	2220828
Styrene	ug/m3	<0.85	<0.85	0.85	2220828
4-ethyltoluene	ug/m3	<11	<11	11	2220828
1,3,5-Trimethylbenzene	ug/m3	<2.5	<2.5	2.5	2220828
1,2,4-Trimethylbenzene	ug/m3	<2.5	<2.5	2.5	2220828
Chlorobenzene	ug/m3	<0.92	<0.92	0.92	2220828
Benzyl chloride	ug/m3	<5.2	<5.2	5.2	2220828
1,3-Dichlorobenzene	ug/m3	<2.4	<2.4	2.4	2220828
1,4-Dichlorobenzene	ug/m3	<2.4	<2.4	2.4	2220828
1,2-Dichlorobenzene	ug/m3	<2.4	<2.4	2.4	2220828
1,2,4-Trichlorobenzene	ug/m3	<15	<15	15	2220828
Hexachlorobutadiene	ug/m3	<32	<32	32	2220828
Hexane	ug/m3	<1.1	<1.1	1.1	2220828
Heptane	ug/m3	<1.2	<1.2	1.2	2220828
Cyclohexane	ug/m3	<0.69	<0.69	0.69	2220828
Tetrahydrofuran	ug/m3	<1.2	<1.2	1.2	2220828
1,4-Dioxane	ug/m3	<7.2	<7.2	7.2	2220828
Xylene (Total)	ug/m3	<2.6	<2.6	2.6	2220828
QC Batch = Quality Control Batch					

Maxxam Job #: B083433
 Report Date: 2010/07/29

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GH8493	GH8494		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA PUF/QFF/CLS/JUN 19, 10	LICA PUF/QFF/PORT/JUN 19, 10	RDL	QC Batch
Semivolatile Organics					
1-Methylnaphthalene	ug	0.12	0.11	0.10	2193362
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2193362
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2193362
2-Methylantracene	ug	<0.10	<0.10	0.10	2193362
2-Methylnaphthalene	ug	0.25	0.27	0.10	2193362
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2193362
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2193362
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2193362
Acenaphthene	ug	<0.050	<0.050	0.050	2193362
Acenaphthylene	ug	<0.050	<0.050	0.050	2193362
Anthracene	ug	<0.050	<0.050	0.050	2193362
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2193362
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2193362
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2193362
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2193362
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2193362
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2193362
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2193362
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2193362
Biphenyl	ug	<0.10	<0.10	0.10	2193362
Chrysene	ug	<0.050	<0.050	0.050	2193362
Coronene	ug	<0.10	<0.10	0.10	2193362
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2193362
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2193362
Fluoranthene	ug	<0.050	<0.050	0.050	2193362
Fluorene	ug	0.100	0.082	0.050	2193362
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2193362
m-Terphenyl	ug	<0.10	<0.10	0.10	2193362
Naphthalene	ug	0.138	0.110	0.072	2193362
o-Terphenyl	ug	<0.10	<0.10	0.10	2193362
Perylene	ug	<0.10	<0.10	0.10	2193362
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: B083433
 Report Date: 2010/07/29

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GH8493	GH8494		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA PUF/QFF/CLS/JUN 19, 10	LICA PUF/QFF/PORT/JUN 19, 10	RDL	QC Batch
Phenanthrene	ug	0.358	0.172	0.050	2193362
p-Terphenyl	ug	<0.10	<0.10	0.10	2193362
Pyrene	ug	<0.050	<0.050	0.050	2193362
Quinoline	ug	<0.40	<0.40	0.40	2193362
Tetralin	ug	<0.10	<0.10	0.10	2193362
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	58	62		2193362
D10-Fluoranthene	%	98	100		2193362
D10-Fluorene (FS)	%	48 (1)	48 (1)		2193362
D10-Phenanthrene	%	84	84		2193362
D12-Benzo(a)anthracene	%	112	116		2193362
D12-Benzo(a)pyrene	%	90	90		2193362
D12-Benzo(b)fluoranthene	%	90	90		2193362
D12-Benzo(ghi)perylene	%	88	90		2193362
D12-Benzo(k)fluoranthene	%	84	84		2193362
D12-Chrysene	%	84	84		2193362
D12-Indeno(1,2,3-cd)pyrene	%	88	90		2193362
D12-Perylene	%	86	86		2193362
D14-Dibenzo(a,h)anthracene	%	76	78		2193362
D14-Terphenyl (FS)	%	81	81		2193362
D8-Acenaphthylene	%	68	72		2193362
D8-Naphthalene	%	64	70		2193362
QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.					

Maxxam Job #: B083433
 Report Date: 2010/07/29

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch

Volatile Organics					
2,2,4-Trimethylpentane	ppbv	<0.20	<0.20	0.20	2193201
Carbon Disulfide	ppbv	0.56	<0.50	0.50	2193201
Propene	ppbv	<0.30	<0.30	0.30	2193201
Vinyl Acetate	ppbv	<0.20	<0.20	0.20	2193201
Vinyl Bromide	ppbv	<0.20	<0.20	0.20	2193201
Dichlorodifluoromethane (FREON 12)	ppbv	0.79	0.83	0.20	2193201
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	<0.17	0.17	2193201
Chloromethane	ppbv	0.60	0.59	0.30	2193201
Vinyl Chloride	ppbv	<0.18	<0.18	0.18	2193201
Chloroethane	ppbv	<0.30	<0.30	0.30	2193201
1,3-Butadiene	ppbv	<0.50	<0.50	0.50	2193201
Trichlorofluoromethane (FREON 11)	ppbv	0.38	0.37	0.20	2193201
Trichlorotrifluoroethane	ppbv	<0.15	<0.15	0.15	2193201
Ethanol	ppbv	<2.3	<2.3	2.3	2193201
2-propanol	ppbv	<3.0	<3.0	3.0	2193201
2-Propanone	ppbv	5.80	5.12	0.80	2193201
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	<3.0	3.0	2193201
Methyl Isobutyl Ketone	ppbv	<3.2	<3.2	3.2	2193201
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	<2.0	2.0	2193201
Methyl t-butyl ether (MTBE)	ppbv	<0.20	<0.20	0.20	2193201
Ethyl Acetate	ppbv	<2.2	<2.2	2.2	2193201
1,1-Dichloroethylene	ppbv	<0.25	<0.25	0.25	2193201
cis-1,2-Dichloroethylene	ppbv	<0.19	<0.19	0.19	2193201
trans-1,2-Dichloroethylene	ppbv	<0.20	<0.20	0.20	2193201
Methylene Chloride(Dichloromethane)	ppbv	0.75	0.56	0.30	2193201
Chloroform	ppbv	<0.15	<0.15	0.15	2193201
Carbon Tetrachloride	ppbv	<0.30	<0.30	0.30	2193201
1,1-Dichloroethane	ppbv	<0.20	<0.20	0.20	2193201
1,2-Dichloroethane	ppbv	<0.20	<0.20	0.20	2193201
Ethylene Dibromide	ppbv	<0.17	<0.17	0.17	2193201
1,1,1-Trichloroethane	ppbv	<0.30	<0.30	0.30	2193201
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: B083433
 Report Date: 2010/07/29

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	<0.15	0.15	2193201
1,1,2,2-Tetrachloroethane	ppbv	<0.20	<0.20	0.20	2193201
cis-1,3-Dichloropropene	ppbv	<0.18	<0.18	0.18	2193201
trans-1,3-Dichloropropene	ppbv	<0.17	<0.17	0.17	2193201
1,2-Dichloropropane	ppbv	<0.40	<0.40	0.40	2193201
Bromomethane	ppbv	<0.18	<0.18	0.18	2193201
Bromoform	ppbv	<0.20	<0.20	0.20	2193201
Bromodichloromethane	ppbv	<0.20	<0.20	0.20	2193201
Dibromochloromethane	ppbv	<0.20	<0.20	0.20	2193201
Heptane	ppbv	<0.30	<0.30	0.30	2193201
Trichloroethylene	ppbv	<0.30	<0.30	0.30	2193201
Tetrachloroethylene	ppbv	<0.20	<0.20	0.20	2193201
Benzene	ppbv	<0.18	<0.18	0.18	2193201
Toluene	ppbv	0.29	<0.20	0.20	2193201
Ethylbenzene	ppbv	<0.20	<0.20	0.20	2193201
p+m-Xylene	ppbv	<0.37	<0.37	0.37	2193201
o-Xylene	ppbv	<0.20	<0.20	0.20	2193201
Styrene	ppbv	<0.20	<0.20	0.20	2193201
1,3,5-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2193201
1,2,4-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2193201
4-ethyltoluene	ppbv	<2.2	<2.2	2.2	2193201
Chlorobenzene	ppbv	<0.20	<0.20	0.20	2193201
Benzyl chloride	ppbv	<1.0	<1.0	1.0	2193201
1,3-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2193201
1,4-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2193201
1,2-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2193201
1,2,4-Trichlorobenzene	ppbv	<2.0	<2.0	2.0	2193201
Hexachlorobutadiene	ppbv	<3.0	<3.0	3.0	2193201
Hexane	ppbv	<0.30	<0.30	0.30	2193201
Cyclohexane	ppbv	<0.20	<0.20	0.20	2193201
Tetrahydrofuran	ppbv	<0.40	<0.40	0.40	2193201
1,4-Dioxane	ppbv	<2.0	<2.0	2.0	2193201
Xylene (Total)	ppbv	<0.60	<0.60	0.60	2193201
QC Batch = Quality Control Batch					

Maxxam Job #: B083433
 Report Date: 2010/07/29

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch

Surrogate Recovery (%)					
Bromochloromethane	%	87	83		2193201
D5-Chlorobenzene	%	85	82		2193201
Difluorobenzene	%	90	86		2193201

QC Batch = Quality Control Batch

Maxxam Job #: B083433
 Report Date: 2010/07/29

Test Summary

Maxxam ID GH8491 **Collected** 2010/06/19
Sample ID LICA VOC/CLS/JUN 19,10 - 7813 **Shipped**
Matrix AIR **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2192691	N/A	2010/06/28	LSY
Volatile Organics in Air (ug/m3)	GC/MS	2220828	N/A	2010/07/29	
Volatile Organics in Air (TO-15)	GC/MS	2193201	N/A	2010/06/28	LSY

Maxxam ID GH8492 **Collected** 2010/06/19
Sample ID LICAVOC/PORT/JUN 19,10 - 7809 **Shipped**
Matrix AIR **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2192691	N/A	2010/06/28	LSY
Volatile Organics in Air (ug/m3)	GC/MS	2220828	N/A	2010/07/29	
Volatile Organics in Air (TO-15)	GC/MS	2193201	N/A	2010/06/28	LSY

Maxxam ID GH8493 **Collected** 2010/06/19
Sample ID LICA PUF/QFF/CLS/JUN 19, 10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2193362	2010/06/29	2010/07/23	JIW

Maxxam ID GH8494 **Collected** 2010/06/19
Sample ID LICA PUF/QFF/PORT/JUN 19, 10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2193362	2010/06/29	2010/07/23	JIW

Maxxam Job #: B083433
Report Date: 2010/07/29

GENERAL COMMENTS

Continuing calibration Standard

Worksheet #2193201: 3 compounds exceed 130%RSD criteria. Compounds meet criteria in the reference standard. These 3 compounds are not found in the job. The failure of these 3 compounds is not believed to have an effect on the integrity of the results, therefore the data was accepted.

PAHMS-F(WS:2193362)

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positive found for this compound.

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.10ug.

Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample GH8493-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Sample GH8494-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193201 LSY	Spiked Blank	Bromochloromethane	2010/06/28		112	%	60 - 140
		D5-Chlorobenzene	2010/06/28		115	%	60 - 140
		Difluorobenzene	2010/06/28		116	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/28		94	%	70 - 130
		Carbon Disulfide	2010/06/28		95	%	70 - 130
		Propene	2010/06/28		97	%	70 - 130
		Vinyl Acetate	2010/06/28		111	%	70 - 130
		Vinyl Bromide	2010/06/28		96	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/06/28		89	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/06/28		88	%	70 - 130
		Chloromethane	2010/06/28		95	%	70 - 130
		Vinyl Chloride	2010/06/28		99	%	70 - 130
		Chloroethane	2010/06/28		102	%	70 - 130
		1,3-Butadiene	2010/06/28		84	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/06/28		103	%	70 - 130
		Trichlorotrifluoroethane	2010/06/28		99	%	70 - 130
		Ethanol	2010/06/28		119	%	70 - 130
		2-propanol	2010/06/28		99	%	70 - 130
		2-Propanone	2010/06/28		109	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/28		99	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/28		88	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/28		85	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/28		103	%	70 - 130
		Ethyl Acetate	2010/06/28		97	%	70 - 130
		1,1-Dichloroethylene	2010/06/28		101	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/28		100	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/28		100	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/28		88	%	70 - 130
		Chloroform	2010/06/28		101	%	70 - 130
		Carbon Tetrachloride	2010/06/28		115	%	70 - 130
		1,1-Dichloroethane	2010/06/28		97	%	70 - 130
		1,2-Dichloroethane	2010/06/28		103	%	70 - 130
		Ethylene Dibromide	2010/06/28		97	%	70 - 130
		1,1,1-Trichloroethane	2010/06/28		108	%	70 - 130
		1,1,2-Trichloroethane	2010/06/28		99	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/28		92	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/28		107	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/28		115	%	70 - 130
		1,2-Dichloropropane	2010/06/28		94	%	70 - 130
		Bromomethane	2010/06/28		92	%	70 - 130
		Bromoform	2010/06/28		109	%	70 - 130
		Bromodichloromethane	2010/06/28		105	%	70 - 130
		Dibromochloromethane	2010/06/28		107	%	70 - 130
		Heptane	2010/06/28		96	%	70 - 130
		Trichloroethylene	2010/06/28		94	%	70 - 130
		Tetrachloroethylene	2010/06/28		99	%	70 - 130
		Benzene	2010/06/28		94	%	70 - 130
		Toluene	2010/06/28		97	%	70 - 130
		Ethylbenzene	2010/06/28		95	%	70 - 130
		p+m-Xylene	2010/06/28		95	%	70 - 130
		o-Xylene	2010/06/28		97	%	70 - 130
		Styrene	2010/06/28		78	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/28		87	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/28		84	%	70 - 130
		4-ethyltoluene	2010/06/28		92	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193201 LSY	Spiked Blank	Chlorobenzene	2010/06/28		93	%	70 - 130
		Benzyl chloride	2010/06/28		119	%	70 - 130
		1,3-Dichlorobenzene	2010/06/28		91	%	70 - 130
		1,4-Dichlorobenzene	2010/06/28		86	%	70 - 130
		1,2-Dichlorobenzene	2010/06/28		84	%	70 - 130
		1,2,4-Trichlorobenzene	2010/06/28		84	%	70 - 130
		Hexachlorobutadiene	2010/06/28		85	%	70 - 130
		Hexane	2010/06/28		94	%	70 - 130
		Cyclohexane	2010/06/28		95	%	70 - 130
		Tetrahydrofuran	2010/06/28		94	%	70 - 130
		1,4-Dioxane	2010/06/28		84	%	70 - 130
	Method Blank	Bromochloromethane	2010/06/28		94	%	60 - 140
		D5-Chlorobenzene	2010/06/28		92	%	60 - 140
		Difluorobenzene	2010/06/28		97	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/28	<0.20		ppbv	
		Carbon Disulfide	2010/06/28	<0.50		ppbv	
		Propene	2010/06/28	<0.30		ppbv	
		Vinyl Acetate	2010/06/28	<0.20		ppbv	
		Vinyl Bromide	2010/06/28	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/06/28	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/06/28	<0.17		ppbv	
		Chloromethane	2010/06/28	<0.30		ppbv	
		Vinyl Chloride	2010/06/28	<0.18		ppbv	
		Chloroethane	2010/06/28	<0.30		ppbv	
		1,3-Butadiene	2010/06/28	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/06/28	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/06/28	<0.15		ppbv	
		Ethanol	2010/06/28	<2.3		ppbv	
		2-propanol	2010/06/28	<3.0		ppbv	
		2-Propanone	2010/06/28	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/06/28	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/06/28	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/06/28	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/06/28	<0.20		ppbv	
		Ethyl Acetate	2010/06/28	<2.2		ppbv	
		1,1-Dichloroethylene	2010/06/28	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/06/28	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/06/28	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/06/28	0.43, RDL=0.30		ppbv	
		Chloroform	2010/06/28	<0.15		ppbv	
		Carbon Tetrachloride	2010/06/28	<0.30		ppbv	
		1,1-Dichloroethane	2010/06/28	<0.20		ppbv	
		1,2-Dichloroethane	2010/06/28	<0.20		ppbv	
		Ethylene Dibromide	2010/06/28	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/06/28	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/06/28	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/06/28	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/06/28	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/06/28	<0.17		ppbv	
		1,2-Dichloropropane	2010/06/28	<0.40		ppbv	
		Bromomethane	2010/06/28	<0.18		ppbv	
		Bromoform	2010/06/28	<0.20		ppbv	
		Bromodichloromethane	2010/06/28	<0.20		ppbv	
		Dibromochloromethane	2010/06/28	<0.20		ppbv	
		Heptane	2010/06/28	<0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
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 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2193201 LSY	Method Blank	Trichloroethylene	2010/06/28	<0.30		ppbv		
		Tetrachloroethylene	2010/06/28	<0.20		ppbv		
		Benzene	2010/06/28	<0.18		ppbv		
		Toluene	2010/06/28	<0.20		ppbv		
		Ethylbenzene	2010/06/28	<0.20		ppbv		
		p+m-Xylene	2010/06/28	<0.37		ppbv		
		o-Xylene	2010/06/28	<0.20		ppbv		
		Styrene	2010/06/28	<0.20		ppbv		
		1,3,5-Trimethylbenzene	2010/06/28	<0.50		ppbv		
		1,2,4-Trimethylbenzene	2010/06/28	<0.50		ppbv		
		4-ethyltoluene	2010/06/28	<2.2		ppbv		
		Chlorobenzene	2010/06/28	<0.20		ppbv		
		Benzyl chloride	2010/06/28	<1.0		ppbv		
		1,3-Dichlorobenzene	2010/06/28	<0.40		ppbv		
		1,4-Dichlorobenzene	2010/06/28	<0.40		ppbv		
		1,2-Dichlorobenzene	2010/06/28	<0.40		ppbv		
		1,2,4-Trichlorobenzene	2010/06/28	<2.0		ppbv		
		Hexachlorobutadiene	2010/06/28	<3.0		ppbv		
		Hexane	2010/06/28	<0.30		ppbv		
		Cyclohexane	2010/06/28	<0.20		ppbv		
Tetrahydrofuran	2010/06/28	<0.40		ppbv				
1,4-Dioxane	2010/06/28	<2.0		ppbv				
Xylene (Total)	2010/06/28	<0.60		ppbv				
2193362 JIW	Spiked Blank	D10-2-Methylnaphthalene	2010/07/23		58	%	50 - 150	
		D10-Fluoranthene	2010/07/23		88	%	50 - 150	
		D10-Phenanthrene	2010/07/23		74	%	50 - 150	
		D12-Benzo(a)anthracene	2010/07/23		100	%	50 - 150	
		D12-Benzo(a)pyrene	2010/07/23		86	%	50 - 150	
		D12-Benzo(b)fluoranthene	2010/07/23		84	%	50 - 150	
		D12-Benzo(ghi)perylene	2010/07/23		86	%	50 - 150	
		D12-Benzo(k)fluoranthene	2010/07/23		82	%	50 - 150	
		D12-Chrysene	2010/07/23		84	%	50 - 150	
		D12-Indeno(1,2,3-cd)pyrene	2010/07/23		84	%	50 - 150	
		D12-Perylene	2010/07/23		84	%	50 - 150	
		D14-Dibenzo(a,h)anthracene	2010/07/23		74	%	50 - 150	
		D8-Acenaphthylene	2010/07/23		62	%	50 - 150	
		D8-Naphthalene	2010/07/23		66	%	50 - 150	
		Acenaphthene	2010/07/23		70	%	60 - 130	
		RPD	Acenaphthene	2010/07/23	17.2		%	50
		Spiked Blank	Acenaphthylene	2010/07/23		69	%	60 - 130
		RPD	Acenaphthylene	2010/07/23	20.1		%	50
		Spiked Blank	Anthracene	2010/07/23		74	%	60 - 130
		RPD	Anthracene	2010/07/23	6.6		%	50
		Spiked Blank	Benzo(a)anthracene	2010/07/23		80	%	60 - 130
		RPD	Benzo(a)anthracene	2010/07/23	2.2		%	50
		Spiked Blank	Benzo(a)pyrene	2010/07/23		72	%	60 - 130
		RPD	Benzo(a)pyrene	2010/07/23	5.8		%	50
		Spiked Blank	Benzo(b)fluoranthene	2010/07/23		72	%	60 - 130
		RPD	Benzo(b)fluoranthene	2010/07/23	7.3		%	50
		Spiked Blank	Benzo(g,h,i)perylene	2010/07/23		77	%	60 - 130
		RPD	Benzo(g,h,i)perylene	2010/07/23	5.7		%	50
Spiked Blank	Benzo(k)fluoranthene	2010/07/23		84	%	60 - 130		
RPD	Benzo(k)fluoranthene	2010/07/23	2.7		%	50		
Spiked Blank	Chrysene	2010/07/23		84	%	60 - 130		
RPD	Chrysene	2010/07/23	3.2		%	50		

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193362 JIW	Spiked Blank	Dibenz(a,h)anthracene	2010/07/23		71	%	60 - 130
	RPD	Dibenz(a,h)anthracene	2010/07/23	6.5		%	50
	Spiked Blank	Fluoranthene	2010/07/23		88	%	60 - 130
	RPD	Fluoranthene	2010/07/23	2.8		%	50
	Spiked Blank	Fluorene	2010/07/23		71	%	60 - 130
	RPD	Fluorene	2010/07/23	13.4		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/07/23		72	%	60 - 130
	RPD	Indeno(1,2,3-cd)pyrene	2010/07/23	5.8		%	50
	Spiked Blank	Naphthalene	2010/07/23		65	%	60 - 130
	RPD	Naphthalene	2010/07/23	21.8		%	50
	Spiked Blank	Phenanthrene	2010/07/23		71	%	60 - 130
	RPD	Phenanthrene	2010/07/23	9.0		%	50
	Spiked Blank	Pyrene	2010/07/23		83	%	60 - 130
	RPD	Pyrene	2010/07/23	3.3		%	50
	Method Blank	D10-2-Methylnaphthalene	2010/07/23		68	%	50 - 150
		D10-Fluoranthene	2010/07/23		86	%	50 - 150
		D10-Phenanthrene	2010/07/23		72	%	50 - 150
		D12-Benzo(a)anthracene	2010/07/23		98	%	50 - 150
		D12-Benzo(a)pyrene	2010/07/23		84	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/07/23		84	%	50 - 150
		D12-Benzo(ghi)perylene	2010/07/23		84	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/07/23		82	%	50 - 150
		D12-Chrysene	2010/07/23		88	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/07/23		82	%	50 - 150
		D12-Perylene	2010/07/23		86	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/07/23		70	%	50 - 150
		D8-Acenaphthylene	2010/07/23		72	%	50 - 150
		D8-Naphthalene	2010/07/23		80	%	50 - 150
		1-Methylnaphthalene	2010/07/23	<0.10		ug	
		1-Methylphenanthrene	2010/07/23	<0.10		ug	
		2-Chloronaphthalene	2010/07/23	<0.10		ug	
		2-Methylantracene	2010/07/23	<0.10		ug	
		2-Methylnaphthalene	2010/07/23	<0.10		ug	
		3-Methylcholanthrene	2010/07/23	<2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/07/23	<0.10		ug	
		9,10-Dimethylantracene	2010/07/23	<0.40		ug	
		Acenaphthene	2010/07/23	<0.050		ug	
		Acenaphthylene	2010/07/23	<0.050		ug	
		Anthracene	2010/07/23	<0.050		ug	
		Benzo(a)anthracene	2010/07/23	<0.050		ug	
		Benzo(a)fluorene	2010/07/23	<0.10		ug	
		Benzo(a)pyrene	2010/07/23	<0.050		ug	
		Benzo(b)fluoranthene	2010/07/23	<0.050		ug	
		Benzo(b)fluorene	2010/07/23	<0.10		ug	
		Benzo(e)pyrene	2010/07/23	<0.10		ug	
		Benzo(g,h,i)perylene	2010/07/23	<0.050		ug	
		Benzo(k)fluoranthene	2010/07/23	<0.050		ug	
		Biphenyl	2010/07/23	<0.10		ug	
		Chrysene	2010/07/23	<0.050		ug	
		Coronene	2010/07/23	<0.10		ug	
		Dibenz(a,h)anthracene	2010/07/23	<0.050		ug	
		Dibenzo(a,e)pyrene	2010/07/23	<0.20		ug	
		Fluoranthene	2010/07/23	<0.050		ug	
		Fluorene	2010/07/23	<0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/07/23	<0.050		ug	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193362 JIW	Method Blank	m-Terphenyl	2010/07/23	<0.10		ug	
		Naphthalene	2010/07/23	<0.072		ug	
		o-Terphenyl	2010/07/23	<0.10		ug	
		Perylene	2010/07/23	<0.10		ug	
		Phenanthrene	2010/07/23	<0.050		ug	
		p-Terphenyl	2010/07/23	<0.10		ug	
		Pyrene	2010/07/23	<0.050		ug	
		Quinoline	2010/07/23	<0.40		ug	
		Tetralin	2010/07/23	<0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: 7805
 Station ID: Lica 1 Canister Installation Date/Time: June 24,2010@ 16:58 mst
 Field Sample ID: LICA VOC/ CLS /June 25, 10 Canister Removal Date/Time: June28,2010 @ 7:08 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
25-Jun-10	06/25/2010 0:00	06/26/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	598	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	20

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC # 0563

- Replaced the pump pressure gauge and added in a piece of 1/16" tubing from the pump output line to the pressure gauge as per manufacturer's instructions. Should eliminate pressure pulses at the pump gauge.

Technician Signiture: Shea Beaton



Your C.O.C. #: 0563

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B085824

Received: 2010/06/30, 09:09

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/07/05	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/07/05	BRL SOP-00304	EPA TO-15

Sample Matrix: PUF AND FILTER
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/07/09	2010/07/24	BRL SOP-00201	CARB429(ARBM1,M2)mod

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

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

Encryption Key

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

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

=====



Your C.O.C. #: 0563

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

-2-

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

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Total cover pages: 2

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Maxxam Job #: B085824
 Report Date: 2010/07/28

RESULTS OF ANALYSES OF AIR

Maxxam ID		GJ6735	GJ6736	
Sampling Date		2010/06/25	2010/06/25	
COC Number		0563	0563	
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	QC Batch

Volatile Organics				
Pressure on Receipt	psig	20	21	2197951

QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GJ0752	GJ0753		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICAPUF/QFF/CLS/JUNE25,10	LICAPUF/QFF/PORT/JUNE25,10	RDL	QC Batch

Semivolatile Organics					
1-Methylnaphthalene	ug	<0.10	<0.10	0.10	2202480
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2202480
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2202480
2-Methylantracene	ug	<0.10	<0.10	0.10	2202480
2-Methylnaphthalene	ug	0.17	0.12	0.10	2202480
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2202480
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2202480
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2202480
Acenaphthene	ug	0.050	<0.050	0.050	2202480
Acenaphthylene	ug	<0.050	0.092	0.050	2202480
Anthracene	ug	<0.050	<0.050	0.050	2202480
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2202480
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2202480
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2202480
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2202480
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2202480
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2202480
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2202480
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2202480
Biphenyl	ug	<0.10	<0.10	0.10	2202480
Chrysene	ug	<0.050	<0.050	0.050	2202480
Coronene	ug	<0.10	<0.10	0.10	2202480
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2202480
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2202480
Fluoranthene	ug	0.066	0.162	0.050	2202480
Fluorene	ug	0.132	0.100	0.050	2202480
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2202480
m-Terphenyl	ug	<0.10	<0.10	0.10	2202480
Naphthalene	ug	0.144	0.090	0.072	2202480
o-Terphenyl	ug	<0.10	<0.10	0.10	2202480
Perylene	ug	<0.10	<0.10	0.10	2202480
Phenanthrene	ug	0.566	0.562	0.050	2202480

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GJ0752	GJ0753		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICAPUF/QFF/CLS/JUNE25,10	LICAPUF/QFF/PORT/JUNE25,10	RDL	QC Batch
p-Terphenyl	ug	<0.10	<0.10	0.10	2202480
Pyrene	ug	<0.050	0.136	0.050	2202480
Quinoline	ug	<0.40	<0.40	0.40	2202480
Tetralin	ug	<0.10	<0.10	0.10	2202480
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	62	60		2202480
D10-Fluoranthene	%	106	100		2202480
D10-Fluorene (FS)	%	51	46 (1)		2202480
D10-Phenanthrene	%	92	86		2202480
D12-Benzo(a)anthracene	%	124	114		2202480
D12-Benzo(a)pyrene	%	100	92		2202480
D12-Benzo(b)fluoranthene	%	98	90		2202480
D12-Benzo(ghi)perylene	%	98	92		2202480
D12-Benzo(k)fluoranthene	%	90	80		2202480
D12-Chrysene	%	90	80		2202480
D12-Indeno(1,2,3-cd)pyrene	%	96	90		2202480
D12-Perylene	%	94	88		2202480
D14-Dibenzo(a,h)anthracene	%	84	82		2202480
D14-Terphenyl (FS)	%	87	78		2202480
D8-Acenaphthylene	%	82	76		2202480
D8-Naphthalene	%	68	64		2202480
QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.					

Maxxam Job #: B085824
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GJ6735	GJ6736		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	RDL	QC Batch

Volatile Organics					
2,2,4-Trimethylpentane	ppbv	<0.20	<0.20	0.20	2197955
Carbon Disulfide	ppbv	<0.50	<0.50	0.50	2197955
Propene	ppbv	<0.30	<0.30	0.30	2197955
Vinyl Acetate	ppbv	<0.20	<0.20	0.20	2197955
Vinyl Bromide	ppbv	<0.20	<0.20	0.20	2197955
Dichlorodifluoromethane (FREON 12)	ppbv	0.71	0.83	0.20	2197955
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	<0.17	0.17	2197955
Chloromethane	ppbv	0.64	0.65	0.30	2197955
Vinyl Chloride	ppbv	<0.18	<0.18	0.18	2197955
Chloroethane	ppbv	<0.30	<0.30	0.30	2197955
1,3-Butadiene	ppbv	<0.50	<0.50	0.50	2197955
Trichlorofluoromethane (FREON 11)	ppbv	0.33	0.37	0.20	2197955
Trichlorotrifluoroethane	ppbv	<0.15	<0.15	0.15	2197955
Ethanol	ppbv	2.9	<2.3	2.3	2197955
2-propanol	ppbv	<3.0	<3.0	3.0	2197955
2-Propanone	ppbv	4.47	4.63	0.80	2197955
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	<3.0	3.0	2197955
Methyl Isobutyl Ketone	ppbv	<3.2	<3.2	3.2	2197955
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	<2.0	2.0	2197955
Methyl t-butyl ether (MTBE)	ppbv	<0.20	<0.20	0.20	2197955
Ethyl Acetate	ppbv	<2.2	<2.2	2.2	2197955
1,1-Dichloroethylene	ppbv	<0.25	<0.25	0.25	2197955
cis-1,2-Dichloroethylene	ppbv	<0.19	<0.19	0.19	2197955
trans-1,2-Dichloroethylene	ppbv	<0.20	<0.20	0.20	2197955
Methylene Chloride(Dichloromethane)	ppbv	0.59	0.48	0.30	2197955
Chloroform	ppbv	<0.15	<0.15	0.15	2197955
Carbon Tetrachloride	ppbv	<0.30	<0.30	0.30	2197955
1,1-Dichloroethane	ppbv	<0.20	<0.20	0.20	2197955
1,2-Dichloroethane	ppbv	<0.20	<0.20	0.20	2197955
Ethylene Dibromide	ppbv	<0.17	<0.17	0.17	2197955
1,1,1-Trichloroethane	ppbv	<0.30	<0.30	0.30	2197955

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GJ6735	GJ6736		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	RDL	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	<0.15	0.15	2197955
1,1,2,2-Tetrachloroethane	ppbv	<0.20	<0.20	0.20	2197955
cis-1,3-Dichloropropene	ppbv	<0.18	<0.18	0.18	2197955
trans-1,3-Dichloropropene	ppbv	<0.17	<0.17	0.17	2197955
1,2-Dichloropropane	ppbv	<0.40	<0.40	0.40	2197955
Bromomethane	ppbv	<0.18	<0.18	0.18	2197955
Bromoform	ppbv	<0.20	<0.20	0.20	2197955
Bromodichloromethane	ppbv	<0.20	<0.20	0.20	2197955
Dibromochloromethane	ppbv	<0.20	<0.20	0.20	2197955
Heptane	ppbv	<0.30	<0.30	0.30	2197955
Trichloroethylene	ppbv	<0.30	<0.30	0.30	2197955
Tetrachloroethylene	ppbv	<0.20	<0.20	0.20	2197955
Benzene	ppbv	<0.18	<0.18	0.18	2197955
Toluene	ppbv	0.26	<0.20	0.20	2197955
Ethylbenzene	ppbv	<0.20	<0.20	0.20	2197955
p+m-Xylene	ppbv	<0.37	<0.37	0.37	2197955
o-Xylene	ppbv	<0.20	<0.20	0.20	2197955
Styrene	ppbv	<0.20	<0.20	0.20	2197955
1,3,5-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2197955
1,2,4-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2197955
4-ethyltoluene	ppbv	<2.2	<2.2	2.2	2197955
Chlorobenzene	ppbv	<0.20	<0.20	0.20	2197955
Benzyl chloride	ppbv	<1.0	<1.0	1.0	2197955
1,3-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2197955
1,4-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2197955
1,2-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2197955
1,2,4-Trichlorobenzene	ppbv	<2.0	<2.0	2.0	2197955
Hexachlorobutadiene	ppbv	<3.0	<3.0	3.0	2197955
Hexane	ppbv	<0.30	<0.30	0.30	2197955
Cyclohexane	ppbv	<0.20	0.21	0.20	2197955
Tetrahydrofuran	ppbv	<0.40	<0.40	0.40	2197955
1,4-Dioxane	ppbv	<2.0	<2.0	2.0	2197955
Xylene (Total)	ppbv	<0.60	<0.60	0.60	2197955
QC Batch = Quality Control Batch					

Maxxam Job #: B085824
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GJ6735	GJ6736		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	RDL	QC Batch

Surrogate Recovery (%)					
Bromochloromethane	%	99	79		2197955
D5-Chlorobenzene	%	99	77		2197955
Difluorobenzene	%	103	81		2197955

QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

Test Summary

Maxxam ID GJ0752 **Collected** 2010/06/25
Sample ID LICAPUF/QFF/CLS/JUNE25,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2202480	2010/07/09	2010/07/24	JIW

Maxxam ID GJ0753 **Collected** 2010/06/25
Sample ID LICAPUF/QFF/PORT/JUNE25,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2202480	2010/07/09	2010/07/24	JIW

Maxxam ID GJ6735 **Collected** 2010/06/25
Sample ID LICA VOC/CLS/JUNE 25,10 **Shipped**
Matrix AIR **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2197951	N/A	2010/07/05	LSY
Volatile Organics in Air (TO-15)	GC/MS	2197955	N/A	2010/07/05	LSY

Maxxam ID GJ6736 **Collected** 2010/06/25
Sample ID LICA VOC/PORT/JUNE 25,10 **Shipped**
Matrix AIR **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2197951	N/A	2010/07/05	LSY
Volatile Organics in Air (TO-15)	GC/MS	2197955	N/A	2010/07/05	LSY

Maxxam Job #: B085824
Report Date: 2010/07/28

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positive found for this compound.

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.10ug.

Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample GJ0753-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report

Maxxam Job Number: GB085824

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2197955 LSY	Spiked Blank	Bromochloromethane	2010/07/05		100	%	60 - 140
		D5-Chlorobenzene	2010/07/05		103	%	60 - 140
		Difluorobenzene	2010/07/05		104	%	60 - 140
		2,2,4-Trimethylpentane	2010/07/05		91	%	70 - 130
		Carbon Disulfide	2010/07/05		94	%	70 - 130
		Propene	2010/07/05		94	%	70 - 130
		Vinyl Acetate	2010/07/05		106	%	70 - 130
		Vinyl Bromide	2010/07/05		95	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/07/05		99	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/07/05		85	%	70 - 130
		Chloromethane	2010/07/05		92	%	70 - 130
		Vinyl Chloride	2010/07/05		97	%	70 - 130
		Chloroethane	2010/07/05		97	%	70 - 130
		1,3-Butadiene	2010/07/05		80	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/07/05		98	%	70 - 130
		Trichlorotrifluoroethane	2010/07/05		97	%	70 - 130
		Ethanol	2010/07/05		112	%	70 - 130
		2-propanol	2010/07/05		94	%	70 - 130
		2-Propanone	2010/07/05		109	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/07/05		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/07/05		82	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/07/05		77	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/07/05		101	%	70 - 130
		Ethyl Acetate	2010/07/05		93	%	70 - 130
		1,1-Dichloroethylene	2010/07/05		96	%	70 - 130
		cis-1,2-Dichloroethylene	2010/07/05		96	%	70 - 130
		trans-1,2-Dichloroethylene	2010/07/05		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/07/05		85	%	70 - 130
		Chloroform	2010/07/05		97	%	70 - 130
		Carbon Tetrachloride	2010/07/05		110	%	70 - 130
		1,1-Dichloroethane	2010/07/05		96	%	70 - 130
		1,2-Dichloroethane	2010/07/05		97	%	70 - 130
		Ethylene Dibromide	2010/07/05		96	%	70 - 130
		1,1,1-Trichloroethane	2010/07/05		103	%	70 - 130
		1,1,2-Trichloroethane	2010/07/05		98	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/07/05		90	%	70 - 130
		cis-1,3-Dichloropropene	2010/07/05		106	%	70 - 130
		trans-1,3-Dichloropropene	2010/07/05		111	%	70 - 130
		1,2-Dichloropropane	2010/07/05		92	%	70 - 130
		Bromomethane	2010/07/05		90	%	70 - 130
		Bromoform	2010/07/05		108	%	70 - 130
		Bromodichloromethane	2010/07/05		101	%	70 - 130
		Dibromochloromethane	2010/07/05		104	%	70 - 130
		Heptane	2010/07/05		91	%	70 - 130
		Trichloroethylene	2010/07/05		95	%	70 - 130
		Tetrachloroethylene	2010/07/05		99	%	70 - 130
		Benzene	2010/07/05		93	%	70 - 130
		Toluene	2010/07/05		97	%	70 - 130
		Ethylbenzene	2010/07/05		93	%	70 - 130
		p+m-Xylene	2010/07/05		93	%	70 - 130
		o-Xylene	2010/07/05		94	%	70 - 130
		Styrene	2010/07/05		70	%	70 - 130
		1,3,5-Trimethylbenzene	2010/07/05		82	%	70 - 130
		1,2,4-Trimethylbenzene	2010/07/05		81	%	70 - 130
		4-ethyltoluene	2010/07/05		90	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB085824

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2197955 LSY	Spiked Blank	Chlorobenzene	2010/07/05		92	%	70 - 130
		Benzyl chloride	2010/07/05		118	%	70 - 130
		1,3-Dichlorobenzene	2010/07/05		90	%	70 - 130
		1,4-Dichlorobenzene	2010/07/05		88	%	70 - 130
		1,2-Dichlorobenzene	2010/07/05		83	%	70 - 130
		1,2,4-Trichlorobenzene	2010/07/05		81	%	70 - 130
		Hexachlorobutadiene	2010/07/05		82	%	70 - 130
		Hexane	2010/07/05		93	%	70 - 130
		Cyclohexane	2010/07/05		93	%	70 - 130
		Tetrahydrofuran	2010/07/05		89	%	70 - 130
		1,4-Dioxane	2010/07/05		82	%	70 - 130
	Method Blank	Bromochloromethane	2010/07/05		83	%	60 - 140
		D5-Chlorobenzene	2010/07/05		83	%	60 - 140
		Difluorobenzene	2010/07/05		86	%	60 - 140
		2,2,4-Trimethylpentane	2010/07/05	<0.20		ppbv	
		Carbon Disulfide	2010/07/05	<0.50		ppbv	
		Propene	2010/07/05	<0.30		ppbv	
		Vinyl Acetate	2010/07/05	<0.20		ppbv	
		Vinyl Bromide	2010/07/05	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/07/05	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/07/05	<0.17		ppbv	
		Chloromethane	2010/07/05	<0.30		ppbv	
		Vinyl Chloride	2010/07/05	<0.18		ppbv	
		Chloroethane	2010/07/05	<0.30		ppbv	
		1,3-Butadiene	2010/07/05	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/07/05	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/07/05	<0.15		ppbv	
		Ethanol	2010/07/05	<2.3		ppbv	
		2-propanol	2010/07/05	<3.0		ppbv	
		2-Propanone	2010/07/05	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/07/05	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/07/05	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/07/05	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/07/05	<0.20		ppbv	
		Ethyl Acetate	2010/07/05	<2.2		ppbv	
		1,1-Dichloroethylene	2010/07/05	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/07/05	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/07/05	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/07/05	0.43, RDL=0.30		ppbv	
		Chloroform	2010/07/05	<0.15		ppbv	
		Carbon Tetrachloride	2010/07/05	<0.30		ppbv	
		1,1-Dichloroethane	2010/07/05	<0.20		ppbv	
		1,2-Dichloroethane	2010/07/05	<0.20		ppbv	
		Ethylene Dibromide	2010/07/05	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/07/05	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/07/05	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/07/05	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/07/05	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/07/05	<0.17		ppbv	
		1,2-Dichloropropane	2010/07/05	<0.40		ppbv	
		Bromomethane	2010/07/05	<0.18		ppbv	
		Bromoform	2010/07/05	<0.20		ppbv	
		Bromodichloromethane	2010/07/05	<0.20		ppbv	
		Dibromochloromethane	2010/07/05	<0.20		ppbv	
		Heptane	2010/07/05	<0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB085824

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2197955 LSY	Method Blank	Trichloroethylene	2010/07/05	<0.30		ppbv		
		Tetrachloroethylene	2010/07/05	<0.20		ppbv		
		Benzene	2010/07/05	<0.18		ppbv		
		Toluene	2010/07/05	<0.20		ppbv		
		Ethylbenzene	2010/07/05	<0.20		ppbv		
		p+m-Xylene	2010/07/05	<0.37		ppbv		
		o-Xylene	2010/07/05	<0.20		ppbv		
		Styrene	2010/07/05	<0.20		ppbv		
		1,3,5-Trimethylbenzene	2010/07/05	<0.50		ppbv		
		1,2,4-Trimethylbenzene	2010/07/05	<0.50		ppbv		
		4-ethyltoluene	2010/07/05	<2.2		ppbv		
		Chlorobenzene	2010/07/05	<0.20		ppbv		
		Benzyl chloride	2010/07/05	<1.0		ppbv		
		1,3-Dichlorobenzene	2010/07/05	<0.40		ppbv		
		1,4-Dichlorobenzene	2010/07/05	<0.40		ppbv		
		1,2-Dichlorobenzene	2010/07/05	<0.40		ppbv		
		1,2,4-Trichlorobenzene	2010/07/05	<2.0		ppbv		
		Hexachlorobutadiene	2010/07/05	<3.0		ppbv		
		Hexane	2010/07/05	<0.30		ppbv		
		Cyclohexane	2010/07/05	<0.20		ppbv		
		Tetrahydrofuran	2010/07/05	<0.40		ppbv		
1,4-Dioxane	2010/07/05	<2.0		ppbv				
Xylene (Total)	2010/07/05	<0.60		ppbv				
2202480 JIW	Spiked Blank	D10-2-Methylnaphthalene	2010/07/24		72	%	50 - 150	
		D10-Fluoranthene	2010/07/24		96	%	50 - 150	
		D10-Phenanthrene	2010/07/24		88	%	50 - 150	
		D12-Benzo(a)anthracene	2010/07/24		108	%	50 - 150	
		D12-Benzo(a)pyrene	2010/07/24		92	%	50 - 150	
		D12-Benzo(b)fluoranthene	2010/07/24		94	%	50 - 150	
		D12-Benzo(ghi)perylene	2010/07/24		94	%	50 - 150	
		D12-Benzo(k)fluoranthene	2010/07/24		86	%	50 - 150	
		D12-Chrysene	2010/07/24		86	%	50 - 150	
		D12-Indeno(1,2,3-cd)pyrene	2010/07/24		94	%	50 - 150	
		D12-Perylene	2010/07/24		92	%	50 - 150	
		D14-Dibenzo(a,h)anthracene	2010/07/24		84	%	50 - 150	
		D8-Acenaphthylene	2010/07/24		82	%	50 - 150	
		D8-Naphthalene	2010/07/24		82	%	50 - 150	
		Acenaphthene	2010/07/24		89	%	60 - 130	
		RPD	Acenaphthene	2010/07/24	2.9		%	50
		Spiked Blank	Acenaphthylene	2010/07/24		93	%	60 - 130
		RPD	Acenaphthylene	2010/07/24	1.4		%	50
		Spiked Blank	Anthracene	2010/07/24		88	%	60 - 130
		RPD	Anthracene	2010/07/24	1.4		%	50
		Spiked Blank	Benzo(a)anthracene	2010/07/24		90	%	60 - 130
		RPD	Benzo(a)anthracene	2010/07/24	2.3		%	50
		Spiked Blank	Benzo(a)pyrene	2010/07/24		82	%	60 - 130
		RPD	Benzo(a)pyrene	2010/07/24	0		%	50
		Spiked Blank	Benzo(b)fluoranthene	2010/07/24		83	%	60 - 130
		RPD	Benzo(b)fluoranthene	2010/07/24	1.8		%	50
		Spiked Blank	Benzo(g,h,i)perylene	2010/07/24		89	%	60 - 130
		RPD	Benzo(g,h,i)perylene	2010/07/24	2.3		%	50
Spiked Blank	Benzo(k)fluoranthene	2010/07/24		89	%	60 - 130		
RPD	Benzo(k)fluoranthene	2010/07/24	1.4		%	50		
Spiked Blank	Chrysene	2010/07/24		90	%	60 - 130		
RPD	Chrysene	2010/07/24	0.8		%	50		

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB085824

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2202480 JIW	Spiked Blank	Dibenz(a,h)anthracene	2010/07/24		83	%	60 - 130
	RPD	Dibenz(a,h)anthracene	2010/07/24	1.8		%	50
	Spiked Blank	Fluoranthene	2010/07/24		99	%	60 - 130
	RPD	Fluoranthene	2010/07/24	0.3		%	50
	Spiked Blank	Fluorene	2010/07/24		90	%	60 - 130
	RPD	Fluorene	2010/07/24	2.5		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/07/24		83	%	60 - 130
	RPD	Indeno(1,2,3-cd)pyrene	2010/07/24	2.4		%	50
	Spiked Blank	Naphthalene	2010/07/24		84	%	60 - 130
	RPD	Naphthalene	2010/07/24	3.3		%	50
	Spiked Blank	Phenanthrene	2010/07/24		87	%	60 - 130
	RPD	Phenanthrene	2010/07/24	2.0		%	50
	Spiked Blank	Pyrene	2010/07/24		92	%	60 - 130
	RPD	Pyrene	2010/07/24	1.9		%	50
	Method Blank	D10-2-Methylnaphthalene	2010/07/24		76	%	50 - 150
		D10-Fluoranthene	2010/07/24		104	%	50 - 150
		D10-Phenanthrene	2010/07/24		88	%	50 - 150
		D12-Benzo(a)anthracene	2010/07/24		124	%	50 - 150
		D12-Benzo(a)pyrene	2010/07/24		100	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/07/24		100	%	50 - 150
		D12-Benzo(ghi)perylene	2010/07/24		102	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/07/24		92	%	50 - 150
		D12-Chrysene	2010/07/24		92	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/07/24		100	%	50 - 150
		D12-Perylene	2010/07/24		100	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/07/24		90	%	50 - 150
		D8-Acenaphthylene	2010/07/24		92	%	50 - 150
		D8-Naphthalene	2010/07/24		84	%	50 - 150
		1-Methylnaphthalene	2010/07/24	<0.10		ug	
		1-Methylphenanthrene	2010/07/24	<0.10		ug	
		2-Chloronaphthalene	2010/07/24	<0.10		ug	
		2-Methylantracene	2010/07/24	<0.10		ug	
		2-Methylnaphthalene	2010/07/24	<0.10		ug	
		3-Methylcholanthrene	2010/07/24	<2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/07/24	<0.10		ug	
		9,10-Dimethylantracene	2010/07/24	<0.40		ug	
		Acenaphthene	2010/07/24	<0.050		ug	
		Acenaphthylene	2010/07/24	<0.050		ug	
		Anthracene	2010/07/24	<0.050		ug	
		Benzo(a)anthracene	2010/07/24	<0.050		ug	
		Benzo(a)fluorene	2010/07/24	<0.10		ug	
		Benzo(a)pyrene	2010/07/24	<0.050		ug	
		Benzo(b)fluoranthene	2010/07/24	<0.050		ug	
		Benzo(b)fluorene	2010/07/24	<0.10		ug	
		Benzo(e)pyrene	2010/07/24	<0.10		ug	
		Benzo(g,h,i)perylene	2010/07/24	<0.050		ug	
		Benzo(k)fluoranthene	2010/07/24	<0.050		ug	
		Biphenyl	2010/07/24	<0.10		ug	
		Chrysene	2010/07/24	<0.050		ug	
		Coronene	2010/07/24	<0.10		ug	
		Dibenz(a,h)anthracene	2010/07/24	<0.050		ug	
		Dibenzo(a,e)pyrene	2010/07/24	<0.20		ug	
		Fluoranthene	2010/07/24	<0.050		ug	
		Fluorene	2010/07/24	<0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/07/24	<0.050		ug	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB085824

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2202480 JIW	Method Blank	m-Terphenyl	2010/07/24	<0.10		ug	
		Naphthalene	2010/07/24	<0.072		ug	
		o-Terphenyl	2010/07/24	<0.10		ug	
		Perylene	2010/07/24	<0.10		ug	
		Phenanthrene	2010/07/24	<0.050		ug	
		p-Terphenyl	2010/07/24	<0.10		ug	
		Pyrene	2010/07/24	<0.050		ug	
		Quinoline	2010/07/24	<0.40		ug	
		Tetralin	2010/07/24	<0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Lakeland Industry & Community Association

Maskwa Monitoring Site
Ambient Air Monitoring
Data Report
For
July 2010

Prepared By:



August 11, 2010

Lakeland Industry & Community Association

Ambient Air Monitoring

Maskwa

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Introduction

The following Ambient Air Monitoring report was prepared for:

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

Monitoring Location: Maskwa
Data Period: July 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

Calibration Procedure

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

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

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

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

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

- CAL SOP-00211
- CAL SOP-00209
- CAL SOP-00213
- CAL SOP-00214
- CAL SOP-00208

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

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION – MASKWA

Continuous Ambient Monitoring – July 2010

LICA MASKWA SITE						MAXIMUM VALUES						OPERATIONAL TIME (PERCENT)	
						OBJECTIVES			EXCEEDENCES		MONTHLY AVERAGE		1-HOUR
PARAMETER	1-HR	24-HR	1-HR	24-HR	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING			DAY
SO2 (PPB)	172	57	0	0	0.55	22	27	6	5.7	303(WNW)	3.9	27	100.0
H2S (PPB)	10	3	0	0	0.05	2	12	5	4.5	101(E)	0.4	12	100.0
THC (PPM)	-	-	-	-	2.02	3.1	21	6	1.2	51(NE)	2.2	VAR	100.0
NOx (PPB)	-	-	-	-	1.52	22	27	2	5.3	302(WNW)	5.9	27	100.0
NO (PPB)	-	-	-	-	0.37	13	27	5	4.7	298(WNW)	2.8	27	100.0
NO ₂ (PPB)	212	106	0	0	0.90	11	6	2, 3	5.1, 5.3	289(WNW), 292(WNW)	3.3	6	100.0
VECTOR WS (KPH)	-	-	-	-	4.61	17.1	13	14	-	34(NE)	7.7	13	100.0
VECTOR WD (DEGREES)	-	-	-	-	244(WSW)	-	-	-	-	-	-	-	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	70.64	93	VAR	VAR	VAR	VAR	85.0	13	100.0
TEMPERATURE (DEG C)	-	-	-	-	16.70	29.6	29	14	3.9	246(WSW)	20.9	29	100.0
BAROMETRIC PRESSURE (MILIBAR)	-	-	-	-	940	948	7	VAR	VAR	VAR	946.5	7	100.0
PRECIPITATION (MM)	-	-	-	-	0.21	23.2	24	17	3.4	305(WNW)	42.9	12	100.0

VAR-VARIOUS

General Monthly Summary

Equipment Operation

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

AQM STATION – LICA – Maskwa

Sulphur Dioxide (PPB)

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

No operational issue was observed during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

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

No operational issue was observed during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Total HydroCarbon (PPM)

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

No operational issue was observed during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – Maskwa

Nitrogen Dioxide (PPB)

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

No operational issue was observed during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

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

- System make / model - Climatronics MIII replaced to Met One 50.5H, S/N: H10703

The wind system is reported as vector wind speed and vector wind direction. The wind system went well throughout the month.

Relative Humidity (PERCENT)

- System make / model - Met One 083

No operational issues observed during the month.

Precipitation (MM)

- System make / model - Met One 387

No operational issues observed during this month.

General Monthly Summary

AQM STATION – LICA – Maskwa

Barometric Pressure (MILLIBAR)

- System make / model - Met One 092

No operation issue was observed during the month.

Ambient Temperature (DEGC)

- System make / model - Met One 060

No operational issue was observed during the month.

Trailer Temperature (DEG C)

- System make / model – R&R 61

No operational issue was observed during the month.

Standard Deviation Wind Direction (DEG)

- System make / model – Climatronics MIII replaced to Met One 50.5H

No operational issue was observed during the month.

General Monthly Summary

AQM STATION – LICA – Maskwa

Datalogger

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

No operational issue was observed during the month.

Trailer

The manifold and inlet pipe were cleaned on July 19th.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA
JULY 2010
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	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	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	
2	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
3	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
5	0	0	0	0	0	1	2	0	0	0	0	0	0	2	0	1	2	8	3	7	2	IZS	6	7	8	1.8	24	
6	7	7	8	6	2	5	7	2	2	7	1	0	0	2	1	0	0	3	5	0	IZS	0	0	0	8	2.8	24	
7	0	0	0	0	0	0	0	0	0	0	5	2	1	1	3	4	6	6	7	IZS	0	0	0	0	7	1.5	24	
8	0	0	0	0	0	0	3	9	1	0	2	2	1	2	1	5	0	1	IZS	2	0	0	0	0	9	1.3	24	
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0.0	24	
10	0	0	0	0	0	0	0	0	2	1	0	0	0	0	1	0	IZS	2	0	0	0	0	0	0	2	0.3	24	
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24	
12	0	0	1	1	0	1	1	0	0	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	1	0.4	24	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
14	0	0	0	0	0	0	0	0	0	0	2	1	IZS	0	1	0	0	0	0	0	0	0	0	0	0	2	0.2	24
15	0	0	0	0	0	0	0	0	1	C	C	C	C	C	C	0	2	0	0	0	0	0	0	0	2	0.2	24	
16	0	0	0	0	0	0	0	0	0	0	2	IZS	3	8	0	0	0	0	0	0	0	0	0	0	8	0.6	24	
17	0	2	0	0	0	0	0	0	0	IZS	0	3	3	1	6	1	0	6	5	0	0	0	0	0	6	1.2	24	
18	0	0	0	0	0	1	4	5	IZS	3	0	0	0	0	0	0	0	0	5	0	5	0	3	0	5	0.9	24	
19	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0.0	24	
20	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
21	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
22	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
23	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
24	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
25	0	IZS	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
26	IZS	0	0	0	0	0	0	0	0	3	1	0	0	0	0	1	2	3	0	0	11	9	11	IZS	11	1.9	24	
27	5	7	17	1	2	16	22	8	2	2	2	6	0	0	0	0	0	0	0	0	0	0	0	IZS	0	22	3.9	24
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24	
30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	IZS	0	0	0	3	0.1	24	
31	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	0.0	24	
HOURLY MAX	7	7	17	6	2	16	22	9	2	7	5	6	8	2	6	5	6	8	7	7	11	9	11	7				
HOURLY AVG	0.4	0.6	0.9	0.3	0.1	0.8	1.3	0.8	0.3	0.7	0.6	0.7	0.5	0.3	0.4	0.4	0.4	1.0	0.7	0.5	0.4	0.4	0.6	0.2				

STATUS FLAG CODES

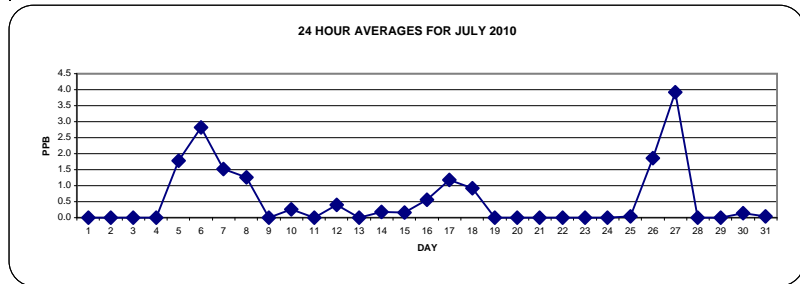
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

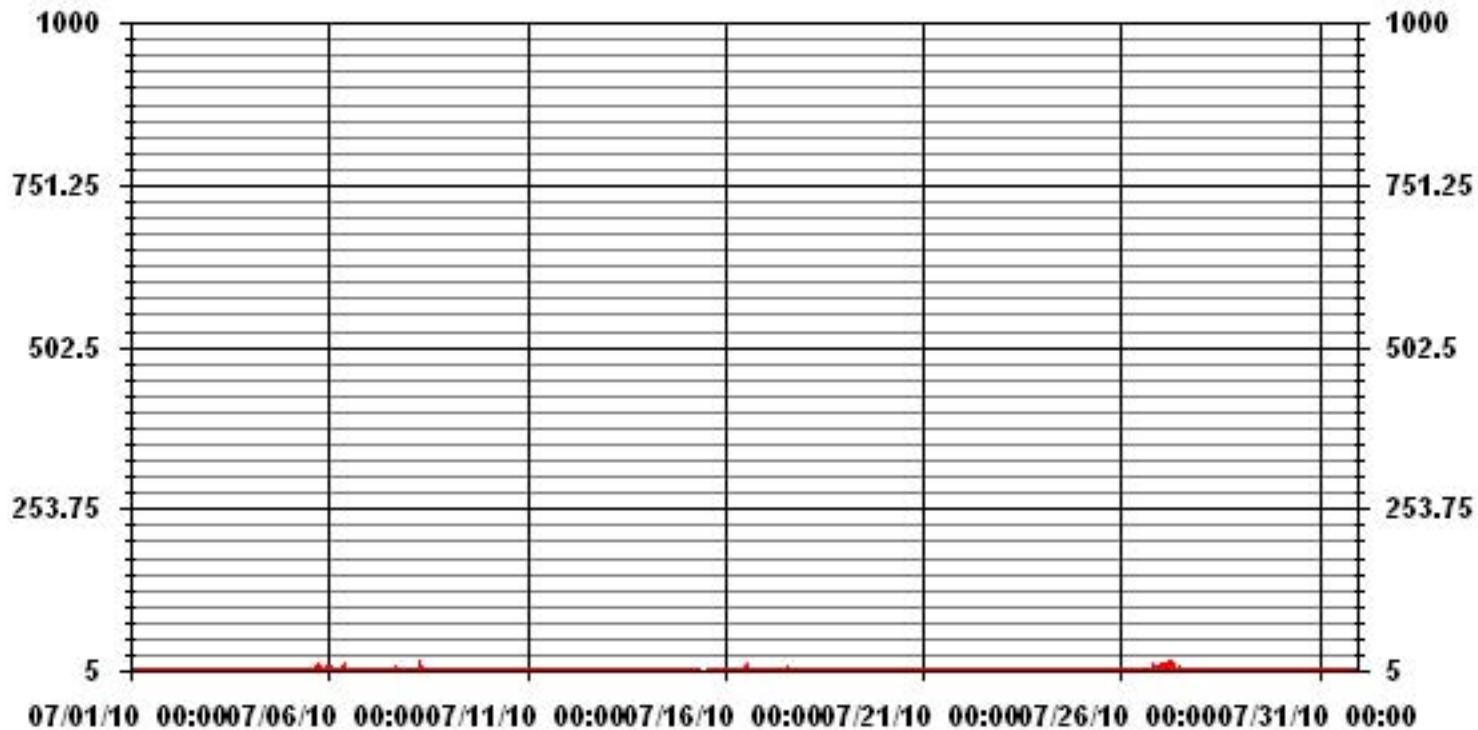
ALBERTA ENVIRONMENT:	1-HR	172	PPB	24-HR	57	PPB
-----------------------------	------	-----	-----	-------	----	-----

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	104
MAXIMUM 1-HR AVERAGE:	22 PPB @ HOUR(S) 6 ON DAY(S) 27
MAXIMUM 24-HR AVERAGE:	3.9 PPB ON DAY(S) 27
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	1.92
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	0.55 PPB



01 Hour Averages



— LICA30 SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -MASKWA

JULY 2010

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY	24-HOUR	RDGS.	
		1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.			
DAY																														
1		0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0.1	24		
2		0	IZS	0	0	0	0	0	1	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0.2	24		
3		IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	IZS	1	0.0	24		
4		0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0.1	24	
5		1	0	0	1	1	3	6	0	0	0	3	0	12	1	5	11	33	18	20	4	IZS	21	20	33	7.0	24			
6		17	16	19	16	8	14	18	10	19	19	7	0	9	8	1	3	22	17	1	IZS	0	0	0	22	9.7	24			
7		1	1	0	0	0	0	0	0	0	12	8	7	7	10	13	17	20	19	IZS	0	0	0	0	20	5.0	24			
8		0	1	1	0	0	0	8	19	3	0	10	7	9	13	11	15	2	3	IZS	7	0	0	0	19	4.7	24			
9		0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	IZS	1	1	0	0	0	0	1	0.2	24		
10		0	0	0	0	0	1	0	1	3	2	0	0	0	4	14	0	IZS	13	0	0	0	0	0	0	14	1.7	24		
11		0	0	0	0	0	0	1	1	1	0	0	0	0	0	IZS	0	1	1	0	0	2	0	1	2	0.3	24			
12		1	1	1	1	1	3	2	0	1	2	2	2	2	IZS	0	1	0	0	0	0	0	0	0	0	3	0.9	24		
13		0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	0	0	1	0.0	24		
14		0	2	1	0	0	0	0	0	3	1	6	2	IZS	0	6	1	0	0	0	1	0	0	0	0	6	1.0	24		
15		0	0	0	0	0	0	0	1	1	C	C	C	C	C	4	13	0	0	0	7	0	0	0	13	1.4	24			
16		0	0	0	0	0	0	0	0	1	5	IZS	18	16	6	2	0	0	0	0	0	0	0	0	0	18	2.1	24		
17		5	7	3	1	0	1	0	2	0	IZS	7	13	17	19	19	16	3	19	18	8	0	0	0	0	19	6.9	24		
18		0	0	0	1	1	13	21	21	IZS	29	6	8	7	1	8	0	0	0	0	37	0	12	0	0	37	7.2	24		
19		0	0	0	0	0	0	0	0	IZS	0	0	7	0	0	C	0	2	0	0	0	0	0	0	0	7	0.4	24		
20		0	0	0	0	0	0	IZS	0	0	0	2	2	2	1	4	0	0	3	0	0	0	0	0	0	4	0.6	24		
21		0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	3	0.3	24		
22		0	0	0	0	IZS	0	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0.3	24		
23		0	0	0	IZS	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
24		0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
25		0	IZS	0	0	0	0	0	0	0	0	6	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0.8	24	
26		IZS	0	0	0	0	0	0	0	0	17	15	0	0	0	0	10	9	23	4	11	19	20	20	IZS	23	6.7	24		
27		13	15	30	7	4	34	35	26	10	5	14	16	8	7	8	2	0	0	0	0	0	0	0	IZS	0	35	10.2	24	
28		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
29		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0.0	24	
30		0	0	0	0	0	0	0	0	0	0	0	17	7	0	0	0	0	0	0	0	IZS	0	0	0	0	17	1.0	24	
31		0	0	0	0	0	0	0	0	0	0	7	5	0	0	1	2	6	1	IZS	0	0	0	0	0	7	1.0	24		
HOURLY MAX		17	16	30	16	8	34	35	26	19	29	15	18	17	19	19	16	17	33	19	37	19	20	21	20					
HOURLY AVG		1.3	1.5	1.9	0.9	0.5	2.3	3.1	2.9	1.6	3.0	3.8	3.5	2.6	2.9	3.2	2.4	2.2	4.8	2.7	3.0	1.2	1.2	1.4	0.7					

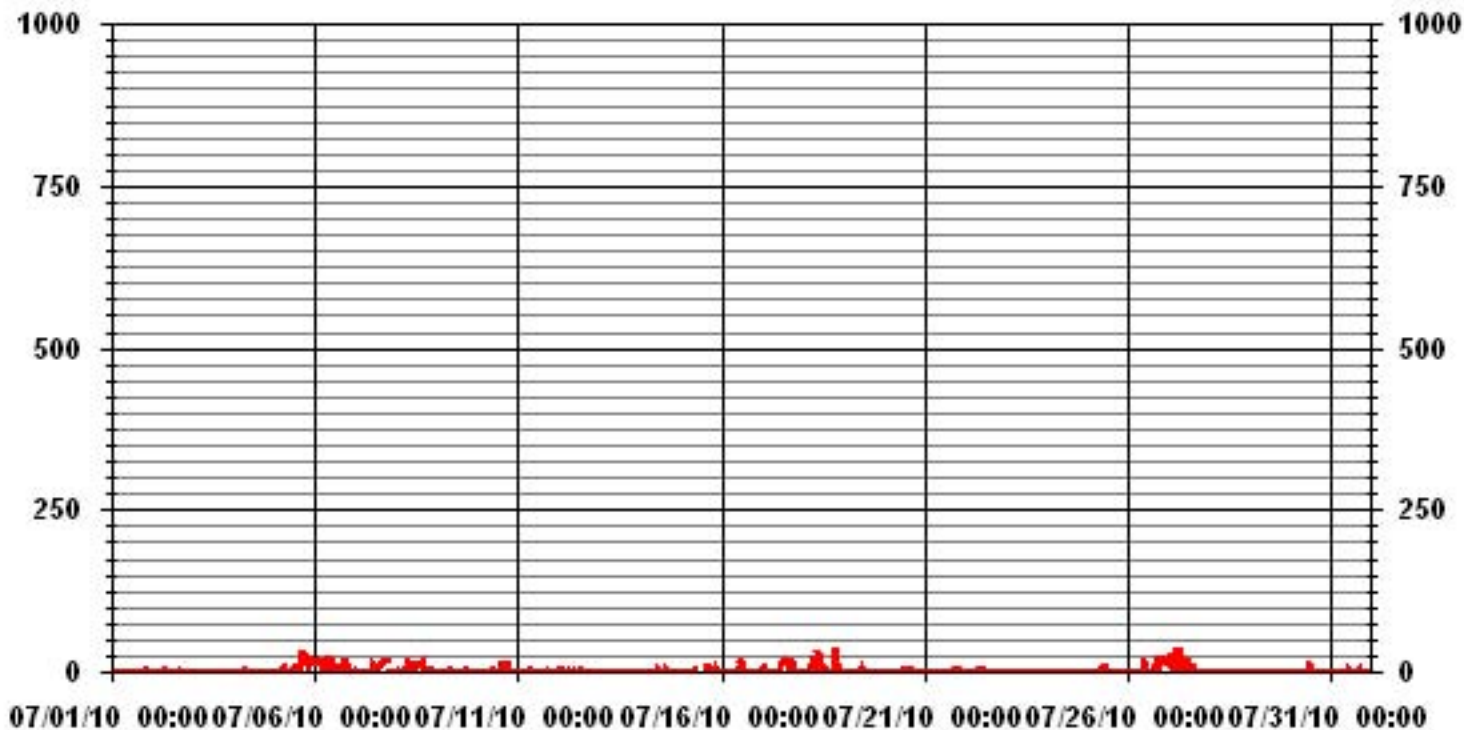
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	203					
MAXIMUM INSTANTANEOUS VALUE:	37	PPB	@ HOUR(S)	19	ON DAY(S)	18
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION:	5.55					

01 Hour Averages



— LICA30 SO2MAX PPB

LICA30
 SO2_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	4.53	4.25	4.96	2.69	2.69	3.12	3.40	5.53	7.94	17.87	7.80	7.37	8.36	9.92	5.81	3.54	99.85
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.14
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 170	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.53	4.25	4.96	2.69	2.69	3.12	3.40	5.53	7.94	17.87	7.80	7.37	8.36	10.07	5.81	3.54	

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	32	30	35	19	19	22	24	39	56	126	55	52	59	70	41	25	704
< 60														1			1
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	32	30	35	19	19	22	24	39	56	126	55	52	59	71	41	25	

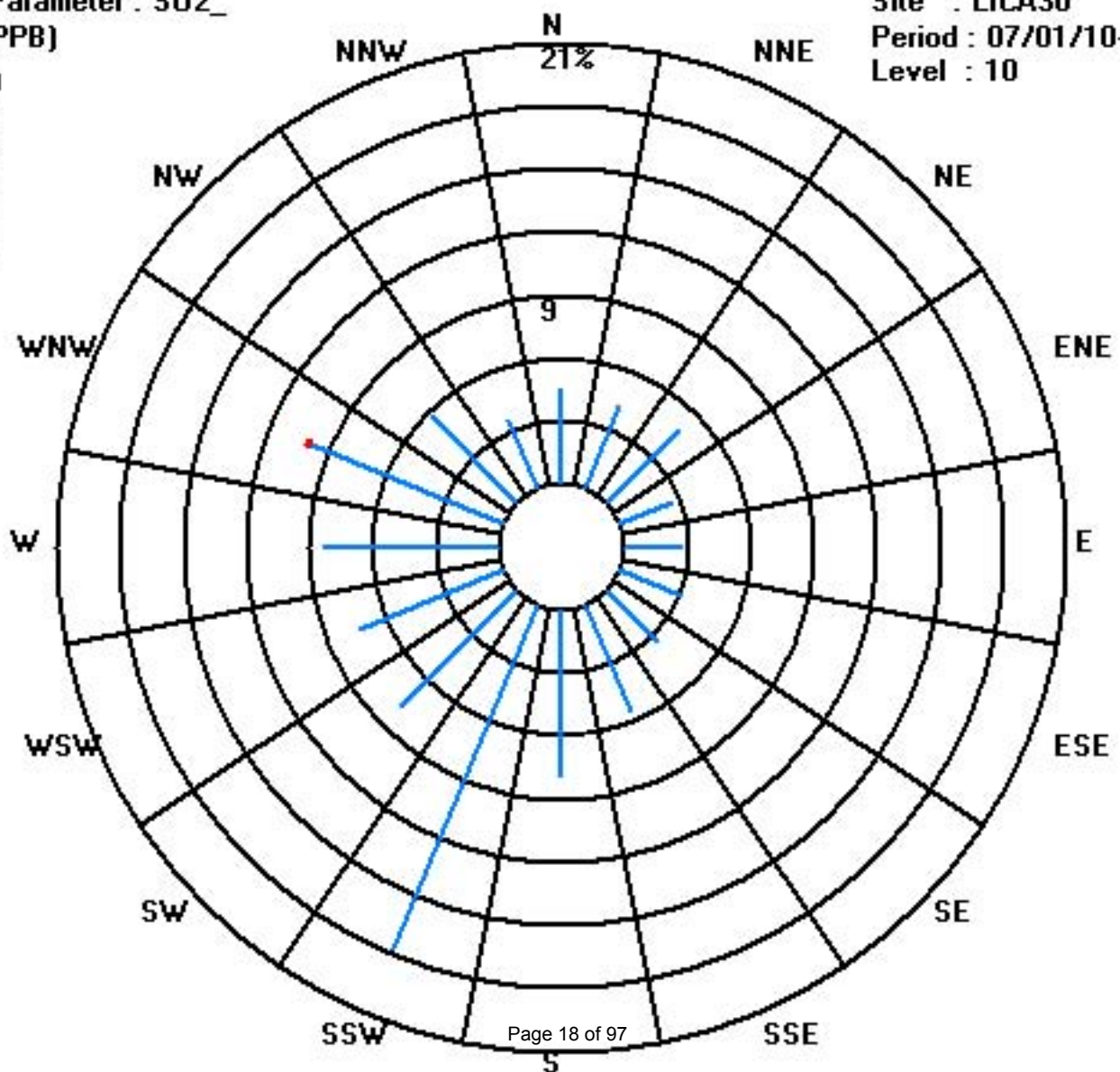
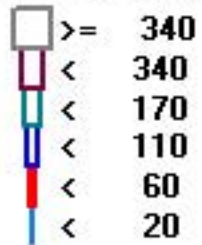
Calm : .00 %

Total # Operational Hours : 705

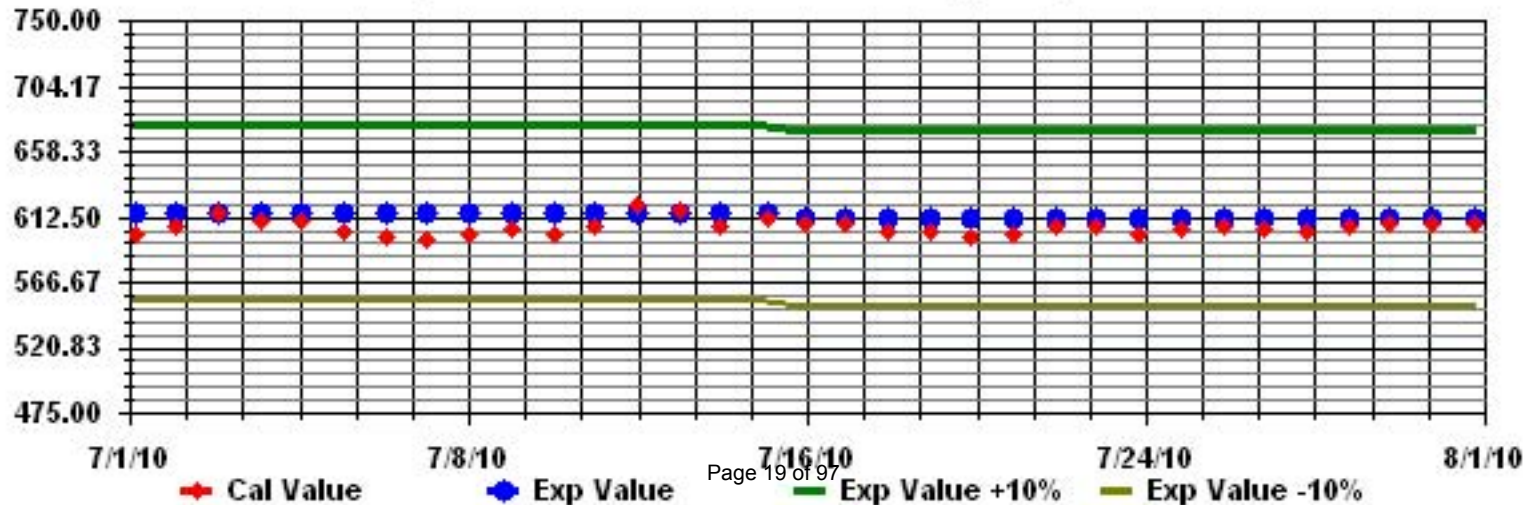
Class Limits (PPB)

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

Level : 10



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



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	DAILY 24-HOUR			
DAY	DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
1	1	0	IZS	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24		
2	0	IZS	0	0	1	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24		
3	IZS	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	IZS	1	0.1	24		
4	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	IZS	0	1	0.1	24		
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0.0	24		
6	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0.1	24	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0.0	24		
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	0	0	0	1	0.0	24	
9	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	0.1	24	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
11	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	0.1	24	
12	1	0	0	0	1	2	1	1	0	1	0	1	0	1	0	1	IZS	0	0	0	0	0	0	0	0	0	2	0.4	24	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
14	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	0	0	0	1	0.0	24	
15	0	1	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
16	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
18	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
22	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
24	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.0	24	
25	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
26	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0.0	24
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
HOURLY MAX		1	1	1	1	1	2	1	1	1	1	1	1	0	1	0	0	0	1	0	1	1	0	0	1					
HOURLY AVG		0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1					

STATUS FLAG CODES

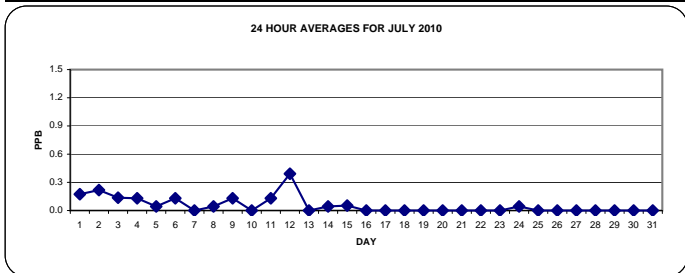
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

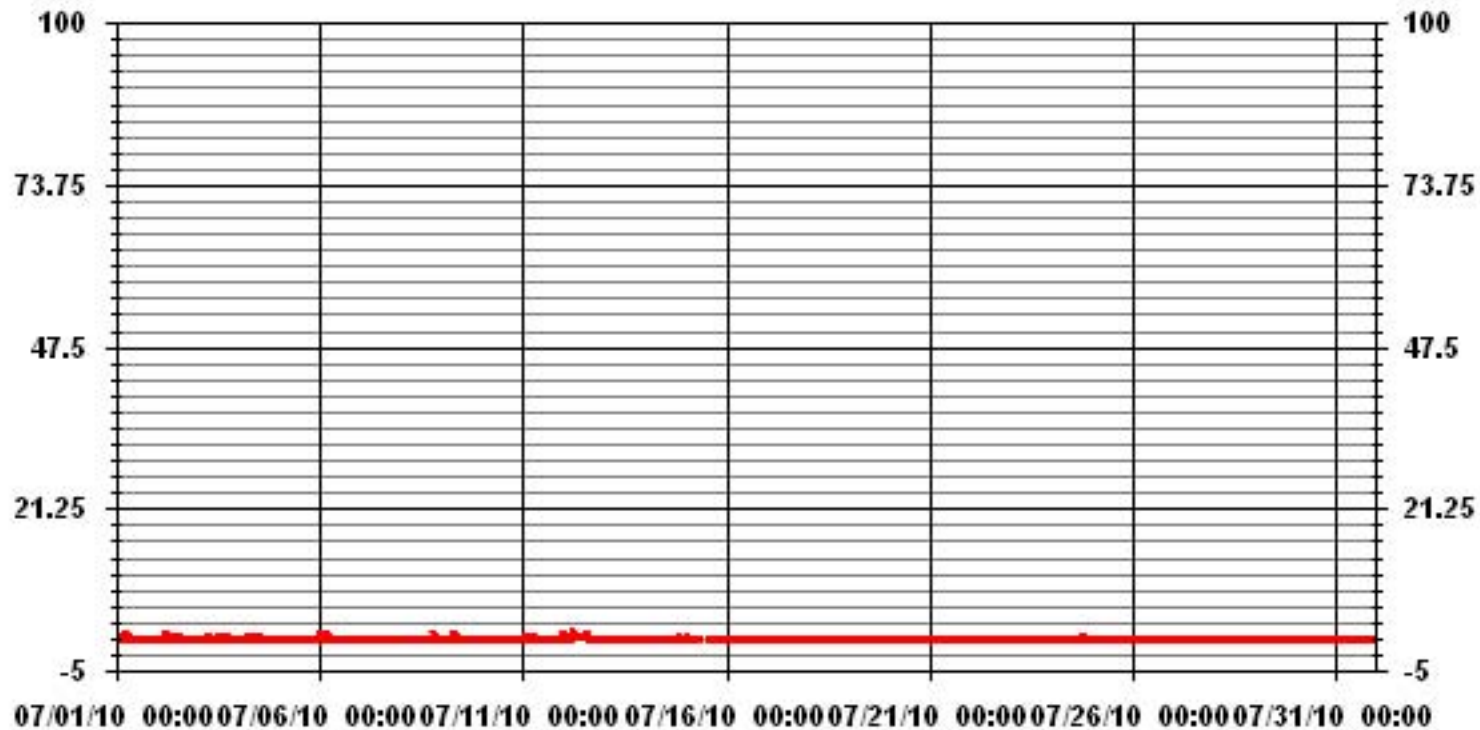
ALBERTA ENVIRONMENT: 1-HR 10 PPB 24-HR 3 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	37
MAXIMUM 1-HR AVERAGE:	2 PPB @ HOUR(S) 5 ON DAY(S) 12
MAXIMUM 24-HR AVERAGE:	0.4 PPB ON DAY(S) 12
	VAR-VARIOUS
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	6 HRS
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	0.23
MONTHLY AVERAGE:	0.05 PPB



01 Hour Averages



— LICA30 H2S_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY	24-HOUR	
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
1	1	1	1	IZS	0	1	1	1	1	0	0	1	0	0	0	0	0	1	1	1	0	0	0	1	1	1	0.5	24	
2	1	IZS	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.9	24	
3	IZS	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	IZS	1	0.9	24	
4	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	IZS	1	1	0.8	24	
5	1	0	0	1	0	0	0	0	0	1	1	1	1	0	1	0	1	1	1	1	1	1	IZS	0	1	1	0.6	24	
6	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	1	1	1	IZS	1	0	1	1	0.6	24	
7	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1	0	1	IZS	0	0	0	0	0	1	0.3	24	
8	1	0	0	1	1	1	0	1	0	0	0	0	1	1	0	1	0	0	1	IZS	1	1	1	1	1	1	0.6	24	
9	0	0	1	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	IZS	1	1	0	1	0	0	1	0.4	24	
10	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	IZS	1	0	0	0	0	1	1	0	1	0.4	24	
11	1	1	1	1	1	1	2	1	0	1	1	0	0	1	1	IZS	1	0	0	0	0	1	1	1	1	2	0.8	24	
12	1	1	1	1	1	4	2	1	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	4	0.8	24	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	0	1	1	1	1	1	1	0	1	1	0.3	24	
15	1	1	1	1	1	0	1	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24	
16	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
17	0	0	1	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
18	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
19	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	C	0	1	1	0	0	0	0	0	0	0	1	0.1	24	
20	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
21	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
22	0	0	0	0	0	IZS	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
23	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
24	0	0	IZS	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	2	0.2	24	
25	1	IZS	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
26	IZS	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.1	24
27	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	IZS	0	4	0.2	24
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	IZS	0	0	1	0.0	24	
29	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0.1	24	
30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	1	0.0	24	
31	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	0.1	24	
HOURLY MAX		1	1	1	1	1	4	2	1	1	4	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1			
HOURLY AVG		0.3	0.3	0.3	0.4	0.3	0.5	0.5	0.4	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.1	0.3			

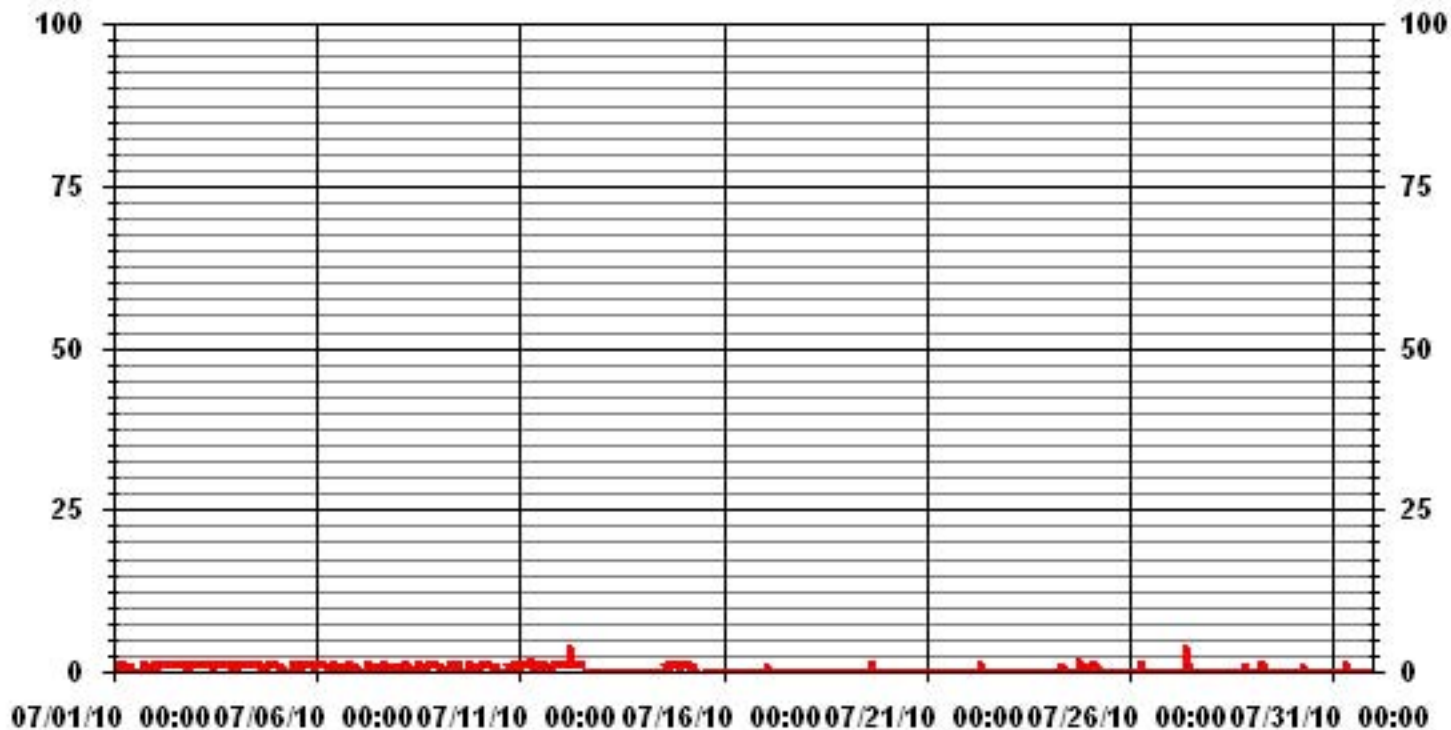
STATUS FLAG CODES

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:	203					
MAXIMUM INSTANTANEOUS VALUE:	4	PPB	@ HOUR(S)	5, 9	ON DAY(S)	12, 27
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION:	0.50					

01 Hour Averages



— LICA30 H2S MAX PPB

LICA30
H2S_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : H2S_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	4.53	4.24	4.95	2.69	2.69	3.11	3.39	5.52	7.93	17.84	7.79	7.36	8.35	10.19	5.80	3.54	100.00
< 10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.53	4.24	4.95	2.69	2.69	3.11	3.39	5.52	7.93	17.84	7.79	7.36	8.35	10.19	5.80	3.54	

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	32	30	35	19	19	22	24	39	56	126	55	52	59	72	41	25	706
< 10																	
< 50																	
>= 50																	
Totals	32	30	35	19	19	22	24	39	56	126	55	52	59	72	41	25	

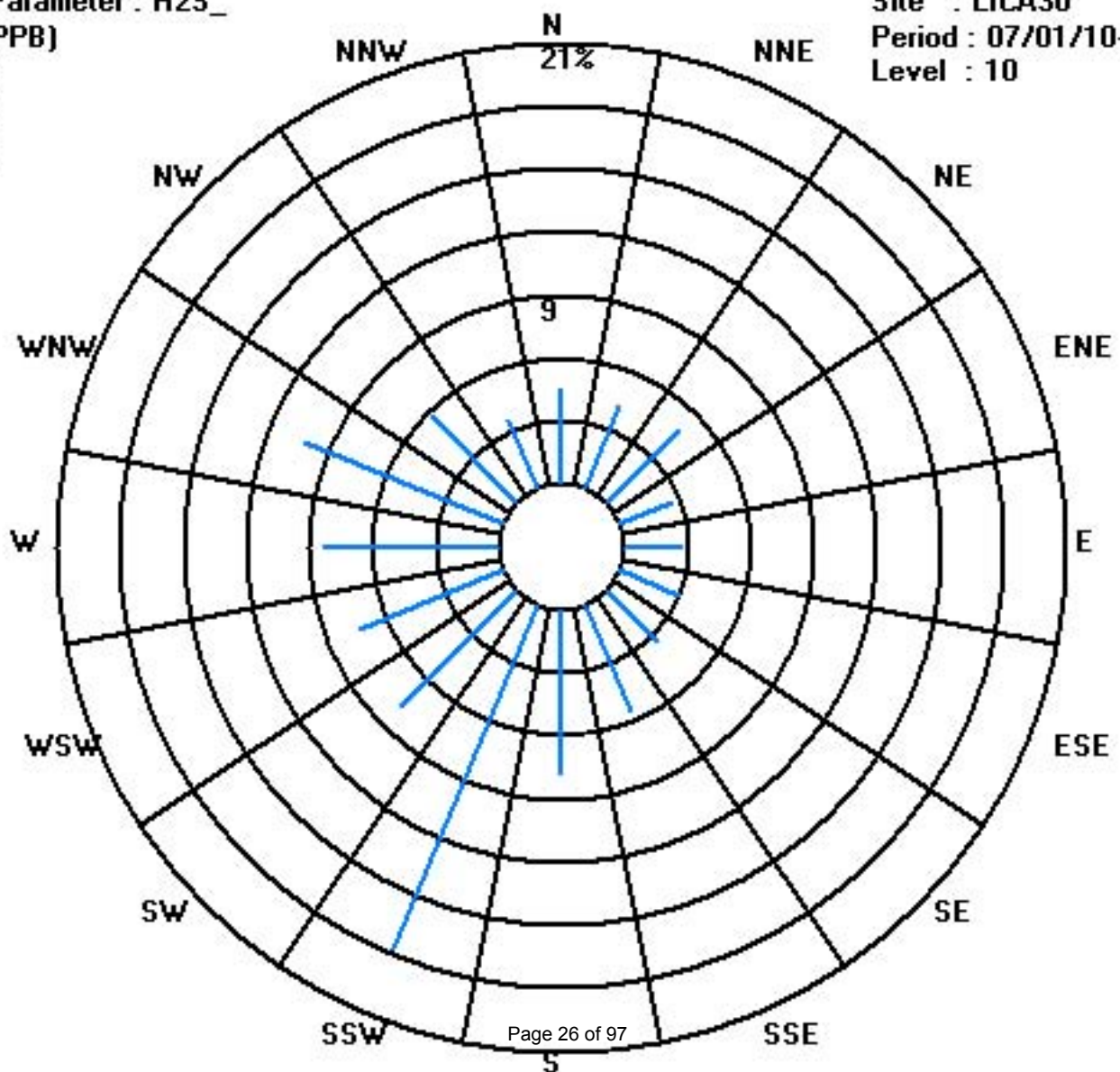
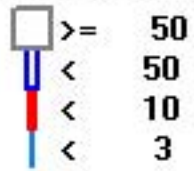
Calm : .00 %

Total # Operational Hours : 706

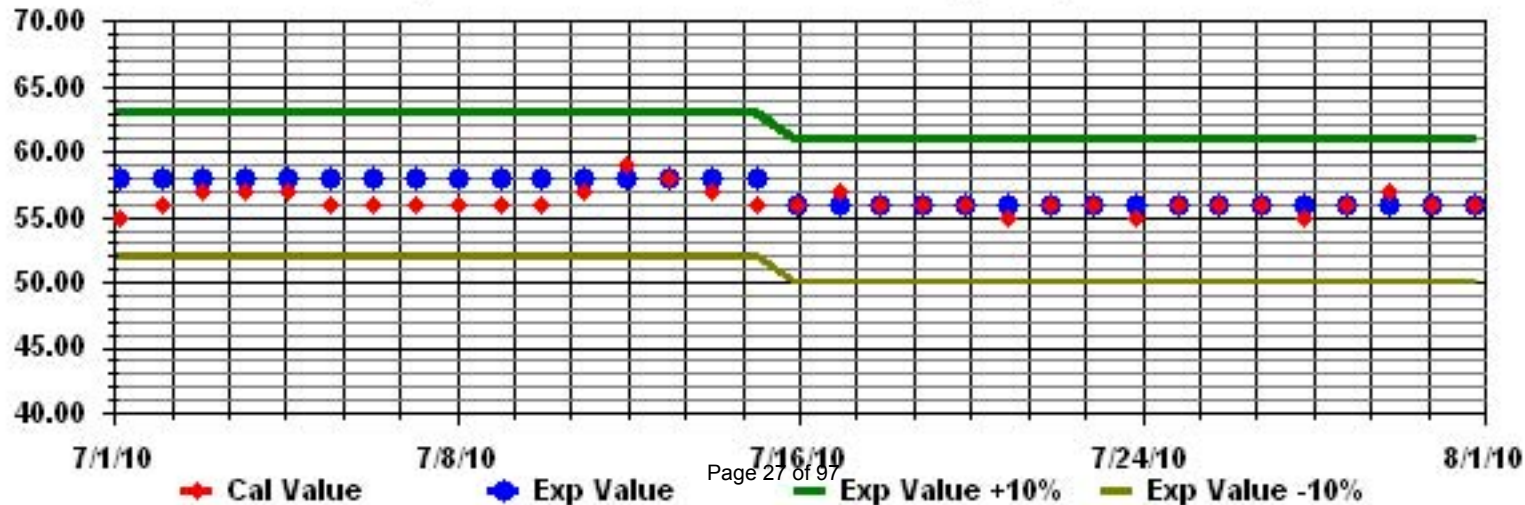
Class Limits (PPB)

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

Level : 10



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



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -MASKWA

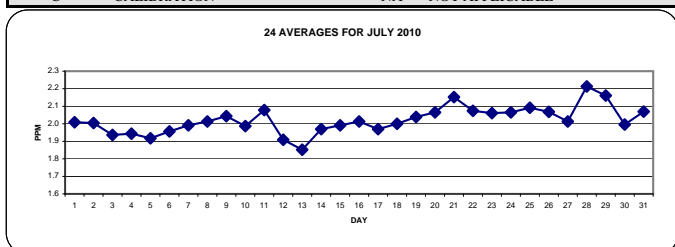
JULY 2010

TOTAL HYDROCARBONS hourly averages in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR			
DAY	HOURLY MAX	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
1	1.9	2	IZS	2.1	2.1	2.2	2.1	2.1	2.1	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2.1	2.2	2.2	2.0	24			
2	2.2	IZS	2.1	2.3	2.3	2.2	2.2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2.1	2.3	2.0	24		
3	IZS	2	2	2.1	2.1	2.1	2.1	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	2.1	1.9	24	
4	2	2	1.9	1.9	2.1	2.3	2.2	2.1	2	2	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	IZS	1.9	2.3	1.9	24		
5	1.9	1.9	1.9	1.9	1.9	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	IZS	2	2	2.0	1.9	24		
6	2	2	2	2.1	2	2	2	2	1.9	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	2	2	2	2.1	2.0	24		
7	2	2.1	2	2	2	2	2	2	1.9	1.9	2	1.9	1.9	1.9	2	2	2	2	2	2	IZS	2	2	2.1	2.1	2.1	2.0	24		
8	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	1.9	1.9	1.9	2	2.3	2.0	24	
9	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.3	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	1.9	1.9	2	2	2	2.3	2.0	24	
10	2	2	2.1	2.1	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	IZS	2	2	2	2	2	2	2	2.2	2.2	2.0	24		
11	2.1	2.1	2.3	2.4	2.5	2.4	2.4	2.2	2	2.1	2	1.9	1.9	1.9	2	IZS	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2.1	2.5	2.1	24		
12	2.1	2.1	2.1	2.1	2.1	2.1	2	1.9	1.9	1.9	1.8	1.9	1.8	IZS	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	1.9	24
13	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	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	24
14	1.9	2	2	2	2	2	2	2	2	2	2	2	2	IZS	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2.0	2.0	24	
15	2	2	2.1	2.1	2.2	2.2	2.2	2.1	2	2	1.9	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2.2	2.0	24		
16	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	IZS	1.9	1.9	1.9	1.9	2	1.9	1.9	2	2	2	2	2	2	2	2.2	2.0	24	
17	2.1	2.2	2.2	2	2	2	2	1.9	1.9	IZS	1.9	2	2	1.9	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.0	24
18	2	2	2.1	2.2	2.2	2.1	2.1	2	IZS	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2	2	2	2	2	2.2	2.0	24	
19	2	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	C	C	C	2	2	2	1.9	1.9	1.9	1.9	2	2.1	2.1	2.2	2.2	2.0	24			
20	2.2	2.2	2.3	2.3	2.2	2.2	IZS	2.2	2.1	2	2	2	2	2	2	1.9	1.9	1.9	1.9	2	2	2	2.1	2.1	2.1	2.3	2.1	24		
21	2.2	2.3	2.3	2.3	2.4	IZS	3.1	2.5	2.2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2	2	2.1	3.1	2.2	24	
22	2.2	2.2	2.2	2.1	IZS	2.2	2.1	2.1	2.1	2	2	2	2	2	2.1	2.8	2	1.9	1.9	2	1.9	1.9	2	2	2	2.8	2.1	24		
23	2.1	2.2	2.2	IZS	2.4	2.4	2.3	2.1	2	2	2	2	2	2	2	2	1.9	1.9	1.9	1.9	2	1.9	2	2.1	2.1	2.4	2.1	24		
24	2.2	2.3	IZS	2.2	2.2	2.1	2.2	2.2	2.1	2	2	2.1	2.1	2	1.9	1.9	1.9	1.9	2	2	2	1.9	2	2.3	2.3	2.1	24			
25	2.3	IZS	2.5	2.6	2.5	2.6	2.2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.1	2.1	2.6	2.1	24		
26	IZS	2.3	2.2	2.3	2.5	2.4	2.4	2.3	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	1.9	2	2	IZS	2.5	2.1	24			
27	2	2.1	2	2.1	2.1	2.1	2	2	2	2	2	2	2	2	2	2	2	1.9	1.9	2	2	2.1	IZS	2	2.1	2.0	24			
28	2	2.1	2.4	2.4	2.6	2.5	2.6	2.4	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2.1	IZS	2.1	2.1	2.6	2.2	24			
29	2.2	2.2	2.3	2.4	2.4	2.6	2.4	2.2	2.2	2.2	2.1	2	2	2	2	2	2	2	2	2	2	IZS	2	2.2	2.3	2.6	2.2	24		
30	2.4	2.2	1.9	2	1.9	2	2	2	2	1.9	1.9	1.9	2	2	1.9	1.9	1.9	1.9	1.9	1.9	IZS	2	2.1	2.1	2.1	2.4	2.0	24		
31	2.2	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	2	2	2.1	2.1	2.3	2.1	24	
HOURLY MAX	2.4	2.3	2.5	2.6	2.6	2.6	3.1	2.5	2.3	2.3	2.3	2.1	2.1	2.1	2.8	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.3						
HOURLY AVG	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1						

STATUS FLAG CODES

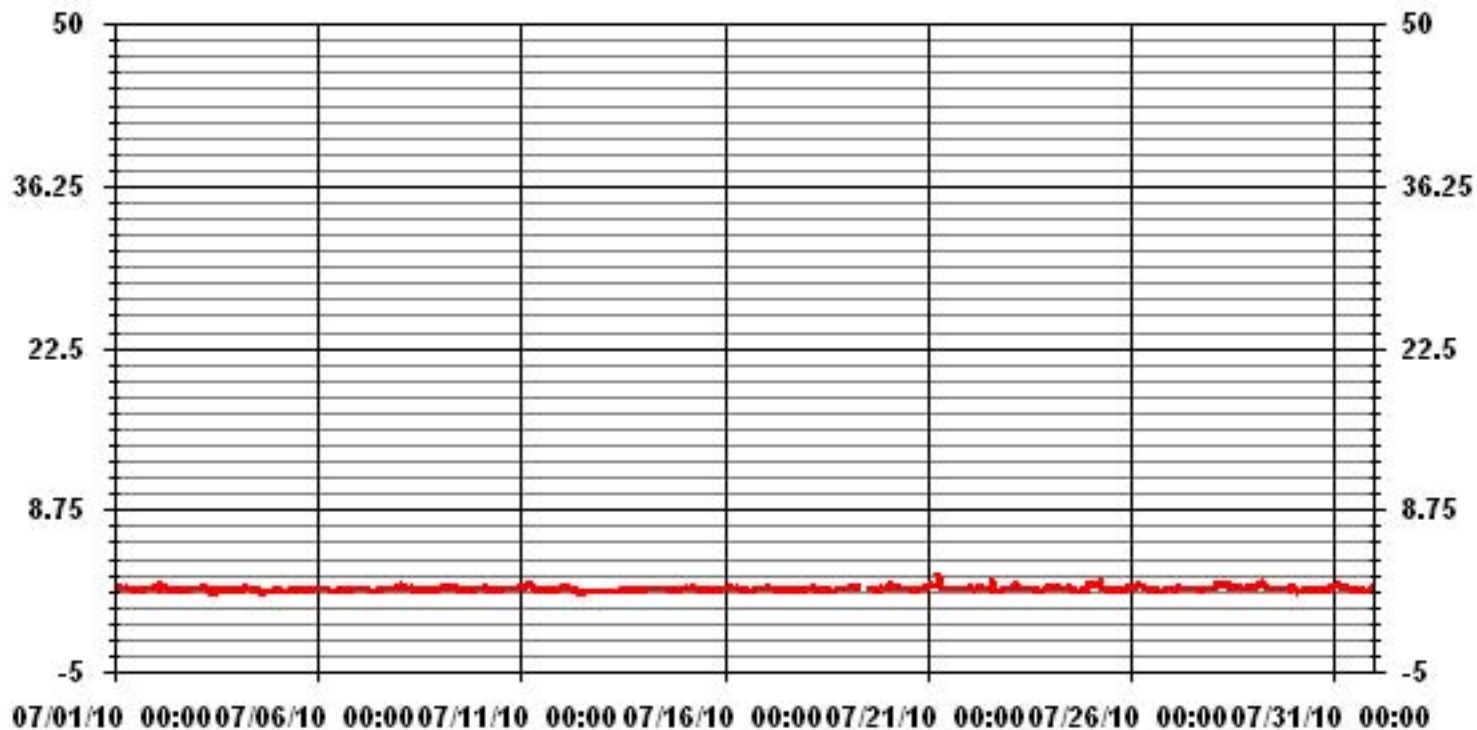
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	706
MAXIMUM 1-HR AVERAGE:	3.1 PPM @ HOUR(S) 6 ON DAY(S) 21
MAXIMUM 24-HR AVERAGE:	2.2 PPM ON DAY(S) VAR VAR
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	6 HRS
STANDARD DEVIATION:	0.15
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	2.02 PPM

01 Hour Averages



— LICA30 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR			
HOURLY MAX	HOURLY AVG	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
DAY																														
1		2	2.2	IZS	2.1	2.2	2.2	2.2	2.2	2.1	2	2	2	2	1.9	1.9	1.9	1.9	2	2	2	2	2	2.2	2.3	2.3	2.1	24		
2		2.2	IZS	2.2	2.7	2.6	2.3	2.3	2.1	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3	2.1	1.9	1.9	2	2	2.1	3	2.1	24		
3		IZS	2	2	2.1	2.2	2.2	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	IZS	2.2	2.0	24		
4		2	2	2	2	2.3	2.4	2.2	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	2.4	2.0	24		
5		1.9	1.9	1.9	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2	IZS	2.1	2	2.1	2.0	24		
6		2	2	2.1	2.2	2.1	2.1	2.1	2	2	2	2	1.9	1.9	2	1.9	1.9	2	2	2	2	2	IZS	2.1	2	2	2.2	2.0	24	
7		2.1	2.2	2.1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	IZS	2	2.1	2.1	2.2	2.0	24		
8		2.2	2.3	2.4	2.2	2.3	2.3	2.2	2.2	2	1.9	2	2.1	1.9	2.2	2	2	1.9	2	IZS	1.9	1.9	1.9	2	2	2.4	2.1	24		
9		2.1	2.2	2.1	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2	1.9	1.9	1.9	1.9	1.9	IZS	1.9	1.9	2	2	2	2	2.4	2.1	24		
10		2	2.1	2.1	2.1	2	1.9	1.9	2	2	2	2	2	2	2	2	IZS	IZS	2	2	2	2	2	2	2.1	2.2	2.0	24		
11		2.2	2.2	2.4	2.5	2.7	2.6	2.5	2.4	2.1	2.2	2.1	1.9	1.9	2	2	IZS	2	1.9	1.9	1.9	2	2	2.1	2.1	2.7	2.2	24		
12		2.1	2.1	2.1	2.1	2.1	2.3	2.2	2	1.9	2	1.9	2	1.9	2	IZS	2	2.1	1.8	1.8	1.9	1.9	1.9	1.9	1.8	2.3	2.0	24		
13		1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	M	1.9	1.9	1.9	IZS	1.9	1.9	1.9	1.9	2.1	1.9	1.9	2	2	2	2	2.1	1.9	23		
14		2	2	2	2	2	2	2	2	2	2	2	2	IZS	2	2	2	2	2	2	1.9	2	2	2	2	2	2.0	24		
15		2.1	2.1	2.2	2.2	2.4	2.2	2.2	2.2	2.1	2	2	IZS	2.1	1.9	2	2	1.9	1.9	1.9	1.9	1.9	2	2	2	2.1	2.4	2.1	24	
16		2	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.2	IZS	2	2	2	1.9	2	2	1.9	2	2	2	2	2	2.1	2	2.3	2.1	24	
17		2.3	2.3	2.3	2.1	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.3	2.0	24	
18		2	2	2.2	2.2	2.4	2.3	2.1	2.1	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2	2.1	2.4	2.1	24
19		2.1	2.1	2.1	2.1	2.2	2.2	2.1	C	C	C	C	C	2	C	2.1	2.2	2.2	2	2	2	2	2	2.2	2.2	2.2	2.2	2.1	24	
20		2.3	2.4	2.4	2.3	2.3	2.3	IZS	2.5	2.2	2.1	2	2.1	2	2	2	2	2	2	2.1	2	2	2	2.1	2.1	2.2	2.5	2.1	24	
21		2.3	2.3	2.4	2.4	2.9	IZS	3.3	2.8	2.3	2.1	2	2.1	2.1	2.1	2	2	2	2	2.1	2.1	2.1	2.2	2.1	2.1	2.2	3.3	2.3	24	
22		2.2	2.3	2.3	2.2	IZS	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2	3.2	4.5	2.1	2	2	2	2	2	2	2	2.2	2.1	4.5	2.3	24	
23		2.2	2.2	2.4	IZS	2.4	2.5	2.5	2.5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.2	2.5	2.1	24	
24		2.3	2.3	IZS	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2	1.9	1.9	1.9	2	3.5	2.3	2.2	2	2.2	2.2	2.7	3.5	2.2	24	
25		2.4	IZS	2.5	2.6	2.6	2.9	2.4	2.3	2.1	2.6	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2.1	2.2	2.9	2.2	24		
26		IZS	2.3	2.3	2.5	2.5	2.5	2.5	2.4	2.1	2.1	2	1.9	1.9	1.9	1.9	2	2	2	2	2	2	2	2	2	IZS	2.5	2.1	24	
27		2.1	2.1	2.1	2.1	2.2	2.2	2.1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.1	IZS	2.1	2.2	2.1	24
28		2.1	2.3	2.5	2.5	2.8	2.8	2.7	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2.1	IZS	2.1	2.1	2.8	2.3	24	
29		2.2	2.4	2.4	2.4	2.7	2.7	2.5	2.3	2.2	2.2	2	2	2	2	2	2	2	2	2	2	2	2.1	IZS	2.1	2.3	2.4	2.7	2.2	24
30		2.5	2.5	2	2	2	2.1	2	2.1	2.1	2	2	2	2	2.1	2.1	1.9	1.9	1.9	1.9	2	IZS	2.1	2.1	2.1	2.2	2.5	2.1	24	
31		2.5	2.6	2.3	2.4	2.3	2.8	2.5	2.4	2.4	2.2	2	2	2	1.9	1.9	2	2	2	2	IZS	2	2	2.1	2.1	2.1	2.8	2.2	24	
HOURLY MAX		3	3	3	3	3	3	3	3	2	3	2	2	2	3	5	2	2	3	4	2	2	2	2	3					
HOURLY AVG		2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1				

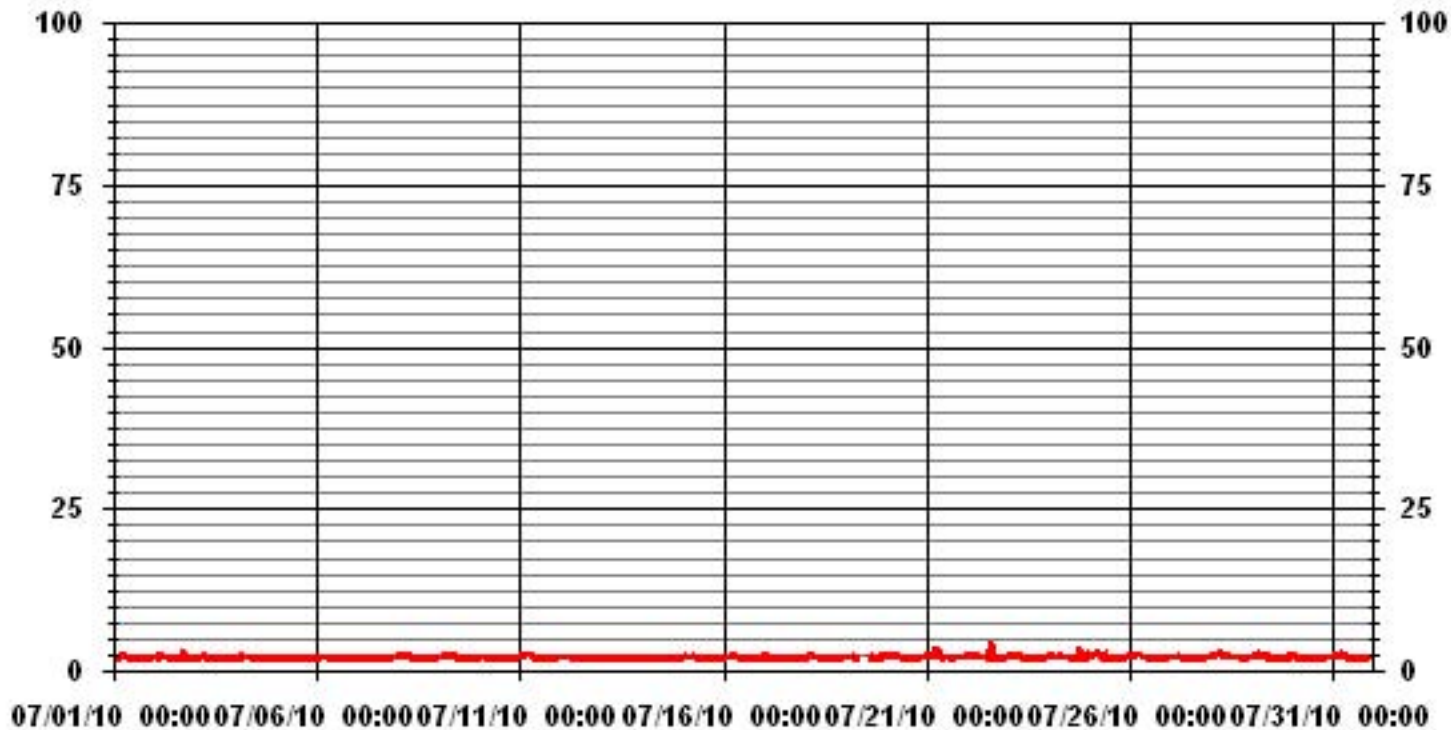
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	705
MAXIMUM INSTANTANEOUS VALUE:	4.5 PPM @ HOUR(S) 14 ON DAY(S) 22
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	6 HRS
STANDARD DEVIATION:	0.22
OPERATIONAL TIME:	743 HRS

01 Hour Averages



— LICA30 THCMAX PPM

LICA30
 THC / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	4.53	4.24	4.81	2.54	2.69	3.11	3.25	5.52	7.93	17.84	7.79	7.64	8.49	10.05	5.80	3.54	99.85
< 10.0	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14
< 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.53	4.24	4.95	2.54	2.69	3.11	3.25	5.52	7.93	17.84	7.79	7.64	8.49	10.05	5.80	3.54	

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	32	30	34	18	19	22	23	39	56	126	55	54	60	71	41	25	705
< 10.0			1														1
< 50.0																	
>= 50.0																	
Totals	32	30	35	18	19	22	23	39	56	126	55	54	60	71	41	25	

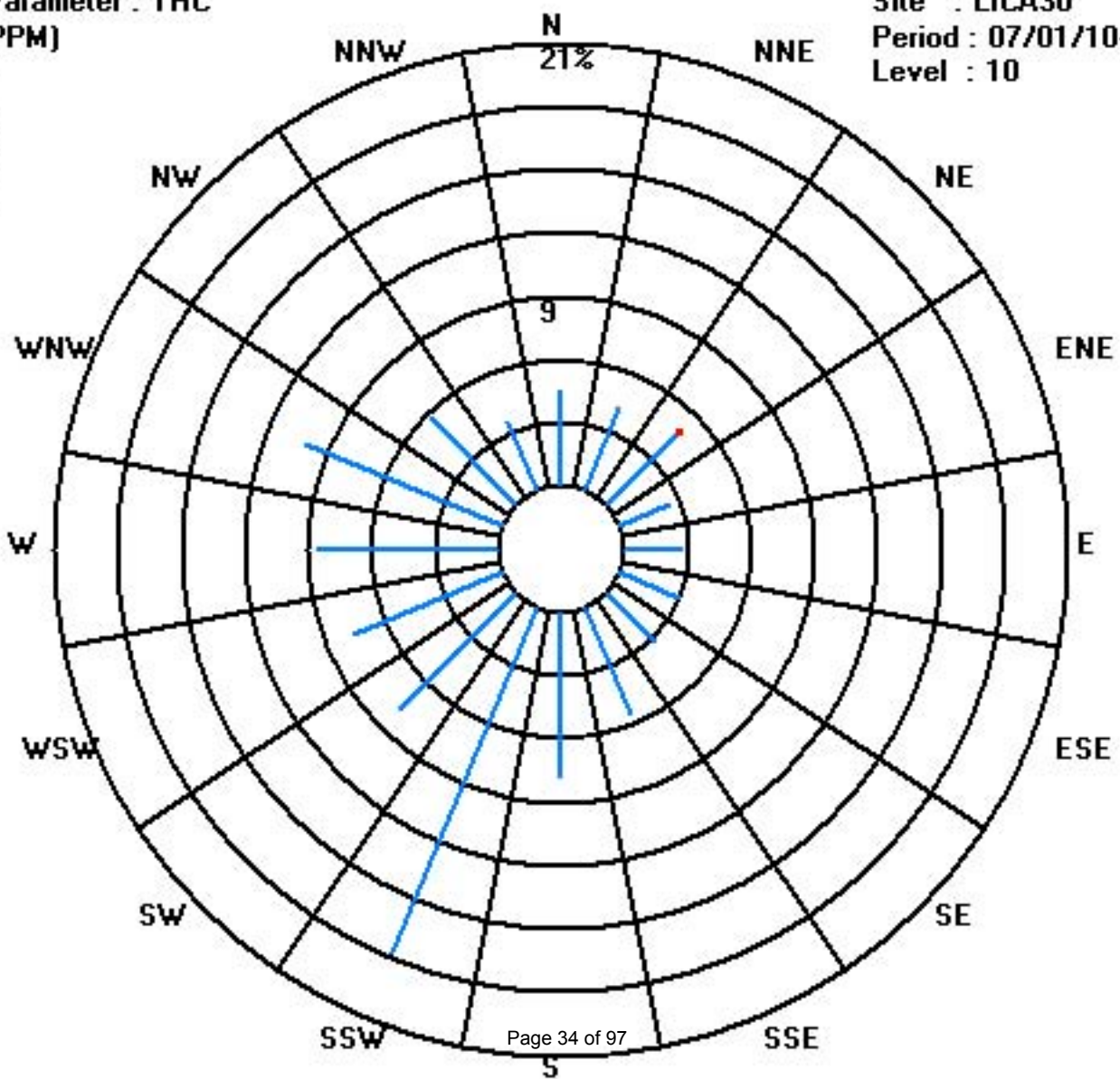
Calm : .00 %

Total # Operational Hours : 706

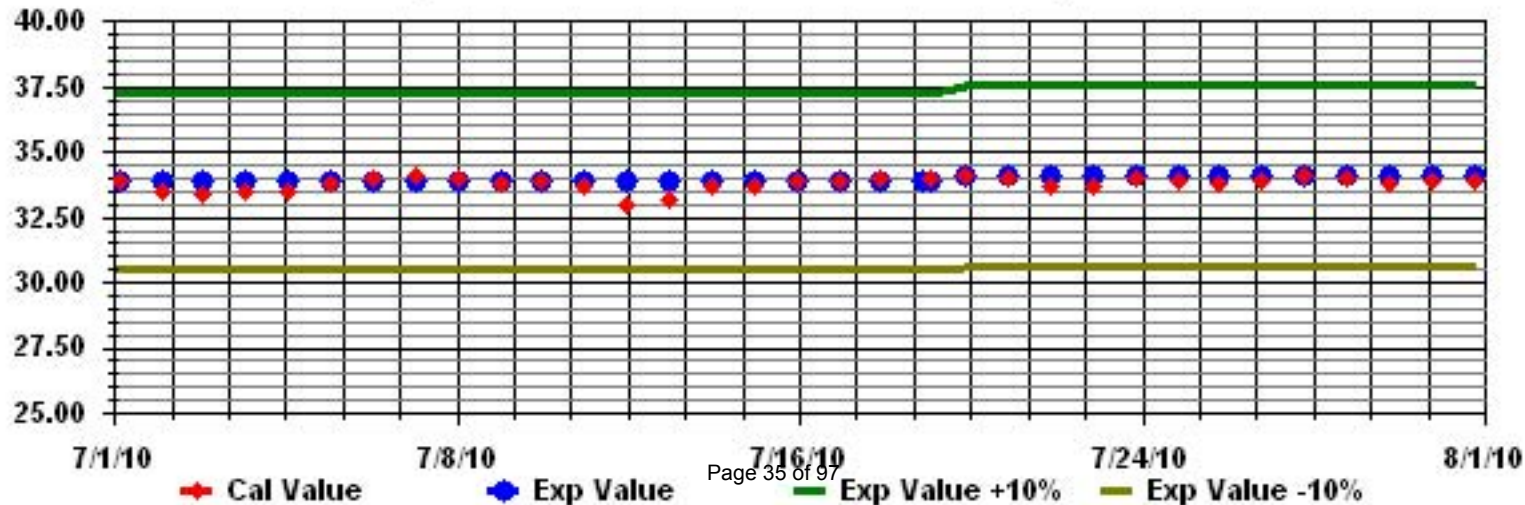
Class Limits (PPM)

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

Level : 10



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



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

NITROGEN DIOXIDE hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	0	1	IZS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.1	24	
2	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
3	IZS	0	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	IZS	2	0.4	24	
4	1	3	0	0	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	3	0.5	24
5	2	1	0	4	2	6	3	0	0	0	0	0	0	0	0	2	4	0	4	4	IZS	6	6	6	1.9	24		
6	7	9	11	11	6	6	3	2	2	4	1	0	0	1	0	0	1	3	5	3	IZS	0	0	0	11	3.3	24	
7	1	2	0	0	0	0	0	0	0	0	2	0	0	0	1	2	3	3	3	IZS	0	1	3	5	5	1.1	24	
8	2	4	3	1	1	3	9	8	2	0	1	0	0	1	0	4	0	1	IZS	0	0	0	0	0	9	1.7	24	
9	0	0	0	0	0	1	2	2	2	2	1	0	0	0	0	0	0	IZS	0	0	0	0	0	0	2	0.4	24	
10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	0.0	24	
11	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	1	1	2	0.3	24	
12	0	0	1	1	1	2	1	0	0	1	1	1	0	0	IZS	1	2	0	0	0	0	1	1	0	2	0.6	24	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	0	1	0.0	24	
14	0	1	0	0	0	1	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.3	24	
15	3	2	1	0	0	0	2	3	1	1	0	0	0	0	IZS	0	0	0	0	0	0	7	4	4	2	7	1.3	24
16	0	0	1	0	3	2	3	1	2	4	IZS	1	4	3	2	0	1	2	1	0	0	0	2	0	4	1.4	24	
17	5	8	7	1	1	1	0	1	0	IZS	0	2	2	1	4	2	1	3	3	1	0	0	0	0	8	1.9	24	
18	0	0	3	10	8	4	4	3	IZS	2	0	0	0	0	0	0	0	0	5	0	2	0	0	0	10	1.8	24	
19	0	0	0	0	0	0	0	C	C	C	C	C	C	C	0	3	0	0	0	0	0	0	0	0	3	0.2	24	
20	0	0	0	0	0	1	IZS	1	0	0	1	3	1	0	1	0	0	0	0	0	0	0	0	0	3	0.3	24	
21	0	0	0	0	0	IZS	0	2	1	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	2	0.3	24	
22	0	0	0	0	IZS	0	0	1	1	0	0	1	0	3	2	0	0	0	0	0	0	0	0	0	3	0.3	24	
23	0	0	0	IZS	0	0	0	1	1	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0.3	24	
24	1	1	IZS	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	1	3	3	0	0	0	3	0.7	24	
25	0	IZS	0	0	0	1	2	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.4	24	
26	IZS	0	0	1	4	3	3	2	1	5	2	0	0	0	0	1	2	3	2	1	9	8	10	IZS	10	2.6	24	
27	8	7	9	3	8	8	7	3	1	1	1	3	0	0	1	1	1	0	0	0	1	1	IZS	1	9	2.8	24	
28	3	5	2	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	IZS	0	0	5	0.7	24		
29	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0.1	24	
30	0	1	0	0	1	1	3	7	1	0	0	4	1	0	0	0	0	0	0	IZS	0	1	1	0	7	0.9	24	
31	2	4	2	1	1	0	1	2	2	0	1	1	0	0	0	1	1	0	IZS	0	0	0	0	1	4	0.9	24	
HOURLY MAX	8	9	11	11	8	8	9	8	2	5	3	4	4	3	4	4	3	4	5	5	9	8	10	6				
HOURLY AVG	1.2	1.7	1.4	1.2	1.3	1.5	1.7	1.6	0.7	0.9	0.6	0.6	0.3	0.3	0.4	0.5	0.5	0.7	0.5	0.6	0.9	0.7	1.0	0.6				

STATUS FLAG CODES

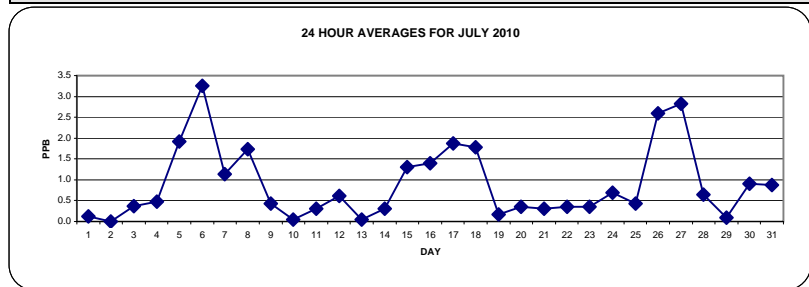
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

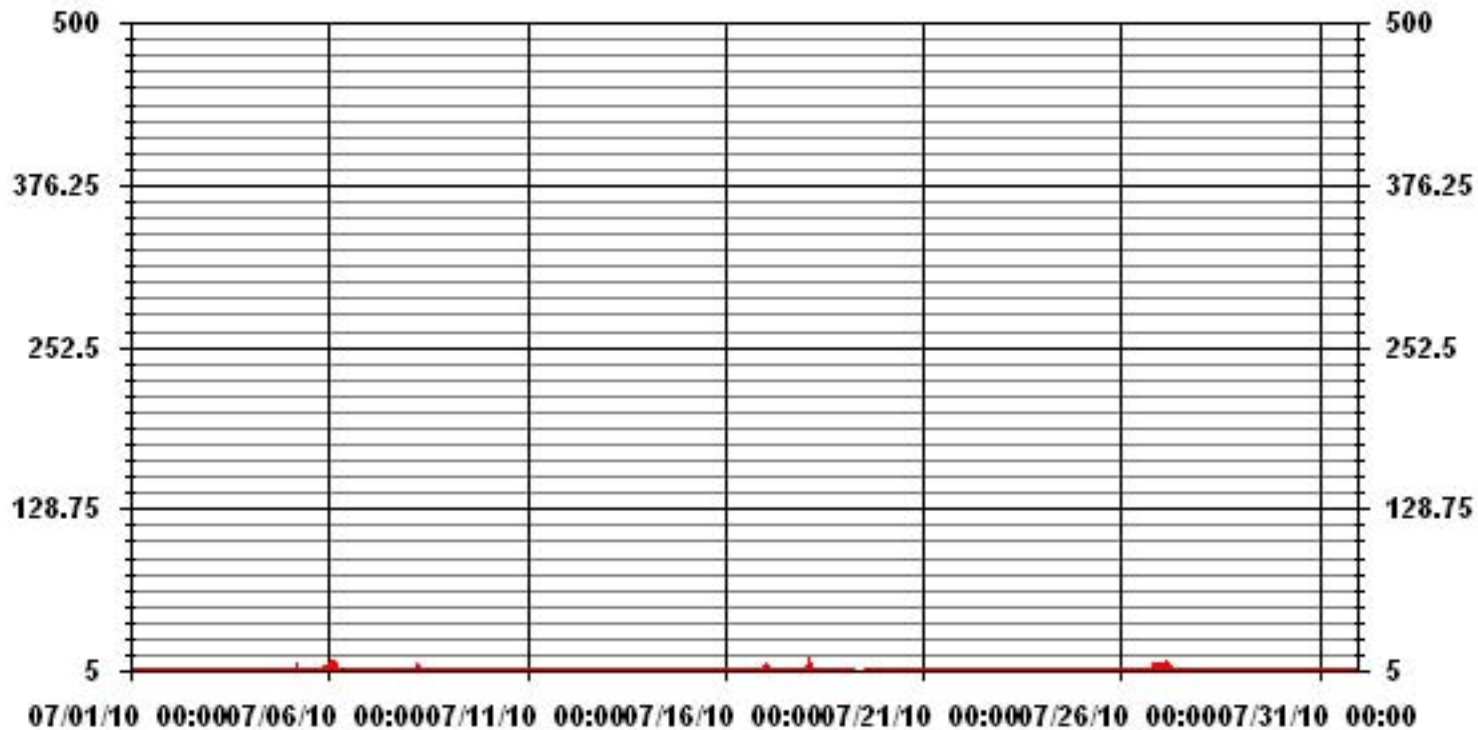
ALBERTA ENVIRONMENT:	1-HR	212	PPB	24-HR	106	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	255
MAXIMUM 1-HR AVERAGE:	11 PPB @ HOUR(S) 2, 3 ON DAY(S) 6
MAXIMUM 24-HR AVERAGE:	3.3 PPB ON DAY(S) 6
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	1.76
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	0.90 PPB



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	1	3	IZS	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	1	0	3	0.7	24	
2	0	IZS	0	0	0	0	0	0	1	0	0	1	0	1	2	0	1	1	1	0	0	0	0	1	2	0.4	24	
3	IZS	1	1	1	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	IZS	3	0.8	24	
4	3	5	2	0	4	4	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	3	5	1.2	24	
5	7	3	2	6	5	8	7	1	0	0	0	1	0	5	0	3	10	16	8	11	11	IZS	16	18	18	6.0	24	
6	16	15	19	19	11	10	9	4	10	10	3	1	0	4	4	1	3	13	18	11	IZS	1	0	0	19	7.9	24	
7	5	5	2	0	0	0	0	0	0	0	6	4	2	2	6	7	9	10	9	IZS	0	5	6	9	10	3.8	24	
8	4	6	6	2	3	7	13	15	7	0	5	3	4	5	10	10	2	3	IZS	1	0	1	1	0	15	4.7	24	
9	1	0	0	1	0	5	4	3	3	3	2	1	1	1	1	0	0	IZS	0	0	0	0	0	0	5	1.1	24	
10	0	0	1	1	1	1	0	0	0	0	0	0	0	0	4	0	IZS	5	0	0	0	0	0	1	1	5	0.7	24
11	1	0	0	1	0	4	4	3	2	0	0	0	0	0	0	IZS	0	0	0	0	0	0	2	2	1	4	0.9	24
12	1	1	2	2	2	6	8	0	2	4	2	2	2	4	IZS	4	9	1	1	0	2	2	4	0	9	2.7	24	
13	1	0	2	0	0	0	0	0	0	1	0	0	0	IZS	0	0	0	7	0	0	0	0	1	0	7	0.5	24	
14	0	4	1	0	0	3	1	0	3	2	4	3	IZS	1	4	2	0	0	0	2	1	0	1	3	4	1.5	24	
15	4	2	2	1	0	3	4	4	3	4	3	IZS	0	0	1	3	7	0	0	0	21	6	7	5	21	3.5	24	
16	1	1	1	1	5	4	4	2	4	6	IZS	7	7	8	7	1	2	4	4	0	1	1	5	2	8	3.4	24	
17	12	12	10	8	5	6	0	3	0	IZS	5	6	8	10	10	8	5	8	7	6	0	0	0	0	12	5.6	24	
18	0	0	9	13	10	8	10	8	IZS	6	3	3	3	0	2	0	0	0	1	13	0	8	0	0	13	4.2	24	
19	0	0	1	1	1	0	0	C	C	C	C	C	C	C	2	12	13	0	0	0	0	0	0	0	13	1.8	24	
20	0	0	1	0	0	4	IZS	5	1	0	2	7	3	3	5	0	0	3	0	1	0	1	0	0	7	1.6	24	
21	1	0	0	1	1	IZS	1	4	2	2	0	0	0	1	0	1	3	1	0	7	0	0	1	7	1.1	24		
22	1	0	0	0	IZS	0	0	3	3	1	2	5	1	7	5	5	6	1	5	0	0	0	0	0	7	2.0	24	
23	0	0	0	IZS	0	0	0	3	1	5	4	3	2	1	2	1	0	0	0	0	2	2	1	1	5	1.2	24	
24	2	2	IZS	1	1	3	2	3	3	2	1	1	1	1	0	0	1	4	1	7	9	1	0	0	9	2.0	24	
25	1	IZS	1	1	1	4	4	4	1	5	11	2	0	0	0	0	0	0	0	0	0	1	1	1	11	1.7	24	
26	IZS	2	2	4	6	5	21	3	2	15	8	0	1	0	0	9	6	16	4	6	14	14	14	IZS	21	6.9	24	
27	13	10	13	7	12	11	10	7	4	3	5	6	3	4	4	2	3	0	1	1	2	3	IZS	3	13	5.5	24	
28	5	7	4	2	1	0	1	2	2	2	1	0	0	0	0	0	0	0	1	2	1	IZS	2	2	7	1.5	24	
29	2	1	1	0	0	0	2	2	2	1	1	1	0	1	2	2	1	0	0	0	IZS	0	1	0	2	0.9	24	
30	0	5	1	1	2	4	9	8	8	1	1	10	10	1	1	0	0	0	0	IZS	1	3	3	2	10	3.1	24	
31	4	7	3	1	3	1	3	3	3	1	5	5	1	0	1	3	7	2	IZS	0	0	0	1	1	7	2.4	24	
HOURLY MAX	16	15	19	19	12	11	21	15	10	15	11	10	10	10	10	12	13	16	18	13	21	14	16	18				
HOURLY AVG	3.0	3.2	3.0	2.5	2.6	3.5	4.2	3.1	2.4	2.6	2.6	2.5	1.7	2.0	2.5	2.4	2.9	3.2	2.1	2.1	2.5	1.9	2.4	1.9				

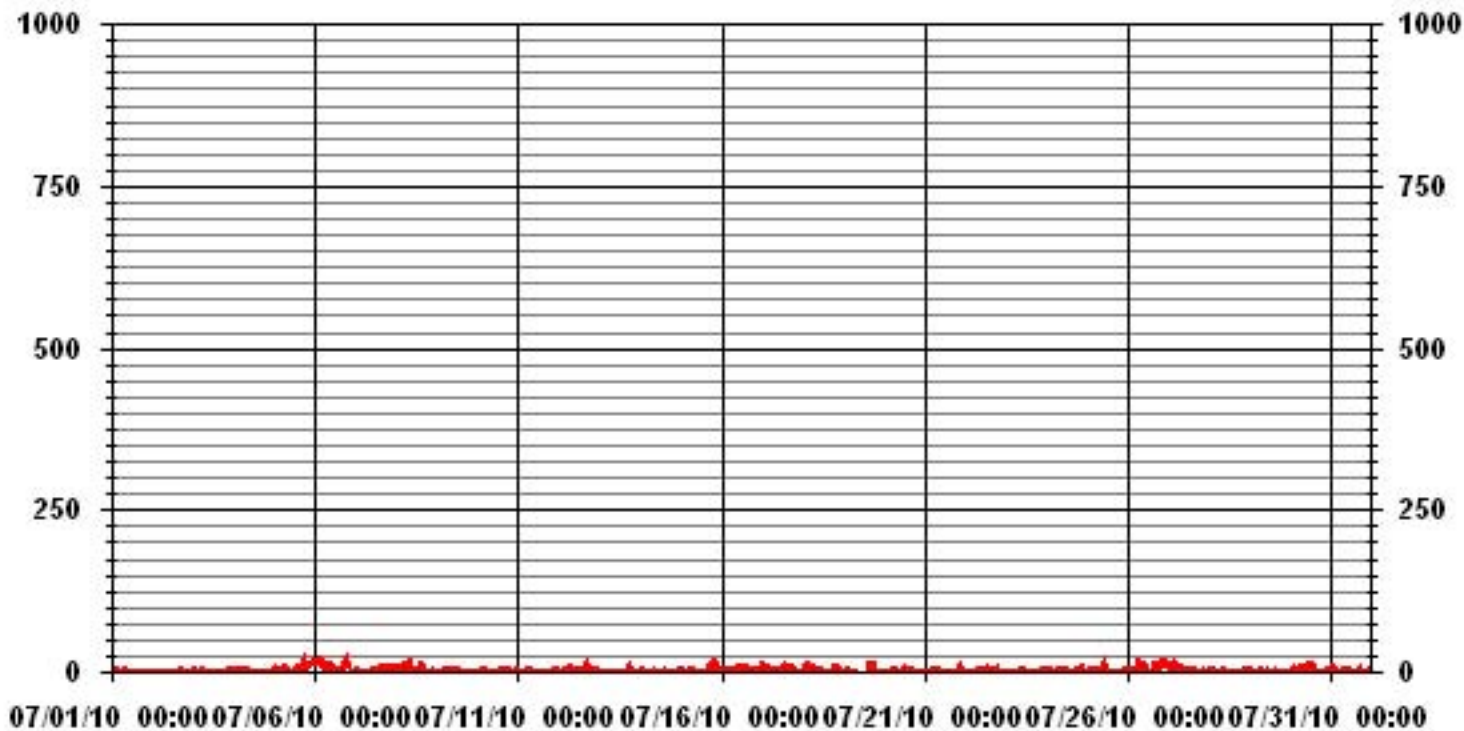
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	448					
MAXIMUM INSTANTANEOUS VALUE:	21	PPB	@ HOUR(S)	20	ON DAY(S)	15
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION	3.66					

01 Hour Averages



— LICA30 NO2MAX PPB

LICA30
 NO2_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	4.53	4.25	4.96	2.55	2.69	3.12	3.26	5.53	7.94	17.87	7.80	7.65	8.51	9.92	5.81	3.54	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.53	4.25	4.96	2.55	2.69	3.12	3.26	5.53	7.94	17.87	7.80	7.65	8.51	9.92	5.81	3.54	

Calm : .00 %

Total # Operational Hours : 705

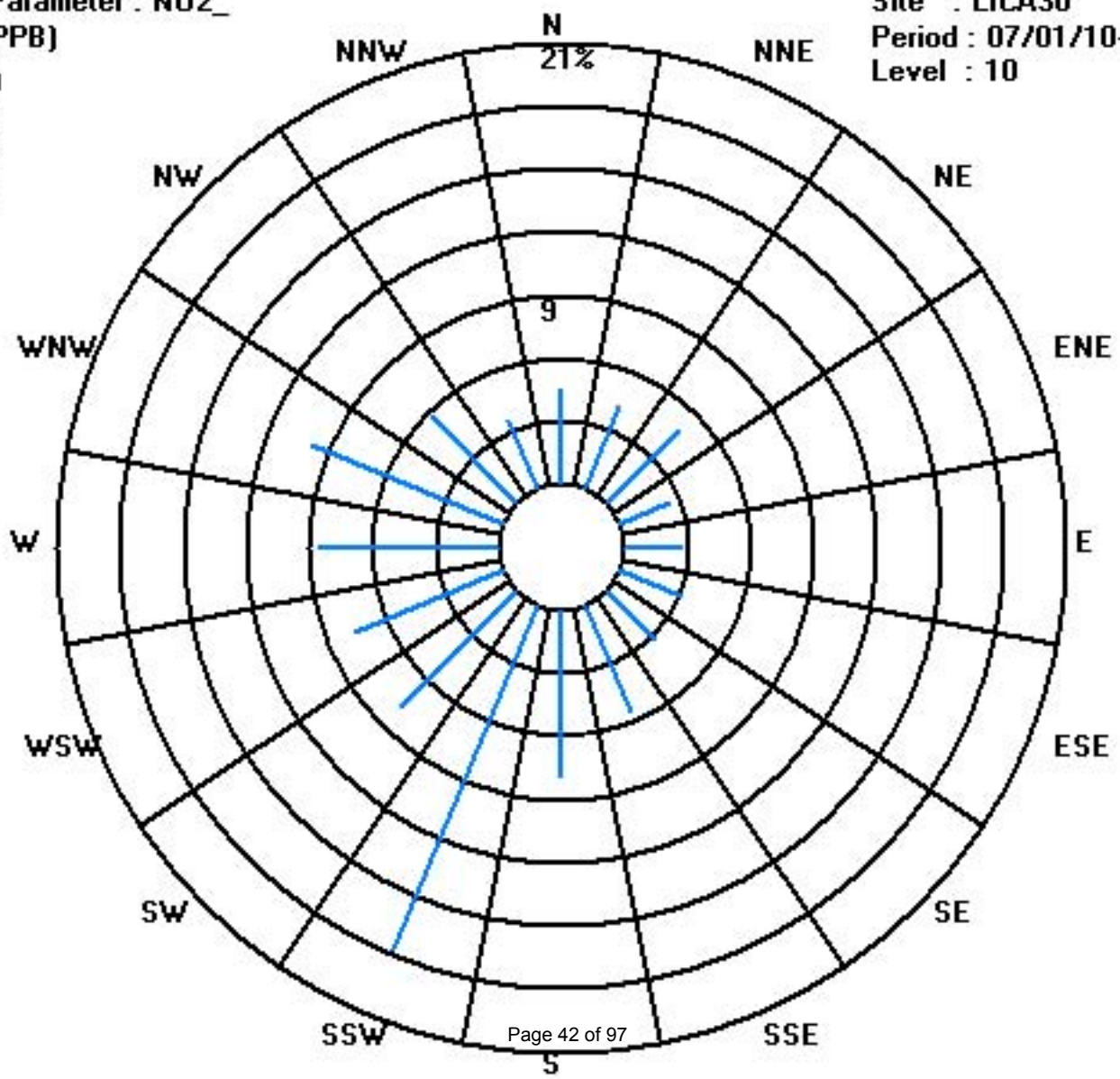
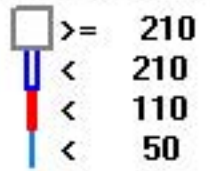
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	32	30	35	18	19	22	23	39	56	126	55	54	60	70	41	25	705
< 110																	
< 210																	
>= 210																	
Totals	32	30	35	18	19	22	23	39	56	126	55	54	60	70	41	25	

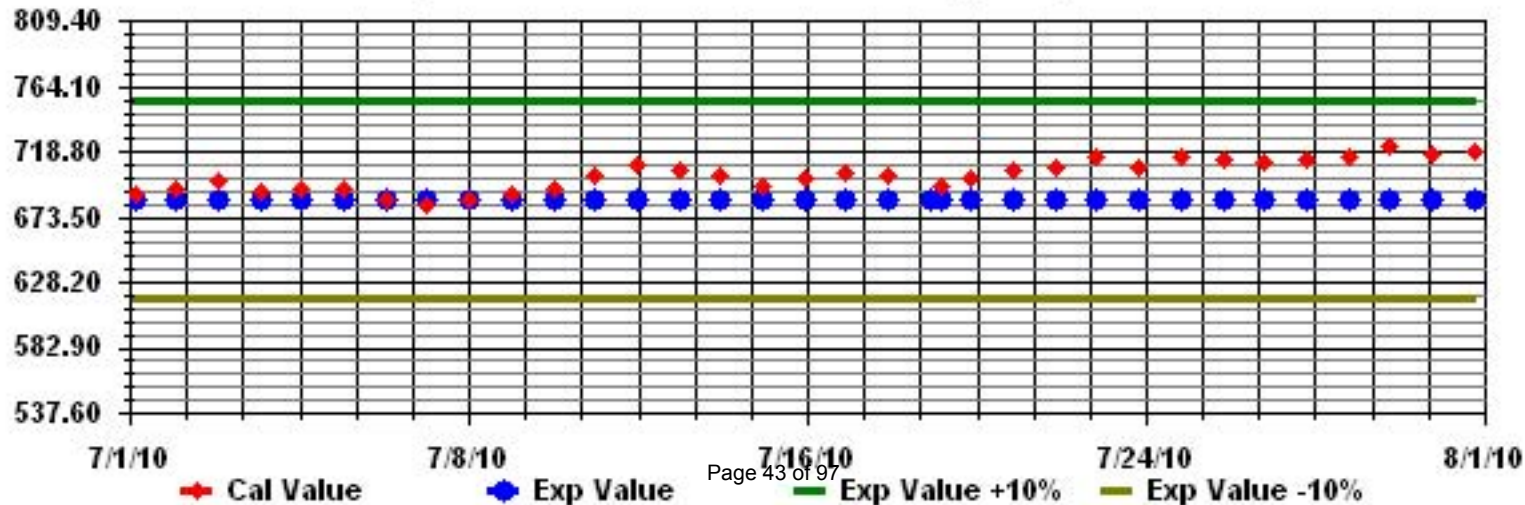
Calm : .00 %

Total # Operational Hours : 705

Class Limits (PPB)



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



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOICATION - MASKWA

JULY 2010

NITRIC OXIDE hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	0	0	IZS	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
2	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
3	IZS	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.0	24
4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0.0	24
5	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	1	3	0	1	0	IZS	1	2	3	0.6	24		
6	1	1	4	4	1	3	3	1	1	2	1	0	0	0	0	0	0	0	1	0	IZS	0	0	0	4	1.0	24	
7	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	0	IZS	0	0	0	0	1	0.2	24	
8	0	0	0	0	0	0	3	4	1	0	0	0	0	0	0	3	0	0	IZS	0	0	0	0	0	4	0.5	24	
9	0	0	0	0	0	6	3	2	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	6	0.5	24	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24	
11	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	3	0.3	24	
12	0	0	0	0	0	0	0	0	0	1	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	1	0.0	24
13	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
14	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
15	0	0	0	0	0	0	4	2	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.3	24
16	0	0	0	0	0	1	2	1	2	2	IZS	1	2	1	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24
17	3	6	4	0	0	1	0	1	0	IZS	1	2	2	1	3	2	1	3	1	0	0	0	0	0	6	1.3	24	
18	0	0	0	2	2	2	3	3	IZS	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0.7	24	
19	0	0	0	0	0	0	0	C	C	C	C	C	C	C	0	3	0	0	0	0	0	0	0	0	0	3	0.2	24
20	0	0	0	0	0	2	IZS	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
21	0	0	0	0	0	IZS	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
22	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0	0	IZS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
24	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	IZS	0	0	0	0	1	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
26	IZS	0	0	0	0	1	3	1	0	3	1	0	0	0	0	0	1	2	0	0	6	5	6	IZS	6	1.3	24	
27	4	5	13	2	6	13	11	5	2	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	13	2.8	24	
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0.0	24	
30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0.0	24	
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0.0	24	
HOURLY MAX	4	6	13	4	6	13	11	5	2	3	2	2	2	1	3	3	1	3	1	1	6	5	6	2				
HOURLY AVG	0.3	0.4	0.7	0.3	0.4	1.1	1.4	1.0	0.3	0.4	0.2	0.3	0.1	0.1	0.1	0.3	0.1	0.3	0.1	0.1	0.2	0.2	0.2	0.1				

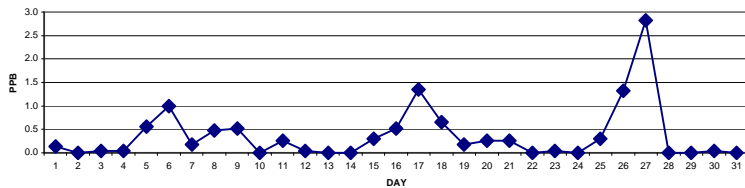
STATUS FLAG CODES

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

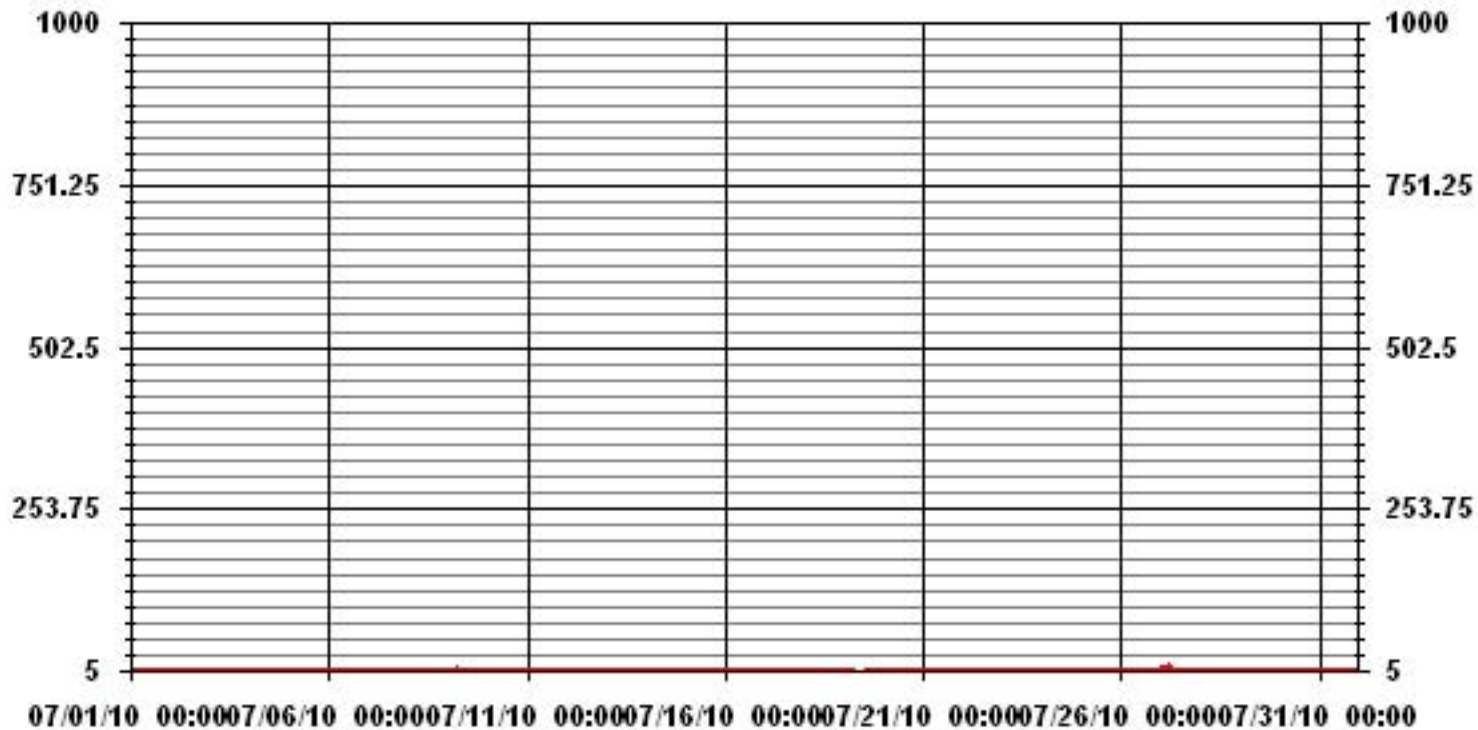
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	108
MAXIMUM 1-HR AVERAGE:	13 PPB @ HOUR(S) 5 ON DAY(S) 27
MAXIMUM 24-HR AVERAGE:	2.8 PPB ON DAY(S) 27
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	1.20
MONTHLY AVERAGE:	0.37 PPB

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

NITRIC OXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	0	0	IZS	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
2	0	IZS	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
3	IZS	0	0	0	0	1	3	3	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	IZS	3	0.4	24
4	0	0	0	0	2	1	4	2	2	1	0	0	0	1	1	0	0	0	0	0	0	0	0	IZS	0	4	0.6	24
5	1	0	0	1	1	6	10	0	0	0	0	1	0	3	0	3	6	14	3	3	1	IZS	7	7	14	2.9	24	
6	4	3	13	11	3	8	8	3	6	6	2	1	0	4	3	1	1	4	5	2	IZS	0	0	0	13	3.8	24	
7	0	1	0	0	0	1	1	1	1	0	4	2	2	2	8	3	4	4	3	IZS	0	0	0	0	8	1.6	24	
8	0	0	0	0	1	3	8	11	7	1	3	2	3	2	5	8	2	1	IZS	1	0	0	0	0	11	2.5	24	
9	0	0	0	0	1	33	5	3	3	2	1	0	0	0	1	0	0	IZS	0	0	0	0	0	0	33	2.1	24	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	IZS	3	0	0	0	0	0	0	3	0.3	24	
11	0	1	0	0	0	3	6	4	1	1	1	0	0	0	0	IZS	0	0	0	0	0	0	0	0	6	0.7	24	
12	0	0	0	0	0	2	3	0	1	2	2	1	1	2	IZS	1	0	0	0	0	0	0	0	0	3	0.7	24	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	0	0	1	0.0	24	
14	0	0	0	0	0	1	0	0	0	1	1	1	IZS	1	1	2	0	0	0	0	0	0	0	0	2	0.3	24	
15	0	0	0	0	0	5	10	3	3	2	2	IZS	1	0	1	1	4	0	0	0	5	0	0	0	10	1.6	24	
16	0	0	0	0	1	2	2	2	2	6	IZS	10	6	3	3	0	0	0	0	0	0	0	0	0	10	1.6	24	
17	13	16	9	7	3	5	1	4	1	IZS	5	8	10	10	10	10	2	10	5	3	0	0	0	0	16	5.7	24	
18	0	0	2	6	5	5	8	8	IZS	8	4	4	2	1	1	0	0	0	0	5	0	1	0	0	8	2.6	24	
19	0	0	0	0	0	0	1	C	C	C	C	C	C	C	1	12	13	0	0	0	0	0	0	0	13	1.6	24	
20	0	0	0	0	0	9	IZS	11	1	0	2	4	1	1	1	0	0	1	0	0	0	0	0	0	11	1.3	24	
21	0	0	0	0	13	IZS	2	4	2	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	13	1.1	24	
22	0	0	0	0	IZS	1	1	1	1	0	1	2	0	1	2	3	3	0	1	0	0	0	0	0	3	0.7	24	
23	0	0	0	IZS	1	0	0	2	1	2	1	1	1	0	2	0	0	0	0	0	0	0	0	0	2	0.5	24	
24	0	0	IZS	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0.3	24	
25	0	IZS	1	0	0	1	3	4	1	4	11	1	0	0	0	0	0	0	0	0	0	0	0	0	11	1.1	24	
26	IZS	0	0	1	1	2	50	3	1	15	8	0	1	0	0	4	5	15	2	4	12	13	10	IZS	50	6.7	24	
27	10	10	25	6	11	21	21	14	6	4	5	6	2	2	2	0	1	0	0	0	0	0	0	0	25	6.3	24	
28	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0.3	24
29	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
30	0	0	0	0	0	0	0	0	0	0	0	4	5	0	0	0	0	0	0	0	0	0	0	0	5	0.4	24	
31	0	0	0	0	0	0	1	1	1	0	2	2	0	0	0	1	2	0	0	IZS	0	0	0	0	2	0.4	24	
HOURLY MAX	13	16	25	11	13	33	50	14	7	15	11	10	10	10	10	12	13	15	5	5	12	13	10	7				
HOURLY AVG	1.0	1.1	1.8	1.1	1.5	3.8	5.1	2.9	1.6	2.0	1.9	1.7	1.2	1.2	1.5	1.7	1.4	1.8	0.7	0.7	0.7	0.5	0.6	0.2				

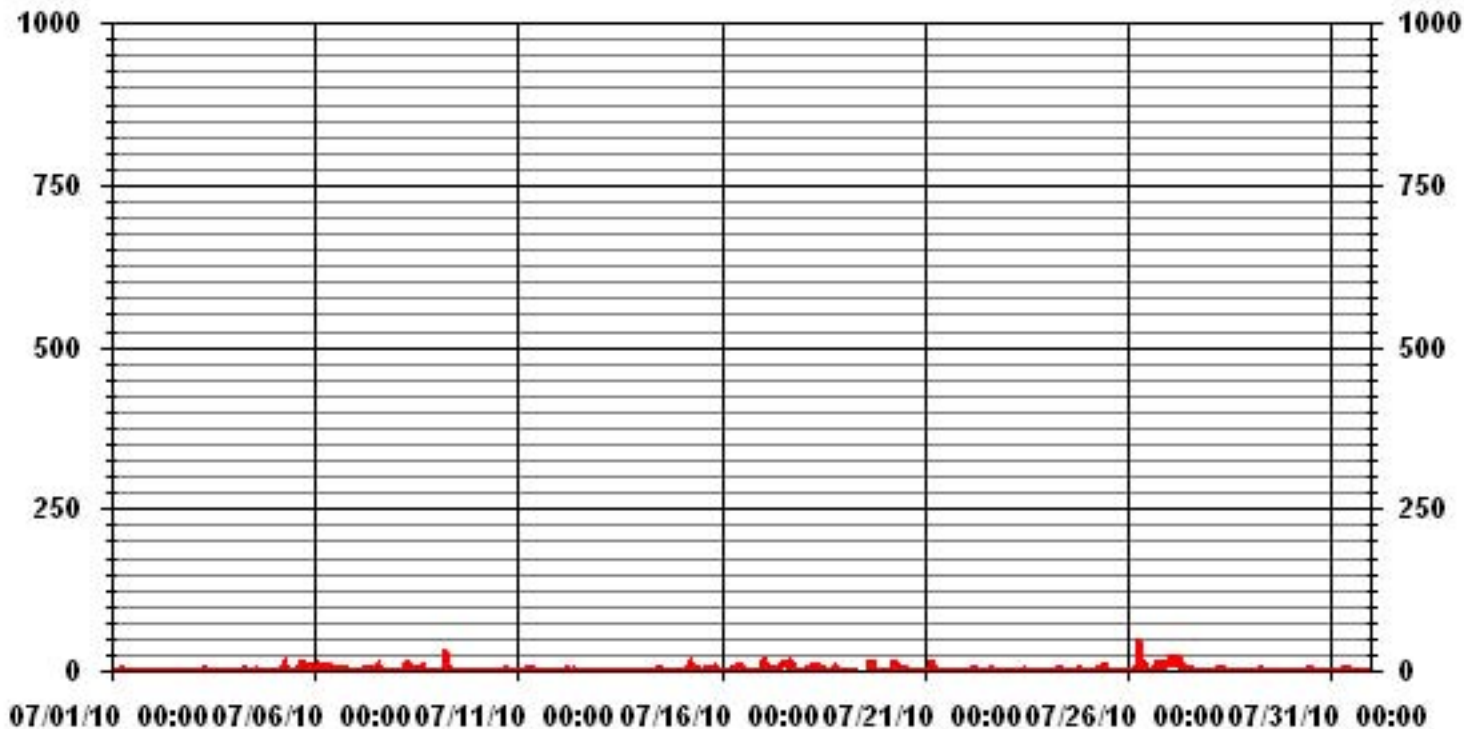
STATUS FLAG CODES

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:	277					
MAXIMUM INSTANTANEOUS VALUE:	50	PPB	@ HOUR(S)	6	ON DAY(S)	26
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION	3.75					

01 Hour Averages



LICA30
 NO_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	4.53	4.25	4.96	2.55	2.69	3.12	3.26	5.53	7.94	17.87	7.80	7.65	8.51	9.92	5.81	3.54	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.53	4.25	4.96	2.55	2.69	3.12	3.26	5.53	7.94	17.87	7.80	7.65	8.51	9.92	5.81	3.54	

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
< 50	32	30	35	18	19	22	23	39	56	126	55	54	60	70	41	25	705
< 110																	
< 210																	
>= 210																	
Totals	32	30	35	18	19	22	23	39	56	126	55	54	60	70	41	25	

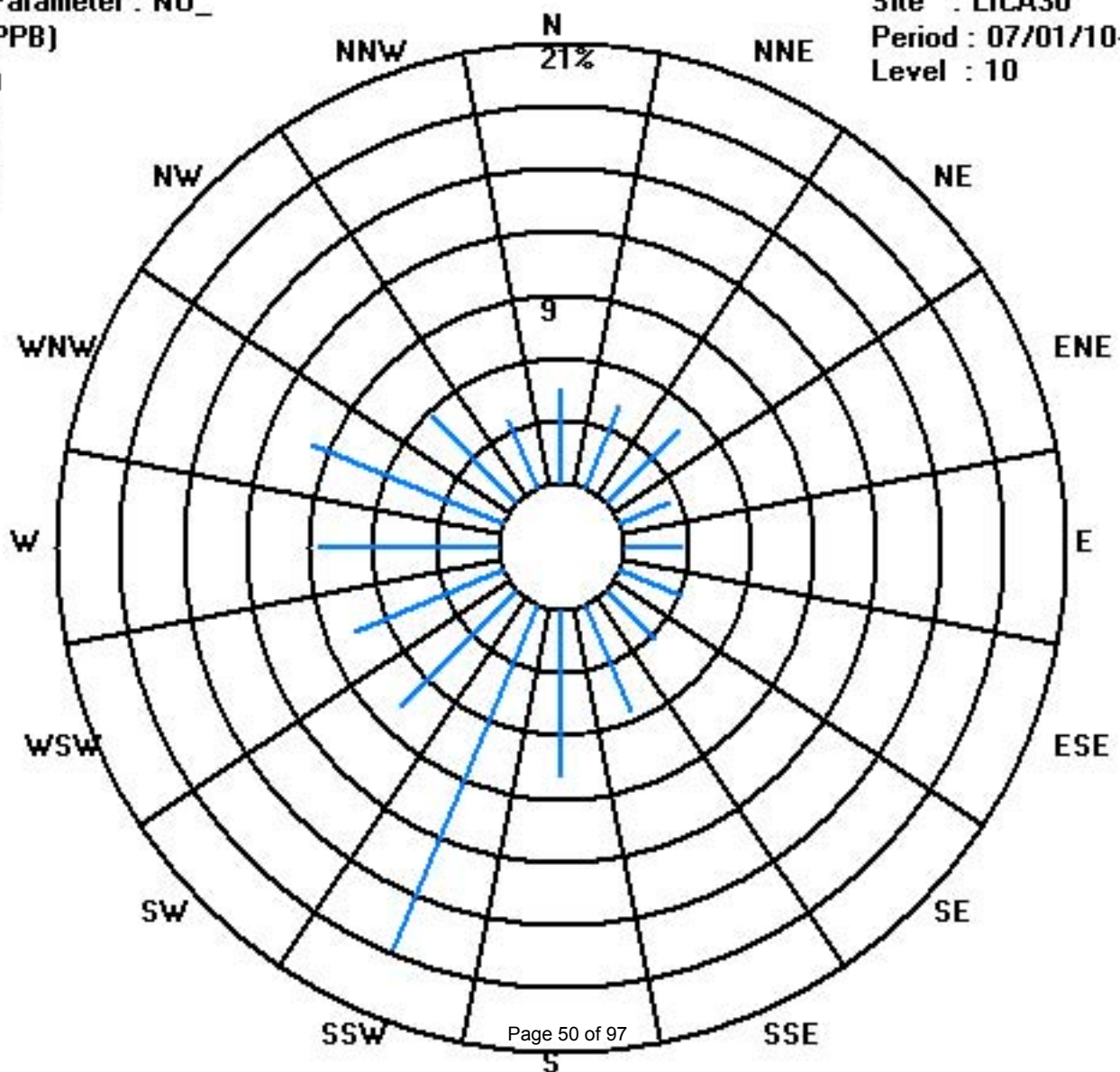
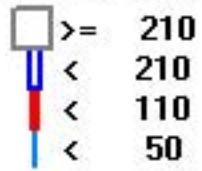
Calm : .00 %

Total # Operational Hours : 705

Class Limits (PPB)

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

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

OXIDES OF NITROGEN hourly averages in ppb

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	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	1	IZS	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0.3	24	
2	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
3	IZS	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	IZS	3	0.4	24	
4	2	4	1	1	3	3	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	4	1.0	24	
5	2	1	0	5	2	8	6	0	0	0	0	0	0	1	0	0	3	7	0	5	4	IZS	7	8	8	2.6	24	
6	8	11	15	16	8	10	7	3	3	7	2	0	0	1	1	0	1	4	7	3	IZS	0	0	0	16	4.7	24	
7	1	3	0	0	0	0	0	0	0	0	4	1	1	0	2	3	4	4	3	IZS	0	1	3	5	5	1.5	24	
8	2	4	3	1	1	4	13	12	4	0	1	1	0	1	1	8	0	1	IZS	1	1	1	0	0	13	2.6	24	
9	0	0	0	1	1	8	7	5	5	4	2	1	1	1	1	0	0	IZS	0	0	0	0	0	0	8	1.6	24	
10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	0.0	24	
11	0	0	0	0	0	2	6	3	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	2	1	6	0.7	24	
12	1	1	2	1	2	4	3	0	0	3	2	2	2	1	IZS	1	2	0	0	0	0	1	1	0	4	1.3	24	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	0	0	1	0.0	24	
14	0	1	0	0	0	1	0	0	1	1	3	1	IZS	0	0	0	0	0	0	0	0	0	0	0	1	3	0.4	24
15	3	1	1	0	0	1	6	5	3	3	1	IZS	0	0	1	1	2	0	0	0	9	5	5	3	9	2.2	24	
16	1	1	2	1	4	4	6	3	5	8	IZS	4	8	6	4	1	2	3	2	0	1	1	3	1	8	3.1	24	
17	9	15	13	2	2	4	1	4	0	IZS	1	5	5	2	8	4	2	6	5	2	0	0	0	0	15	3.9	24	
18	0	0	4	12	10	6	7	6	IZS	4	0	0	0	0	0	0	0	0	0	6	0	2	0	0	12	2.5	24	
19	0	0	0	0	0	0	0	C	C	C	C	C	C	C	0	7	1	0	0	0	0	0	0	0	7	0.5	24	
20	0	0	0	0	0	3	IZS	4	0	0	1	5	1	1	1	0	0	0	0	0	0	0	0	0	5	0.7	24	
21	0	0	0	0	2	IZS	1	5	2	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	5	0.7	24	
22	0	0	0	0	IZS	0	0	1	1	1	0	1	0	3	3	0	1	0	1	0	0	0	0	0	3	0.5	24	
23	0	0	0	IZS	0	0	0	2	1	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0.5	24	
24	1	1	IZS	1	1	2	3	3	2	1	0	0	0	0	0	0	0	0	0	3	3	0	0	0	3	0.9	24	
25	0	IZS	0	0	0	1	4	4	0	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0.9	24	
26	IZS	0	0	1	4	4	7	3	1	8	4	0	0	0	2	4	5	2	1	15	13	17	IZS	17	4.1	24		
27	12	12	22	5	14	21	19	8	4	3	3	6	1	0	1	1	1	0	0	0	1	1	IZS	1	22	5.9	24	
28	3	5	2	1	0	0	1	2	1	1	0	0	0	0	0	0	0	0	1	0	IZS	0	0	0	5	0.7	24	
29	1	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0	2	0.3	24	
30	1	2	0	1	2	2	4	8	2	1	0	7	3	1	1	0	0	0	0	IZS	0	1	0	0	8	1.6	24	
31	2	4	2	1	1	0	2	2	3	0	2	2	0	0	0	1	2	0	IZS	0	0	0	0	0	4	1.0	24	
HOURLY MAX	12	15	22	16	14	21	19	12	5	8	5	7	8	6	8	8	4	7	7	6	15	13	17	8				
HOURLY AVG	1.7	2.3	2.3	1.7	1.9	3.0	3.8	2.9	1.4	1.9	1.2	1.3	0.8	0.6	0.8	1.0	0.8	1.1	0.7	0.8	1.2	1.0	1.4	0.7				

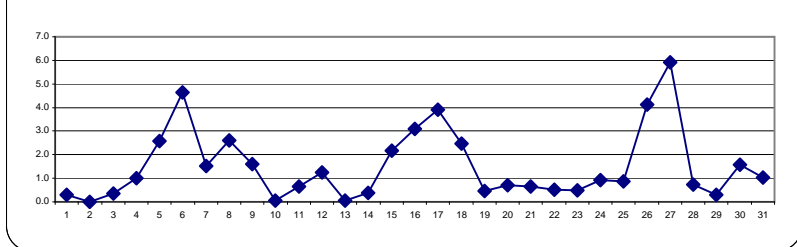
STATUS FLAG CODES

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

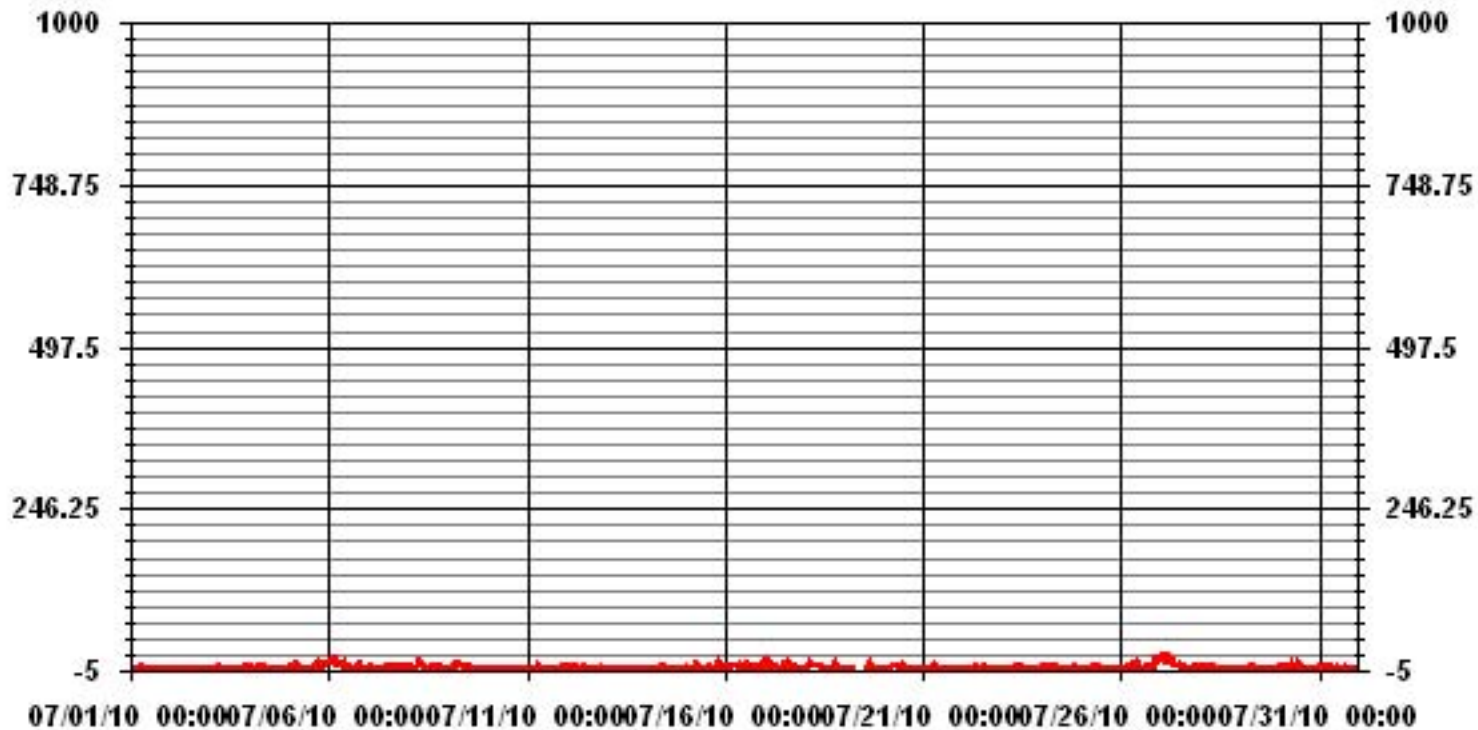
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	311					
MAXIMUM 1-HR AVERAGE:	22	PPB	@ HOUR(S)	2	ON DAY(S)	27
MAXIMUM 24-HR AVERAGE:	5.9	PPB			ON DAY(S)	27
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	2.89		MONTHLY AVERAGE:	1.52	PPB	

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA30 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	1	3	IZS	1	1	3	3	2	2	1	0	0	0	0	0	0	0	0	0	0	1	2	1	0	3	0.9	24	
2	0	IZS	0	0	0	0	0	0	2	0	0	1	0	1	2	1	1	1	0	0	0	0	0	1	2	0.4	24	
3	IZS	0	0	1	2	3	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	IZS	5	1.0	24	
4	4	6	3	2	7	6	7	4	4	3	1	1	0	3	1	0	0	0	0	0	0	1	IZS	3	7	2.4	24	
5	8	3	2	7	5	11	17	1	0	0	0	2	0	9	1	6	16	30	11	15	11	IZS	24	25	30	8.9	24	
6	21	19	32	29	14	18	17	7	16	16	5	1	0	9	8	2	5	17	23	13	IZS	2	0	0	32	11.9	24	
7	5	6	2	0	0	1	1	0	0	0	10	5	4	4	15	10	13	13	IZS	IZS	0	5	6	9	15	5.3	24	
8	4	6	6	1	4	9	21	26	14	1	8	5	7	8	15	15	3	4	IZS	3	1	1	1	1	26	7.1	24	
9	2	1	1	2	2	35	11	7	6	6	4	2	2	2	3	1	0	IZS	0	0	0	0	0	0	35	3.8	24	
10	0	0	0	2	1	1	0	0	1	0	0	0	0	1	7	0	IZS	8	0	0	0	0	1	1	8	1.0	24	
11	1	0	1	1	0	5	9	7	3	1	1	1	0	0	0	IZS	1	1	1	1	1	3	3	2	9	1.9	24	
12	2	2	3	2	3	9	12	1	4	7	5	4	5	7	IZS	5	9	1	1	0	2	1	4	0	12	3.9	24	
13	1	0	2	0	0	0	0	0	0	1	0	0	0	IZS	0	0	0	8	0	0	0	0	0	0	8	0.5	24	
14	0	4	1	0	0	3	2	0	3	3	5	4	IZS	2	5	4	0	0	0	1	1	0	1	4	5	1.9	24	
15	4	2	2	1	0	7	14	7	6	6	5	IZS	2	2	4	5	13	1	1	1	27	7	8	6	27	5.7	24	
16	2	2	2	2	7	7	7	5	7	13	IZS	19	14	12	11	2	3	5	5	1	2	2	6	3	19	6.0	24	
17	26	29	20	16	9	12	2	8	2	IZS	11	15	18	19	20	18	8	18	13	9	0	0	0	0	29	11.9	24	
18	0	0	11	19	13	12	18	16	IZS	14	7	7	6	1	4	1	0	0	2	18	0	9	0	0	19	6.9	24	
19	0	0	0	1	1	0	1	C	C	C	C	C	C	C	3	24	24	0	0	0	0	0	0	0	24	3.2	24	
20	0	0	1	0	0	12	IZS	16	2	0	4	11	4	5	6	0	0	4	0	0	0	0	0	1	16	2.9	24	
21	0	0	0	1	14	IZS	2	8	4	3	0	0	1	0	1	1	1	4	1	0	9	0	0	1	14	2.2	24	
22	0	0	0	0	IZS	0	1	5	5	1	3	7	1	8	6	8	9	1	6	1	0	0	0	0	9	2.7	24	
23	0	0	0	IZS	0	0	0	4	2	6	5	3	3	1	4	1	0	0	0	0	2	2	1	1	6	1.5	24	
24	2	2	IZS	1	2	4	4	5	4	3	1	1	1	0	1	1	4	1	8	10	0	0	0	10	2.4	24		
25	1	IZS	1	1	1	4	6	8	3	9	22	4	0	0	0	0	0	0	0	0	0	1	1	1	22	2.7	24	
26	IZS	2	2	4	6	6	69	6	3	30	16	1	2	0	0	13	11	31	6	10	26	27	24	IZS	69	13.4	24	
27	22	19	38	13	22	32	32	21	10	6	10	12	6	6	7	2	4	0	1	0	2	3	IZS	3	38	11.8	24	
28	5	7	4	2	2	1	1	3	2	4	1	0	1	0	0	0	0	1	2	1	IZS	2	2	7	1.8	24		
29	2	1	1	0	1	0	3	3	3	2	1	1	0	1	2	2	1	0	0	0	IZS	1	2	1	3	1.2	24	
30	1	5	1	3	3	6	11	10	9	2	2	16	16	2	2	1	1	1	1	IZS	1	3	3	1	16	4.4	24	
31	5	7	3	1	2	1	4	4	4	2	7	8	1	0	1	4	9	2	IZS	0	0	0	1	1	9	2.9	24	
HOURLY MAX	26	29	38	29	22	35	69	26	16	30	22	19	18	19	20	24	24	31	23	18	27	27	24	25				
HOURLY AVG	4.1	4.3	4.8	3.8	4.1	6.9	9.3	6.3	4.2	4.8	4.6	4.5	3.2	3.6	4.3	4.2	4.4	5.1	3.0	2.9	3.3	2.5	3.2	2.3				

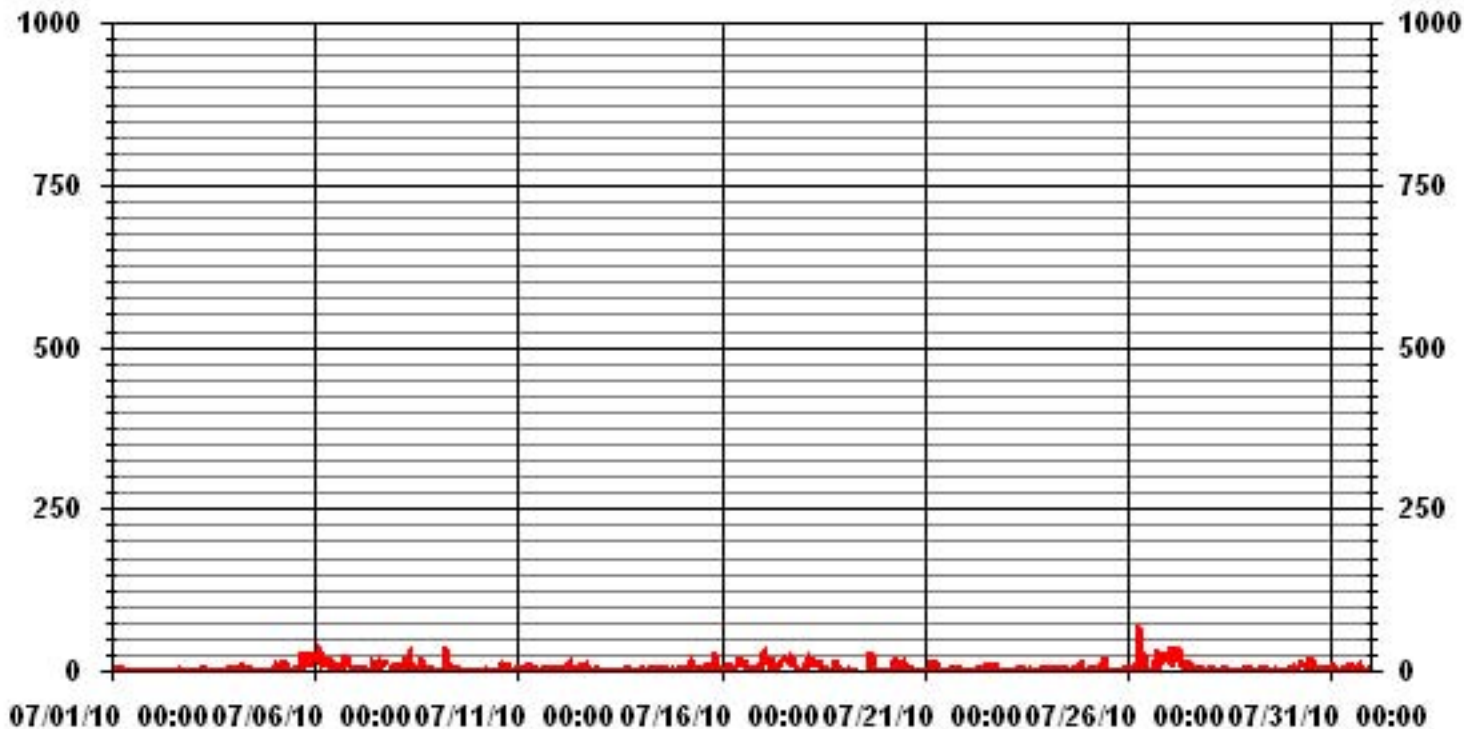
STATUS FLAG CODES

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:	493
MAXIMUM INSTANTANEOUS VALUE:	69 PPB @ HOUR(S) 6 ON DAY(S) 26
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION	6.77
OPERATIONAL TIME:	744 HRS

01 Hour Averages



— LICA30 NOXMAX PPB

LICA30
NOX_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	4.53	4.25	4.96	2.55	2.69	3.12	3.26	5.53	7.94	17.87	7.80	7.65	8.51	9.92	5.81	3.54	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.53	4.25	4.96	2.55	2.69	3.12	3.26	5.53	7.94	17.87	7.80	7.65	8.51	9.92	5.81	3.54	

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
< 50	32	30	35	18	19	22	23	39	56	126	55	54	60	70	41	25	705
< 110																	
< 210																	
>= 210																	
Totals	32	30	35	18	19	22	23	39	56	126	55	54	60	70	41	25	

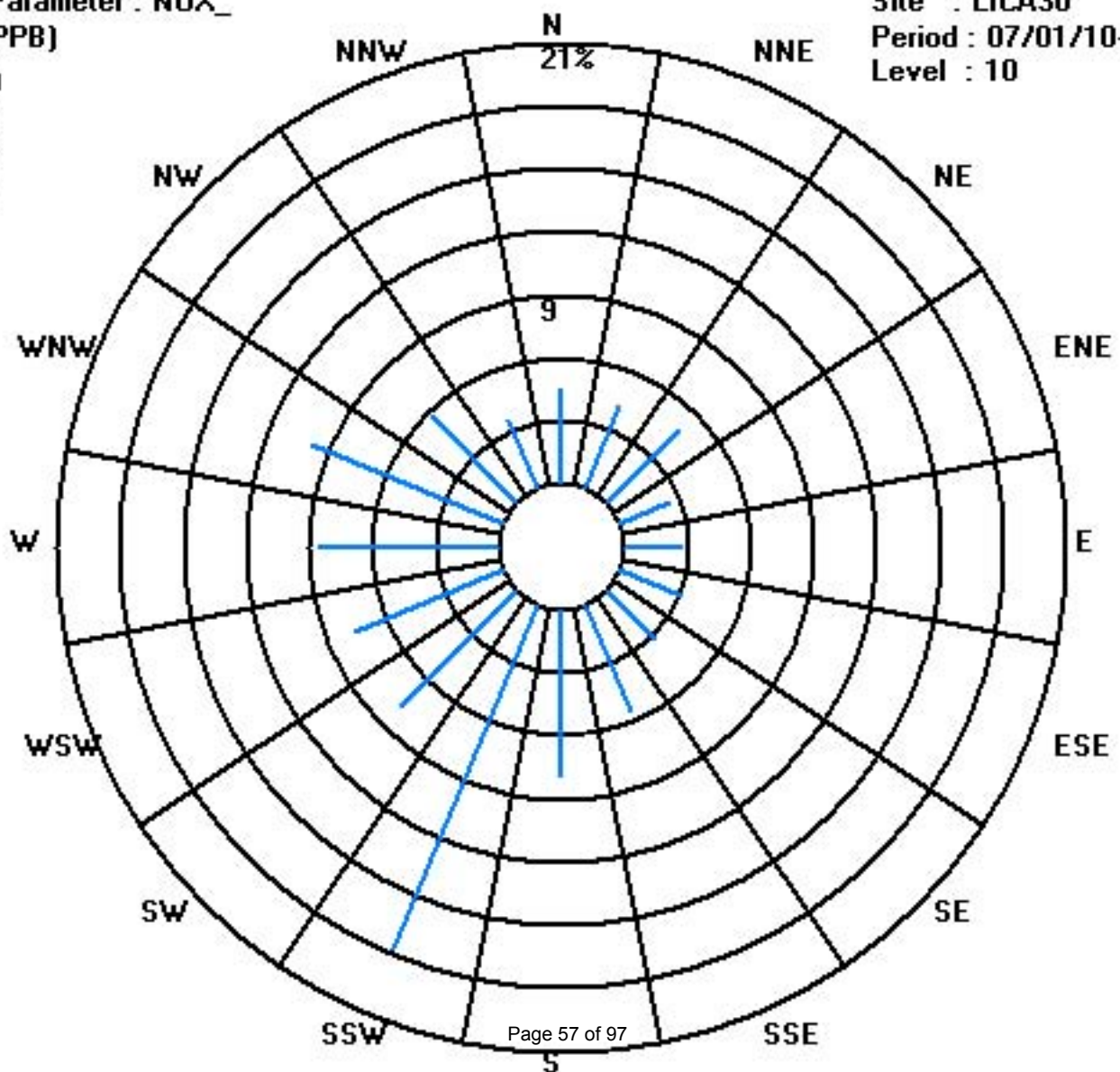
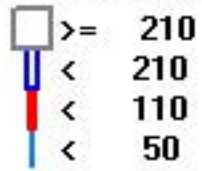
Calm : .00 %

Total # Operational Hours : 705

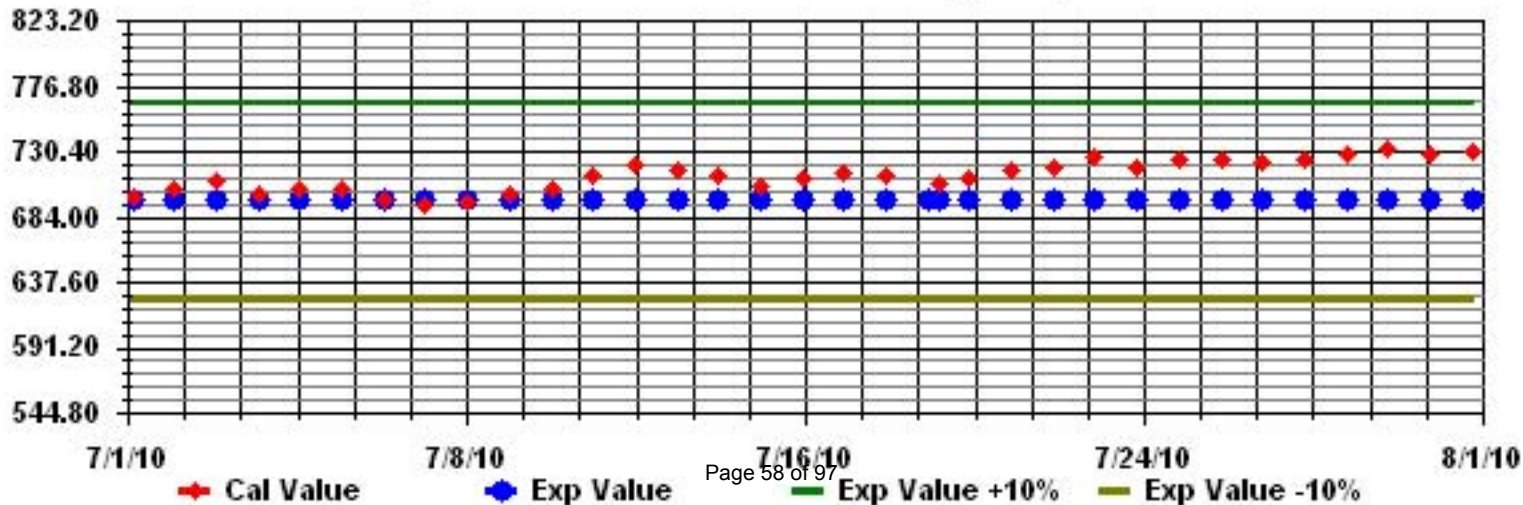
Class Limits (PPB)

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

Level : 10



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



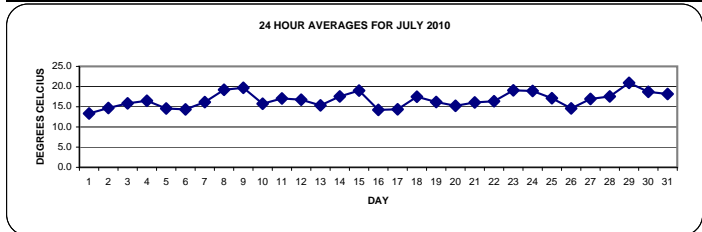
Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA
JULY 2010
AMBIENT TEMPERATURE hourly averages (Degrees C)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY 24-HOUR	RDGS.
DAY	HOURLY MAX	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	
1	8	7.2	6.9	6.3	6.5	8.5	10.7	12.5	14.3	16.1	17.5	18	18.9	19	19.7	19.5	18.9	18	17.3	15.4	13.5	11.7	8.6	7.1	19.7	13.3	24	
2	6	6.7	6.3	6.3	6.3	8.9	13.5	18.3	20	21.3	21.7	22.6	21.8	20.5	20.6	20.6	19.2	15.4	13.5	13.1	12.9	12.6	12.3	12.3	22.6	14.7	24	
3	12.3	11.6	11	10.3	10.3	11.4	13.5	16.4	17.9	18.6	18.4	18.9	18.3	17.8	18.9	20.3	19.3	19.1	19.4	17.8	15.7	14.4	14.4	14.4	20.3	15.9	24	
4	14.3	13.9	13.8	12.3	11.1	11.5	13.8	14.8	17.6	19.8	20.4	21.4	22.4	22.3	19.9	20.6	19.2	18.8	17.7	16.4	15.3	13.9	12.5	12	22.4	16.5	24	
5	12	11.4	11.3	11.2	11	11	11.3	11.7	12.9	14.5	15.9	17.9	18.8	19.4	18.7	18.8	18.2	18	15.9	16.2	15	13.5	13.1	12.2	19.4	14.6	24	
6	12.2	11.8	10.9	10.3	10	11.9	13.4	14.6	16.8	14.8	14.8	16.1	20.2	20.6	18.8	19.6	16.8	15.8	14.3	13.8	12.9	11.9	10.7	11.3	20.6	14.3	24	
7	10.6	11.1	11.3	10	9	9.7	12.5	14.9	16.4	18.4	19.2	19.5	21.4	21.4	21.7	22.5	21.6	21.3	20.6	19.7	16.5	14	12.2	12.2	22.5	16.2	24	
8	12.7	14.3	14.3	13.4	12.6	13.7	16.1	18.3	21.3	23.8	24.8	26.1	27.3	25.4	21.6	20.4	24.5	25	22.8	20.7	18.7	16.4	13.9	12.9	27.3	19.2	24	
9	12.2	12.2	11.9	11.3	11.3	13.7	17.6	21.4	23.8	24.8	26.3	26.8	28.1	28.1	26.3	22.6	23.3	23.9	22.1	19.6	17.7	16.5	15.9	15.3	28.1	19.7	24	
10	14.5	13.5	13.2	13.3	12.5	13.3	14.8	15.1	16.3	16.8	17.2	17.2	18.6	19.3	19.6	19.8	20	19.8	19.5	17.5	14.8	11.4	10.3	9.8	20.0	15.8	24	
11	8.8	8	7.4	6.9	7.1	9.6	13.4	17.6	19.8	21.4	22.5	22.2	22.8	23.8	23.1	22.9	22.6	22	21.8	19.9	17.6	16.3	15.8	16.1	23.8	17.1	24	
12	15.6	15.2	15.2	14.5	13.4	14.2	16.8	18	19.5	21.3	22.5	22.8	23.3	23.9	22	17.1	12.8	13.2	13.4	13.4	13.5	13.4	13.4	13.7	23.9	16.8	24	
13	13.9	13.8	13.6	13.6	13.7	14.2	14.7	15.2	14	14.3	15.9	16.7	17.5	18.6	18.6	18.7	18	17.5	14.9	14.6	14.4	14.2	13.9	13.8	18.7	15.3	24	
14	13.8	13.7	13.7	13.4	13.7	13.9	14.9	15.7	16.5	17.4	18.4	20.2	21.6	22.4	22.2	22.8	23.3	23	20.7	17.7	17.3	16.1	14.9	14.1	23.3	17.6	24	
15	13.8	13.4	12.6	12.7	12.8	13.1	15.4	17.5	20.3	22.7	24.7	25.6	26.1	26.6	26.7	26.7	26.6	26.8	23.6	16.6	13.7	12.8	13.1	12.2	26.8	19.0	24	
16	11.2	10.6	10.1	9.2	8.9	11.4	14.2	16.5	18.4	20.7	19.9	18	17.6	16	16	14.9	15.2	15.4	14.6	14.2	13.4	12.6	11.6	10.9	20.7	14.2	24	
17	10.2	10.4	10.3	9.6	9.7	10.2	12.7	15.4	16.4	17.7	17.8	17.1	16.6	16.9	16.4	16.6	16.5	17.5	17.6	16.2	14.1	13.2	12.8	13.1	17.8	14.4	24	
18	13	11.5	10.2	10.2	9.4	12.3	15.2	16.9	18.3	19.9	20.6	22.2	23.3	23.5	23	23.6	22.9	20.2	18.6	17.7	16	14.1	13.7	23.6	17.5	24		
19	13.1	13	12.6	12.5	12.6	13.1	13.7	15.4	17.5	20.9	20.5	20.3	21.6	22.2	19.9	18.9	19.1	17.9	18.4	16.9	13.4	12.3	11.5	11	22.2	16.2	24	
20	10.3	9.6	9	8.7	8.3	9	11	13.5	16.8	19.6	20.8	22.6	23.3	24.5	21.4	17.5	17.2	19.1	19.2	17.4	14.3	11.9	10.7	10	24.5	15.2	24	
21	9	8.4	7.8	7.6	6.9	8.6	12.2	17	19.6	21.2	22.4	23.5	23.6	23.5	24.2	23.6	19.5	19.8	18.3	15.8	16	13.2	12.8	11.1	24.2	16.1	24	
22	10.6	9.9	9.2	8.6	8.2	10.4	14.3	19.1	21.7	23.1	24.2	24.8	19.3	14.5	17.4	21.2	22.4	21.4	20.7	18.3	14.6	13.6	13	12.5	24.8	16.4	24	
23	11.8	11.2	10.6	10	9.4	11	14.7	18	21.8	24	24.2	24.4	25.1	25.7	25.9	25.7	25.4	23.9	21.7	18.3	16.9	16.4	15.7	25.9	19.1	24		
24	16.1	15.2	14.7	14.4	14	14.8	17.1	19.3	21.2	22.8	24.5	25.5	26.2	27	27.3	27.1	26	19.3	14.8	16.3	14.7	12.9	11.7	11	27.3	18.9	24	
25	10.4	10.5	9.9	9.3	9.4	10.8	13.5	17.4	20.2	21.6	22.3	23.2	23.5	24.1	24	24.2	23.9	23.3	22.2	19.5	14.9	12	10.7	10.1	24.2	17.1	24	
26	9.2	8.7	9.2	9.3	11.1	12.1	14.8	17.3	19.6	17.9	17.8	17.5	17.7	18.9	18.6	17.1	17.8	16	14.5	15.1	13.3	12.5	12.3	12	19.6	14.6	24	
27	12.3	11.7	11	10.2	9.9	10.8	12.5	15	17.2	18.6	21.3	22.3	22.4	23.8	24.6	23.5	22.9	23.3	22.1	19.2	15.7	13.3	12	11	24.6	16.9	24	
28	10.4	9.8	9	8.4	8.1	9.2	12	17.2	19.3	20.3	21.6	23.5	24	24.1	24.2	23.5	23.6	23.6	22.4	20.8	18.6	17.2	15.4	15.3	24.2	17.6	24	
29	13.9	13.1	12.6	12.6	12.4	13.3	17.5	20.2	21.7	23.4	24.9	26.5	27.7	28.6	29.6	28.6	28.1	28.6	27.6	23.1	19.5	17.6	15.9	15	29.6	20.9	24	
30	14.8	17.1	16.7	15.4	15.1	15	14.7	14.7	14.8	16.1	17.6	20.9	22	24.2	25.5	25.1	24.7	24.2	23.2	20.4	17.6	16.8	16	16.1	25.5	18.7	24	
31	16.6	16.5	15.2	13.9	13.7	12.8	15.4	16.8	19.2	21.9	21.8	23.4	23.3	19.4	20.5	22.9	23.6	22.9	21.7	18.9	15.7	14.1	13.2	12.5	23.6	18.2	24	
HOURLY MAX	16.6	17.1	16.7	15.4	15.1	15.0	17.6	21.4	23.8	24.8	26.3	26.8	28.1	28.6	29.6	28.6	28.1	28.6	27.6	23.1	19.5	17.6	16.4	16.1				
HOURLY AVG	12.1	11.8	11.3	10.8	10.6	11.7	14.1	16.5	18.4	19.9	20.7	21.5	22.1	22.1	21.9	21.5	21.1	20.6	19.3	17.6	15.5	14.0	13.1	12.6				

STATUS FLAG CODES

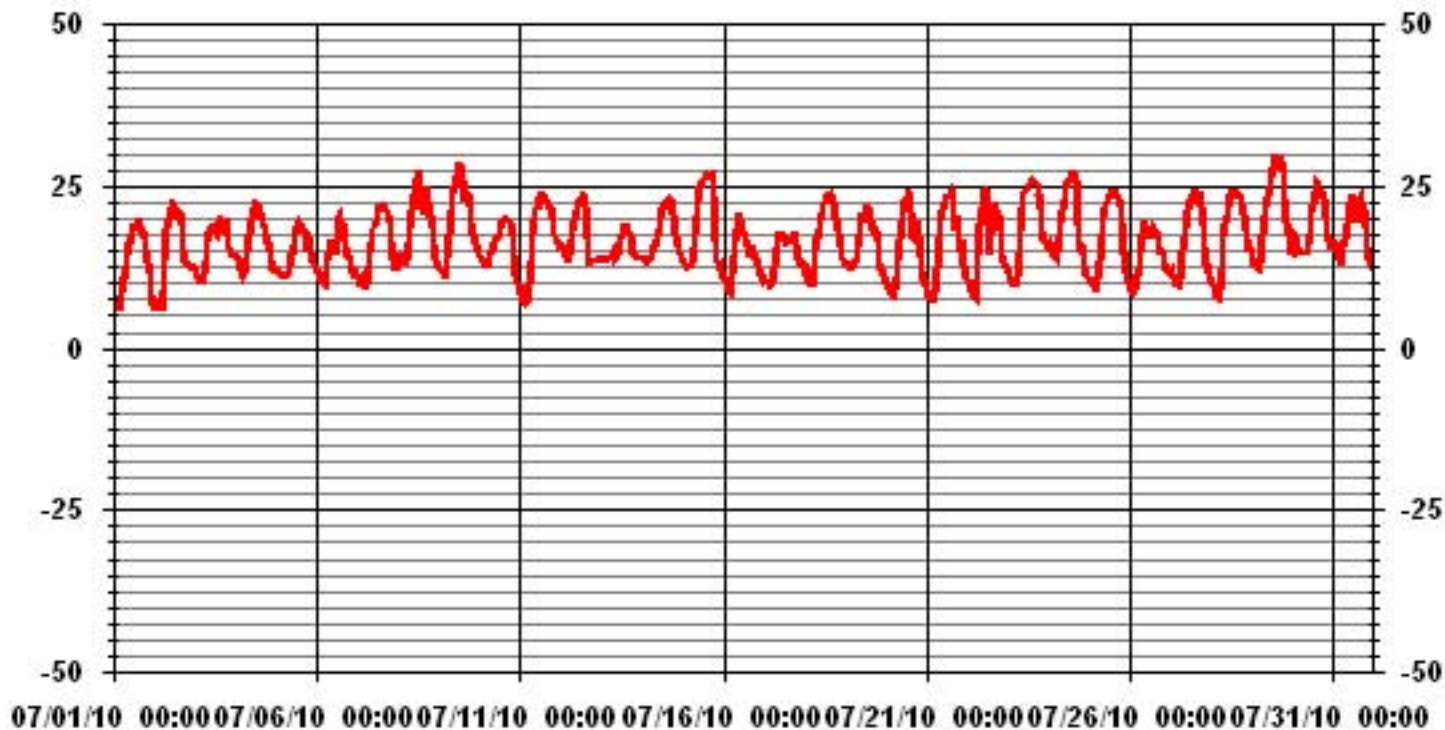
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	6 °C	@ HOUR(S)	0	ON DAY(S)	2
MAXIMUM 1-HR AVERAGE:	29.6 °C	@ HOUR(S)	14	ON DAY(S)	29
MAXIMUM 24-HR AVERAGE:	20.9 °C			ON DAY(S)	29
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
STANDARD DEVIATION:	4.99		AMD OPERATION UPTIME:	100.0	%
			MONTHLY AVERAGE:	16.70	°C

01 Hour Averages



Precipitation

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

PRECIPITATION hourly averages (mm)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY MAX.	DAILY TOTAL	RDGS.
DAY	DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1.0	1.0	24
3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
5	5	0.2	0.8	0.3	0.3	0.5	0.2	0.3	0.6	0.1	0	0	0	0	0	0.6	0.2	0	0	0	0	0	0	0	0	0	0.8	4.1	24
6	6	0	0	0	0	0	0	0	0	0.1	0.1	0.7	0.2	0	0	0.5	0	0.4	0.1	0.8	0	0	0	0.1	0	0.8	3.0	24	
7	7	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	24	
8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6	0.1	0	0	0	0.1	0	0	0	0	2.6	2.8	24	
9	9	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	24	
10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
13	13	0	0	0	0	0	0.2	0.9	2.2	21.1	0	0.1	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	21.1	25.2	24
14	14	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.5	3.2	0	0.5	0.1	0	11.5	16.0	24	
15	15	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	5.9	0.7	0	0	0.1	5.9	6.8	24	
16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0.3	0.3	24	
17	17	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	24
18	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
19	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0.1	0.4	0.5	24	
21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0.1	0.1	24
22	22	0	0	0	0	0	0	0	0	0	0	0	1.8	4.5	0	0	0	0	0	0	0	0	0	0	0	4.5	6.3	24	
23	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
24	24	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23.2	2.9	0.1	0	0	0	0	23.2	26.3	24	
25	25	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	24	
26	26	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0.6	0.1	0	0	0	0	0	0.6	0.8	24	
27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
28	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
29	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
30	30	0	0	0.6	1.9	5	4.7	4	0.7	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	17.2	24	
31	31	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0.2	0.1	0	0	0	0	0	0	0	0	0.1	2.3	2.7	24	
HOURLY MAX		0.2	2.3	0.7	1.9	5.0	4.7	4.0	2.2	21.1	0.1	0.7	0.2	1.8	4.5	2.6	7.1	4.6	23.2	11.5	8.6	8.9	3.7	1.4	0.1				

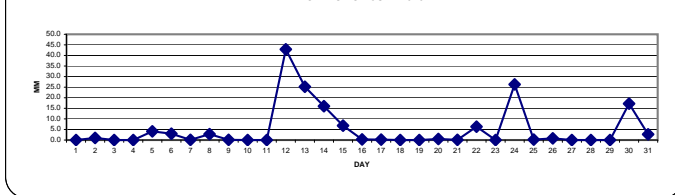
STATUS FLAG CODES

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

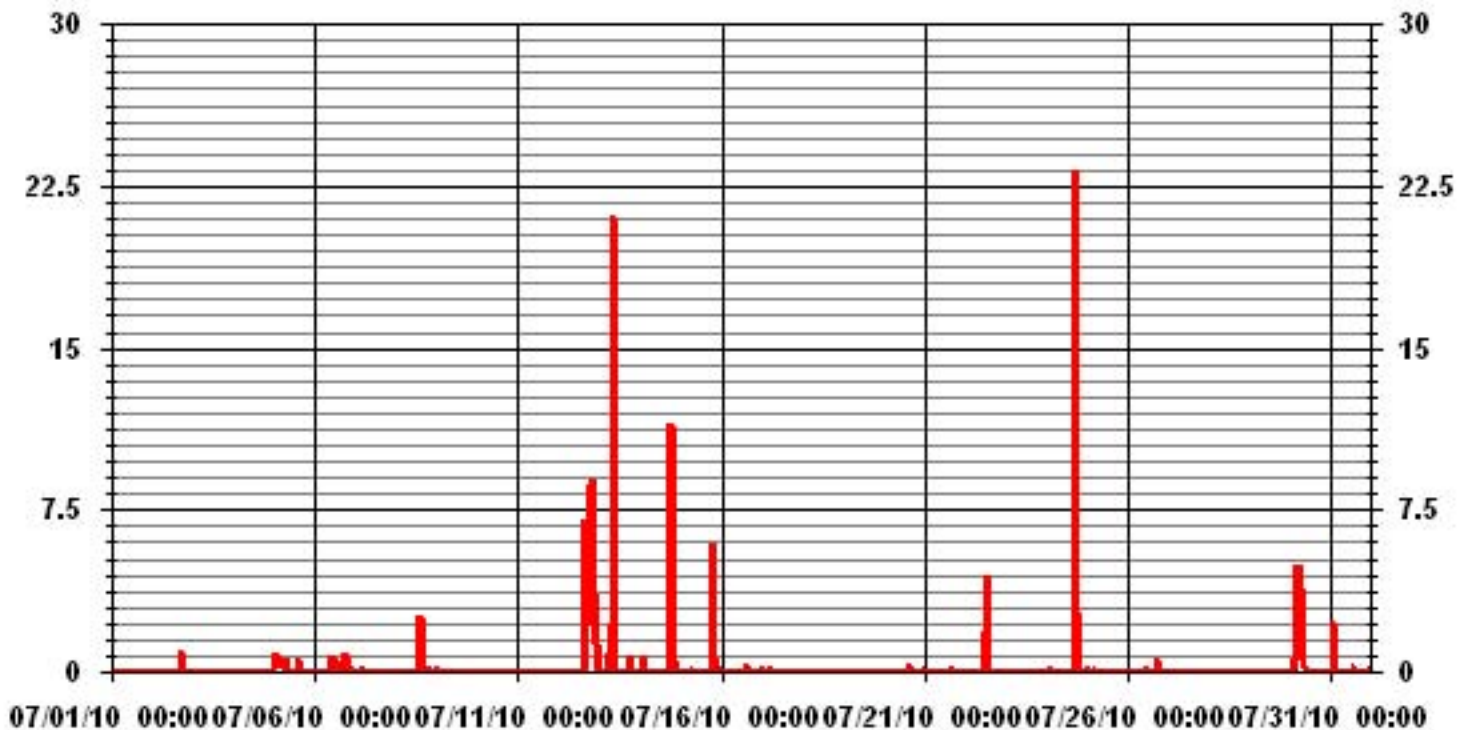
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	23.2	MM	HOUR(S)	17	ON DAY(S)	24
MAXIMUM DAILY TOTAL	42.9	MM			ON DAY(S)	12
MONTHLY TOTAL	156.6	MM				
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS	
STANDARD DEVIATION:	1.44		AMD OPERATION UPTIME:	100.0	%	
			MONTHLY AVERAGE:	0.21	MM	

DAILY TOTALS FOR JULY 2010



01 Hour Averages



Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

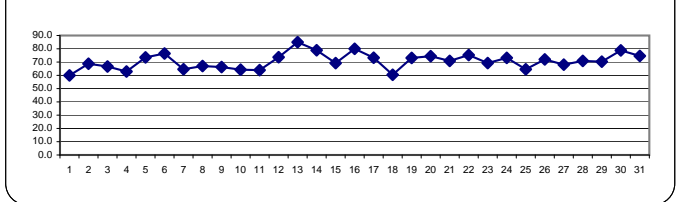
RELATIVE HUMIDITY hourly averages (%)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
1	1	84	87	88	88	87	80	71	66	59	46	41	38	36	34	31	35	36	41	47	53	60	65	80	86	88	60.0	24
2	2	89	88	90	90	91	84	69	54	49	45	47	44	45	50	51	53	57	65	76	79	82	83	85	84	91	68.8	24
3	3	81	84	87	89	87	82	75	65	60	57	56	55	57	60	57	51	53	53	52	59	68	72	70	69	89	66.6	24
4	4	70	74	72	79	87	87	78	72	61	52	48	45	41	41	49	47	52	53	54	59	63	69	76	80	87	62.9	24
5	5	84	89	89	89	89	89	88	88	86	80	74	67	58	54	55	59	65	57	62	63	64	70	70	75	89	73.5	24
6	6	76	79	83	85	85	79	75	72	65	76	78	76	61	54	61	58	69	72	83	85	88	91	92	92	92	76.5	24
7	7	92	92	92	92	90	77	67	56	52	50	48	43	41	41	37	40	42	42	53	68	78	84	81	92	64.6	24	
8	8	80	76	79	84	87	82	72	66	60	50	47	41	36	41	57	69	59	49	57	71	80	83	90	92	92	67.0	24
9	9	92	93	93	93	93	92	79	65	56	48	46	42	35	31	40	54	51	49	53	65	77	80	80	83	93	66.3	24
10	10	86	88	89	87	86	81	72	64	59	52	50	48	42	40	42	42	43	44	47	54	67	82	87	90	90	64.3	24
11	11	91	92	92	92	92	92	81	66	55	52	47	46	44	42	43	47	49	49	49	56	63	64	66	64	92	63.9	24
12	12	65	66	66	69	74	72	66	64	62	60	59	60	59	58	65	76	90	89	90	91	92	92	92	91	92	73.7	24
13	13	90	91	91	91	91	91	91	91	90	89	87	83	79	71	70	68	70	75	87	87	90	89	89	88	91	85.0	24
14	14	88	89	89	91	91	90	87	84	80	77	73	66	62	62	60	61	62	63	73	85	87	90	92	92	92	78.9	24
15	15	93	93	93	93	93	93	88	76	64	55	49	40	32	31	31	31	32	45	74	88	92	91	91	92	93	69.2	24
16	16	92	93	93	93	93	91	82	76	67	61	61	58	56	66	69	79	79	80	85	87	89	88	91	91	93	80.0	24
17	17	92	92	90	91	90	89	82	72	64	58	57	60	62	61	64	63	66	61	60	65	76	81	82	80	92	73.3	24
18	18	80	84	88	87	88	76	65	58	54	51	50	45	40	38	38	38	36	40	53	59	61	68	75	78	88	60.4	24
19	19	80	82	85	83	83	82	82	80	75	57	60	59	53	51	58	67	62	65	62	70	86	90	91	92	92	73.1	24
20	20	92	92	92	92	92	92	92	86	74	60	53	45	42	41	50	67	71	63	63	70	83	90	92	92	92	74.4	24
21	21	92	92	92	92	92	92	86	74	65	56	51	47	47	46	40	41	55	58	69	82	75	84	84	89	92	70.9	24
22	22	91	90	92	92	92	89	80	70	61	57	55	54	68	80	80	72	58	55	55	65	82	88	90	91	92	75.3	24
23	23	92	92	92	92	92	92	84	72	59	53	54	55	52	48	47	45	47	48	54	63	77	83	83	86	92	69.3	24
24	24	85	89	90	90	91	87	80	72	64	60	56	50	48	46	45	45	49	66	89	86	91	92	92	93	93	73.2	24
25	25	93	93	93	93	93	93	93	83	63	51	43	40	35	34	34	35	36	37	38	47	66	80	87	89	93	64.5	24
26	26	90	92	90	90	85	83	76	69	63	61	60	61	60	59	61	56	58	66	71	67	73	78	79	80	92	72.0	24
27	27	79	83	85	87	88	86	80	73	68	64	54	50	48	44	40	44	48	47	52	63	79	88	91	92	92	68.0	24
28	28	92	92	92	92	92	93	89	72	64	61	59	50	48	49	49	52	53	55	59	66	73	78	85	86	93	70.9	24
29	29	91	92	92	93	93	93	82	71	66	63	60	56	52	50	46	49	52	46	49	67	72	78	86	88	93	70.3	24
30	30	89	78	79	89	89	90	91	91	91	88	84	72	70	59	56	57	58	62	69	81	90	86	87	85	91	78.8	24
31	31	85	86	91	92	92	92	87	81	73	64	63	54	53	66	65	54	50	52	59	72	85	90	92	92	92	74.6	24
HOURLY MAX		93	93	93	93	93	93	93	91	91	89	87	83	79	80	80	79	90	89	90	91	92	92	92	93			
HOURLY AVG		86.3	87.2	88.0	89.0	89.4	87.2	80.8	73.3	66.0	60.2	57.4	53.7	50.7	50.0	51.5	53.3	55.0	55.9	61.4	69.2	77.3	82.0	84.9	85.9			

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

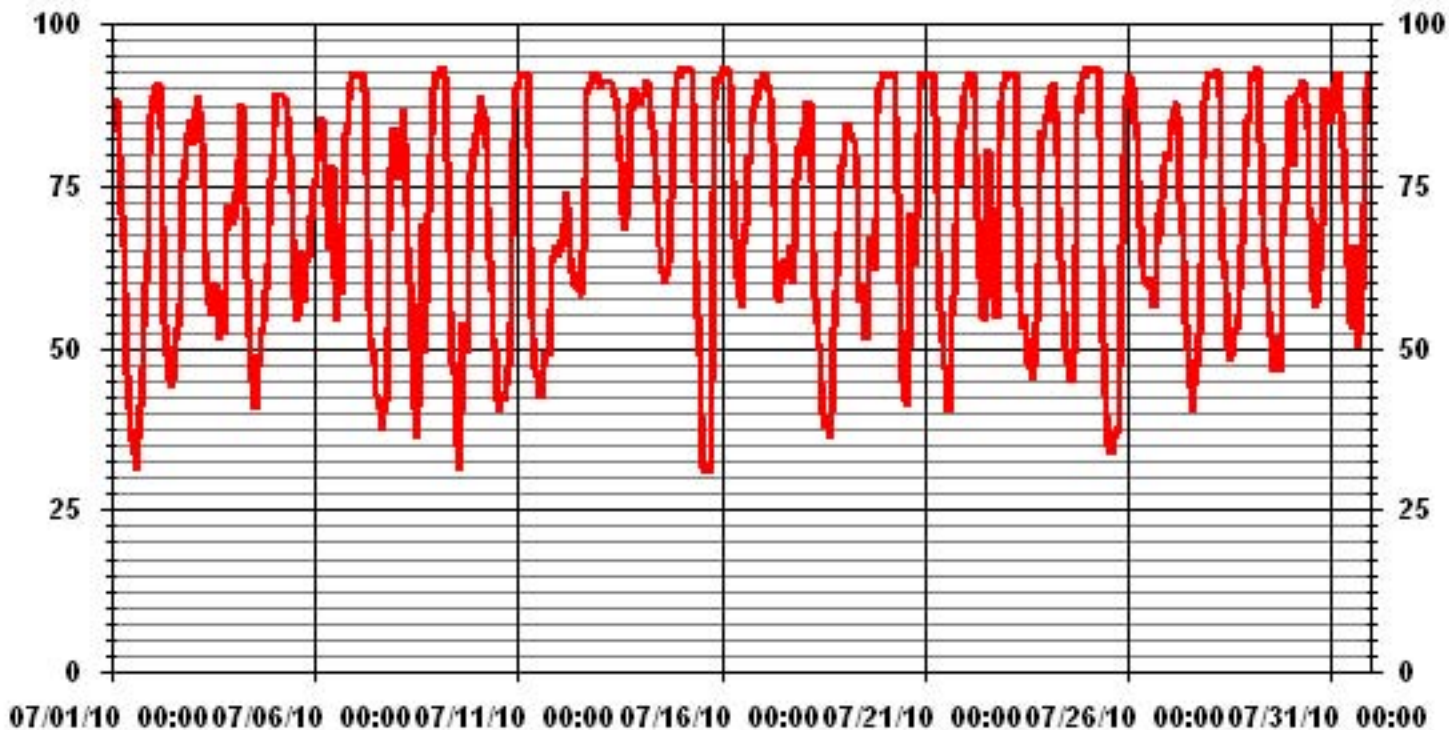
24 HOUR AVERAGES FOR JULY 2010



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	93	%	@ HOUR(S)	VAR	ON DAY(S)	VAR
MAXIMUM 24-HR AVERAGE:	85.0	%			ON DAY(S)	13
					VAR-VARIOUS	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS	
			AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	17.62		MONTHLY AVERAGE:	70.64	%	

01 Hour Averages



— LICA30 RH %

Barometric Pressure

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

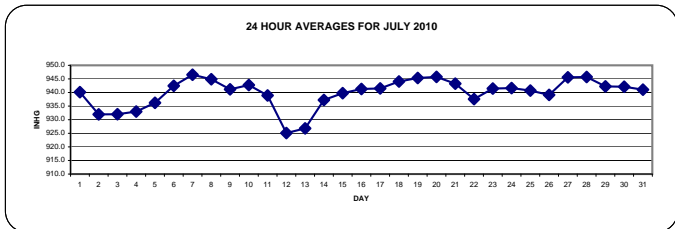
JULY 2010

BAROMETRIC PRESSURE hourly averages (milliBar)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
1	940	940	941	941	941	942	943	943	943	943	943	942	942	941	941	940	939	939	938	938	937	936	935	935	943	940.1	24		
2	934	934	934	933	933	933	933	933	933	933	933	932	932	932	932	931	931	930	930	930	930	931	930	930	930	934	932.0	24	
3	930	930	930	930	930	931	931	932	932	932	932	932	933	933	933	933	933	933	933	933	933	933	933	933	933	933	932.0	24	
4	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933.0	24	
5	933	933	933	933	933	933	934	934	935	935	936	937	937	937	937	937	938	938	938	939	939	940	940	940	940	940	936.2	24	
6	940	941	940	941	941	942	942	943	943	942	943	943	943	943	942	943	943	943	943	943	943	944	944	944	944	944	942.5	24	
7	944	944	945	945	945	946	946	947	947	948	948	948	948	948	948	947	947	947	947	947	947	947	946	946	946	948	946.5	24	
8	946	946	946	945	945	945	946	945	946	946	946	945	945	945	944	944	944	944	944	944	944	944	944	944	943	946	944.9	24	
9	943	943	943	943	942	942	943	943	943	942	942	942	941	941	940	940	940	939	939	939	939	939	940	940	940	943	941.2	24	
10	940	940	940	940	941	941	942	943	943	943	944	944	944	944	944	944	944	944	944	944	944	944	944	944	944	943	943	942.8	24
11	943	943	943	942	942	942	942	943	943	942	942	941	940	939	938	938	937	936	935	934	933	933	932	931	943	938.9	24		
12	930	929	929	928	927	927	927	927	926	926	926	925	925	924	924	925	923	923	923	922	923	923	922	921	920	930	925.1	24	
13	921	922	922	922	922	922	922	922	923	923	924	925	925	926	928	928	929	930	931	932	932	933	934	935	935	935	926.8	24	
14	935	935	935	936	936	936	937	937	937	938	939	939	939	938	938	938	938	937	937	937	938	938	938	938	938	938	937.3	24	
15	938	938	938	939	939	939	939	939	940	941	941	940	940	940	940	940	940	940	941	941	941	941	940	941	940	941	939.8	24	
16	940	940	940	940	940	941	942	943	942	942	943	943	943	942	942	942	942	942	942	942	942	942	942	943	943	943	941.5	24	
17	940	941	940	941	941	940	940	941	941	941	941	942	942	942	942	942	942	942	942	942	942	942	942	943	943	943	941.5	24	
18	943	943	943	943	943	943	944	945	945	945	945	945	945	945	944	944	944	944	944	944	944	944	944	944	944	945	944.0	24	
19	944	944	944	944	944	945	945	945	946	946	946	946	946	946	946	946	946	946	946	946	946	946	945	945	946	945.3	24		
20	945	945	945	945	945	945	946	946	947	947	947	947	947	946	946	945	945	946	946	946	946	946	945	945	945	947	945.8	24	
21	945	944	944	944	944	944	945	945	945	945	945	945	944	944	943	943	942	942	942	941	941	941	940	940	940	945	943.3	24	
22	939	938	938	938	938	938	938	938	939	938	938	938	938	938	937	937	937	937	936	937	937	937	937	937	937	939	937.6	24	
23	937	937	938	938	938	939	940	941	942	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	941.5	24	
24	943	943	943	943	943	943	943	943	943	943	942	942	941	941	940	940	939	941	941	941	941	940	940	940	940	943	941.6	24	
25	941	941	941	941	941	941	941	942	942	942	942	942	941	941	941	940	940	940	940	940	940	940	939	939	939	942	940.7	24	
26	939	938	938	938	938	938	938	938	938	939	939	939	939	939	939	939	939	939	939	939	940	941	941	942	942	942	939.1	24	
27	942	943	943	943	944	944	945	946	946	946	947	947	947	947	947	947	947	947	947	947	946	946	946	946	946	947	945.6	24	
28	946	946	946	946	945	946	947	947	947	947	947	947	947	947	946	946	946	945	945	944	944	944	943	943	947	945.7	24		
29	943	943	943	942	942	942	943	943	943	943	943	943	943	943	942	942	942	942	941	942	941	941	941	941	941	943	942.3	24	
30	940	941	942	943	943	943	943	943	942	942	943	943	943	943	943	943	942	942	942	942	941	941	941	941	941	943	942.1	24	
31	941	941	941	941	940	940	940	941	941	942	942	942	942	942	941	941	941	941	941	941	941	940	941	941	941	942	941.0	24	
HOURLY MAX	946	946	946	946	945	946	947	947	947	948	948	948	948	948	948	947	947	947	947	947	947	947	946	946	946				
HOURLY AVG	939	939	939	939	939	940	940	940	941	941	941	941	941	940	940	940	940	940	940	940	940	940	940	940	939				

STATUS FLAG CODES

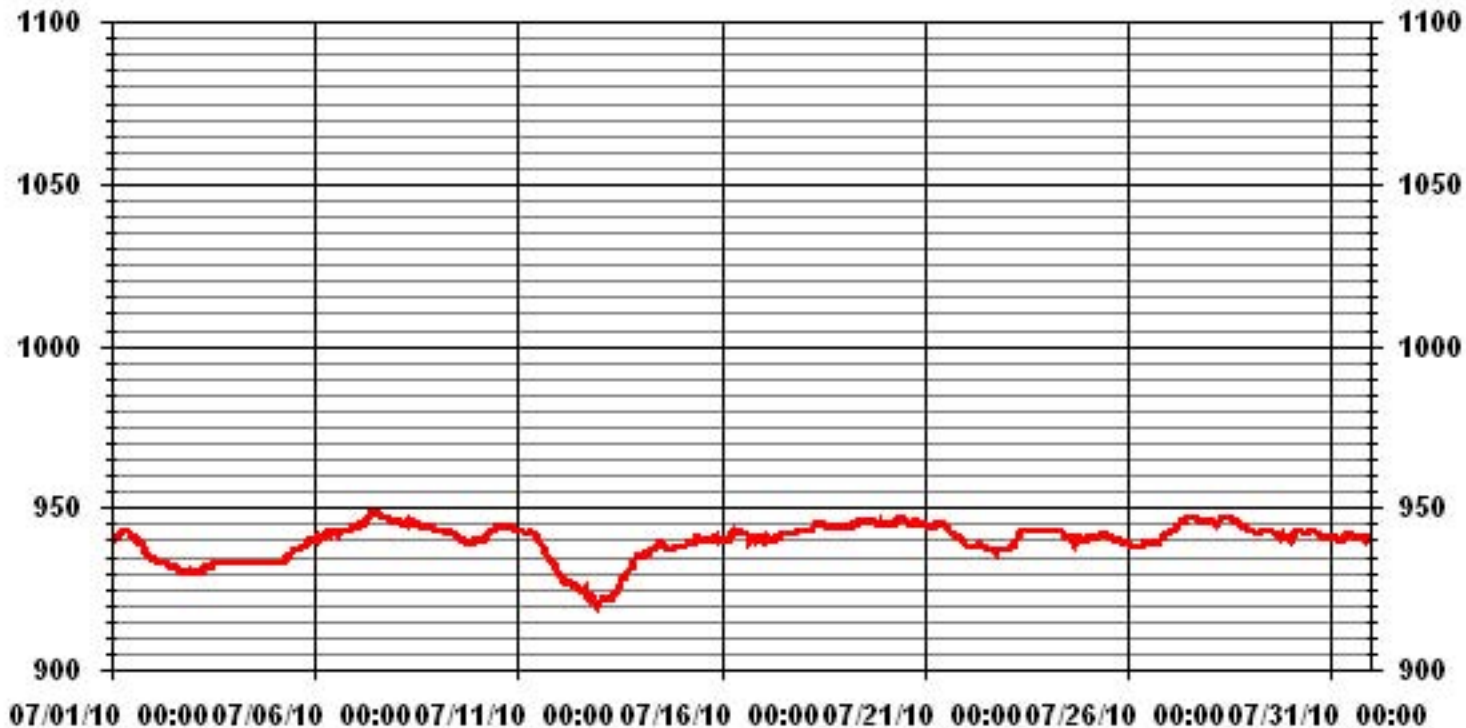
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	948 MB	@ HOUR(S)	VAR	ON DAY(S)	7
MAXIMUM 24-HR AVERAGE:	946.5 MB			ON DAY(S)	7
				VAR-VARIOUS	
CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	744 HRS		
		AMD OPERATION UPTIME:	100.0 %		
STANDARD DEVIATION:	5.54	MONTHLY AVERAGE:	940 MB		

01 Hour Averages



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

WIND SPEED hourly averages (km/hr)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOURLY MAX	HOURLY AVG	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																												
1		5	6.4	7.4	6.2	6.5	6.8	5.3	5.4	6.4	6.9	6.8	7.8	7.9	10.8	8.9	9	7.8	4.5	5	3.4	4.1	3.3	0.8	1	10.8	5.7	24
2		1	0.1	0.3	1.9	0.7	1	1.9	3.5	2.9	3.1	4.6	2.4	3.5	3.9	2.7	2.8	5.8	4.2	7.3	7.6	6.7	7	4.9	5.4	7.6	2.8	24
3		8.5	6	5.7	5.2	4.6	4.5	4.5	4.6	5.9	7.4	8.9	7.9	7.4	6.1	6.7	7.6	6.7	8.3	8.2	5.4	3.4	4.3	4.9	5.8	8.9	5.5	24
4		6	5.5	4.5	3.4	6.1	6.6	5.3	6.1	5	6	7	8.4	7.9	7.2	9.6	7	6.9	5.3	6.9	4.2	4.3	3.4	3.5	3.3	9.6	5.3	24
5		4.7	3.8	4.7	5.2	5.9	5	3.4	3.3	4.4	5.6	5.5	4.9	6	5.9	5.5	4.1	5.1	9.3	6.3	4.5	6.2	6.6	7.7	5.3	9.3	4	24
6		5.9	5.6	5.1	5.3	4.5	5.7	5.7	5.1	6.5	4.7	4.5	4.5	6.3	6.1	5.8	10.5	6.9	5.3	4.6	3.6	1.9	2.4	1.7	2.8	10.5	4.7	24
7		1.8	2.6	2.9	3.2	1.8	1.4	3.7	3.8	4.7	3.7	5.7	5.9	5	5.4	6.3	7.4	6.7	5.3	5.3	1.3	2.4	3.9	3.4	3.9	7.4	2.6	24
8		4.6	4.8	5.8	6.7	2.9	4.3	5.5	3.2	3.3	6.6	5.6	6.1	4.6	3.7	4.8	0.9	0.8	4	5.4	2.6	1.7	2.5	0.9	1.9	6.7	1.8	24
9		1.8	2.6	1.2	1.3	1.1	0.9	3	4	5.3	6.4	6.3	6.4	6.5	7.1	4.7	8	5.2	4.9	2.8	1.7	1.3	2.2	1.6	0.6	8	1.1	24
10		0.3	1.8	1.3	3.3	6.4	6.6	5.8	7.6	8.7	10.9	10	8.6	8.7	8.8	6.9	6.4	7.3	6	5.4	3.5	1	2.1	1.6	2.3	10.9	4.8	24
11		1.9	1.3	1.6	1.8	0.4	2.9	3.1	3.9	5.4	6	7.4	6.5	9.6	8.9	10.5	10.4	10.6	9.1	8.3	6.1	6	7	8.3	9	10.6	5.7	24
12		9.2	9.5	8.6	4.8	3.8	4.5	6.3	8.5	8	7.8	8.2	6.9	8.8	10.9	8.2	3.5	5.6	3.7	3.8	1.7	2.6	2.4	8.4	8.3	10.9	4.3	24
13		4.3	2.3	2.8	5.8	8.9	12.7	13.1	11.1	9.6	6.6	10.5	10.8	14.2	15.1	17.1	15.7	11.7	7.8	6.5	3.3	3	2.6	2.3	2.6	17.1	7.7	24
14		1.8	1.7	2.8	2.8	3	3	3.3	3.7	2.4	1.8	2.7	3	4.5	5.5	7	5.9	6.2	7.1	4	2.2	4.2	1.6	2.7	1.8	7.1	2.3	24
15		2.3	1.2	1.3	0.4	1.1	1.5	2	2.5	3.5	1.4	3.3	5.5	6.9	7.7	7.7	7.9	6.1	4.7	2	10.4	1.4	2.9	1.9	3	10.4	2.7	24
16		4	3.3	2.3	2.1	0.3	1.4	4.7	3.6	3.6	4	7.4	6.2	5.6	3.6	4.1	3.5	1.8	1.6	1.7	0.9	3.9	4.1	3.2	2.3	7.4	2.4	24
17		1.9	3.8	3.1	2.9	4.4	2.9	5.6	7.4	11	12.2	11.3	9.8	9.7	8.8	7.8	7.5	6	7.4	7.7	5.3	3.1	3	3.2	3	12.2	6	24
18		2.7	3	2.5	3.1	2.3	3.9	3.9	6.4	6	6.5	7.2	6	6	6.7	7.9	6.4	6.5	3.2	2.2	3.4	2.9	1.5	1.7	1.4	7.9	3.3	24
19		0.6	0.9	1.8	2.1	2.7	2.5	1.5	2.6	2.3	3.1	5.3	5.2	3.3	4.7	4.2	4.5	6.6	8.5	6.7	1.4	2	0.9	0.9	1.2	8.5	1.1	24
20		0.7	0.7	0.7	0.5	1	1.5	0.5	2	1.3	0.4	2.7	2.6	4	1.6	5.6	6.6	2.5	3.6	4.9	3.7	1.5	1.1	1.7	1.1	6.6	0.5	24
21		1.2	1.4	0.4	0.7	0.2	0.5	1.2	1.6	2.4	3.7	3.8	4	6.3	6.4	6.6	1.7	3.5	1.7	0.7	1.9	2.8	2	3.1	1.9	6.6	1.2	24
22		2.7	1.5	1.4	2.6	1.1	2.6	3.2	2.6	5.2	6.4	7.7	8.4	8.2	6	4.5	5.1	9.9	7.1	2.8	4.6	2.9	3.3	1.9	1.7	9.9	3.4	24
23		1.6	0.5	0.6	1.4	0.5	0.9	1.9	3.9	2.3	1.8	4.7	6.3	6.2	6.7	6.2	5.7	5.4	5.4	6.9	5.2	3.6	4.6	5.5	5	6.9	2.9	24
24		6.5	6	6.2	6.2	5.8	6.2	7	7.9	8.3	9.5	9.4	10.8	11	10.9	12.2	13	11.1	3.4	2.8	0.6	3.5	0.2	1.6	1	13	6.1	24
25		0.9	1.3	0.7	1.7	1	1.9	1.6	1.7	3.6	4.8	7.3	6.1	7.7	6.9	7.5	6.2	6.2	5.8	5.3	2.8	2.2	3.3	2.6	1.2	7.7	3	24
26		1.6	2.5	3.4	3.8	5.7	6.4	6.9	7.5	7.4	7.8	5.8	6.2	7.4	8.3	7.1	9.1	6.9	6.4	4.1	7.2	6.3	6.6	6.5	4.9	9.1	4.6	24
27		6.9	5.8	5.3	5.6	4.9	4.7	5.7	5.1	5.1	4.9	6.6	5.7	5.7	4.9	3.6	2.4	3.7	4	3.6	2.9	3	2.8	2.6	2	6.9	3.6	24
28		2.2	1.3	1	0.6	0.6	0	1.8	0.9	5.7	7.1	6.4	8.1	7.9	6.7	8.1	7.1	6.4	7	5	2.8	3.5	2.9	2.1	2.3	8.1	3.7	24
29		1.6	1.2	1	1.5	0.3	0.7	2.5	6.4	7.9	7.6	7.6	6	5.9	5.9	3.9	3.6	3.3	1.2	1.4	0.5	2.2	1.8	1.5	0.7	7.9	2.4	24
30		0.2	7.7	6.5	6	3.1	2.6	3.4	2.6	4.3	1.7	2.6	4.6	7.2	5	3.9	5.5	5.8	4.6	2.9	2.3	2.8	3.6	3.3	3.5	7.7	2.5	24
31		4.7	3.5	1.8	2.7	4.1	0.5	4.8	6.4	4.6	3.8	6.5	7.6	5.6	8.3	1.5	2.6	4.7	5.2	4.8	2.3	1.3	2.1	1.9	1	8.3	2	24
HOURLY MAX		9.2	9.5	8.6	6.7	8.9	12.7	13.1	11.1	11.0	12.2	11.3	10.8	14.2	15.1	17.1	15.7	11.7	9.3	8.3	10.4	6.7	7.0	8.4	9.0			
HOURLY AVG		3.2	3.2	3.1	3.3	3.1	3.4	4.1	4.7	5.3	5.5	6.4	6.4	7.0	6.9	6.7	6.4	6.1	5.3	4.7	3.5	3.2	3.2	3.2	2.9			

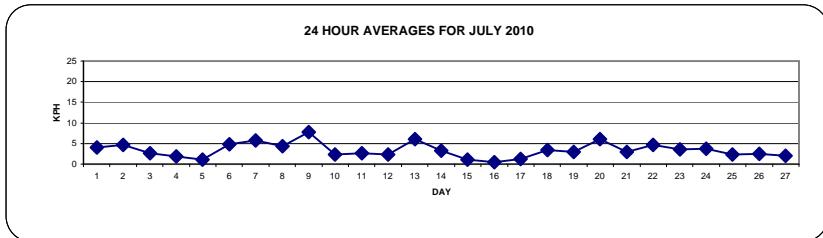
STATUS FLAG CODES

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

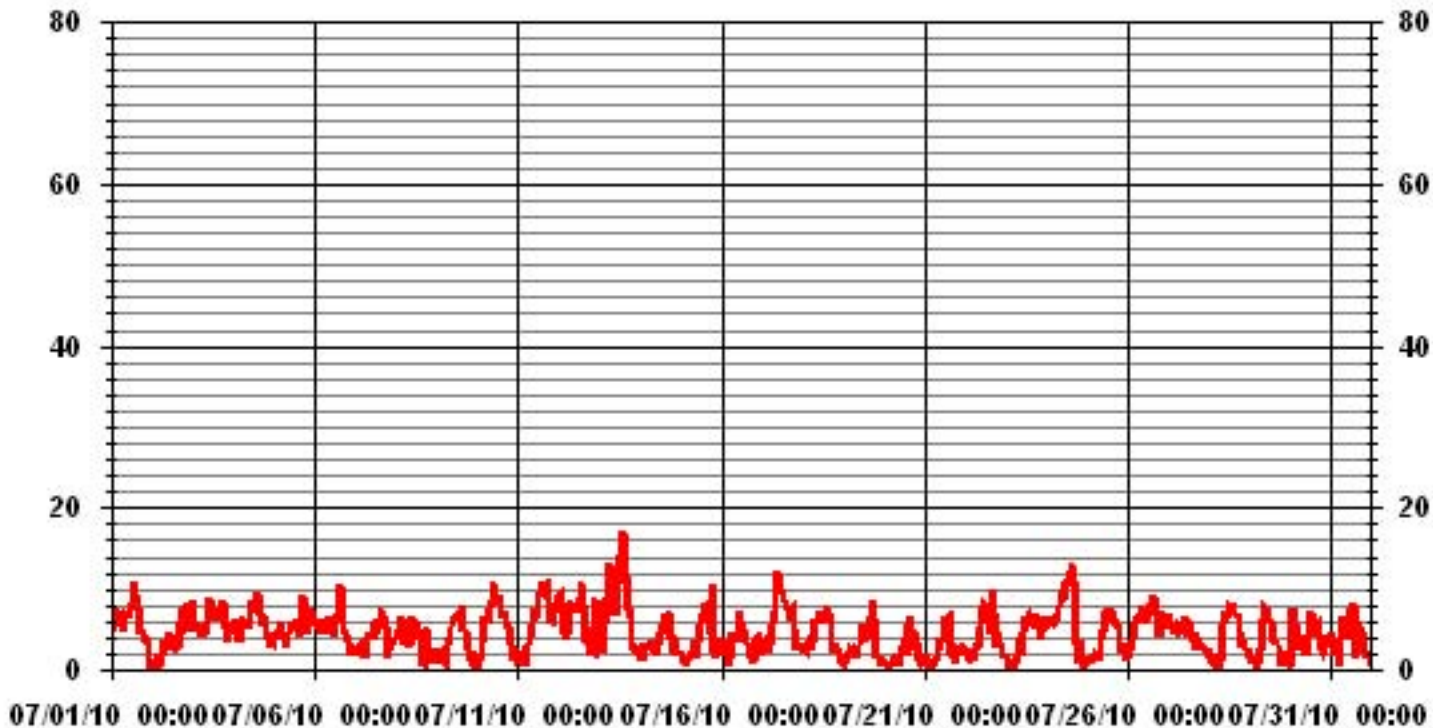
LAST CALIBRATION: February 4, 2009

MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	17.1	KPH	@ HOUR(S)	14	ON DAY(S)	13
MAXIMUM 24-HR AVERAGE:	7.7	KPH			ON DAY(S)	13
CALMS (≤ 1 KPH)	4.97	%	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME	100.0	%	
STANDARD DEVIATION	2.75		MONTHLY AVERAGE	4.61	KPH	



01 Hour Averages



— LICA30 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY
HOUR START		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	MAX.
DAY																										
1		14.2	13.3	15.5	13.8	16.6	18.7	20.2	14.2	18.7	24.7	25.2	29.2	27.9	29.2	29.2	27.7	27.5	15	11.4	8.8	10.3	9.4	6.1	4.3	29.2
2		11	2.4	2.6	4.5	2.8	9.3	4.5	17.9	14.8	15.1	18.5	14	16.6	11.6	7.8	12.9	24.3	33.3	21.3	19.2	16.6	17.9	10.6	13.3	33.3
3		21.3	13.3	10.6	10.3	11.8	10.1	17.6	20	28.6	35.7	33.3	37.6	34.8	32.5	29	37	34	43.6	34.8	30.3	20.6	18.3	22.8	27.5	43.6
4		25.8	22.4	35.5	18.1	14.6	13.3	17	16.8	24.5	29.2	30.1	36.5	40.8	32.7	48.6	38.3	35.3	35.5	32.5	22.8	22.6	21.7	17.9	20.8	48.6
5		26.8	25.2	27.5	26.5	30.1	23.5	18.9	10.6	13.8	16.8	18.5	20.4	25.4	21.7	39.1	16.6	31.2	55.2	31	20.2	26	25.2	34.8	22.2	55.2
6		26.5	23.2	25	22	22.4	23.2	21.5	24.9	24.5	21.2	20.8	23.7	32.7	26	34.8	47.3	35.5	23.2	25.6	21.1	9.5	9.7	6.3	9.5	47.3
7		10.3	18.3	14.6	7.8	5.2	5.2	9	15.7	19.2	18.1	23.2	26	21.3	21.1	30.1	28.8	27.3	24.9	24.7	101.2	8.2	8	7.5	8	101.2
8		12	12.6	16.3	14.8	8.8	22.4	24.7	17.6	18.5	39.3	27.3	37.4	29.9	23.4	44.1	12.7	17.2	24.1	19.6	13.3	21.1	16.1	6.5	5	44.1
9		4.1	8.8	6	4.3	3.2	6.3	11.8	12.9	17.9	25.8	21.7	24.9	28.8	38.7	33.1	23	16.8	18.9	18.3	13.8	13.1	13.3	10.8	4.5	38.7
10		3.6	6.5	6	16.3	25	22.6	16.4	24.1	27.1	27.5	27.7	28.2	37.4	32	32.7	25.2	27.3	26.4	21.7	15.3	7.1	5.4	5.2	4.5	37.4
11		3.7	3.5	3.7	3.7	1.5	11.4	12.7	15.9	20.6	21.3	22.4	23.6	27.1	28.2	30.5	28.1	25.9	26.5	26.2	22.5	14.8	21	25.2	22.8	30.5
12		28.6	25.2	20.6	12.9	17.7	23	28.8	26.4	27.3	30.3	29.9	32.9	31.6	34.6	28.4	42.1	22.8	20.5	16.6	14.9	17.4	14.9	24.5	29.9	42.1
13		16.8	11.8	12.7	16.8	21.1	31.8	30.6	25.6	38.7	24.4	27.5	34.1	37.4	41.9	42.3	43.6	37.4	32.7	29.9	18.9	9.3	8.2	9.7	12.3	43.6
14		13.8	8.2	11.8	11.4	10.6	12.5	12.3	12.5	8.4	10.8	14	18.1	23.9	26.7	29	28.4	30.7	34.4	63.4	34	23.4	8.4	8	5.6	63.4
15		8	12.3	11.8	4.3	9.3	6.5	5.7	8.8	13.5	15.2	22.3	35.7	34.8	37.2	38.7	49	32	24.3	17.4	61.3	20.2	9.5	17	17.4	61.3
16		6.5	5.6	5.2	5.4	6.5	8.8	11	13.5	16.4	30.9	30.5	28.6	29	25.4	24.5	23.2	11.6	12	10.8	7.8	9.7	12.1	10.7	8.5	30.9
17		9	11.6	12.3	17.2	27.3	15.9	24.1	35.1	36.1	42.8	41.3	40.4	35.3	36.1	33.1	32.7	39.6	32.5	31.2	34.6	12.5	18.1	18.5	17	42.8
18		10.3	19.6	14.8	18.3	9.3	18.3	20.1	23.2	27.2	29.4	28.3	23.6	26.7	27.1	24.3	21.9	23	15.7	20.6	20.4	15.9	15.5	11.2	14	29.4
19		6.7	11	11	12.9	14.8	12.3	11.8	13.8	14.8	16.6	28.4	23.9	22.8	21.3	29.7	22.8	20.6	21.1	17.9	8.4	5.2	5.4	4.5	4.8	29.7
20		5	5.4	2.8	3.4	5	4.5	2.8	12.1	11.4	13.1	12.7	15.3	17.9	20.4	31.6	27.1	20.9	18.9	17.6	11	4.3	5	4.1	3.9	31.6
21		3.5	4.1	3	3.4	2.6	3.5	11.4	11.4	13.8	17	19.1	17.8	22.3	21.7	21.2	22.1	15.4	9.7	12.1	12.3	22.2	13.3	18.1	12.1	22.3
22		12.9	7.5	13.8	15.5	11.4	12.7	13.1	16.8	20.8	23	28.8	27.7	36.8	32.7	25.6	29.5	39.3	25.8	16.6	24.7	12.3	14	11.4	12.5	39.3
23		12.1	12.1	3.7	3.9	4.1	4.5	6.7	13.1	15.3	16.8	17	18.7	22.8	21.9	18.7	22.8	23.6	27.1	20.6	16.1	8	8.6	11	10.6	27.1
24		14.2	11.8	12.1	13.3	11	14.4	15.9	16.8	19.8	22.6	23.6	27.5	33.1	34.4	33.7	37.4	31.4	34.4	22.6	13.5	15.7	12.9	6	3.4	37.4
25		3.4	5.6	3	3.7	11.6	13.6	14.2	17.9	18.9	20.6	34.4	29.9	31.8	38.3	33.1	27.1	30.3	31.6	30.5	17.2	9.7	6.3	6.5	3.7	38.3
26		6	6.5	7.8	9.7	13.3	19.6	20.8	23.9	25.8	39.6	31.8	32.3	31.6	34.6	38.9	47	31.8	47.3	31.2	33.1	28.4	32.7	26.2	25	47.3
27		31.4	21.5	24.1	20.9	21.3	21.7	20.7	20.7	20.6	24.5	24.7	27.3	21.9	22.1	20.2	19.6	23	26	19.6	15.3	6.7	6.9	4.5	4.7	31.4
28		4.5	3.7	2.8	3	2.8	2.2	4.5	9	14.8	18.9	22.6	22.8	24.9	21.1	32.7	21.3	18.7	20.6	18.7	15.1	15.9	14	13.1	15.7	32.7
29		5.8	15.1	5.2	5.8	3.9	9.9	15.1	15.1	21.9	18.9	18.7	18.9	18.1	20.2	17.4	19.3	20.4	24.9	19.1	15.9	17.4	10.5	12.1	11.2	24.9
30		3	48.6	32.9	24.3	20	16.1	18.8	15	14.2	11.4	12.9	22.1	24.3	22.1	19.1	21.7	18.3	14	9	8.2	6.3	14.2	10.8	8.8	48.6
31		12.1	18.9	7.5	8	11.2	8.4	14.8	18.1	22.6	23.4	24.3	25.1	43.2	21.9	14.8	17.6	25.6	22.1	22.1	16.8	7.5	4.7	5.2	4.1	43.2
PEAK		31.4	48.6	35.5	26.5	30.1	31.8	30.6	35.1	38.7	42.8	41.3	40.4	43.2	41.9	48.6	49.0	39.6	55.2	63.4	101.2	28.4	32.7	34.8	29.9	

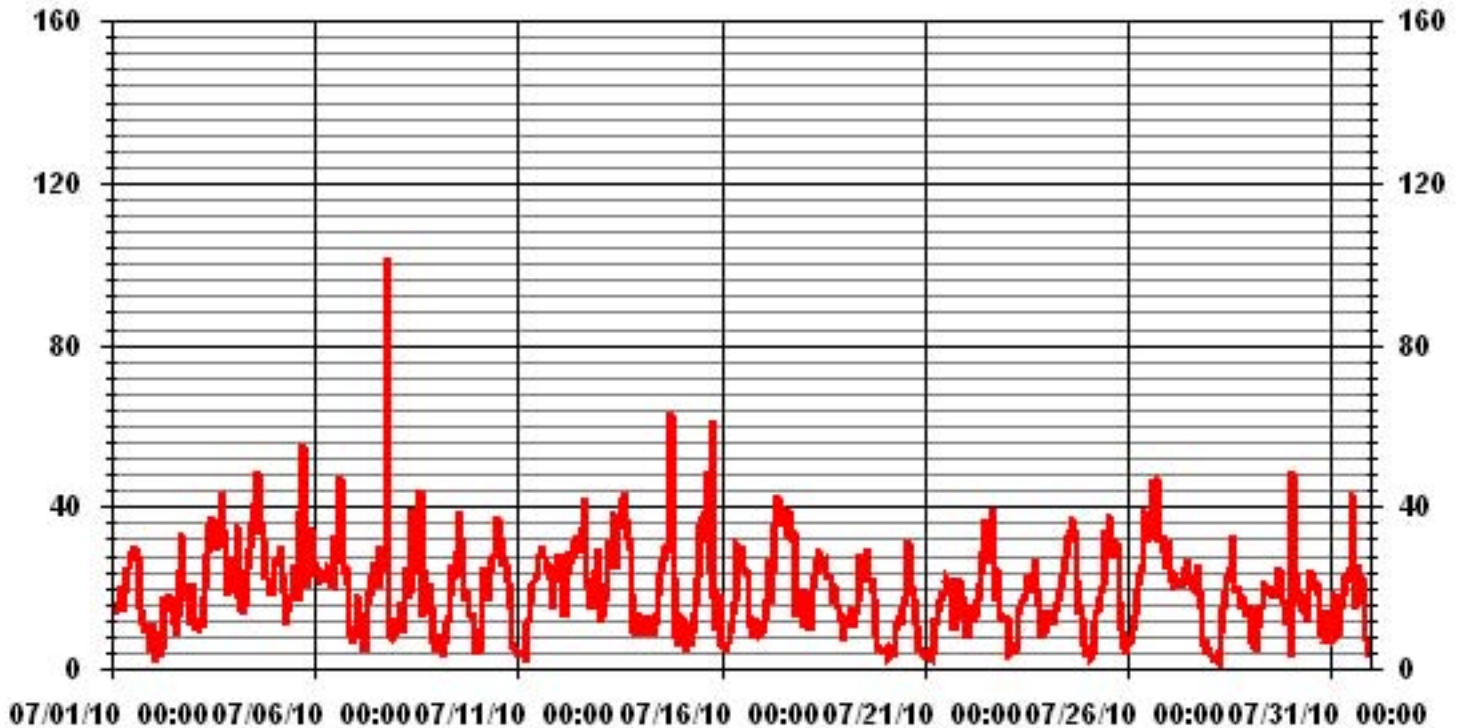
STATUS FLAG CODES

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

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	101.2	KPH	@ HOUR(S)	19
			ON DAY(S)	7

01 Hour Averages



LICA30
WSP / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	2.95	2.28	3.62	2.68	2.28	2.41	2.68	3.22	4.70	11.15	6.58	5.77	5.24	5.91	3.49	2.82	67.87
< 12.0	1.61	1.61	1.07	.13	.40	.80	.80	2.01	2.68	6.58	1.20	1.88	3.22	4.03	2.15	.53	30.77
< 20.0	.00	.26	.53	.00	.00	.00	.00	.00	.26	.00	.00	.00	.00	.13	.00	.00	1.20
< 29.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.56	4.16	5.24	2.82	2.68	3.22	3.49	5.24	7.66	17.74	7.79	7.66	8.46	10.08	5.64	3.36	

Calm : .13 %

Total # Operational Hours : 744

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	22	17	27	20	17	18	20	24	35	83	49	43	39	44	26	21	505
< 12.0	12	12	8	1	3	6	6	15	20	49	9	14	24	30	16	4	229
< 20.0		2	4						2					1			9
< 29.0																	
< 39.0																	
>= 39.0																	
Totals	34	31	39	21	20	24	26	39	57	132	58	57	63	75	42	25	

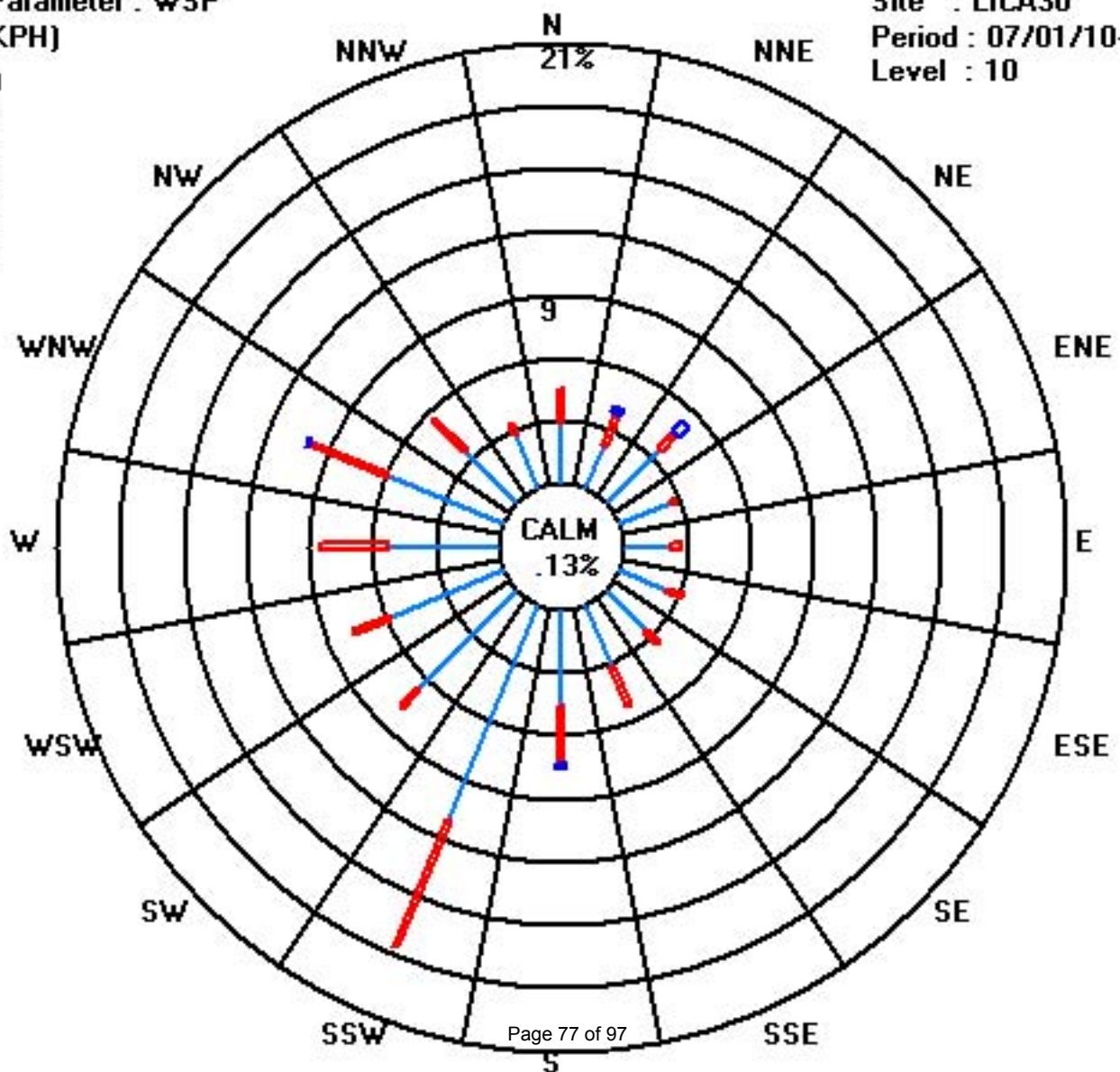
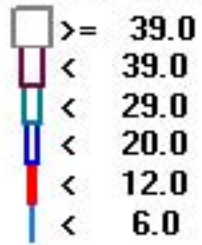
Calm : .13 %

Total # Operational Hours : 744

Class Limits (KPH)

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

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

WIND DIRECTION hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR	24-HOUR AVG																													
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	AVG.	QUADRANT	RDGS.																												
DAY																																																							
1	220	204	200	201	204	207	219	205	203	208	202	208	201	188	192	191	195	190	165	172	162	160	107	101	196	SSW	24																												
2	117	353	101	15	10	43	34	150	202	210	185	198	207	209	197	160	165	238	195	207	207	197	199	200	194	SSW	24																												
3	202	198	198	206	208	213	222	252	256	256	238	250	271	263	271	258	268	265	274	263	234	225	225	230	241	WSW	24																												
4	233	231	245	241	199	200	213	203	229	240	235	236	250	250	278	261	265	264	274	265	264	255	248	254	243	WSW	24																												
5	269	266	267	276	285	286	327	353	1	12	8	331	344	335	4	201	224	338	319	299	282	284	303	314	310	NW	24																												
6	309	299	289	292	281	286	303	290	292	300	266	247	273	305	294	278	280	294	293	254	230	233	220	228	283	W	24																												
7	255	305	337	21	19	41	36	16	21	350	305	326	315	324	305	309	304	298	315	140	215	212	208	209	317	NW	24																												
8	207	212	206	204	217	269	286	292	237	274	301	307	302	297	341	37	49	314	55	163	62	126	137	202	264	W	24																												
9	214	218	263	270	273	240	215	206	210	221	213	227	222	247	348	21	27	23	21	145	131	69	29	154	240	WSW	24																												
10	115	18	324	359	8	9	7	11	7	14	13	2	357	358	354	357	358	326	357	345	345	183	208	211	0	N	24																												
11	171	210	199	151	183	209	209	216	207	205	189	192	190	184	185	189	188	174	170	165	159	151	148	152	180	S	24																												
12	153	158	161	154	123	101	118	131	128	111	110	110	99	97	91	256	346	28	14	69	169	229	43	41	110	ESE	24																												
13	188	146	49	36	30	32	33	32	39	31	40	42	38	40	34	39	42	75	50	55	11	0	9	348	38	NE	24																												
14	331	274	319	347	358	354	334	359	323	338	295	257	241	241	288	270	267	276	312	263	61	223	203	217	289	WNW	24																												
15	217	93	127	308	93	119	207	194	202	243	241	239	267	274	283	282	283	306	268	247	330	209	171	227	253	WSW	24																												
16	202	195	203	184	155	198	196	215	230	246	290	318	304	292	204	230	251	196	184	215	215	208	221	244	235	SW	24																												
17	264	292	264	253	265	255	279	282	287	286	285	297	293	292	290	286	286	299	294	277	240	248	260	263	283	W	24																												
18	258	246	258	269	260	287	289	305	311	311	350	338	327	319	16	5	14	336	275	285	322	316	59	70	322	NW	24																												
19	112	119	108	68	65	55	68	45	78	142	283	281	293	278	36	131	50	32	29	14	160	224	223	165	42	NE	24																												
20	257	222	239	302	146	192	229	341	315	207	187	211	208	212	340	31	55	111	147	183	209	168	188	172	183	S	24																												
21	162	169	248	219	340	46	51	233	210	181	152	171	153	186	195	234	355	293	17	118	318	84	96	101	170	SSE	24																												
22	109	49	52	72	59	48	41	93	133	136	121	117	170	131	87	82	128	142	83	68	37	48	46	86	106	ESE	24																												
23	78	152	175	141	37	85	31	42	65	173	197	203	206	199	206	215	215	238	204	194	191	203	191	184	196	SSW	24																												
24	201	202	200	202	198	200	205	198	191	193	197	191	187	183	178	182	187	305	224	230	58	65	207	201	192	S	24																												
25	228	116	83	142	147	166	181	302	272	291	292	276	254	286	258	277	271	279	270	260	229	191	213	247	262	W	24																												
26	213	202	198	204	196	198	205	210	227	289	280	257	248	243	267	293	294	310	292	287	311	310	299	269	260	WSW	24																												
27	289	299	302	287	284	298	303	296	296	298	316	311	355	316	301	272	251	246	247	227	212	200	199	194	287	WNW	24																												
28	188	176	141	185	129	321	41	175	183	187	150	161	163	167	171	175	162	163	159	141	109	115	118	166	161	SSE	24																												
29	160	81	93	118	111	65	197	194	209	193	199	201	201	203	246	156	142	170	243	11	61	130	255	138	190	S	24																												
30	60	260	232	218	241	262	134	119	37	330	1	300	268	219	210	197	194	187	187	195	205	212	210	212	223	SW	24																												
31	213	231	228	206	207	15	197	211	230	244	295	284	320	22	4	277	300	321	317	345	11	202	180	188	269	W	24																												
HOURLY AVG	331	353	337	359	358	354	334	359	323	350	350	338	357	358	354	357	358	338	357	345	345	316	303	348																															

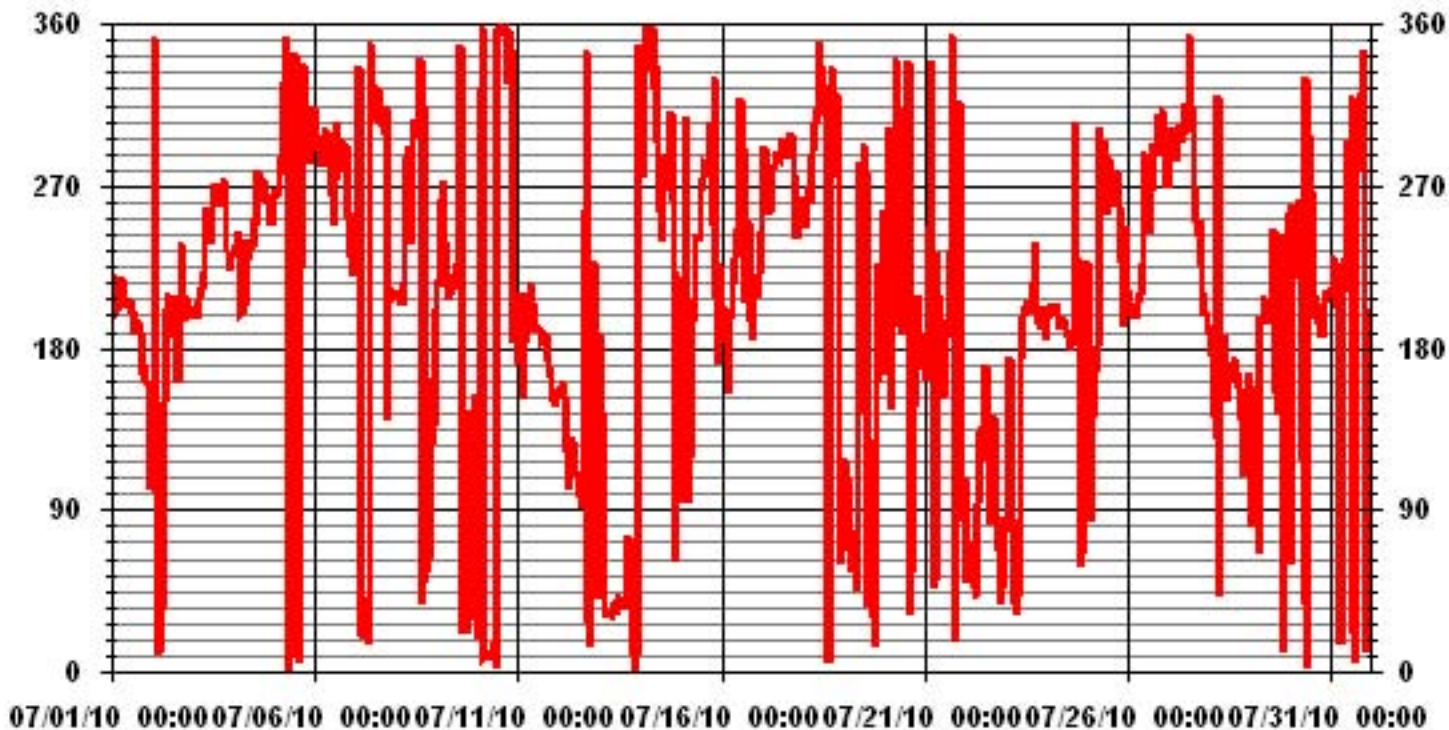
STATUS FLAG CODES

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

LAST CALIBRATION: February 4, 2009
DECLINATION : 19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
STANDARD DEVIATION	90.91		AMD OPERATION UPTIME	100.0	%
			MONTHLY AVERAGE	244	DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JULY 2010

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
DAY																								
1	23	14	13	14	18	22	26	25	27	31	31	32	31	25	27	26	25	22	19	14	12	11	31	28
2	65	66	71	28	52	31	19	41	51	52	33	68	36	25	27	31	21	49	33	19	24	17	16	17
3	15	18	12	11	13	21	26	43	43	39	35	39	40	42	41	44	43	41	39	41	38	27	27	32
4	33	32	37	31	11	13	23	21	36	43	39	40	41	41	39	40	41	42	39	39	39	38	35	37
5	40	45	37	38	35	36	43	33	35	28	33	41	40	37	43	37	38	38	39	36	32	30	34	40
6	37	33	33	30	38	32	38	38	37	40	35	40	45	47	49	35	36	37	38	32	33	36	36	27
7	46	44	42	18	33	50	17	36	43	51	44	42	49	47	41	39	38	36	37	68	33	14	15	13
8	13	17	14	14	25	32	35	42	42	36	41	45	54	45	47	57	68	44	29	20	28	33	49	31
9	22	18	28	28	19	34	27	24	23	30	37	41	45	48	46	20	30	30	29	31	37	30	35	35
10	58	32	54	32	23	26	27	29	35	25	30	32	34	35	37	38	35	43	35	38	43	21	19	12
11	10	23	25	17	53	41	28	30	30	34	31	30	25	30	27	28	23	25	23	20	16	17	19	21
12	21	19	20	21	26	27	35	28	33	37	38	43	36	35	34	43	39	40	42	43	49	37	18	46
13	22	24	21	17	14	13	14	14	20	19	19	22	18	21	17	19	21	35	22	32	21	30	29	34
14	53	45	45	32	32	33	34	34	41	47	44	44	45	43	39	43	42	38	44	60	31	39	30	35
15	28	56	46	55	29	52	45	29	33	62	56	39	44	42	44	44	45	43	34	35	40	31	45	30
16	8	8	19	17	61	47	17	27	32	41	33	37	43	62	55	39	45	37	33	59	15	18	22	36
17	40	26	34	39	36	35	34	34	36	33	34	33	34	38	36	34	40	38	34	34	31	34	33	35
18	36	31	39	39	36	30	30	35	46	39	37	44	44	38	35	36	34	42	43	44	41	56	36	30
19	59	46	34	21	18	21	51	33	39	47	44	40	46	42	34	44	28	15	23	46	41	24	39	51
20	41	54	44	64	54	42	50	35	61	62	53	54	45	56	34	27	45	41	29	22	34	39	23	32
21	50	30	64	41	74	55	45	64	57	46	47	49	37	33	31	47	33	50	72	37	35	33	21	28
22	26	50	32	21	55	19	22	37	34	35	34	34	26	27	28	32	29	26	34	25	14	18	36	29
23	51	61	45	27	61	46	33	19	44	52	41	28	37	32	33	34	35	40	23	14	11	11	9	10
24	11	10	10	12	11	13	17	18	21	20	24	23	26	27	29	26	25	50	56	59	22	71	58	48
25	38	50	43	23	65	66	60	54	36	39	34	42	36	44	41	43	40	42	44	41	37	8	14	26
26	33	21	26	17	14	13	21	24	33	39	38	42	43	42	46	39	40	37	44	35	41	40	37	38
27	31	32	38	29	34	35	34	35	37	40	37	43	39	45	48	61	35	40	38	27	19	17	9	11
28	12	30	22	36	44	65	36	26	24	24	28	29	29	33	26	27	24	26	22	32	23	23	37	40
29	50	47	57	25	48	52	44	20	23	27	25	33	30	31	46	58	60	87	77	60	37	22	65	56
30	64	42	31	29	43	32	22	44	22	43	34	38	37	40	47	39	31	27	18	18	14	16	17	15
31	19	43	48	20	16	35	33	21	35	44	33	35	51	21	61	52	48	39	38	38	47	19	27	58

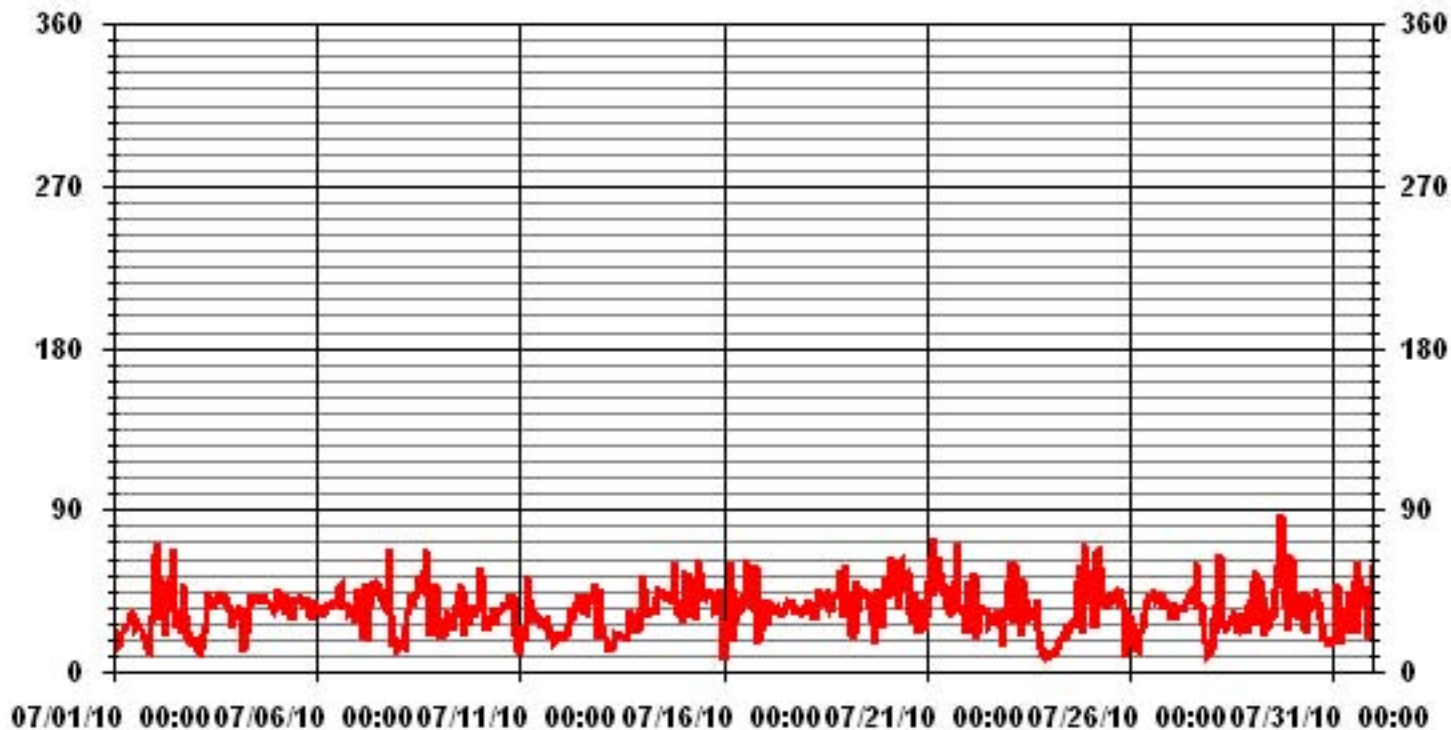
STATUS FLAG CODES

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: February 4, 2009

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 744 HRS

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

Calibration Date	July 15, 2010	Previous Calibration	June 4, 2010
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake - Maskwa		
Start Time (MST)	9:51	End Time (MST)	13:41
Reason:	Monthly Calibration		
Barometric Pressure	939 mBar	Station Temperature	25 Deg C
Cal Gas	52.2 ppm	Cal Gas Expiry date	19/12/2010
DAS Output Voltage	0 - 1 Volts	Chart Rec. Output	0 - 1 Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	508	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	Enviroics 2000		1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO 791		
Flow Meter:	Enviroics 2000	S/N :	1991		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 1000	ppb	
Sample Flow / Box Temp	605 ccm 32.9 Deg C	599 33.2 Deg C	
HVPS / Lamp Setting	494 3363	494 3360	
PMT / RxCell Temp	7.7 Deg C 50 Deg C	7.7 Deg C 50 Deg C	
Converter / IZS Temp	NA Deg C 45 Deg C	NA Deg C 45 Deg C	
Offset / Slope	34.4 0.966	36 0.979	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3007	0	0	1	N/A
3003	0	0	0	N/A
2967	43.2	749	738	1.0151
2967	43.2	749	751	0.9975
2997	20.2	349	346	1.0100
3010	9.8	169	166	1.0205
3010	0	0	0	N/A
Sum of Least Squares				1.0006
New Correction Factor				0.9975

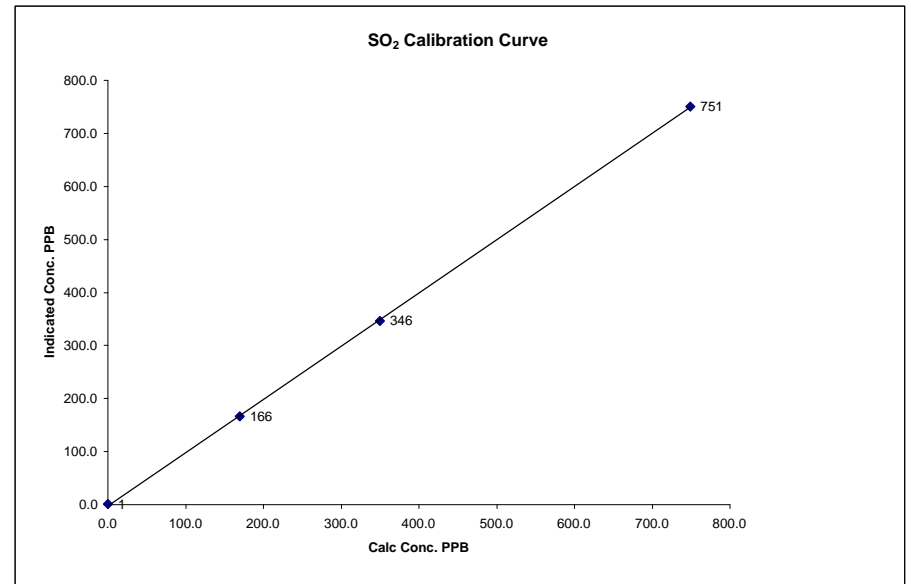
	Before Calibration	After Calibration
Auto Zero	0.8	1.3
Auto Span	607	612
Sample Lines Connected		YES
Percent Change from Previous Calibration		-1.3%

Calibration Performed by: Ting Xu

SO₂ Calibration Curve

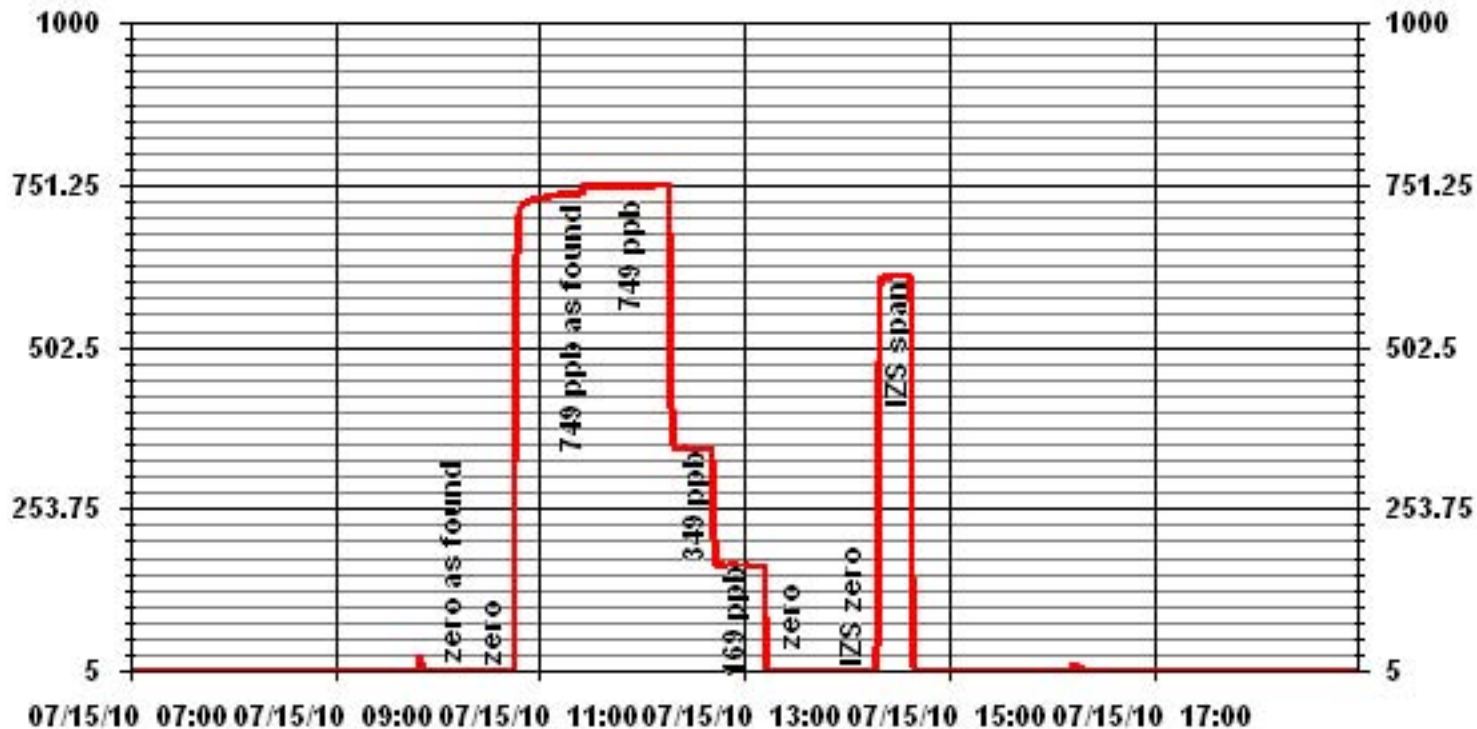
Calibration Date	July 15, 2010
Company	Lakeland Industry & Community Association
Plant / Location	Cold Lake - Maskwa
Start Time (MST)	9:51
End Time (MST)	13:41

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	
0	1	n/a	Intercept	(± 3% F.S.)	0.999931
169	166	1.0205			1.002835
349	346	1.0100			-1.901517
749	751	0.9975			



Notes:

01 Minute Averages



Hydrogen Sulphide

H₂S Calibration Report

Station Information

Calibration Date	July 15, 2010	Previous Calibration	June 4, 2010
Company	Lakelnad Industry & Community Association		
Plant / Location	Cold Lake - Maskwa		
Start Time (MST)	9:51	End Time (MST)	13:41
Reason:	Monthly Calibration		
Barometric Pressure	939 mBar	Station Temperature	25 Deg C
Cal Gas	10.8 ppm	Cal Gas Install date	06/22/2009
DAS Output Voltage	0 - 1 Volts		

Equipment Information

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

Analyzer Settings

		Before Calibration		After Calibration	
Concentration Range		0 - 100		ppb	
Sample Flow / Box Temp	538 ccm	33.2	Deg C	527	33.7 Deg C
HVPS / Lamp Setting	552	2212		552	2210
PMT / RxCell Temp	7.9 Deg C	50	Deg C	7.9	50 Deg C
Converter / IZS Temp	315.7 Deg C	45	Deg C	315.7	45 Deg C
Offset / Slope	28.6	0.973		30	0.981

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4998	0	0	1	N/A
4998	0	0	0	N/A
4961	37	80	80	0.9994
4983	18.5	40	40	0.9987
4986	10.6	23	23	0.9962
4998	0	0	0	N/A
Sum of Least Squares				0.9991
New Correction Factor				0.9994

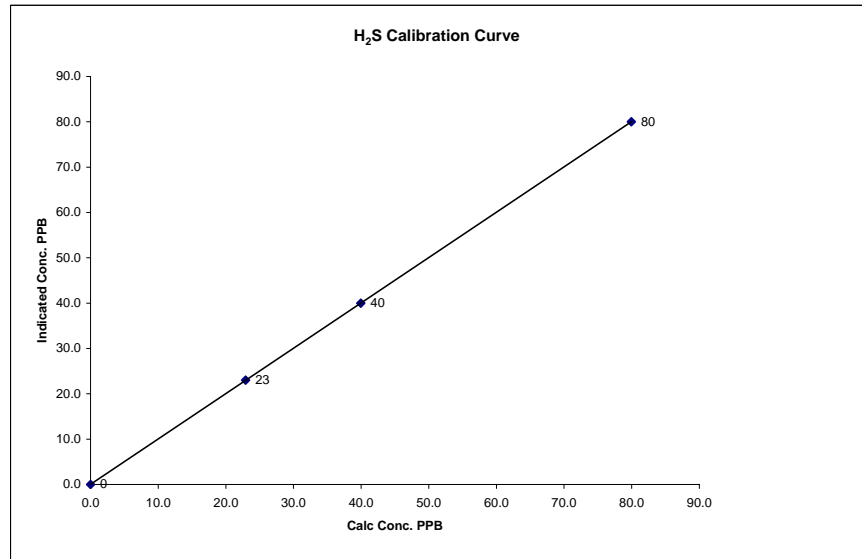
		Before Calibration	After Calibration
Auto Zero		1.0	0.9
Auto Span		58	56
Sample Lines Connected			YES
Percent Change from Previous Calibration			0.0%

Calibration Performed by: Ting Xu

H₂S Calibration Curve

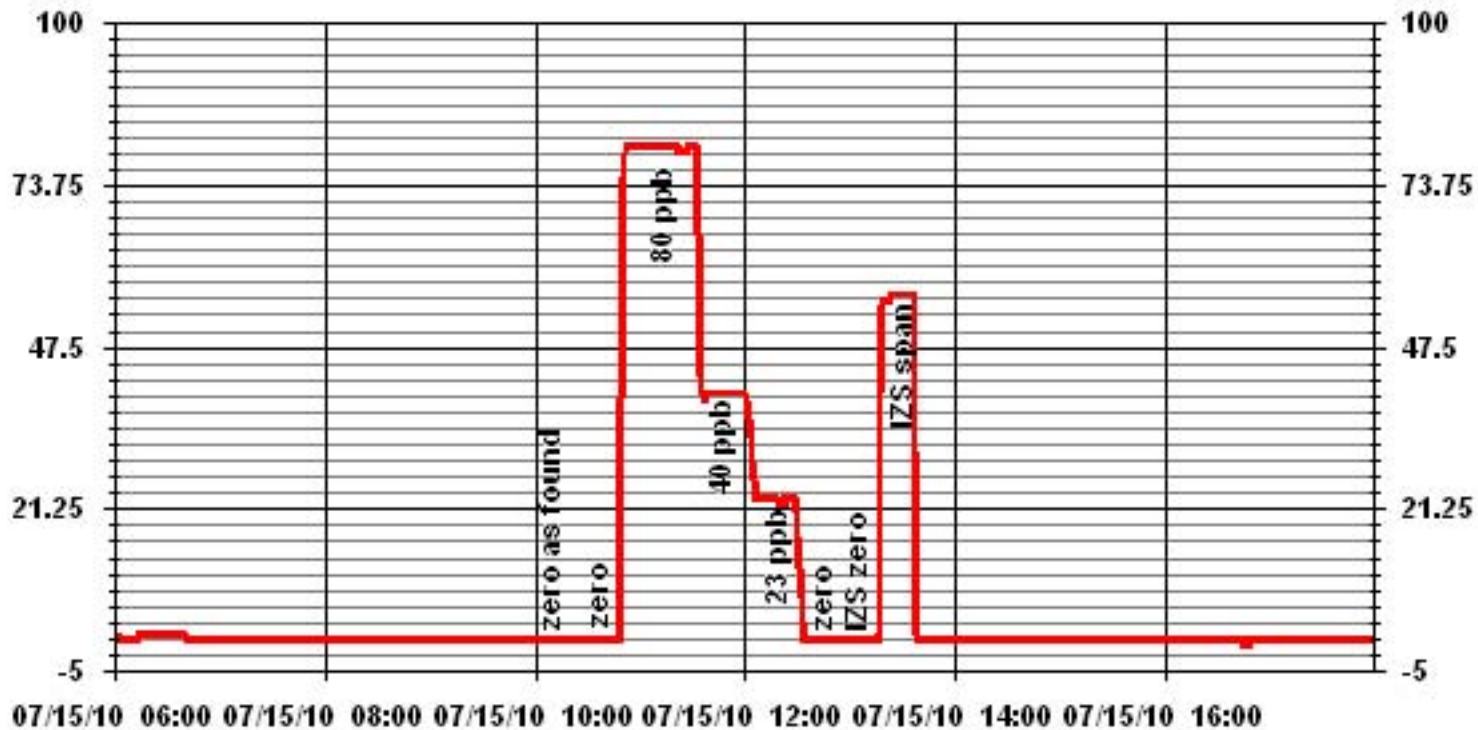
Calibration Date	July 15, 2010
Company	Lakelnad Industry & Community Association
Plant / Location	Cold Lake - Maskwa
Start Time (MST)	9:51
End Time (MST)	13:41

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999999
0	0	n/a	Intercept	(0.85 to 1.15)	1.000356
23	23	0.9962		(± 3% F.S.)	0.034406
40	40	0.9987			
80	80	0.9994			



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information			
Calibration Date:	July 19, 2010	Previous Calibration	June 24, 2010
Company:	Lakeland Industry & Community Association		
Plant / Location:	Cold Lake - Maskwa		
:	(MST) 7:45	End Time	(MST) 11:27
Reason:	Monthly Calibration		
Barometric Pressure:	943 mBar	Station Temperature:	25 Deg C
Calibrator:	API 700	S/N:	831
Cal Gas Concentration:	207 Prop/ 602 Meth/1171.25THC	ppm	Cal Gas Expiry Date: August 21, 2011
DAS make & Model:	ESC 8832	S/N :	AO 791
Output Voltage Range:	0 - 10 VDC		

Analyzer Information

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

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 -50	ppm	0 - 50	ppm
Sample Pressure	7.5	psi	7.5	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	20	psi	20	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
1999	0.0	0.0	0.0	N/A
1999	70.0	39.6	40.2	0.9857
1998	35.0	20.2	20.4	0.9884
1998	20.0	11.6	11.6	1.0007
1998	0	0.0	0.0	N/A
Correction Factor:				0.9857

Previous Calibration Correction Factor:	0.9907
Current Correction Factor Before Span Adjust:	0.9857
Percent Change:	0.50%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	34.2	34.1
Sample Lines Connected		YES

Cylinder Pressures

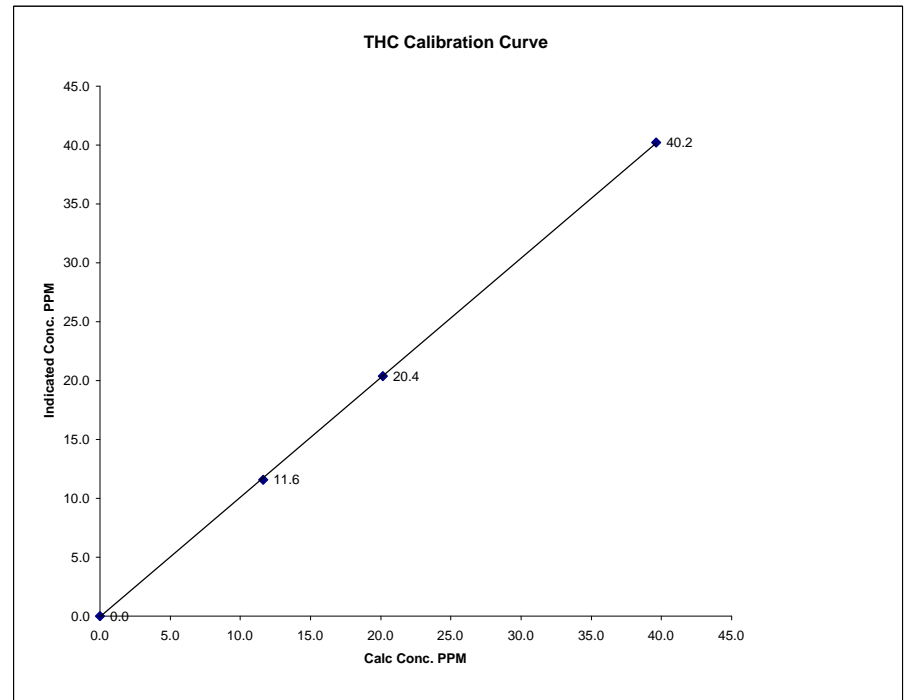
Span	1800	psi
Hydrogen	500	psi
Zero Air	32	psi

Calibration Performed by: Craig Snider / Ting Xu

THC Calibration Curve

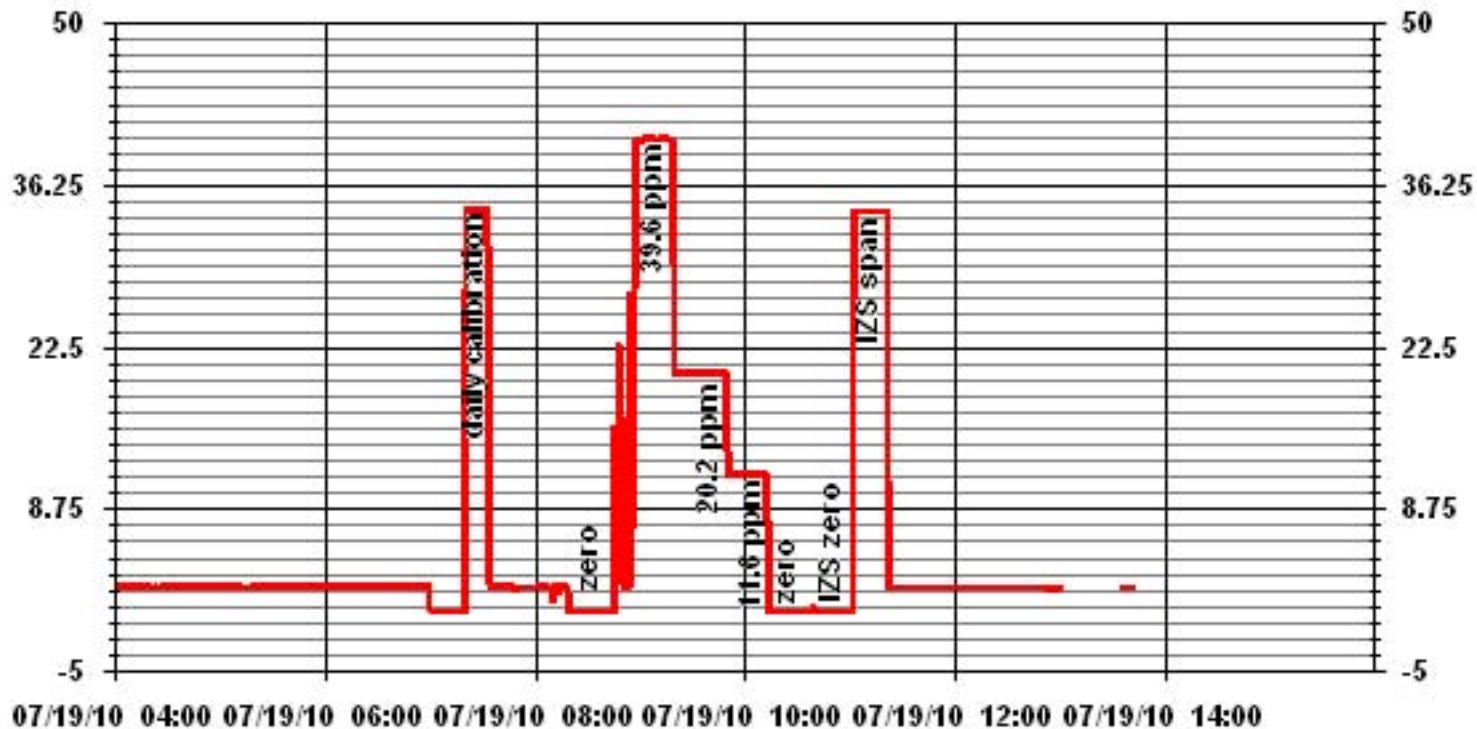
Calibration Date	July 19, 2010		
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake - Maskwa		
Start Time (MST)	7:45	End Time (MST)	11:27

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient (≥ 0.995)	Slope (0.85 to 1.15)	Intercept (± 3% F.S.)
0.0	0.0		0.999977	1.015627	-0.078640
11.6	11.6	1.0007			
20.2	20.4	0.9884			
39.6	40.2	0.9857			



Notes:

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	July 19, 2010	Previous Calibration	June 4, 2010
Company	LICA	Plant/Location	Maskwa
Start Time (MST)	7:45	End Time (MST)	13:29
Reason:	Monthly Calibration	Other	
Barometric Pressure	946 mmHg	Station Temperature	24 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO 51.6 ppm	Cal Gas Expiry date 12-Dec-10
DAS Output Voltage	0 - 1	Volts	Chart Rec. Output NA Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	594	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	AO 791		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	EnviroNics 2000	S/N :	1991		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range			0-1000	ppb			
Sample Flow/Conv. Temp	461 ccm	316.3 Deg C		456 ccm	314.4 Deg C		
Ozone Flow / Vacuum	79 ccm	4.5 "Hg-A		79 ccm	5.1 "Hg-A		
HVPS / A ZERO	767 Volts	16.9 MV		767 Volts	17.5 MV		
Rx/ Temp / PMT Temp	50.0 Deg C	6.6 Deg C		50.0 Deg C	6.6 Deg C		
Box Temp / IZS Temp	33.0 Deg C	45.3 Deg C		32.3 Deg C	45.2 Deg C		
Offset	2.2 NOx	0.2 NO		2.2 NOx	0.2 NO		
Slope	1.125 NOx	1.125 NO		1.125 NOx	1.125 NO		
NO2 COEF / Conv Efficiency	NA	0.994		NA	0.994		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
3002	0.0	----	0	0	0	-1	0	-1	----	----
2968	43.7	----	752	749	----	747	752	-4	1.0048	0.9956
2992	20.4	----	351	349	----	346	347	-1	1.0109	1.0070
2997	11.7	----	201	201	----	197	197	0	1.0174	1.0186
3014	0.0	----	0	0	0	0	0	0	----	----

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		
2965	43.7	----	752	749	----	751	751	-1	----	
2964	43.7	600	753	----	560	747	190	557	1.0036	99.47%
2964	43.7	300	753	----	283	749	467	282	1.0000	99.65%
2964	43.7	150	753	----	140	751	610	140	0.9929	100.00%

Linearity	Sum of Least Squares	NOx= 1.008	NO= 0.999	NO2= 1.005
OK?	Correction Factors:	NOx= 1.0048	NO= 0.9956	NO2= 1.0036
	Average Converter Efficiency=	99.70%		

	Before Calibration				After Calibration			
Auto Zero	-0.3	NOx	-0.5	NO2	0.9	NOx	0.8	NO2
Auto Span	691	NOx	703	NO2	708	NOx	697	NO2
	Sample Lines Connected				YES			

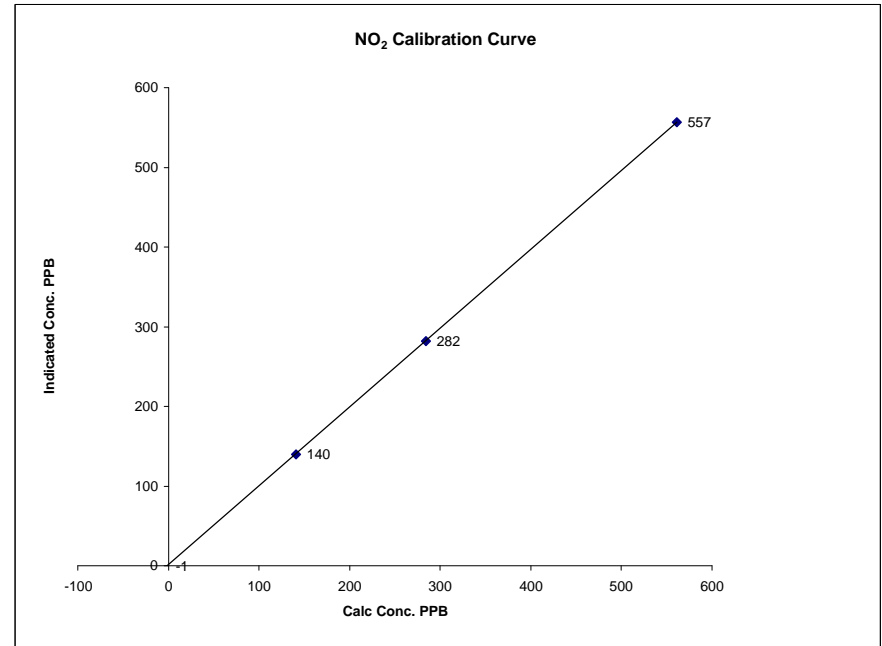
Notes

Calibration Performed by: Craig Snider / Ting Xu

NO2 Calibration Curve

Calibration Date	July 19, 2010	LICA	
Company		Maskwa	
Plant / Location			
Start Time (MST)	7:45	End Time (MST)	13:29

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	
-4	-1	N/A	Slope	(0.85 to 1.15) 0.999980
141	140	1.0071	Intercept	(± 3% F.S.) 0.988616
284	282	1.0071		1.79475
561	557	1.0072		

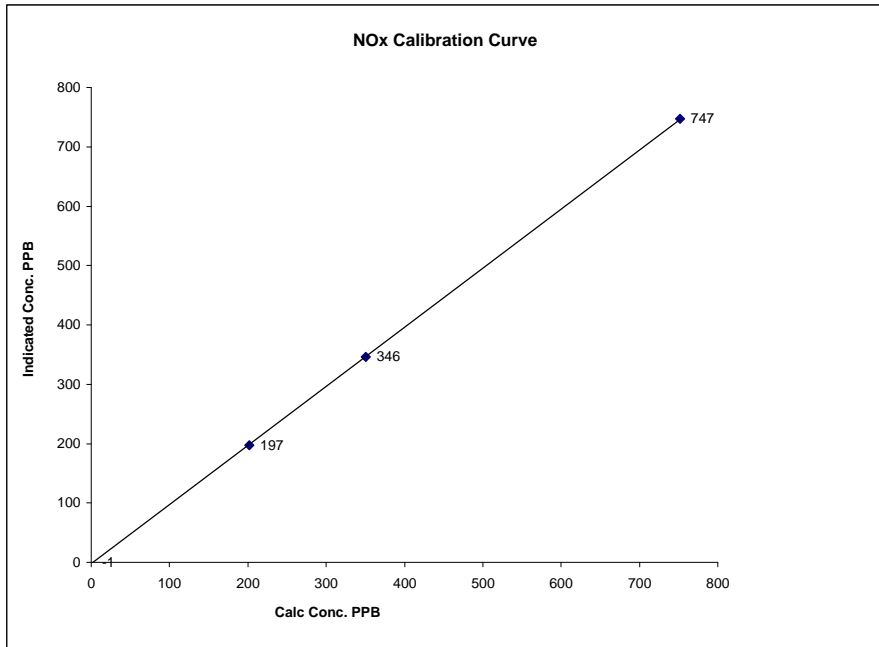


Notes: No CE gain adjustment.

NOx Calibration Curve

Calibration Date July 19, 2010
 Company LICA
 Plant / Location Maskwa
 Start Time (MST) 7:45 End Time (MST) 13:29

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999983
0	-1	N/A	Slope (0.85 to 1.15)	0.996021
201	197	1.0225	Intercept (± 3% F.S.)	-2.41484
351	346	1.0138		
752	747	1.0062		

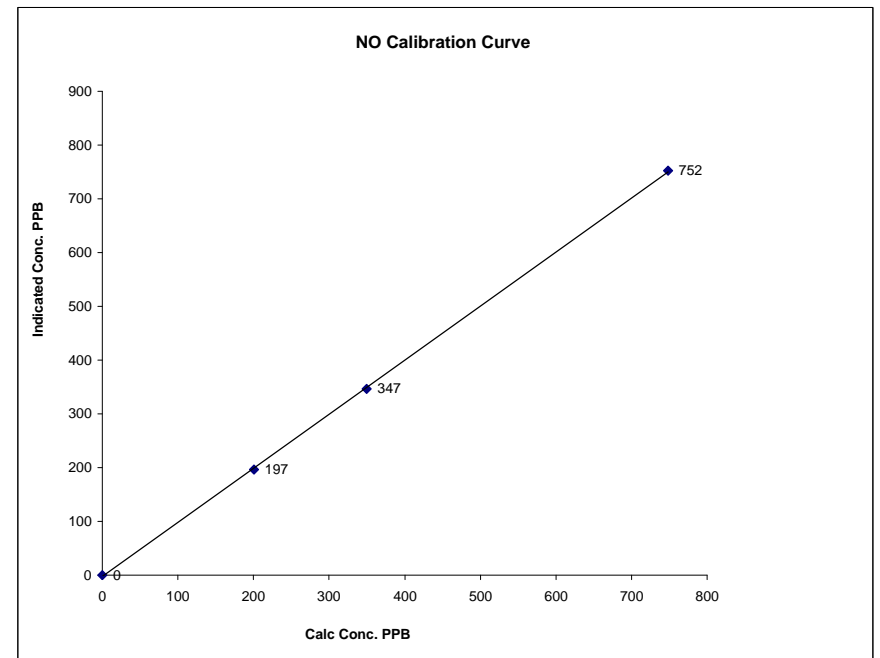


Notes:

NO Calibration Curve

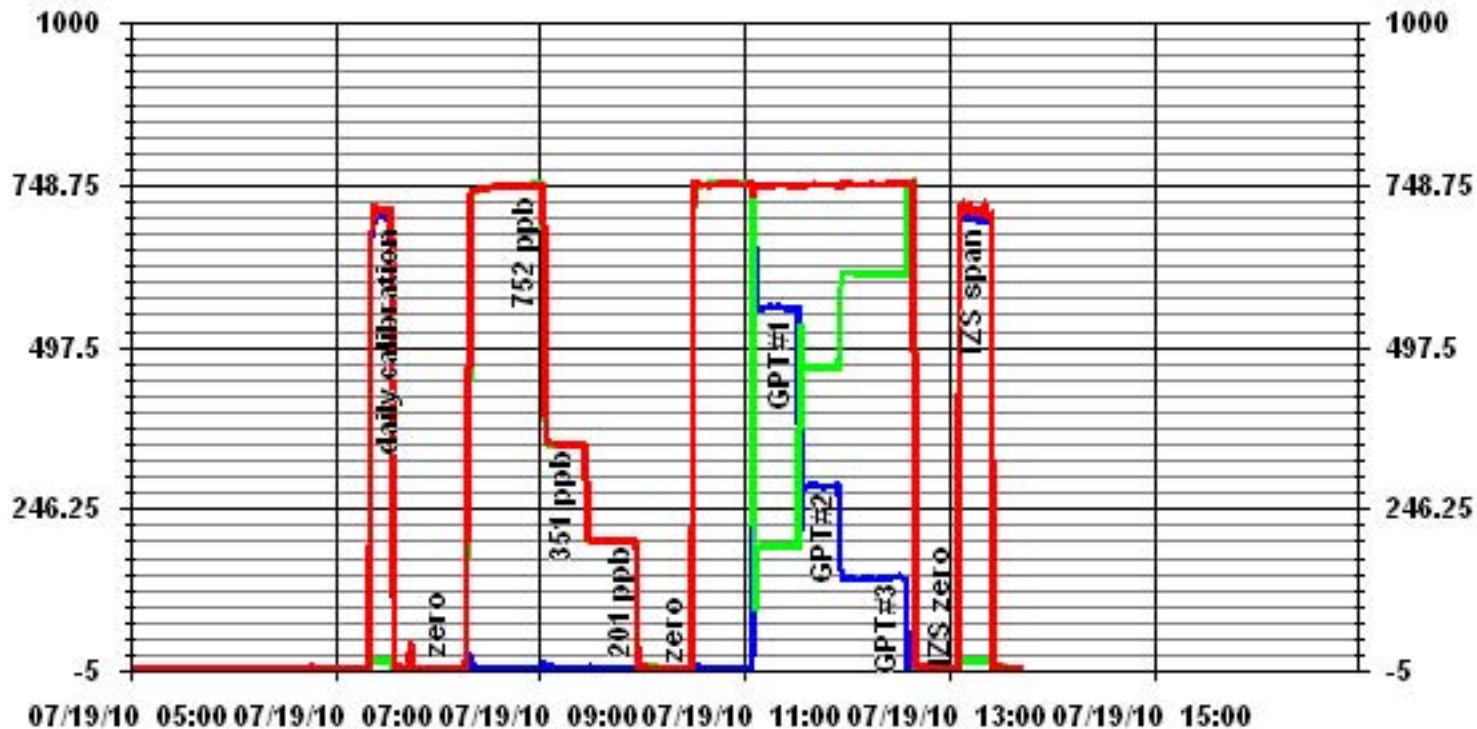
Calibration Date July 19, 2010
 Company LICA
 Plant / Location Maskwa
 Start Time (MST) 7:45 End Time (MST) 13:29

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999943
0	0	N/A	Slope (0.85 to 1.15)	1.013003
201	197	1.0186	Intercept (± 3% F.S.)	-7.4378
349	347	1.0070		
749	752	0.9956		



Notes:

01 Minute Averages



Lakeland Industry & Community Association

St. Lina Monitoring Site
Ambient Air Monitoring
Data Report
For
July 2010

Prepared By:



August 10, 2010

Lakeland Industry & Community Association

St. Lina

Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Mike Bisaga

Lakeland Industry & Community Association

Box 8237

5107W – 50 Street

Bonnyville, Alberta

T9N 2J5

Monitoring Location: St. Lina

Data Period: July 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

Calibration Procedure

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

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

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

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

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

- CAL SOP-00211
- CAL SOP-00209
- CAL SOP-00213
- CAL SOP-00214
- CAL SOP-00208

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

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION – ST. LINA

Continuous Ambient Monitoring – July 2010

LICA ST. LINA SITE						MAXIMUM VALUES							OPERATIONAL TIME (PERCENT)
						1-HOUR					24-HOUR		
PARAMETER	OBJECTIVES		EXCEEDENCES		MONTHLY AVERAGE	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING	DAY	
	1-HR	24-HR	1-HR	24-HR									
SO ₂ (PPB)	172	57	0	0	0.05	2	22	10	8.6	152SSE)	0.6	12	100.0
H ₂ S (PPB)	10	3	0	0	0.08	2	1, 9	VAR	VAR	VAR	0.7	12	100.0
THC (PPM)	-	-	-	-	1.98	2.8	14	0	4.8	302(WNW)	2.1	2, 14	90.2
OZONE (PPB)	82	-	0	-	25.62	50	29, 30	VAR	VAR	VAR	39.8	30	100.0
NO _x (PPB)	-	-	-	-	0.26	5	9	6	7.2	217(SW)	1.0	9	100.0
NO (PPB)	-	-	-	-	0.09	3	9	6	7.2	217SW)	0.4	9	100.0
NO ₂ (PPB)	212	106	0	0	0.16	3	8	4	11	276(W)	0.7	23	100.0
VECTOR WS (KPH)	-	-	-	-	9.14	28.7	4	15	-	254(WSW)	13.1	4	99.6
VECTOR WD (DEGREES)	-	-	-	-	275(W)	-	-	-	-	-	-	-	99.6

VAR-VARIOUS

General Monthly Summary

Equipment Operation

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

AQM STATION – LICA – St. Lina

Sulphur Dioxide (PPB)

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

No operational issue was observed during this month. The inlet filter was changed before the monthly calibration was started. 6 hours of maximum concentration were invalidated due to small power failures this month. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

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

No operational issue was observed during this month. The inlet filter was changed before the monthly calibration was started. During the monthly calibration on July 20th, the as found span dropped. It was noticed that there was a pressure warning from the calibrator; checked the pressure and cleared warning. The calibration was restarted. 6 hours of maximum concentration were invalidated due to small power failures this month. Data was corrected using daily zero information.

Ozone (PPB)

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

No operational issue was observed during this month. The inlet filter was changed before the monthly calibration was started. 6 hours of maximum concentration were invalidated due to small power failures this month. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

Total HydroCarbon (PPM)

- Analyzer make / model –TECO 51C, S/N: 77021-384

No operational issue was observed during this month. A power failure occurred on July 9th, which caused the analyzer to flame out. The analyzer was relit on July 12th. 62 hours of data were invalidated due to this issue. The monthly calibration was performed on July 21st. during the calibration, the analog output connection was accidentally pulled out; reconnected the wire and then the calibration was restarted. The analyzer flamed out again on July 30th due to a power failure, and it was relit on the same day. 11 hours of data were invalidated. 6 hours of maximum concentration were invalidated due to small power failures this month. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

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

No operational issue was observed during this month. The inlet filter was changed before the monthly calibration was started. 6 hours of maximum concentration were invalidated due to small power failures this month. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

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

- System make / model – Met 50.5, S/N: H12635

The wind system is reported as vector wind speed and vector wind direction.

No operational issue was observed during this month. The Maxxam-supplied RM Young wind system was removed on July 9th, and a Met One 50.5 wind system was installed. The wind system was verified operation using manufacturers zero span method.

- ❖ With a bag over the wind system (zero test), the DAS read 0 KPH;
- ❖ With the North/South pathway blocked, the DAS read 9.6 degree;
- ❖ With the East/West pathway blocked, the DAS read 159.6 deg;
- ❖ With the North/South, and East/West pathways blocked, the DAS read 169.2 degree.
- ❖ The zero/span test met manufacturers specs.
- ❖ The wind system was oriented correctly and is reading correctly following the installation.

One hour of data on July 29th was invalidated due to the system malfunction. 6 hours of maximum wind speed were invalidated due to small power failures.

Datalogger

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

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

Trailer

No issue was observed this month. The manifold and inlet pipes were cleaned on July 21st.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
DAY 1	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
2	0	0	0	IZS	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
3	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
4	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0.0	24
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0.0	24
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0.0	24
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0.0	24
11	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	IZS	0	0	0	0	0	0	0	1	0.1	24
12	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	1	IZS	0	0	1	0	1	1	1	1	1	0.6	24
13	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	0.4	24
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	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	0.0	24
16	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
18	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20	0	0	0	0	0	0	0	0	0	IZS	0	0	C	C	C	C	C	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	C	C	0	0	0	0	0	0	0	0.0	24
22	0	0	0	0	0	0	IZS	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	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	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	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	0.0	24
26	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
27	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
28	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0.0	24
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0.0	24
HOURLY MAX	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	0	0	0	0	1	1	1	1	1			
HOURLY AVG	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

STATUS FLAG CODES

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

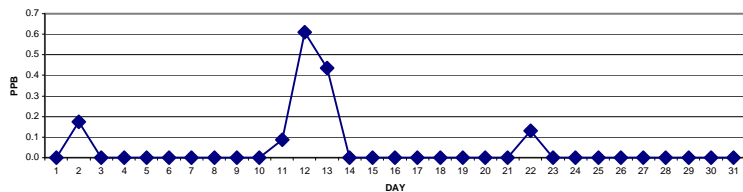
OBJECTIVE LIMIT:

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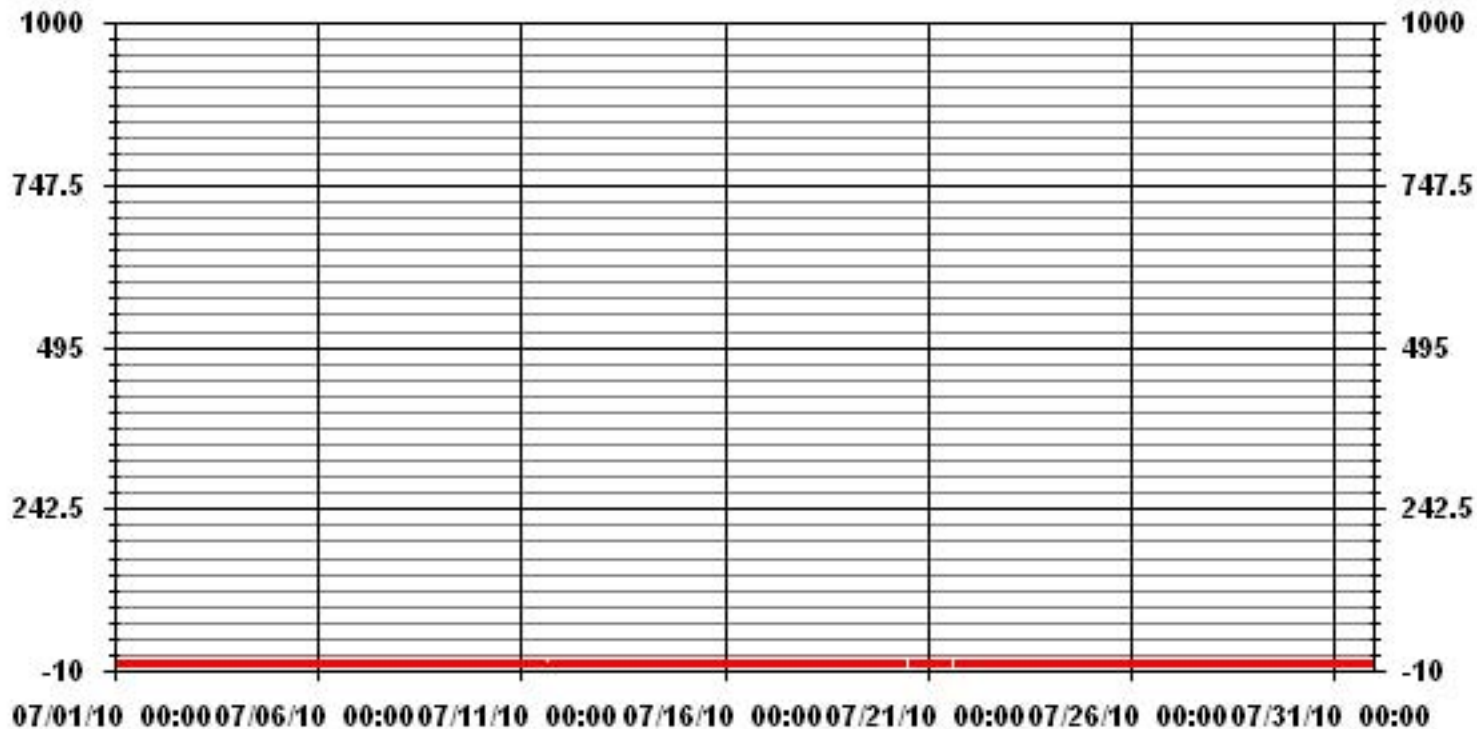
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	32		
MAXIMUM 1-HR AVERAGE:	2 PPB @ HOUR(S) 10 ON DAY(S) 22		
MAXIMUM 24-HR AVERAGE:	0.6 PPB ON DAY(S) 12		
IZS CALIBRATION TIME:	33 HRS	OPERATIONAL TIME:	744 HRS
MONTHLY CALIBRATION TIME:	7 HRS	AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	0.22	MONTHLY AVERAGE:	0.05 PPB

24 HOUR AVERAGES FOR JULY 2010

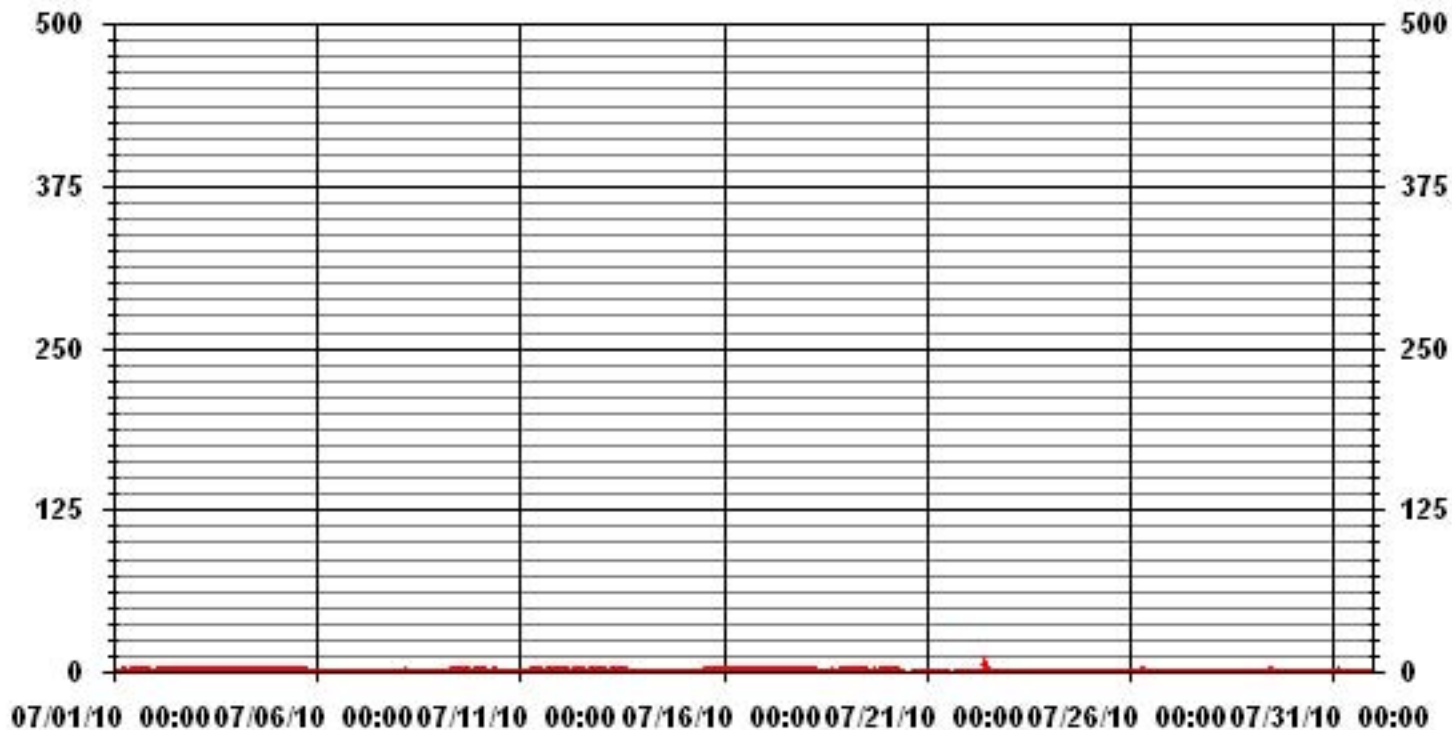


01 Hour Averages



— LICA31 SO2_ PPB

01 Hour Averages



— LICA31 SO2MAX PPB

LICA31
 SO2_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	5.43	4.86	3.00	2.43	4.57	3.86	3.00	4.14	5.43	6.29	9.15	6.72	11.58	14.30	9.72	5.43	100.00
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 170	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	5.43	4.86	3.00	2.43	4.57	3.86	3.00	4.14	5.43	6.29	9.15	6.72	11.58	14.30	9.72	5.43	

Calm : .00 %

Total # Operational Hours : 699

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	38	34	21	17	32	27	21	29	38	44	64	47	81	100	68	38	699
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	38	34	21	17	32	27	21	29	38	44	64	47	81	100	68	38	

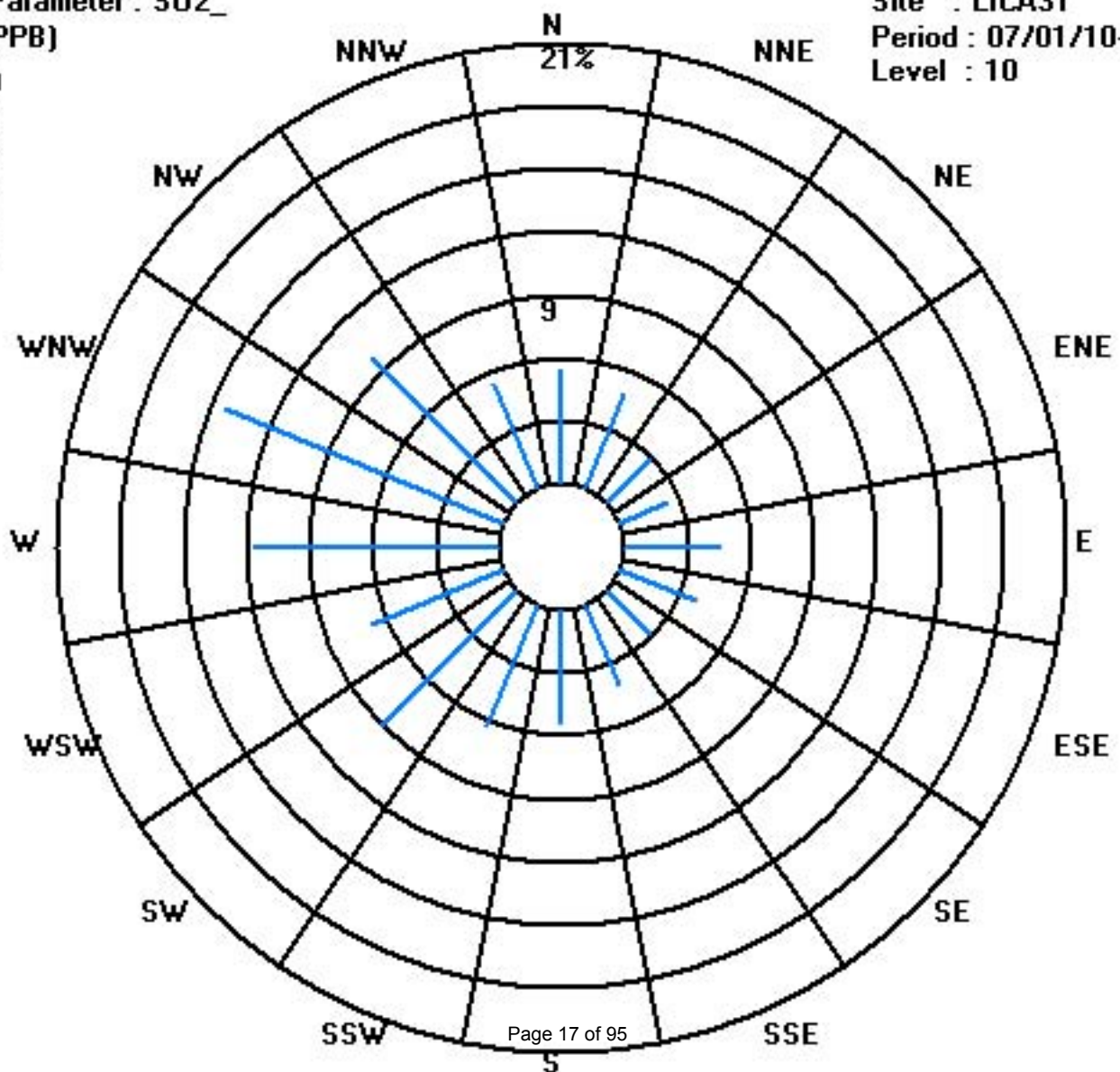
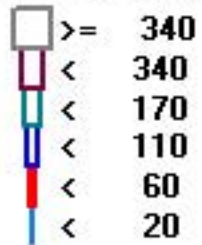
Calm : .00 %

Total # Operational Hours : 699

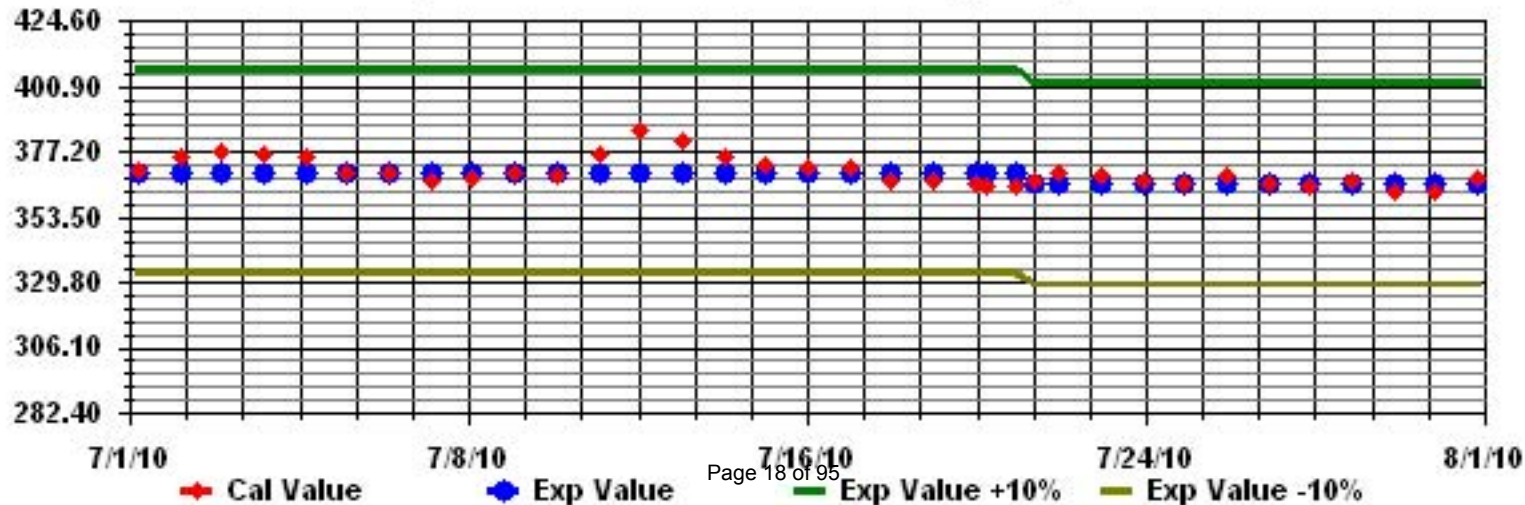
Class Limits (PPB)

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

Level : 10



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



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	DAILY 24-HOUR		
DAY	HOURLY MAX	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
1		1	2	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24	
2		1	0	1	IZS	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
3		0	0	IZS	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
4		0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5		IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
7		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
8		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24
9		0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
10		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
11		0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
12		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	1	0.7	24	
13		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24	
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	0.0	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	0.0	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	0.0	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	0.0	24	
18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
19		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
20		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
21		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
22		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
23		1	1	0	1	1	IZS	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24	
24		1	1	0	1	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	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	0.0	24	
26		0	1	IZS	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
27		0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
28		IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
29		0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
30		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
31		0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
HOURLY MAX		1	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
HOURLY AVG		0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

STATUS FLAG CODES

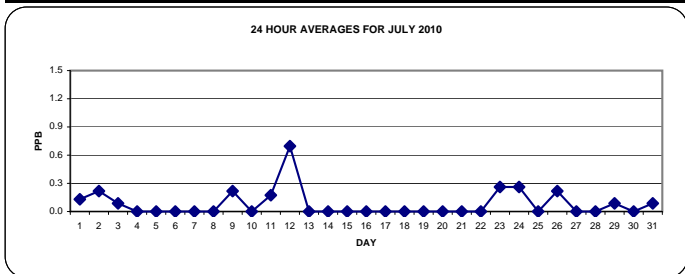
S - OUT OF SERVICE	IZS - IZS - DAILY ZERO/SPAN CHECK
N - INVALID DATA	M - MAINTENANCE
D - INSTRUMENT DRIFT	P - POWER FAILURE
C - CALIBRATION	NA - NOT APPLICABLE

OBJECTIVE LIMIT:

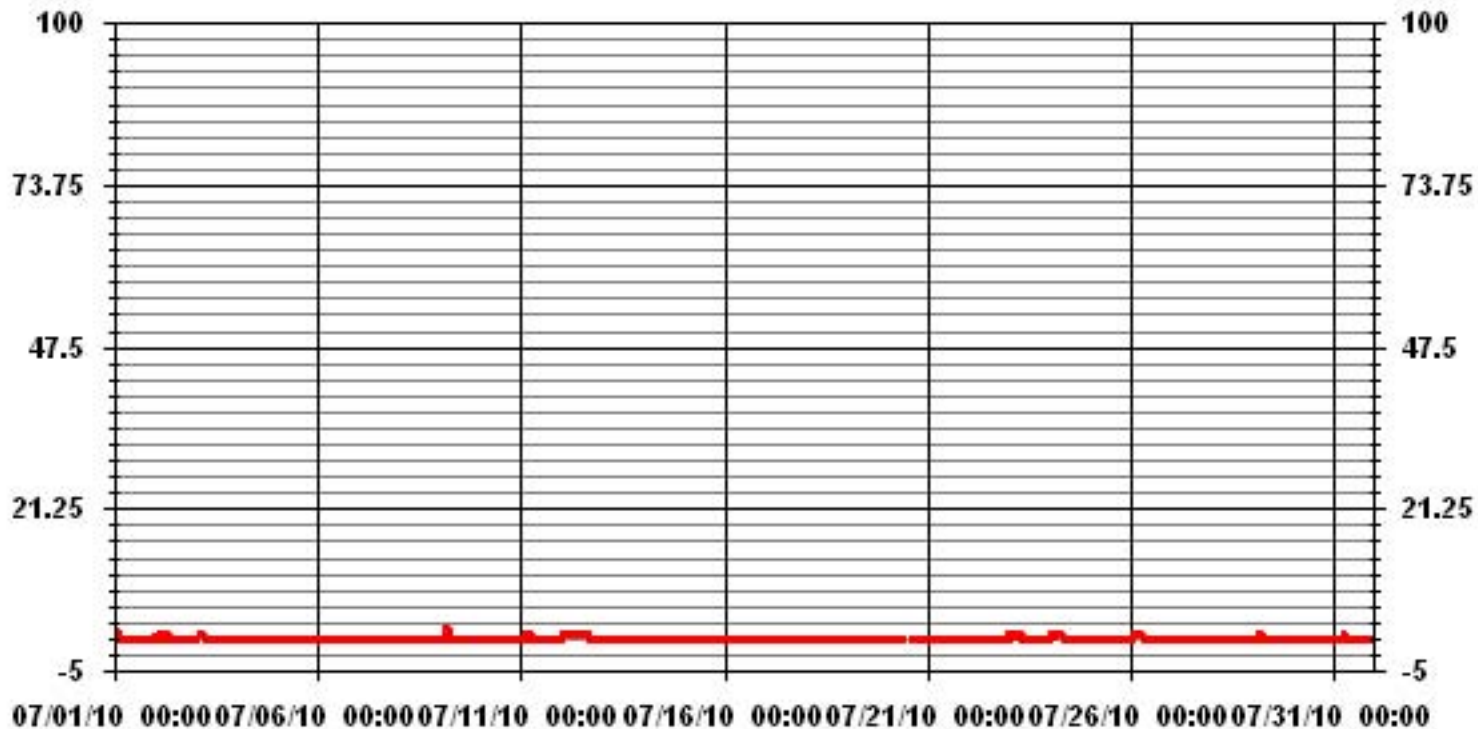
ALBERTA ENVIRONMENT: 1-HR 10 PPB 24-HR 3 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0				
NUMBER OF 24-HR EXCEEDENCES:	0				
NUMBER OF NON-ZERO READINGS:	53				
MAXIMUM 1-HR AVERAGE:	2	PPB	@ HOUR(S)	VAR	ON DAY(S) 1,9
MAXIMUM 24-HR AVERAGE:	0.7	PPB			ON DAY(S) 12
					VAR-VARIOUS
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744 HRS	
MONTHLY CALIBRATION TIME:	6	HRS	AMD OPERATION UPTIME:	100.0 %	
STANDARD DEVIATION:	0.29		MONTHLY AVERAGE:	0.08 PPB	



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
1	2	3	2	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.3	24	
2	2	2	2	IZS	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	
3	1	1	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.3	24	
4	0	IZS	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
5	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
7	0	0	0	0	0	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	1	0.0	23
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0.0	24
9	0	0	0	0	3	3	1	1	M	0	0	0	0	0	0	0	0	0	0	P	IZS	0	0	0	1	3	0.4	22	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0.0	24	
11	0	0	1	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	1	1	2	0.5	24	
12	1	1	1	1	1	1	1	1	1	1	1	1	1	P	1	P	IZS	0	0	0	0	0	0	0	0	1	0.7	22	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
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	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	0.0	24	
17	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
19	0	0	0	0	0	1	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
20	0	0	0	0	0	0	0	0	IZS	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	24	
21	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.0	24	
22	0	0	0	0	0	0	0	IZS	1	1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0.2	24	
23	1	1	0	1	1	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	24	
24	1	1	1	1	IZS	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.4	24	
25	0	P	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	23	
26	0	4	IZS	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.4	24	
27	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
28	IZS	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.1	24
29	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	0.4	24
30	P	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	IZS	1	0	1	0.1	23	
31	0	0	0	1	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	1	3	0.4	24
HOURLY MAX	2	4	2	2	3	3	1	1	1	1	1	1	1	0	1	0	0	0	0	1	0	1	1	1	1				
HOURLY AVG	0.3	0.5	0.3	0.4	0.5	0.6	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.2				

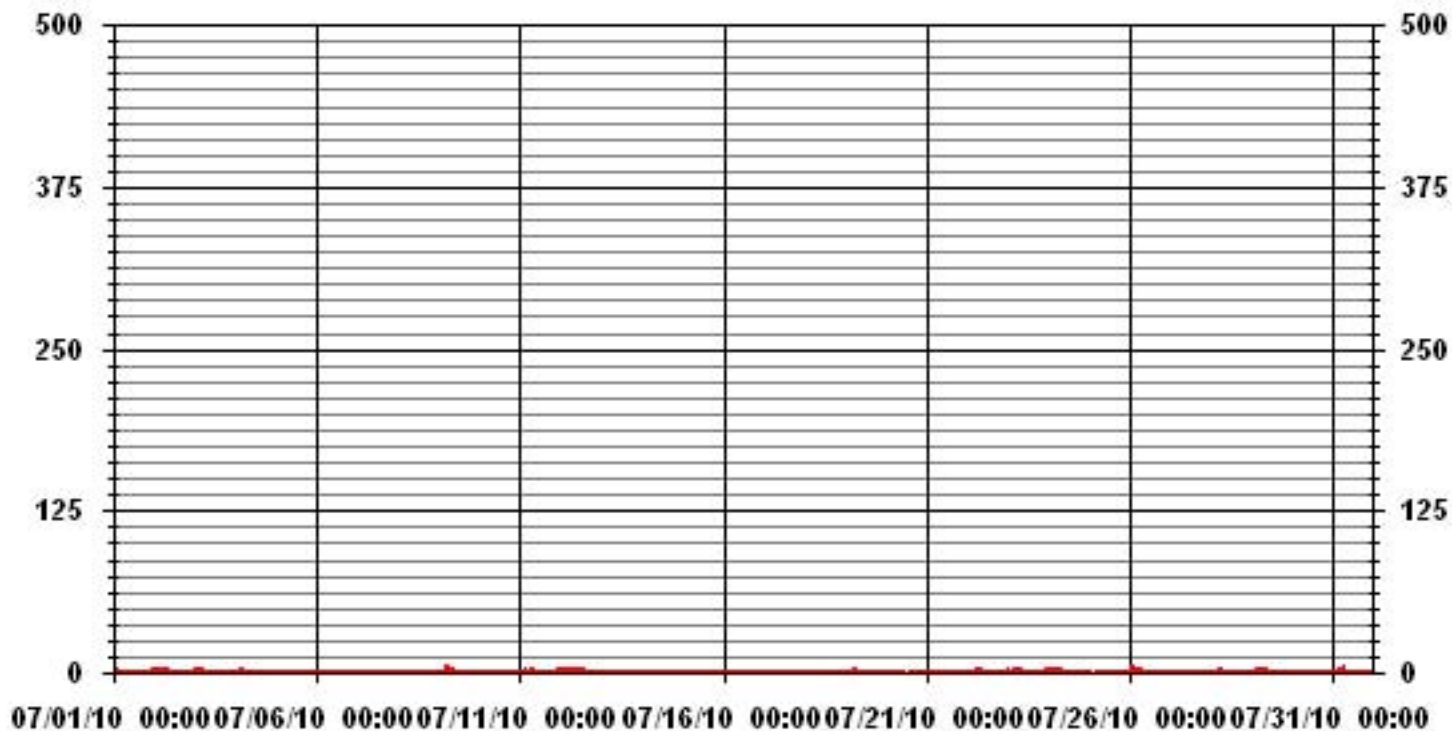
STATUS FLAG CODES

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:	105				
MAXIMUM INSTANTANEOUS VALUE:	4	PPB	@ HOUR(S)	1	ON DAY(S) 26
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	737	HRS
MONTHLY CALIBRATION TIME:	8	HRS			
STANDARD DEVIATION:	0.47				

01 Hour Averages



— LICA31 H2S MAX PPB

LICA31
H2S_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	5.41	4.84	2.99	2.42	4.55	3.84	2.99	4.27	5.41	6.41	9.11	6.69	11.53	14.24	9.68	5.55	100.00
< 10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	5.41	4.84	2.99	2.42	4.55	3.84	2.99	4.27	5.41	6.41	9.11	6.69	11.53	14.24	9.68	5.55	

Calm : .00 %

Total # Operational Hours : 702

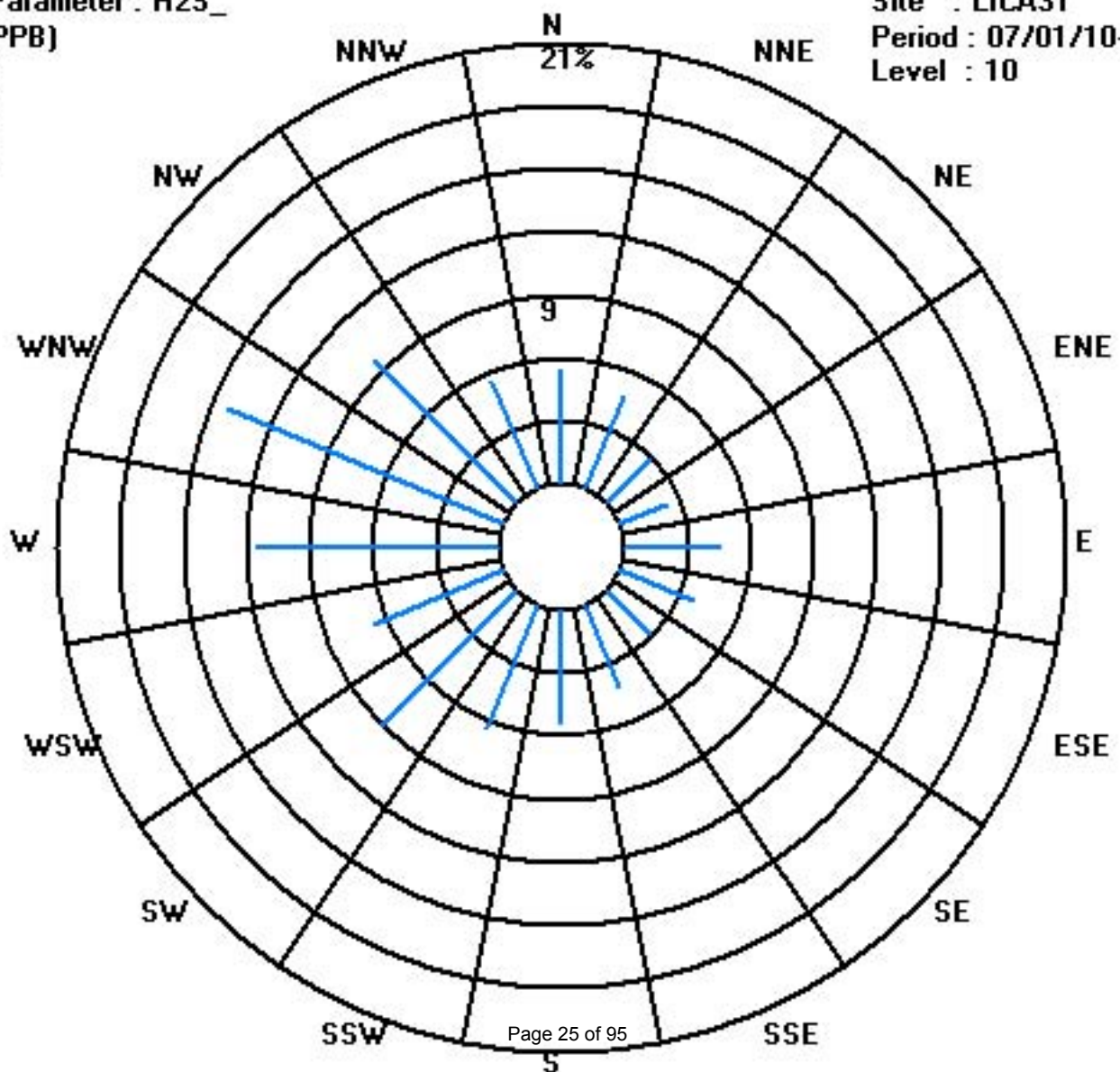
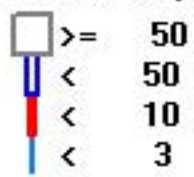
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	38	34	21	17	32	27	21	30	38	45	64	47	81	100	68	39	702
< 10																	
< 50																	
>= 50																	
Totals	38	34	21	17	32	27	21	30	38	45	64	47	81	100	68	39	

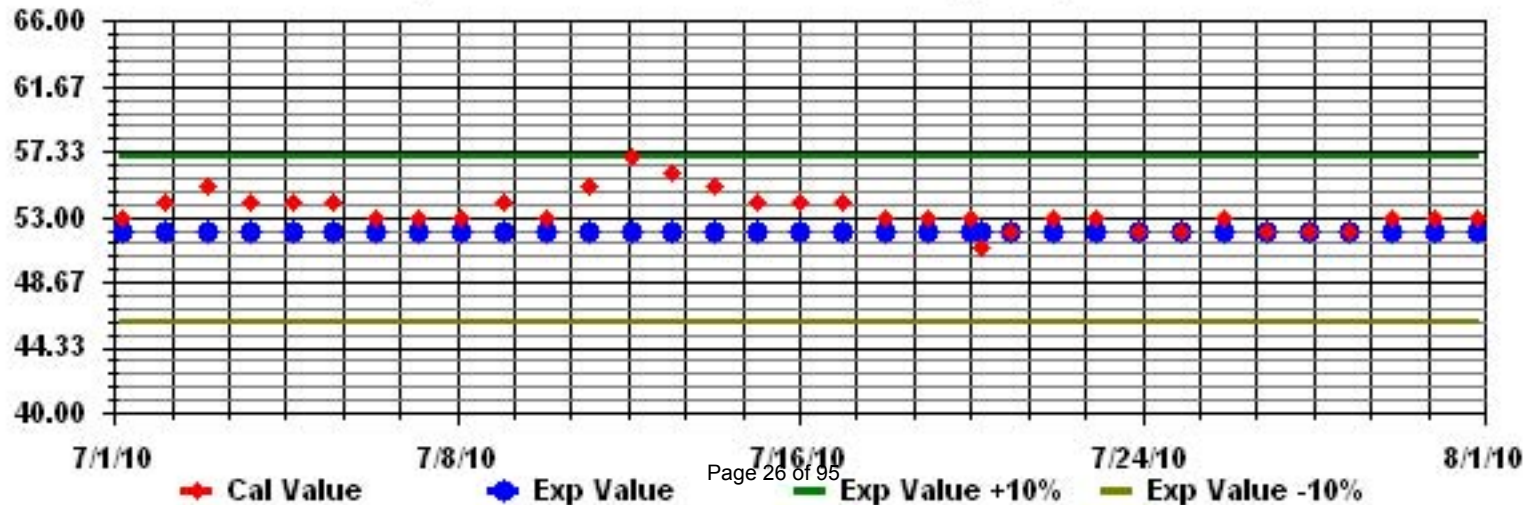
Calm : .00 %

Total # Operational Hours : 702

Class Limits (PPB)



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



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

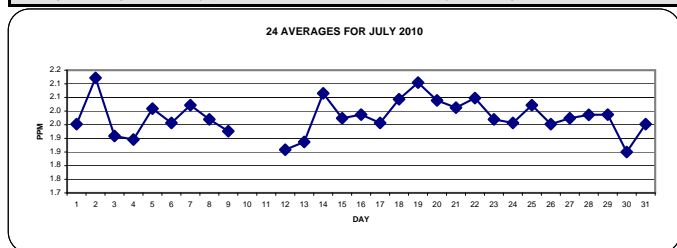
JULY 2010

TOTAL HYDROCARBONS hourly averages in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR			
DAY	HOURLY MAX	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
1		2	2	2	2	IZS	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2.1	2.1	2.0	24			
2		2.1	2.2	2.3	IZS	2.3	2.3	2.3	2.2	2.3	2.1	2.1	2.1	2.1	2	1.9	1.9	2.1	2.3	2.4	1.9	2	2	1.9	2	2.4	2.1	24		
3		1.9	1.9	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	2	2.0	1.9	24			
4		1.9	IZS	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2	1.9	1.9	2	2	2.0	1.9	24		
5		IZS	1.9	1.9	1.9	2	2.1	2.1	2	2	2	1.9	2	2	2	2	2	2	2	2	2	2.1	2	2.1	2.2	IZS	2.2	2.0	24	
6		2	2	2	1.9	1.9	2	2	2	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	IZS	2.1	2.1	2.0	24		
7		2	1.9	1.9	2	2.4	2.1	2	1.9	1.9	1.9	1.9	2	2.1	2	2	1.9	2	2	2	2	2.7	1.9	IZS	2	2	2.7	2.0	24	
8		2	2	2	2	2.1	2.1	2	2	2	2	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	1.9	1.9	2.1	2.0	24	
9		1.9	2	1.9	1.9	2.1	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	N	N	N	N	N	N	1.9	1.9	19	
10		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
11		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
12		N	N	N	N	N	N	N	N	N	C	C	2.1	2	1.9	1.8	1.8	IZS	1.8	1.8	1.7	1.8	1.7	1.9	2	2.1	1.9	15		
13		2	2.1	2	1.8	1.9	2	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.8	1.8	IZS	1.8	1.9	1.9	1.9	1.9	2.1	2.6	2.6	1.9	24			
14		2.8	2.1	2	2.2	2.2	2.3	2.2	2.1	2	2.2	2.1	2	2	1.9	IZS	2	2	1.9	2	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.1	24	
15		1.9	1.9	2.1	2	1.9	2	2	2.1	2	2	2	1.9	2	1.9	IZS	1.9	2	1.9	1.9	1.9	1.9	2.1	1.9	2.1	1.9	2.0	24		
16		2.2	2.1	2	2.3	2.2	2	2	2	2	1.9	2	2	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	2.3	2.0	24		
17		2	1.9	1.9	2	1.9	1.9	2	2	1.9	1.9	2	IZS	1.9	1.9	1.9	2	2	2	2	2.1	2	1.9	2	2	2.1	2.0	24		
18		2	2	2.2	2.2	2.4	2.1	2	2	2	2	IZS	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2.1	2.1	2	2.1	2.3	2.4	2.0	24	
19		2.1	2.1	2.1	2	2.3	2.3	2.2	2.1	2.1	IZS	2	2	2	2	2	2	2	1.9	1.9	2	2	2.1	2.7	2.5	2.1	24			
20		2.1	2	2	2.2	2.2	2.2	2.1	IZS	2	2	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.2	2.0	24	
21		2	2.1	2.1	2.1	2.2	2.1	2	IZS	C	C	C	C	C	C	1.9	C	1.9	1.9	2	2	1.9	2	2	2	2.2	2.0	24		
22		2	2.1	2.2	2.2	2.2	2.2	IZS	2.3	2.2	2.2	2.1	2.1	2	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	1.9	2.3	2.0	24		
23		2	2	2	2.1	2	IZS	2.1	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	1.9	2	2	2	2	2	2.1	2.0	24		
24		2	2	2	2.1	IZS	2.1	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	24		
25		2.1	2	2.2	IZS	2.2	2.1	1.9	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.6	1.9	1.9	2.1	2.2	2.6	2.0	24		
26		1.9	2	IZS	2	2.1	2	2	1.9	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.1	2	1.9	2.1	2.0	24		
27		1.9	IZS	2.1	2.1	2.1	2	2	2	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2	2.1	2.0	24	
28		IZS	2	2	2	2	2	2.1	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2.1	2.1	2	IZS	2.1	2.0	24		
29		1.9	2	2	2.1	2.1	2.1	2.1	2	2	2	2	1.9	1.9	1.9	2	1.9	1.9	1.9	2	2	1.9	2.1	IZS	2	2.1	2.0	24		
30		N	N	N	N	N	N	N	N	N	N	C	C	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	IZS	1.9	1.9	1.9	1.9	13		
31		2.2	2	1.9	1.9	1.9	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	IZS	2	2.1	2	2.2	2.0	24			
HOURLY MAX		2.8	2.2	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.3	2.4	2.7	2.1	2.1	2.7	2.6					
HOURLY AVG		2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1					

STATUS FLAG CODES

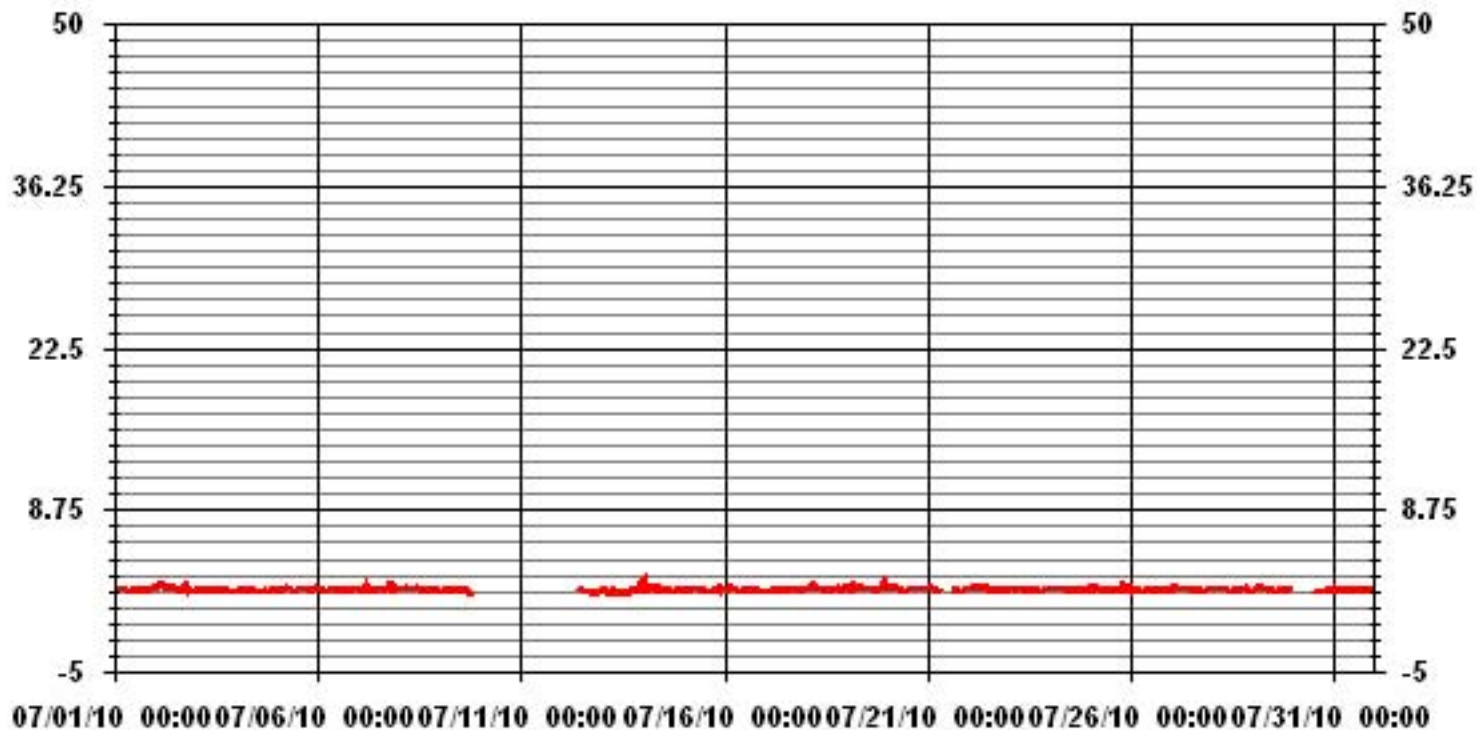
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	630					
MAXIMUM 1-HR AVERAGE:	2.8	PPM	@ HOUR(S)	0	ON DAY(S)	14
MAXIMUM 24-HR AVERAGE:	2.1	PPM			ON DAY(S)	2, 14
					VAR- VARIOUS	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	671	HRS	
MONTHLY CALIBRATION TIME:	11	HRS	AMD OPERATION UPTIME:	90.2	%	
STANDARD DEVIATION:	0.13		MONTHLY AVERAGE:	1.98	PPM	

01 Hour Averages



— LICA31 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	2.1	2.1	2	2.3	IZS	2.1	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.3	2.3	2.0	24
2	2.2	2.3	2.6	IZS	2.3	2.4	2.4	4.4	3.7	2.9	3.1	3.3	3.4	3.2	2.8	2.6	3.2	4.6	6.5	1.9	2	2	2	2.1	6.5	3.0	24
3	2.1	2.4	IZS	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.2	2	2.4	2.6	2.3	2.3	2.4	2.7	2	3.9	2.7	5.9	4	5.3	5.9	2.6	24
4	1.9	IZS	2	2	1.9	2	1.9	1.9	2.1	2	2.7	1.9	1.9	1.9	1.8	1.9	2.3	2.6	2.8	3	2.8	3.3	2.9	3.3	2.2	24	
5	IZS	2.7	2.5	2.5	2.9	3.2	3.3	2.9	2.9	3.2	2.5	4	2.7	3.1	3.3	2.8	2.8	2.5	2.6	4.7	4.1	3.2	3.4	IZS	4.7	3.1	24
6	2.7	2.4	3.1	2.7	2	2.2	2.7	2.5	2.8	3.4	2.9	2.7	2.3	2.6	2.5	2.2	2.6	1.9	2.5	2.5	3.2	3.4	IZS	4.8	4.8	2.7	24
7	4.1	2.5	2	2	6.7	P	2.7	1.9	2	2.2	2.5	2.5	2.8	2.9	2.9	2.5	3	3	3	5.3	1.9	IZS	2	2	6.7	2.8	23
8	2	2	2.1	2	2.9	3.6	2	2	2.6	2.7	3.1	6.8	2.4	2.6	2.3	1.9	1.9	1.9	1.9	IZS	2	2	2.1	6.8	2.5	24	
9	2.6	2	1.9	2	2.1	2.1	2.1	2.1	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	P	N	N	N	N	N	N	2.6	2.0	17
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0
12	N	N	N	N	N	N	N	N	N	C	C	2.2	2.2	P	1.9	P	IZS	2.2	1.8	1.8	2.4	1.8	2.6	3.1	3.1	2.2	13
13	5.1	4.6	5.3	3.7	2	2	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	4	6.7	6.7	2.6	24
14	6.9	3.9	2.7	3.3	3.2	3.1	3.2	2.6	3	3.2	3.3	2.9	2.5	2.3	IZS	2.7	3.1	2	2.6	2.3	2	2	3	2.1	6.9	3.0	24
15	2	1.9	3.4	2.9	2.8	3.7	2.2	2.8	2.7	2.5	2.6	2.2	2.4	IZS	2.6	4.4	2.1	5	2.3	1.9	17	1.9	4.8	3.1	17	3.4	24
16	3.9	3.4	2.7	6.8	3.7	2.2	3.2	2.7	2.5	2.2	2.8	2.6	IZS	3.1	2.5	3.1	2.2	1.9	1.9	2.1	2.6	1.9	2.5	1.9	6.8	2.8	24
17	2.3	2	1.9	2.5	2	2	2.1	2.2	2.3	2.2	2.6	IZS	2.3	2.1	2.1	2.5	2.3	2.7	2.8	2.9	1.9	2.1	2.1	2	2.9	2.3	24
18	2	3	3.7	3.1	4.6	4	2.6	2.2	2.2	2.4	IZS	2	2.3	2	2.1	2.2	3.2	4.1	3.3	6.1	2.8	2.9	3.5	4.5	6.1	3.1	24
19	3.2	4.3	4.5	3.9	3.6	3.7	3.5	2.8	3.1	IZS	2.7	2.2	2.7	2.1	2	2.4	2.4	2	2	2.2	2.1	4	19	9	19	3.9	24
20	4.1	2.2	2.2	4.8	3.6	8	3.7	3	IZS	2.4	2.5	2.3	3.3	3.3	2.4	2.5	3.1	2	2	2.1	2.1	2	2.1	2	8	2.9	24
21	2	2.1	2.1	2.2	2.2	2.1	2.1	IZS	C	C	C	C	C	C	C	C	C	2.3	2.7	2	1.9	2	2.1	2.1	2.7	2.1	24
22	2	2.1	2.2	2.2	2.2	IZS	2.3	2.3	2.2	2.2	2.1	2	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2.1	2	2	2.3	2.1	24
23	2	2	2	2.3	2.2	IZS	2.1	2.1	2.2	2	1.9	1.9	1.9	1.9	2	2.1	3.1	2.7	2	2.4	2.1	2	2	3.1	2.1	2.1	24
24	2	2.1	2.1	2.1	IZS	2.1	2.1	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.2	2.6	3.8	1.9	1.9	2	2.2	3.8	2.1	24
25	2.1	P	6.4	IZS	8.1	7.7	2.4	2.6	2.4	2.3	2.6	2.2	2.2	2.1	2	2.2	2.3	2.3	2.4	6.5	2.1	2.3	6.1	4.1	8.1	3.4	23
26	2	2.3	IZS	2.1	2.1	2	2	2.1	2.4	2.1	2.2	2.3	2.1	2.1	2.1	2.3	2.1	2.5	2.2	2.1	2.7	2.9	2.8	1.9	2.9	2.2	24
27	2.3	IZS	3.6	3.2	3	2.5	2.5	2.6	2.5	2.2	2.4	2.4	2.5	2.2	2.2	2.4	2.1	1.9	1.9	2	2	2	2	2	3.6	2.4	24
28	IZS	2	2	2	2	2	2.1	2.1	2	2	2	2	2	1.9	1.9	1.9	1.9	2	2	2.1	2.1	2.1	2	IZS	2.1	2.0	24
29	2	2	2.1	2.2	2.2	2.1	2.1	2.1	2	2	2	2	2	2	2.1	2.1	2	2	3.3	2.9	2.1	2.6	IZS	2.2	3.3	2.2	24
30	P	N	N	N	N	N	N	N	N	N	N	N	N	C	C	2	1.9	1.9	1.8	3.6	2.9	IZS	2	3.1	3.6	2.3	12
31	5.1	3	1.9	1.9	2	2	2	2	2.2	2.2	2.2	2.4	2.2	2	2	2	2.4	2.4	3	3.5	IZS	2.6	3.6	5.3	5.3	2.6	24
HOURLY MAX	7	5	6	7	8	8	4	4	4	3	3	7	3	3	3	4	3	5	7	7	17	6	19	9			
HOURLY AVG	2.8	2.6	2.8	2.7	3.0	2.9	2.4	2.4	2.4	2.3	2.4	2.5	2.3	2.3	2.2	2.3	2.3	2.4	2.5	2.9	2.9	2.5	3.4	3.2			

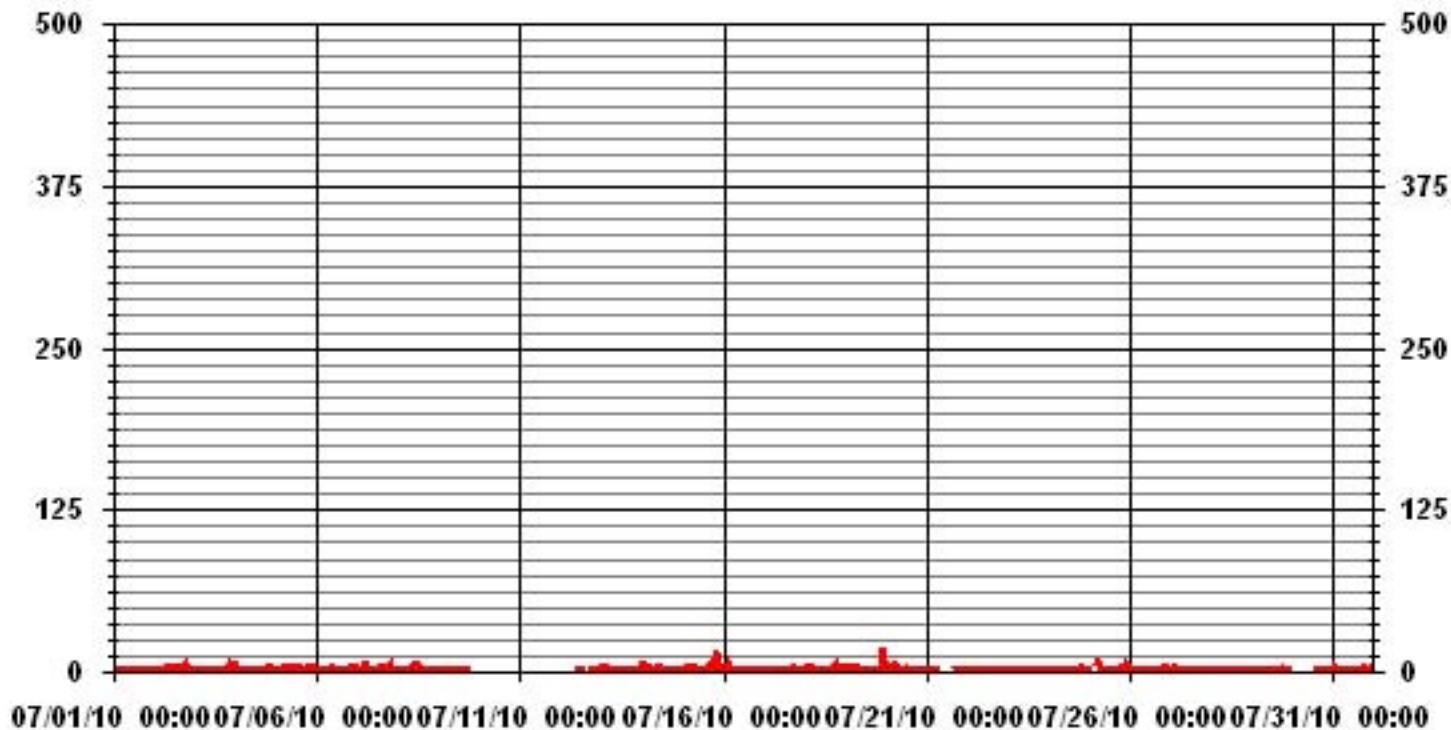
STATUS FLAG CODES

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
BB	- BELOW BACKGROUND OF 1.5 PPM		

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	621					
MAXIMUM INSTANTANEOUS VALUE:	19.0	PPM	@ HOUR(S)	22	ON DAY(S)	19
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	664	HRS	
MONTHLY CALIBRATION TIME:	13	HRS				
STANDARD DEVIATION:	1.30					

01 Hour Averages



— LICA31 THCMAX PPM

LICA31
 THC / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	4.46	3.50	1.75	2.23	4.30	3.98	2.55	3.98	4.94	6.53	10.20	7.33	13.07	15.62	9.88	5.58	100.00
< 10.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	4.46	3.50	1.75	2.23	4.30	3.98	2.55	3.98	4.94	6.53	10.20	7.33	13.07	15.62	9.88	5.58	

Calm : .00 %

Total # Operational Hours : 627

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	28	22	11	14	27	25	16	25	31	41	64	46	82	98	62	35	627
< 10.0																	
< 50.0																	
>= 50.0																	
Totals	28	22	11	14	27	25	16	25	31	41	64	46	82	98	62	35	

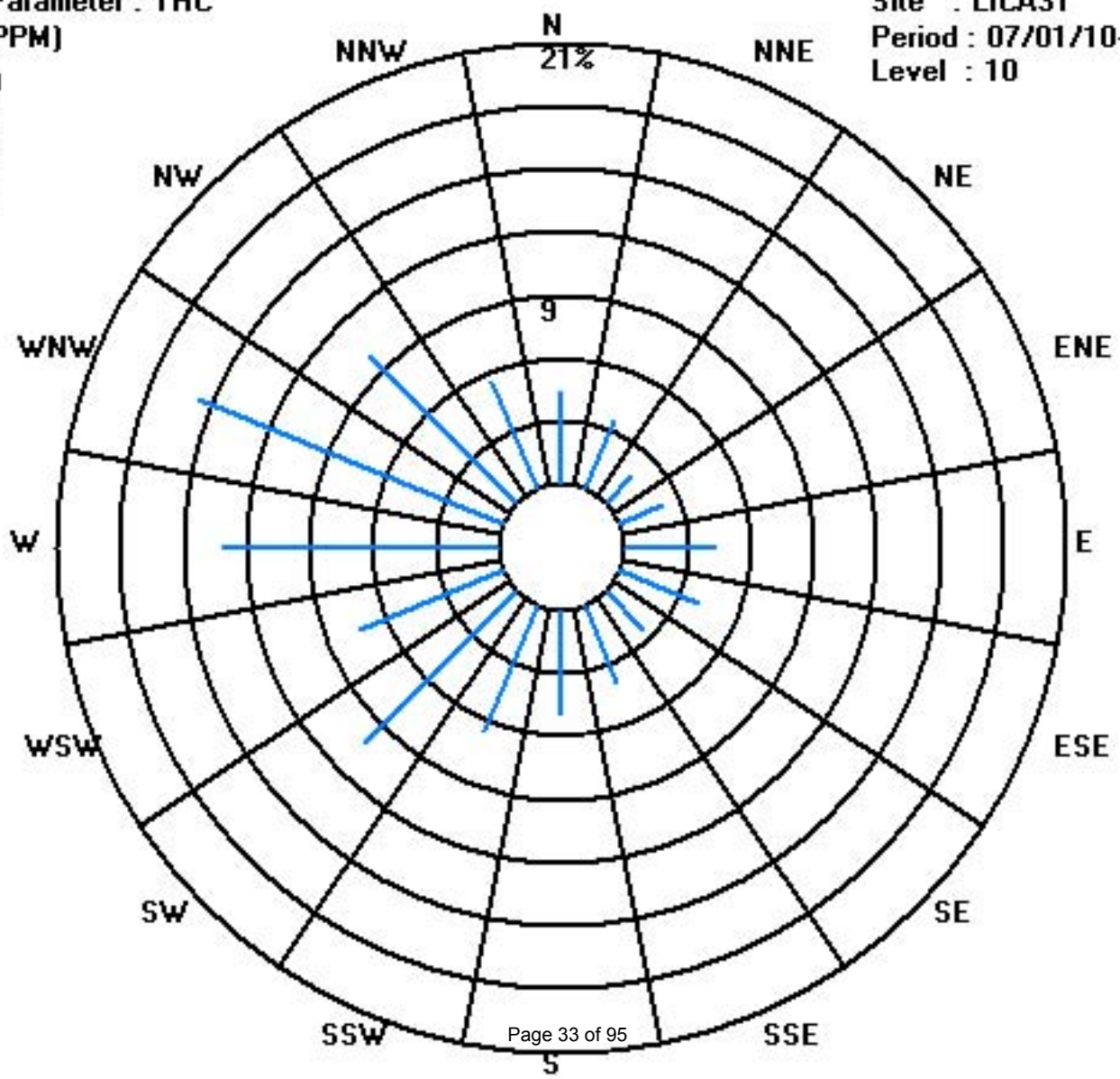
Calm : .00 %

Total # Operational Hours : 627

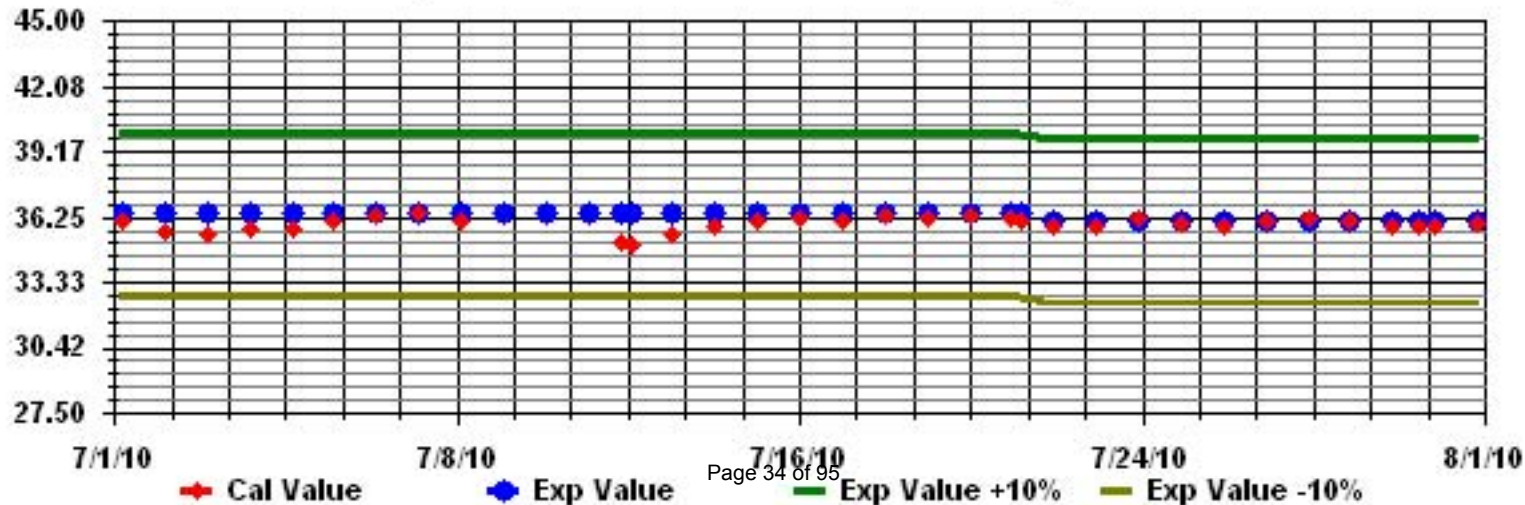
Class Limits (PPM)

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

Level : 10



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



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

OZONE (O₃) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	RDGS.
DAY	DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	
1	1	14	13	15	15	IZS	9	10	13	17	20	23	26	27	30	33	34	35	35	34	30	28	26	26	26	35	23.4	24
2	2	26	25	23	IZS	25	23	23	24	26	32	36	38	38	37	35	35	31	29	25	22	26	28	23	22	38	28.3	24
3	3	22	22	IZS	18	17	16	16	16	20	22	24	25	25	24	25	26	25	23	23	23	17	14	15	26	21.0	24	
4	4	14	IZS	17	14	15	14	16	18	22	26	27	27	29	30	26	25	25	22	19	19	19	18	18	18	30	20.8	24
5	5	IZS	19	18	19	18	17	16	15	16	18	24	24	26	32	30	31	30	28	31	29	31	32	33	IZS	33	24.4	24
6	6	26	27	26	24	24	21	19	21	22	22	23	23	25	27	28	26	24	29	32	29	26	24	IZS	23	32	24.8	24
7	7	21	19	18	18	19	18	16	17	18	19	20	24	26	27	30	30	31	30	29	27	IZS	21	18	31	22.9	24	
8	8	19	19	16	17	17	18	14	18	26	28	25	23	24	26	27	28	26	25	24	20	IZS	18	15	16	28	21.3	24
9	9	15	13	14	14	8	9	9	15	18	20	21	25	32	37	35	39	39	36	34	IZS	28	30	24	19	39	23.2	24
10	10	19	23	20	18	16	13	12	16	19	25	26	27	28	28	28	29	30	29	IZS	26	25	25	24	23	30	23.0	24
11	11	24	24	19	16	14	13	16	20	27	32	35	34	33	35	35	40	36	IZS	34	33	31	27	26	25	40	27.3	24
12	12	25	25	24	22	20	20	23	23	25	25	28	30	37	33	35	33	IZS	33	27	26	25	24	22	23	37	26.4	24
13	13	22	20	18	17	24	30	29	26	26	29	31	34	32	34	33	IZS	34	29	28	28	26	24	20	24	34	26.9	24
14	14	24	26	23	18	16	15	14	14	14	15	16	19	22	28	IZS	30	30	28	26	24	24	22	20	19	30	21.2	24
15	15	18	18	18	19	15	11	14	17	21	24	25	27	28	IZS	30	29	29	29	31	26	23	21	23	26	31	22.7	24
16	16	25	27	24	29	33	25	27	22	21	20	19	20	IZS	33	29	26	24	21	23	24	24	21	21	22	33	24.3	24
17	17	20	18	18	19	17	14	12	15	18	20	22	IZS	24	24	25	24	24	26	27	26	23	24	22	19	27	20.9	24
18	18	20	21	22	21	20	19	15	19	24	26	IZS	27	27	27	26	26	28	29	24	22	22	24	22	29	23.2	24	
19	19	24	22	22	21	16	13	13	13	15	IZS	21	26	28	23	22	22	23	21	20	19	18	20	17	17	28	19.8	24
20	20	16	20	22	22	19	14	14	19	IZS	26	30	30	25	24	23	C	25	24	25	26	26	27	24	30	23.0	24	
21	21	22	18	17	14	11	14	17	IZS	25	28	29	32	32	32	C	C	C	C	29	27	28	28	27	26	32	24.0	24
22	22	28	26	27	28	30	29	IZS	28	31	38	43	46	46	46	45	45	43	43	38	35	33	29	32	37	46	35.9	24
23	23	34	32	34	30	29	IZS	23	24	31	34	40	43	43	44	41	38	38	36	32	29	29	28	25	44	33.9	24	
24	24	24	22	20	18	IZS	16	17	21	24	29	34	36	36	35	35	36	37	32	35	26	18	18	20	19	37	26.4	24
25	25	24	27	27	IZS	21	25	21	21	24	25	26	28	28	30	30	32	32	27	24	23	25	24	23	24	32	25.7	24
26	26	24	16	IZS	16	17	17	24	31	28	22	20	20	19	20	24	23	24	23	21	21	18	17	16	14	31	20.7	24
27	27	13	IZS	12	11	11	11	11	13	15	17	21	23	25	28	31	35	33	32	31	30	29	29	25	26	35	22.3	24
28	28	IZS	29	29	29	28	28	25	24	26	27	29	32	32	34	35	33	31	28	28	27	25	24	26	IZS	35	28.6	24
29	29	36	31	26	20	16	15	15	17	20	26	32	40	45	46	48	48	50	50	48	50	49	39	IZS	37	50	35.0	24
30	30	45	44	38	40	36	31	28	34	39	42	45	45	45	50	49	46	40	36	32	28	IZS	35	42	50	39.8	24	
31	31	41	41	39	36	32	24	21	24	30	32	34	35	36	37	36	37	38	37	34	29	IZS	28	28	26	41	32.8	24
HOURLY MAX		45	44	39	40	36	31	29	34	39	42	45	46	46	46	50	49	50	50	48	50	49	39	35	42			
HOURLY AVG		23.6	23.7	22.3	20.8	20.1	18.1	17.7	19.9	22.9	25.6	27.6	29.6	30.8	31.8	32.2	32.5	31.8	30.3	29.2	27.1	26.1	24.7	23.3	23.3			

STATUS FLAG CODES

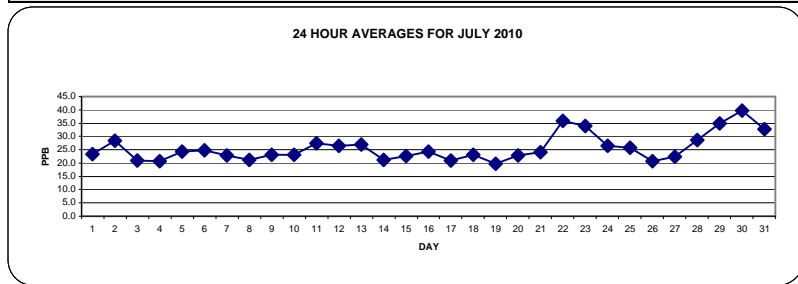
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

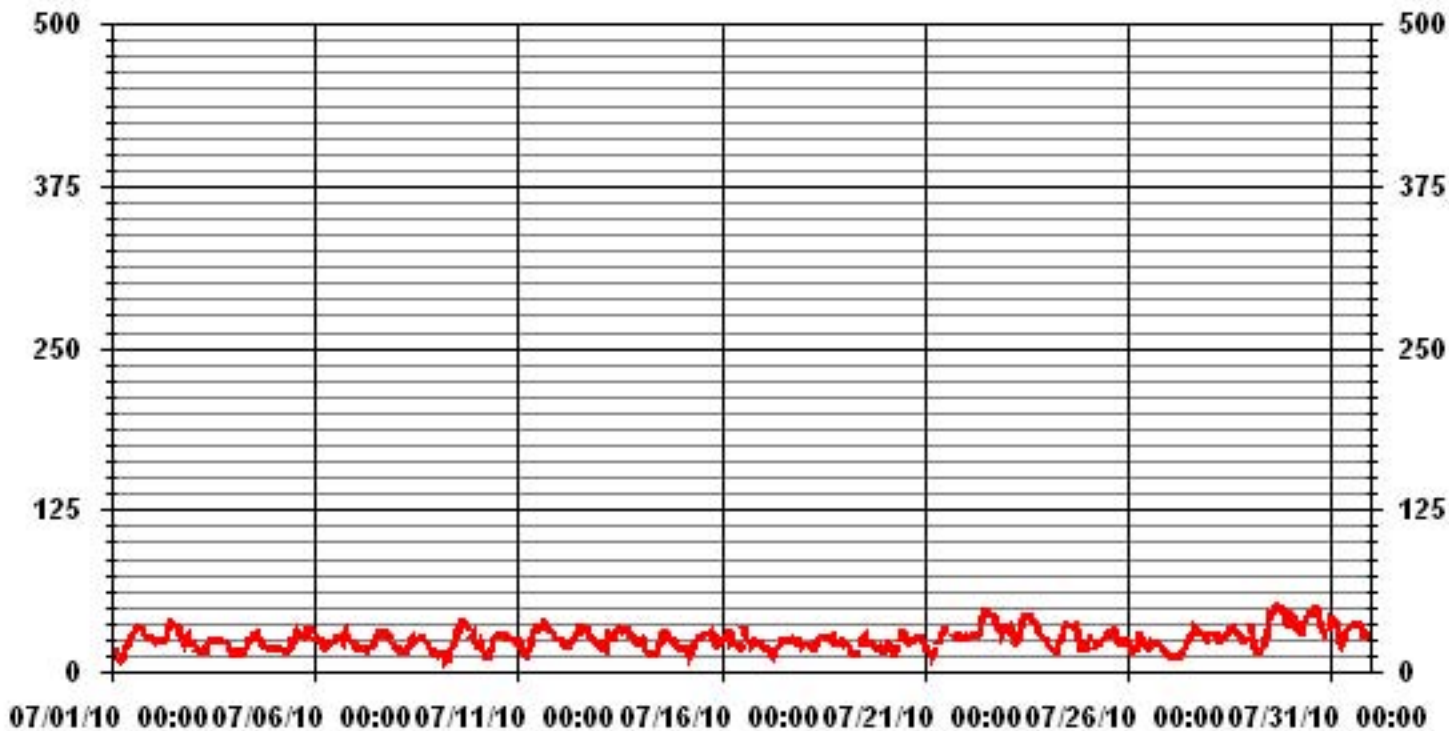
ALBERTA ENVIRONMENT: 1-HR 82 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0				
NUMBER OF NON-ZERO READINGS:	706				
MAXIMUM 1-HR AVERAGE:	50	PPB	@ HOUR(S)	VAR	ON DAY(S) 29, 30
MAXIMUM 24-HR AVERAGE:	39.8	PPB			ON DAY(S) 30
					VAR-VARIOUS
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME	100.0	%
STANDARD DEVIATION	7.85		MONTHLY AVERAGE	25.62	PPB



01 Hour Averages



— LICA31_03_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

OZONE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	31	34	31	25	IZS	37	11	29	34	38	47	32	39	40	43	49	63	51	49	46	32	34	34	39	63	37.7	24	
2	53	42	39	IZS	37	41	33	33	29	49	42	55	40	44	38	49	50	51	30	30	30	31	25	23	55	38.9	24	
3	23	33	IZS	26	19	26	38	28	38	46	32	32	41	41	32	28	32	31	31	32	37	26	23	46	31.6	24		
4	20	IZS	40	26	27	27	24	22	28	34	35	34	38	45	37	34	39	35	22	20	23	26	25	27	45	29.9	24	
5	IZS	24	32	25	19	18	18	16	17	21	27	25	30	41	34	33	32	32	36	32	38	61	47	IZS	61	29.9	24	
6	45	29	50	36	25	23	21	24	30	24	25	28	28	29	35	31	31	36	44	32	33	41	IZS	27	50	31.6	24	
7	23	29	20	19	20	P	24	18	30	21	23	28	39	30	32	31	31	32	32	42	39	IZS	27	34	42	28.4	23	
8	24	33	23	20	20	21	22	31	32	44	29	26	26	28	29	35	28	26	26	24	IZS	27	23	23	44	27.0	24	
9	20	14	17	27	22	15	21	23	M	22	34	35	46	45	52	46	49	51	P	IZS	42	34	27	23	52	31.7	22	
10	23	31	23	21	18	15	19	21	28	33	27	36	36	35	36	31	32	32	IZS	31	33	28	26	26	36	27.9	24	
11	28	29	24	28	23	22	25	26	38	35	42	42	41	42	44	52	51	IZS	51	47	71	41	36	33	71	37.9	24	
12	37	38	31	23	34	27	46	53	49	27	30	33	44	P	53	P	IZS	56	38	33	34	27	23	30	56	36.5	22	
13	27	27	20	18	34	34	37	31	34	35	55	43	43	45	39	IZS	36	42	30	32	29	41	35	32	55	34.7	24	
14	32	36	33	26	24	24	15	15	21	20	23	27	34	33	IZS	34	40	40	29	48	49	40	22	28	49	30.1	24	
15	22	18	25	34	18	16	19	24	40	37	27	40	31	IZS	31	31	37	37	38	30	29	33	38	42	42	30.3	24	
16	35	35	36	45	46	41	38	30	28	27	22	29	IZS	40	33	29	27	23	28	26	26	24	24	24	46	31.1	24	
17	22	21	20	20	19	16	14	17	20	22	24	IZS	25	25	54	45	61	33	29	28	25	31	23	20	61	26.7	24	
18	22	22	22	22	26	20	19	25	30	28	IZS	28	28	28	28	28	30	32	29	24	29	24	25	24	32	25.8	24	
19	25	28	24	26	20	16	20	19	18	IZS	23	29	30	29	25	26	25	22	21	21	24	20	19	30	23.3	24		
20	20	22	25	27	23	17	18	26	IZS	31	35	32	28	30	30	C	27	26	28	29	27	29	26	25	35	26.4	24	
21	23	20	19	18	12	21	23	IZS	28	31	31	38	33	C	C	C	C	C	35	28	31	30	34	29	38	26.9	24	
22	30	27	28	29	32	30	IZS	29	36	43	48	48	49	47	47	46	46	46	46	46	37	34	31	46	43	49	39.0	24
23	39	44	51	38	39	IZS	25	28	34	39	43	45	45	46	46	43	42	42	39	36	31	34	30	27	51	38.5	24	
24	27	24	22	20	IZS	18	19	24	27	33	37	37	38	36	37	37	40	84	40	36	20	19	22	23	84	31.3	24	
25	30	P	29	IZS	30	27	24	25	25	26	28	29	29	31	32	33	33	31	26	26	27	27	25	25	33	28.1	23	
26	38	25	IZS	21	18	21	32	36	36	33	28	27	20	21	28	26	26	25	22	22	20	18	17	15	38	25.0	24	
27	14	IZS	13	12	11	12	13	14	17	19	24	25	28	30	33	38	35	34	34	32	30	30	27	27	38	24.0	24	
28	IZS	30	30	31	29	29	27	26	27	29	31	34	33	36	37	36	32	31	30	29	26	25	30	IZS	37	30.4	24	
29	38	34	28	24	24	22	16	19	24	30	36	44	50	48	51	51	53	53	52	52	53	47	IZS	47	53	39.0	24	
30	P	48	42	42	41	36	37	39	47	46	48	48	48	47	52	52	48	47	41	36	33	IZS	45	45	52	44.0	23	
31	42	42	42	38	34	28	22	28	32	34	36	37	38	39	38	39	40	39	37	31	IZS	29	30	31	42	35.0	24	
HOURLY MAX	53	48	51	45	46	41	46	53	49	49	55	55	50	48	54	52	63	84	52	71	61	47	47	47				
HOURLY AVG	29.0	30.0	28.9	26.4	25.7	24.1	24.0	26.0	30.2	31.9	33.1	34.9	35.6	36.8	38.4	37.6	38.4	38.8	34.3	32.4	32.7	31.8	28.9	28.8				

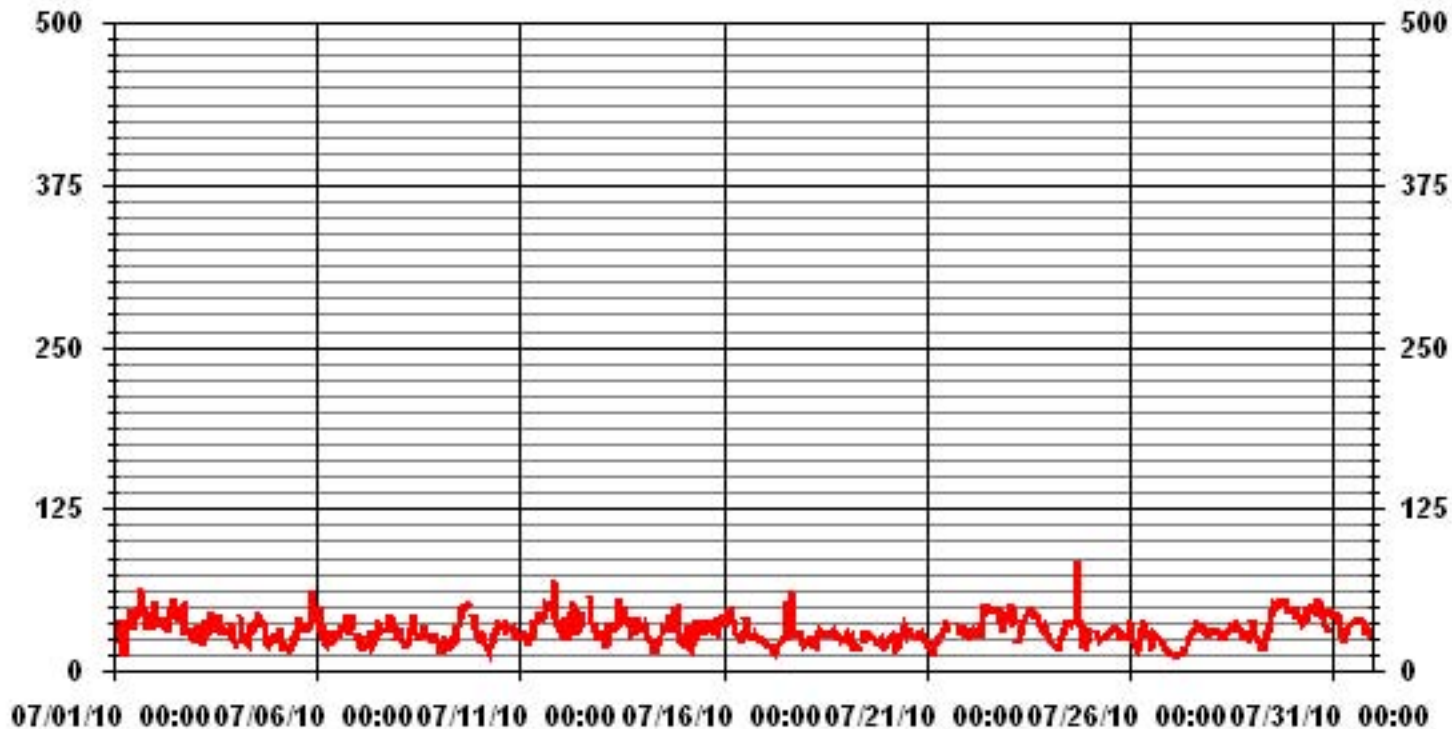
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	698					
MAXIMUM INSTANTANEOUS VALUE:	84	PPB	@ HOUR(S)	17	ON DAY(S)	24
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	737	HRS	
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION	9.67					

01 Hour Averages



— LICA31 O3MAX PPB

LICA31
 O3_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	5.12	4.83	2.98	2.41	4.55	3.84	2.98	4.12	5.40	6.25	9.10	6.82	11.66	14.36	9.53	5.40	99.43
< 110	.28	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.56
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	5.40	4.83	2.98	2.41	4.55	3.98	2.98	4.12	5.40	6.25	9.10	6.82	11.66	14.36	9.67	5.40	

Calm : .00 %

Total # Operational Hours : 703

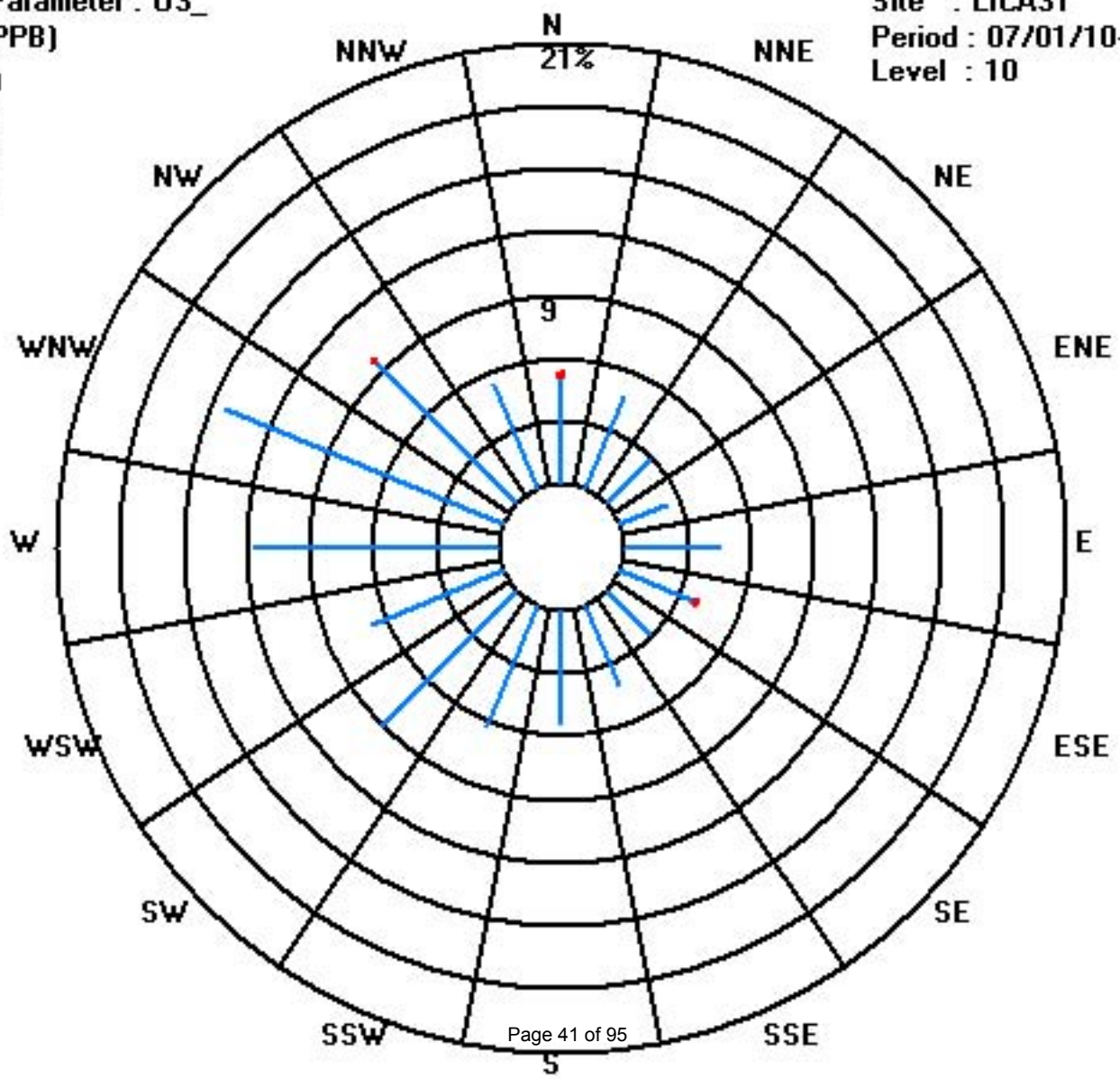
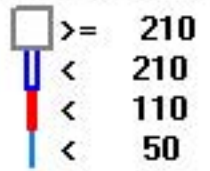
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	36	34	21	17	32	27	21	29	38	44	64	48	82	101	67	38	699
< 110	2					1									1		4
< 210																	
>= 210																	
Totals	38	34	21	17	32	28	21	29	38	44	64	48	82	101	68	38	

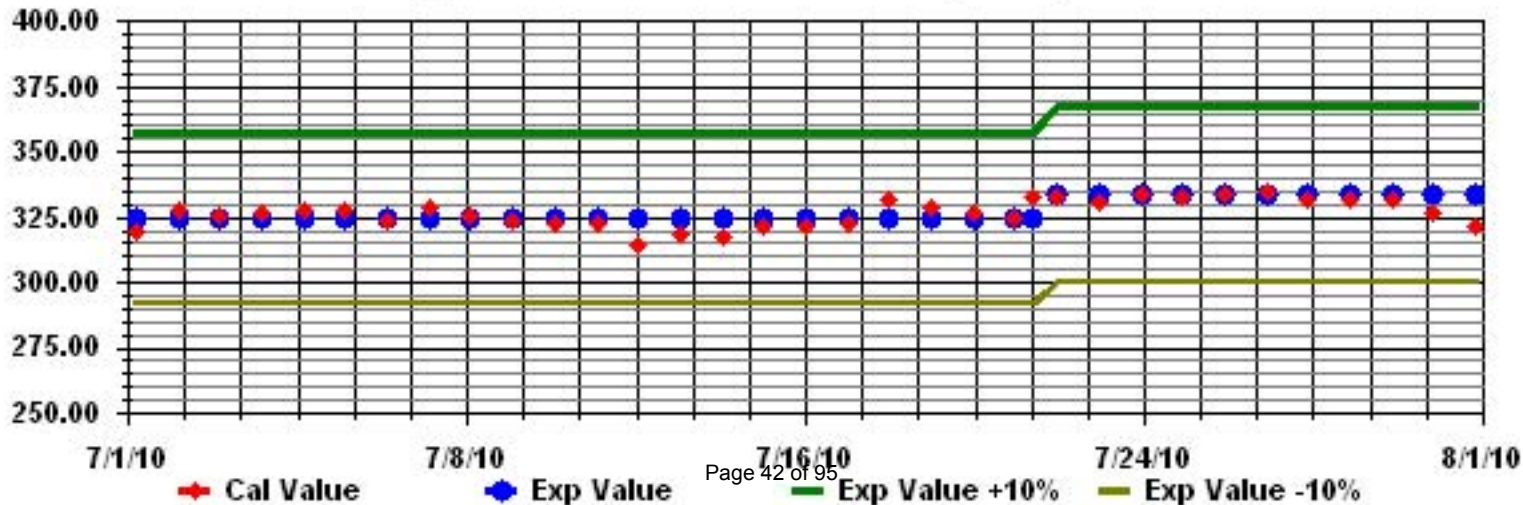
Calm : .00 %

Total # Operational Hours : 703

Class Limits (PPB)



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



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

NITROGEN DIOXIDE hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
DAY																												
1	0	0	0	1	IZS	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
2	0	0	1	IZS	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	24	
3	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1	24	
4	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
5	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	0.1	24	
8	1	0	0	1	3	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	3	0.3	24	
9	0	1	1	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	0	2	0.5	24	
10	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	1	0.1	24	
11	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	0.1	24	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24	
13	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	0.0	24	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	1	0	1	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	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	2	2	0.1	24
18	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0.1	24
20	1	1	0	0	1	1	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
21	0	0	0	0	1	1	0	C	C	C	C	C	C	C	C	C	0	0	1	1	0	0	1	2	2	0.5	24	
22	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24
23	0	0	0	0	0	IZS	1	1	1	1	1	0	0	0	1	1	1	1	0	1	1	1	2	2	2	0.7	24	
24	2	1	2	2	IZS	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.5	24	
25	1	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
26	0	0	IZS	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
27	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
28	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	IZS	0	1	0.1	24	
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	IZS	0	0	2	0.1	24	
31	0	0	1	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	2	0.4	24	
HOURLY MAX	2	1	2	2	3	2	2	1	1	1	1	1	0	0	0	1	1	1	1	1	1	2	1	2	2			
HOURLY AVG	0.3	0.1	0.3	0.3	0.5	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.3	0.3				

STATUS FLAG CODES

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

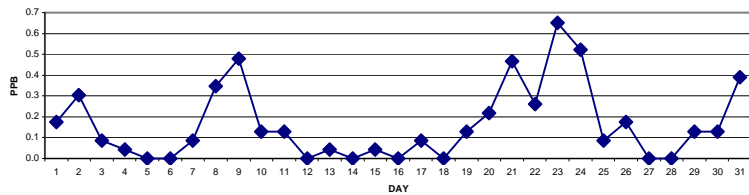
OBJECTIVE LIMIT:

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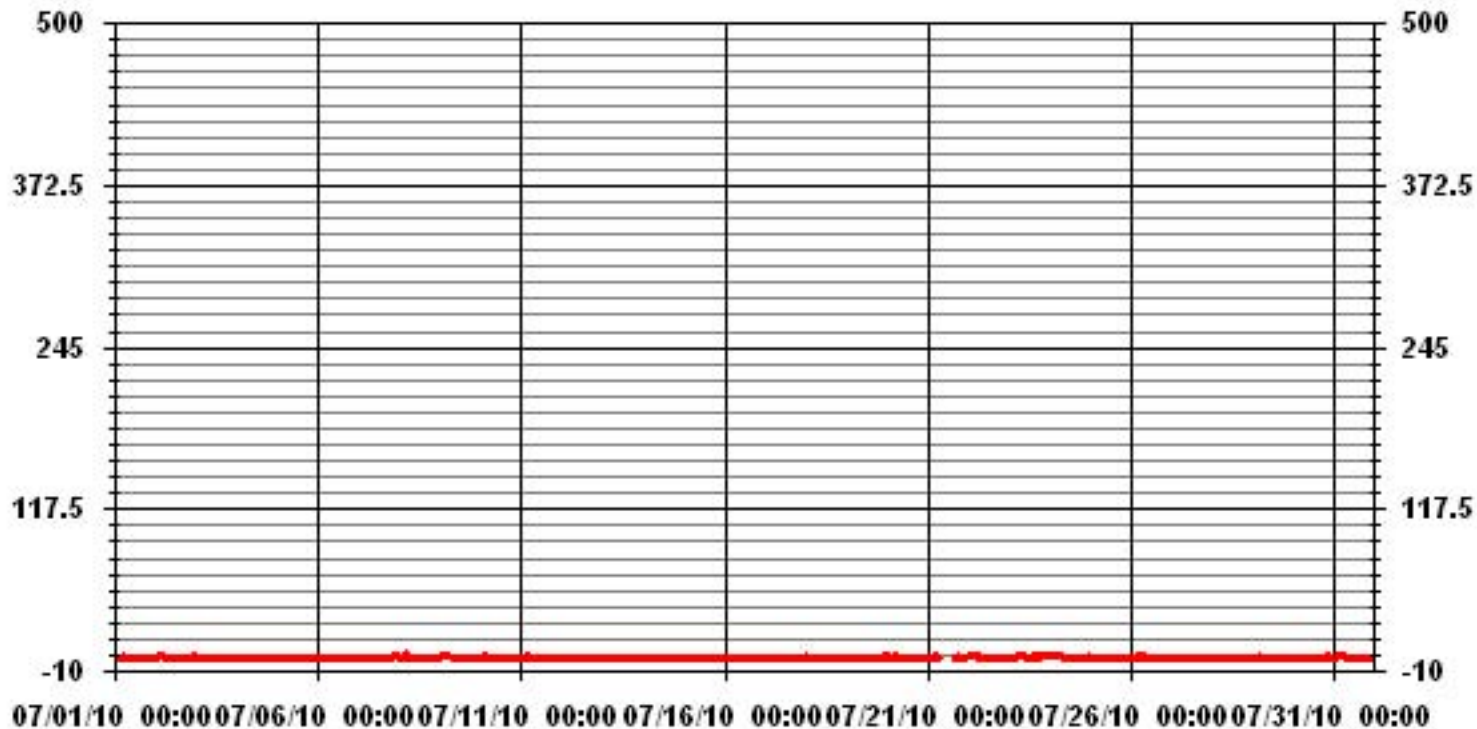
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	97		
MAXIMUM 1-HR AVERAGE:	3 PPB @ HOUR(S) 4 ON DAY(S) 8		
MAXIMUM 24-HR AVERAGE:	0.7 PPB ON DAY(S) 23		
IZS CALIBRATION TIME:	32 HRS	OPERATIONAL TIME:	744 HRS
MONTHLY CALIBRATION TIME:	9 HRS	AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	0.43	MONTHLY AVERAGE:	0.16 PPB

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA31 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST.LINA

JULY 2010

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	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	1	1	4	IZS	4	2	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	1	1	4	0.8	24		
2	1	1	1	IZS	2	3	2	1	2	1	1	1	1	1	1	16	1	2	3	2	1	1	2	2	16	2.1	24		
3	1	0	IZS	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	2	0.4	24	
4	2	IZS	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24		
5	IZS	0	0	0	0	1	0	0	1	2	0	1	0	2	1	0	0	0	0	1	0	0	0	0	IZS	2	0.4	24	
6	0	0	0	0	0	1	6	2	0	5	1	0	0	0	1	0	0	0	0	0	0	0	0	0	IZS	0	6	0.7	24
7	0	0	1	1	1	P	1	1	0	1	0	0	0	1	0	0	0	0	1	0	1	0	1	IZS	5	3	5	0.8	23
8	2	1	1	2	5	7	3	3	2	1	2	2	1	10	1	1	2	1	1	1	1	IZS	0	1	0	10	2.2	24	
9	1	2	2	2	5	3	4	30	M	11	1	1	2	2	1	0	1	1	P	IZS	3	1	1	1	30	3.6	22		
10	1	1	1	1	1	3	1	1	0	0	1	0	0	0	0	1	0	1	IZS	0	15	1	0	0	15	1.2	24		
11	0	0	1	5	6	5	2	2	1	1	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	6	1.0	24	
12	0	0	0	0	0	0	0	0	0	1	0	0	2	P	3	P	IZS	0	0	0	0	0	0	0	3	0.3	22		
13	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	1	2	0.3	24	
14	1	0	1	1	1	2	1	0	0	10	0	0	1	1	IZS	0	1	1	0	5	0	0	0	0	10	1.1	24		
15	0	0	0	0	1	2	2	1	1	0	0	0	1	IZS	0	0	1	2	2	2	1	1	2	1	2	0.9	24		
16	0	0	0	0	2	5	1	1	0	0	1	1	IZS	1	1	0	0	1	1	0	0	0	0	0	5	0.7	24		
17	0	0	1	1	5	1	0	1	14	0	0	IZS	0	0	3	0	0	0	0	0	1	0	16	3	16	2.0	24		
18	1	1	8	0	1	3	1	0	2	0	IZS	0	0	0	0	6	0	0	1	1	0	0	0	0	8	1.1	24		
19	0	0	0	0	1	1	1	0	0	IZS	0	0	0	0	0	1	1	0	0	1	3	1	18	2	18	1.3	24		
20	3	2	1	1	2	3	12	1	IZS	1	1	8	1	1	0	1	1	0	0	0	0	1	2	0	12	1.8	24		
21	1	1	17	2	2	3	1	C	C	C	C	C	C	C	C	C	C	2	4	1	1	1	1	3	17	2.9	24		
22	1	2	2	2	2	2	IZS	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0.7	24		
23	0	0	0	0	0	IZS	3	2	2	1	1	1	2	1	2	3	3	2	1	4	3	2	3	3	4	1.7	24		
24	3	2	2	3	IZS	2	2	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	2	3	1.0	24		
25	2	P	1	IZS	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0.3	23		
26	1	2	IZS	1	2	2	1	2	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0.7	24		
27	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0.1	24		
28	IZS	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	IZS	1	0.5	24		
29	1	1	1	1	3	2	1	1	8	1	1	1	1	1	1	1	1	1	1	1	0	3	IZS	1	8	1.5	24		
30	P	1	1	1	1	2	1	1	2	1	0	0	0	1	1	1	0	1	1	3	22	IZS	1	1	22	2.0	23		
31	1	1	1	2	3	3	2	2	1	0	1	0	0	1	0	0	0	0	0	0	0	IZS	0	0	1	3	0.8	24	
HOURLY MAX	3	2	17	5	6	7	12	30	14	11	2	8	2	10	3	16	3	2	4	5	22	3	18	3					
HOURLY AVG	0.8	0.7	1.6	1.1	1.8	2.2	1.8	1.9	1.5	1.4	0.5	0.7	0.4	0.8	0.5	1.1	0.4	0.5	0.6	0.8	1.8	0.5	2.0	0.9					

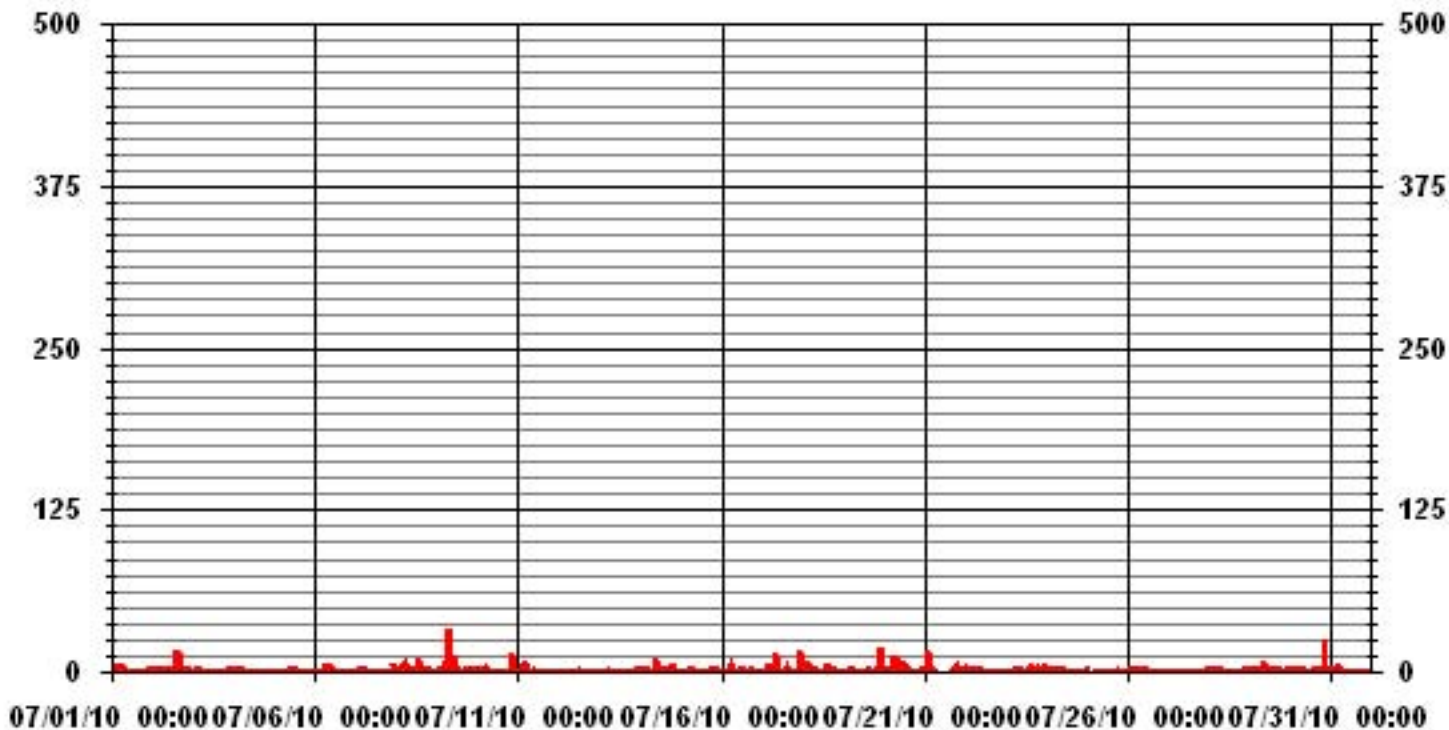
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	363					
MAXIMUM INSTANTANEOUS VALUE:	30	PPB	@ HOUR(S)	7	ON DAY(S)	9
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	737	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION	2.40					

01 Hour Averages



— LICA31 NO2MAX PPB

LICA31
 NO2_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	5.42	4.85	3.00	2.42	4.57	4.00	2.85	3.71	5.14	6.57	9.14	6.85	11.71	14.42	9.71	5.57	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	5.42	4.85	3.00	2.42	4.57	4.00	2.85	3.71	5.14	6.57	9.14	6.85	11.71	14.42	9.71	5.57	

Calm : .00 %

Total # Operational Hours : 700

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	38	34	21	17	32	28	20	26	36	46	64	48	82	101	68	39	700
< 110																	
< 210																	
>= 210																	
Totals	38	34	21	17	32	28	20	26	36	46	64	48	82	101	68	39	

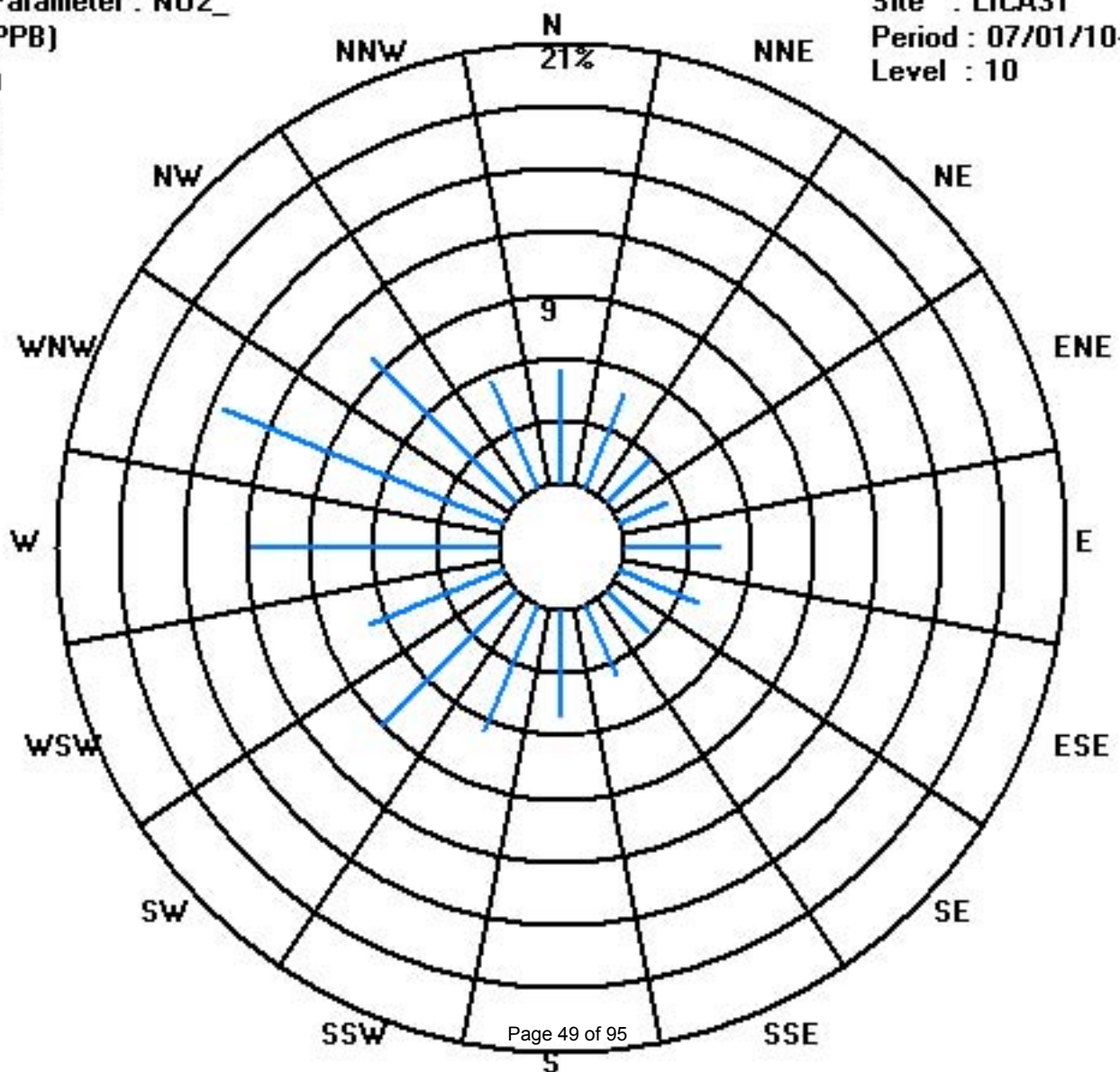
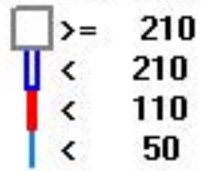
Calm : .00 %

Total # Operational Hours : 700

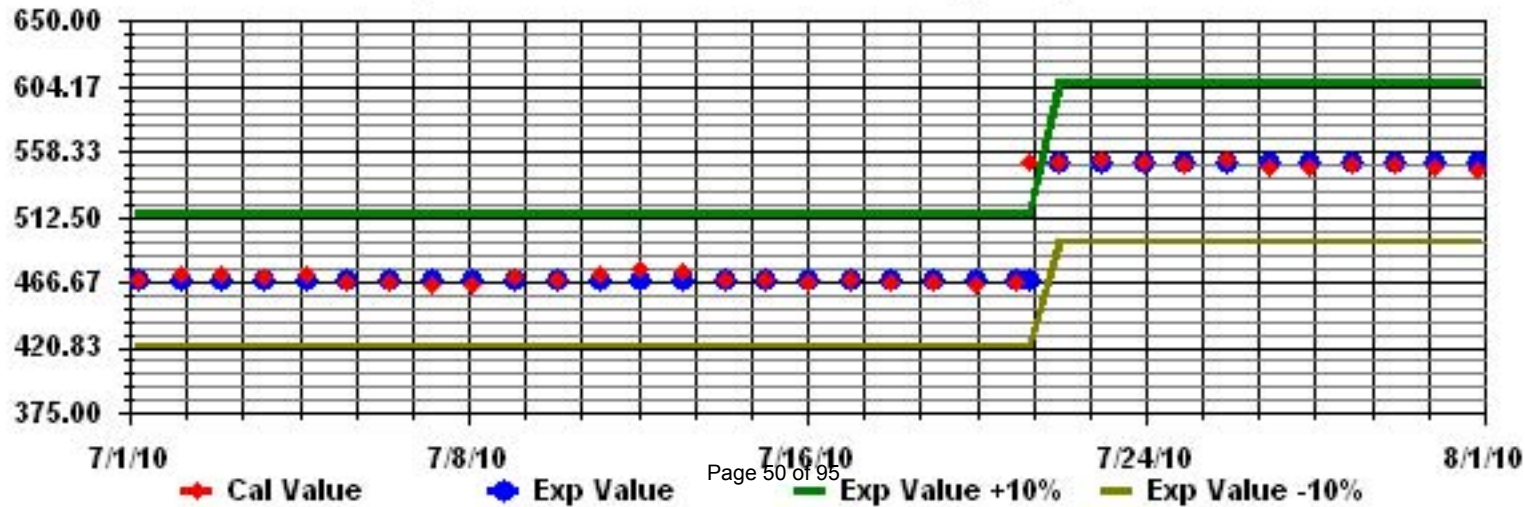
Class Limits (PPB)

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

Level : 10



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



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

NITRIC OXIDE hourly averages in ppb

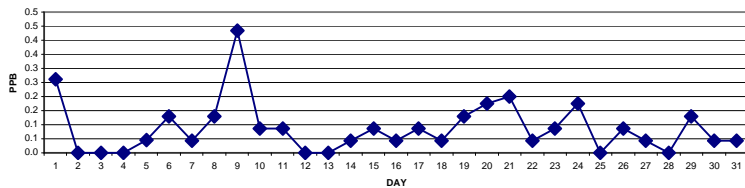
MST

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

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

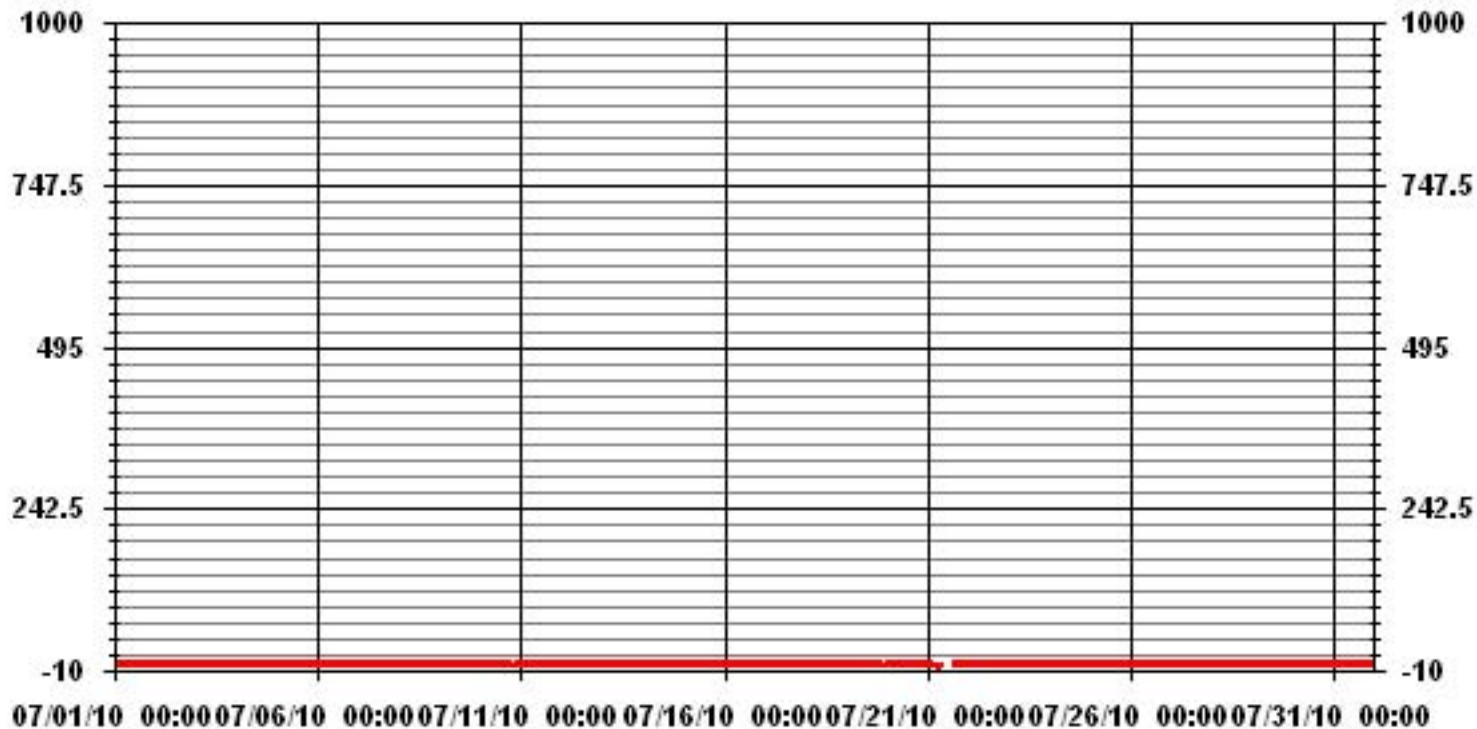
24 HOUR AVERAGES FOR JULY 2010



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	52					
MAXIMUM 1-HR AVERAGE:	3	PPB	@ HOUR(S)	6	ON DAY(S)	9
MAXIMUM 24-HR AVERAGE:	0.4	PPB			ON DAY(S)	9
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	0.32		MONTHLY AVERAGE:	0.09	PPB	

01 Hour Averages



— LICA31 NO_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

NITRIC OXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	1	0	0	6	IZS	4	3	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	6	1.1	24	
2	0	0	1	IZS	1	2	2	1	1	1	1	1	1	2	1	20	1	1	3	2	0	0	1	1	20	1.9	24	
3	0	0	IZS	1	0	1	1	1	1	1	0	1	1	1	0	0	0	1	1	0	1	1	1	0	1	0.6	24	
4	0	IZS	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0.8	24	
5	IZS	1	0	0	0	3	3	2	3	3	1	1	2	2	1	1	1	0	0	1	0	1	0	IZS	3	1.2	24	
6	1	0	1	0	0	2	9	3	1	19	1	1	1	1	1	2	1	0	0	0	1	1	IZS	1	19	2.0	24	
7	0	1	0	0	2	P	1	1	1	1	1	1	2	1	1	1	0	0	1	1	1	IZS	2	1	2	0.9	23	
8	1	0	0	0	1	18	3	6	2	1	3	3	3	18	1	1	3	1	1	1	IZS	1	3	1	18	3.1	24	
9	0	0	1	0	6	7	7	12	M	23	3	2	2	1	1	1	0	0	P	IZS	2	1	1	1	23	3.4	22	
10	1	1	1	1	1	5	1	1	1	1	2	1	1	0	0	0	1	1	IZS	1	24	1	1	1	24	2.1	24	
11	0	0	0	7	7	8	4	4	1	1	0	0	1	1	1	0	IZS	1	0	0	0	0	0	0	8	1.6	24	
12	0	0	0	0	1	0	1	1	1	0	0	1	1	P	1	P	IZS	0	0	0	0	0	0	0	1	0.3	22	
13	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	IZS	1	0	0	0	0	1	0	0	1	1	0.2	24
14	1	0	0	0	2	3	1	0	1	23	1	1	2	1	IZS	1	2	2	0	13	1	1	0	1	23	2.5	24	
15	1	0	0	0	2	5	6	2	2	0	1	1	3	IZS	1	2	2	10	2	1	1	0	0	0	10	1.8	24	
16	0	0	0	0	3	8	1	1	1	2	4	2	IZS	1	2	1	1	3	2	1	1	1	1	0	8	1.6	24	
17	0	0	0	0	20	2	1	2	9	1	2	IZS	1	0	5	0	1	1	1	1	1	0	37	2	37	3.8	24	
18	1	0	17	0	4	4	1	1	2	1	IZS	1	1	1	2	12	1	1	2	1	1	1	1	1	17	2.5	24	
19	1	1	0	0	2	3	2	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	43	1	43	2.9	24
20	1	1	1	2	3	4	24	1	IZS	2	2	17	2	3	1	1	1	0	1	0	1	1	1	1	24	3.1	24	
21	1	1	43	1	3	9	1	C	C	C	C	C	C	C	C	C	C	2	3	1	0	1	1	0	43	4.8	24	
22	1	0	1	0	1	1	IZS	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	1	0	1	0.5	24	
23	1	1	1	1	0	IZS	3	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	3	1.2	24	
24	0	0	1	1	IZS	2	2	2	2	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	2	1.0	24	
25	0	P	1	IZS	1	1	1	1	1	1	1	1	0	1	1	2	1	1	1	1	1	1	1	1	2	1.0	23	
26	1	1	IZS	1	2	2	1	2	2	1	1	9	1	1	1	1	1	1	2	1	1	0	1	1	9	1.5	24	
27	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1.0	24	
28	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	IZS	1	0.8	24	
29	1	1	1	1	2	3	1	1	27	1	1	1	1	1	1	1	1	1	1	1	1	0	IZS	1	27	2.2	24	
30	P	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	27	IZS	1	1	27	2.3	23	
31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	IZS	0	0	0	1	0.7	24		
HOURLY MAX	1	1	43	7	20	18	24	12	27	23	4	17	3	18	5	20	3	10	3	13	27	1	43	2				
HOURLY AVG	0.6	0.4	2.6	0.9	2.4	3.5	2.9	1.9	2.5	3.2	1.2	1.9	1.2	1.6	1.1	2.0	0.8	1.1	1.1	1.1	2.4	0.6	3.4	0.7				

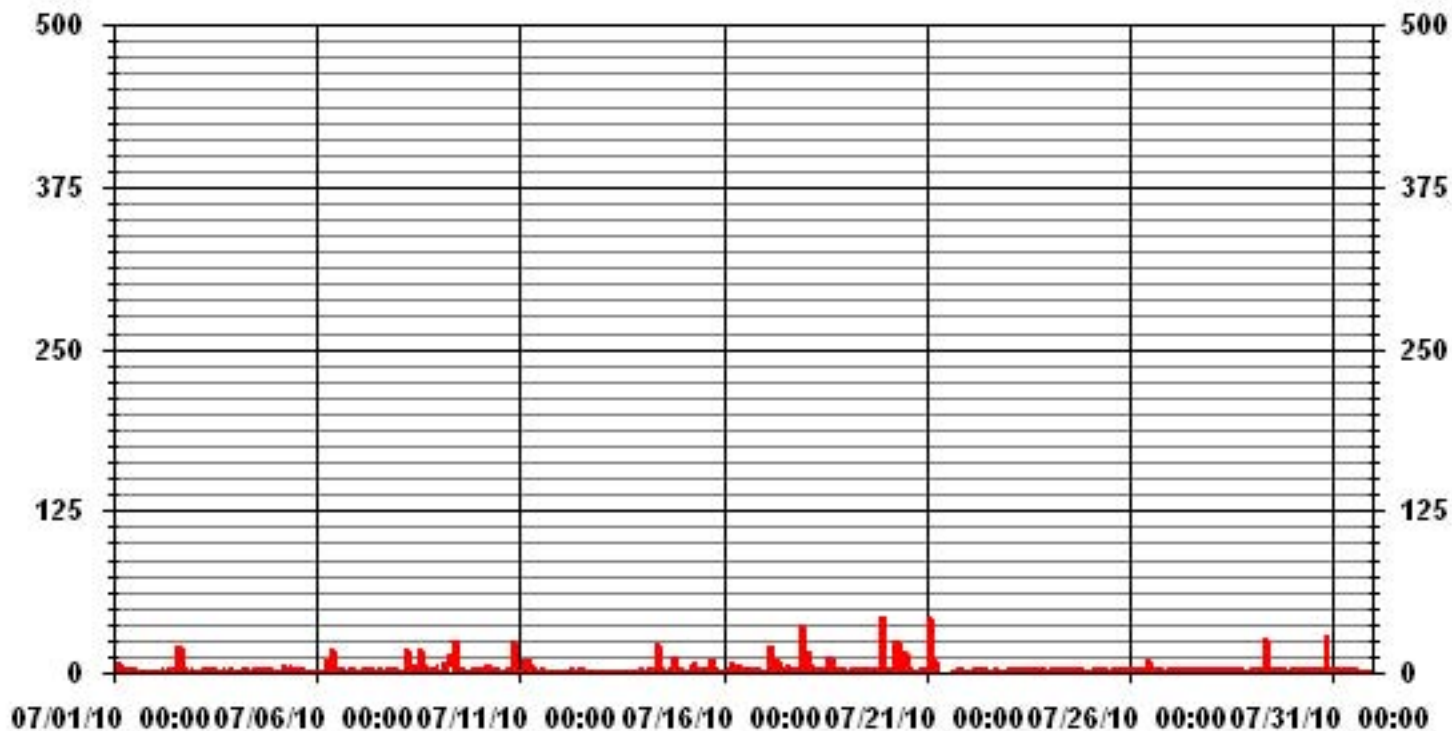
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	527					
MAXIMUM INSTANTANEOUS VALUE:	43	PPB	@ HOUR(S)	22, 2	ON DAY(S)	19, 21
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	737	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION	4.07					

01 Hour Averages



LICA31
 NO_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	5.42	4.85	3.00	2.42	4.57	4.00	2.85	3.71	5.14	6.57	9.14	6.85	11.71	14.42	9.71	5.57	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	5.42	4.85	3.00	2.42	4.57	4.00	2.85	3.71	5.14	6.57	9.14	6.85	11.71	14.42	9.71	5.57	

Calm : .00 %

Total # Operational Hours : 700

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	38	34	21	17	32	28	20	26	36	46	64	48	82	101	68	39	700
< 110																	
< 210																	
>= 210																	
Totals	38	34	21	17	32	28	20	26	36	46	64	48	82	101	68	39	

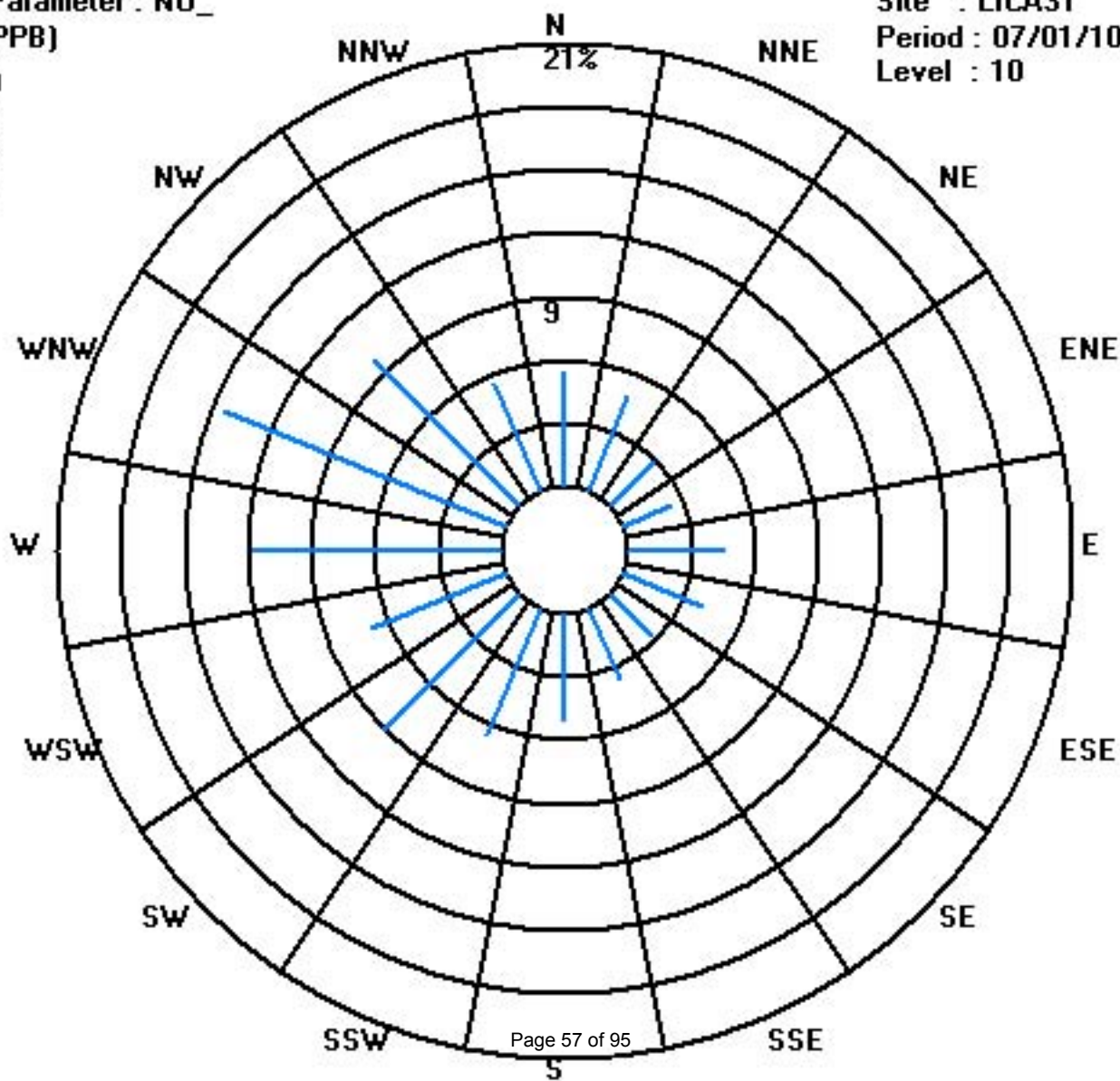
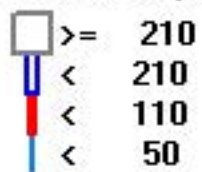
Calm : .00 %

Total # Operational Hours : 700

Class Limits (PPB)

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

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

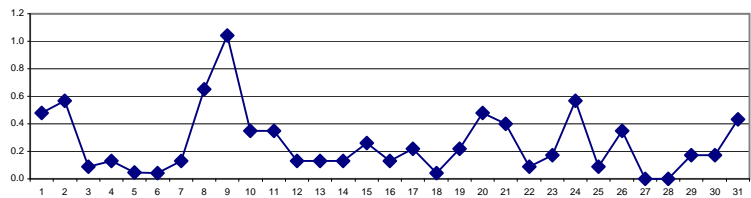
OXIDES OF NITROGEN hourly averages in ppb

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	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	1	IZS	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.5	24
2	0	0	1	IZS	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	0	0	0	1	1	1	1	0.6	24
3	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1	24	
4	1	IZS	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
5	IZS	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.0	24
6	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0.0	24
7	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	0.1	24
8	1	0	1	1	4	2	2	2	1	0	0	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	4	0.7	24
9	0	1	1	1	3	4	5	3	1	2	1	0	1	0	0	0	0	0	0	0	IZS	1	0	0	0	5	1.0	24
10	0	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0	0	0	2	0.3	24
11	0	0	0	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	2	0.3	24
12	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	IZS	0	0	0	0	0	0	0	0	1	0.1	24
13	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	0.1	24
14	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	0.1	24
15	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	0	2	0.3	24
16	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	0	2	0.1	24
17	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0.2	24
18	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
19	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	2	0.2	24
20	1	2	1	0	2	2	2	0	IZS	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24
21	0	0	1	0	1	3	0	C	C	C	C	C	C	C	C	C	C	C	0	0	0	0	0	0	1	3	0.4	24
22	0	0	0	0	0	0	IZS	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
23	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0.2	24
24	1	1	1	1	IZS	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.6	24
25	1	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
26	0	0	IZS	1	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
27	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
28	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	IZS	1	0	2	0.2	24
31	0	0	1	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24	
HOURLY MAX	1	2	1	1	4	4	5	3	2	2	1	1	1	1	1	0	0	1	1	1	1	2	0	2	2			
HOURLY AVG	0.2	0.2	0.3	0.3	0.8	1.2	0.9	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.3	0.3			

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

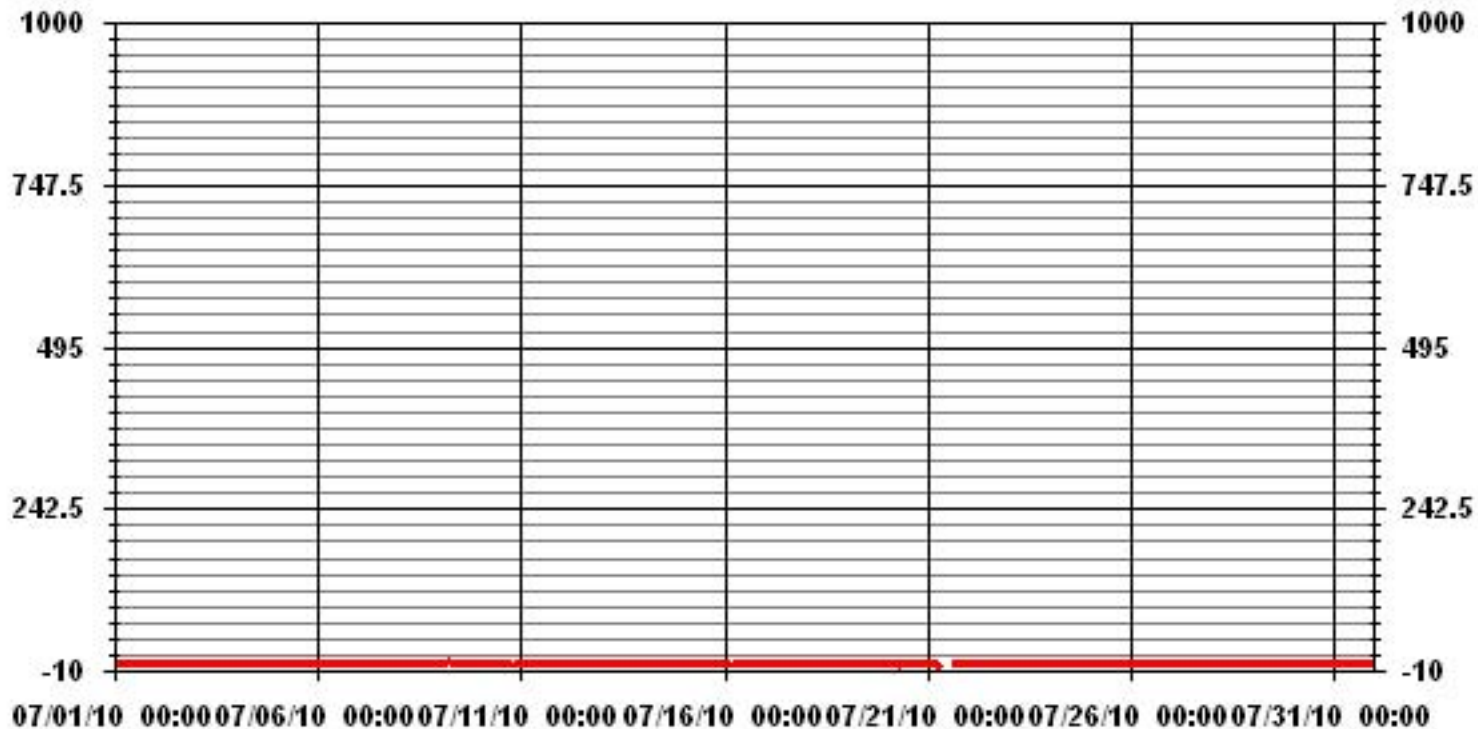
24 HOUR AVERAGES FOR JULY 2010



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	135
MAXIMUM 1-HR AVERAGE:	5 PPB @ HOUR(S) 6 ON DAY(S) 9
MAXIMUM 24-HR AVERAGE:	1.0 PPB ON DAY(S) 9
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	9 HRS
STANDARD DEVIATION:	0.62
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	0.26 PPB

01 Hour Averages



— LICA31 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1	1	1	9	IZS	8	5	3	3	3	1	0	1	0	1	0	0	0	0	0	0	1	1	9	1.7	24	
2	1	1	2	IZS	2	5	3	2	3	2	3	3	2	3	1	35	1	3	4	4	1	1	3	3	35	3.8	24
3	1	1	IZS	1	1	2	1	2	1	1	0	0	1	0	0	0	0	0	0	0	2	2	3	1	3	0.9	24
4	1	IZS	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0.5	24
5	IZS	0	0	0	0	4	2	2	4	3	1	2	2	4	2	1	0	0	0	1	0	0	0	IZS	4	1.3	24
6	0	1	1	0	0	3	13	4	1	21	2	1	1	0	1	3	0	0	0	0	0	1	IZS	0	21	2.3	24
7	0	0	1	1	3	P	2	2	1	2	0	1	2	1	1	1	0	0	1	1	2	IZS	5	4	5	1.4	23
8	2	1	1	3	6	24	6	9	3	1	4	5	4	25	3	1	5	1	2	1	IZS	1	4	1	25	4.9	24
9	1	2	2	2	10	10	11	42	M	30	4	4	3	3	1	1	1	1	P	IZS	4	1	1	1	42	6.4	22
10	1	1	2	1	2	8	1	1	1	0	2	0	0	0	0	0	1	1	IZS	1	27	1	1	1	27	2.3	24
11	0	0	1	12	13	13	7	7	2	2	2	0	0	0	1	1	0	IZS	0	0	0	0	0	0	13	2.7	24
12	0	0	0	1	0	1	1	1	1	1	1	0	2	P	4	P	IZS	1	0	0	0	0	0	0	4	0.7	22
13	1	0	0	0	2	2	1	1	1	0	0	0	0	0	0	IZS	0	0	0	0	0	1	1	2	2	0.5	24
14	2	1	1	1	3	6	2	0	1	30	0	1	3	2	IZS	1	2	3	1	17	1	1	0	1	30	3.5	24
15	1	0	0	0	3	7	8	3	3	0	1	1	3	IZS	2	3	12	3	3	2	1	2	1	1	12	2.6	24
16	0	0	0	1	4	13	2	2	1	2	4	2	IZS	2	3	0	1	5	3	1	1	1	1	0	13	2.1	24
17	0	1	1	1	25	2	1	2	22	0	1	IZS	0	0	5	0	1	2	1	1	1	0	53	4	53	5.4	24
18	1	1	22	0	5	7	2	1	4	1	IZS	0	0	0	2	17	1	0	3	1	1	1	1	0	22	3.1	24
19	0	0	0	0	2	4	3	1	1	IZS	1	1	1	0	1	1	0	1	2	3	1	55	2	55	3.5	24	
20	3	3	1	2	4	7	30	1	IZS	2	2	25	2	4	2	1	2	0	0	0	0	1	3	1	30	4.2	24
21	1	1	55	3	5	11	1	C	C	C	C	C	C	C	C	C	C	2	5	0	0	0	1	2	55	6.2	24
22	1	1	1	1	1	1	IZS	1	1	1	3	1	0	0	0	0	0	0	1	0	0	0	0	0	3	0.6	24
23	0	1	0	0	0	IZS	4	2	2	1	0	0	1	0	1	4	3	1	1	4	2	1	2	2	4	1.4	24
24	2	1	1	2	IZS	4	4	3	2	2	1	1	0	0	0	0	0	1	1	0	0	0	0	2	4	1.2	24
25	2	P	1	IZS	1	0	1	1	0	0	1	0	0	0	1	1	0	1	2	1	0	0	0	0	2	0.6	23
26	1	2	IZS	2	4	3	2	4	3	1	0	10	1	0	0	0	0	0	1	0	0	0	0	0	10	1.5	24
27	0	IZS	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	1	1	0.2	24
28	IZS	1	1	1	1	1	1	2	1	2	0	0	0	0	0	0	0	1	0	1	1	1	1	IZS	2	0.7	24
29	1	1	1	1	5	4	1	1	33	1	1	2	1	1	1	2	1	1	1	1	0	3	IZS	1	33	2.8	24
30	P	1	1	1	1	2	1	1	3	1	1	1	0	1	1	2	1	1	2	4	47	IZS	2	1	47	3.5	23
31	1	1	1	2	3	3	3	2	1	1	1	1	1	2	1	0	0	0	2	1	IZS	1	1	1	3	1.3	24
HOURLY MAX	3	3	55	12	25	24	30	42	33	30	4	25	4	25	5	35	5	12	5	17	47	3	55	4			
HOURLY AVG	0.9	0.9	3.4	1.7	3.7	5.4	4.0	3.5	3.6	3.9	1.3	2.2	1.1	1.8	1.1	2.7	0.8	1.3	1.2	1.5	3.3	0.7	4.9	1.1			

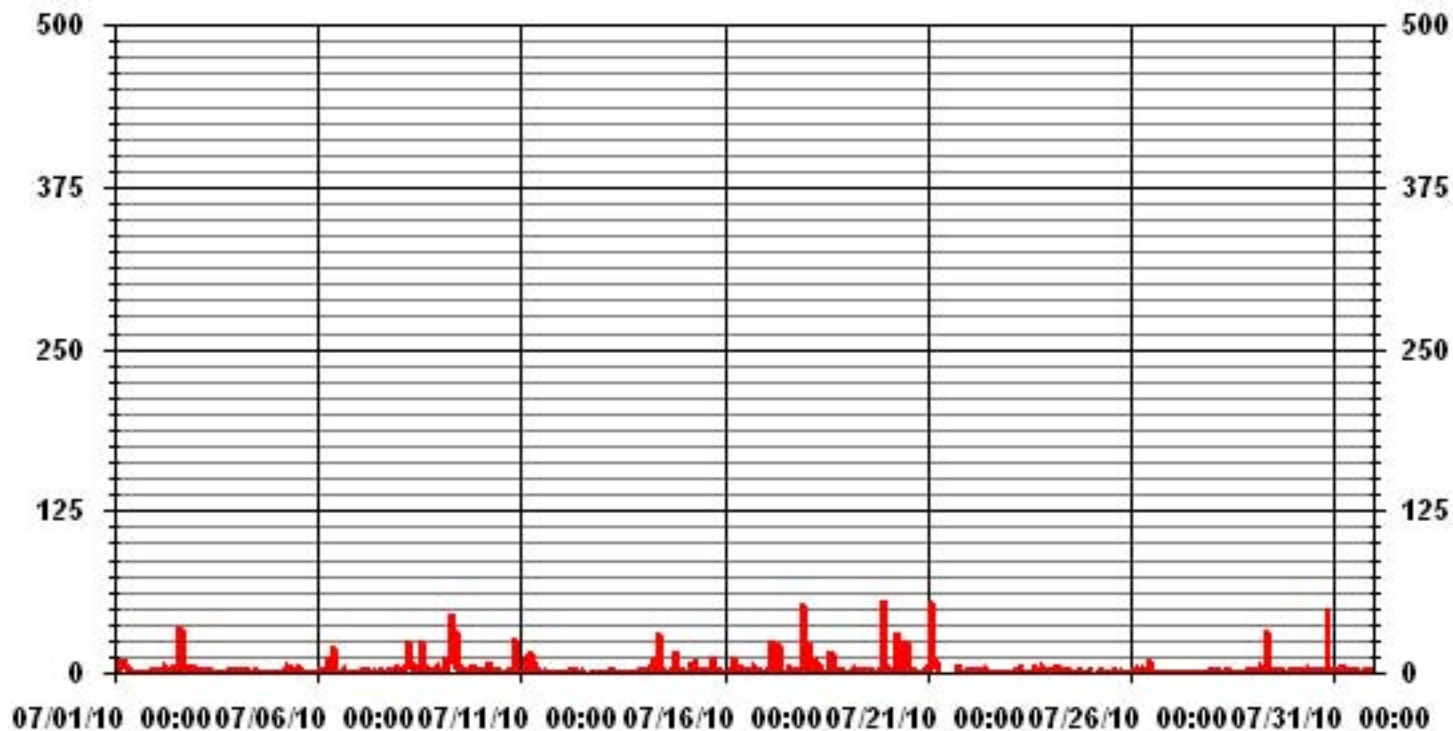
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	480
MAXIMUM INSTANTANEOUS VALUE:	55 PPB @ HOUR(S) 22, 2 ON DAY(S) 19, 21
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	10 HRS
OPERATIONAL TIME:	737 HRS
STANDARD DEVIATION:	5.79

01 Hour Averages



— LICA31 NOxMAX PPB

LICA31
NOX_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	5.42	4.85	3.00	2.42	4.57	4.00	2.85	3.71	5.14	6.57	9.14	6.85	11.71	14.42	9.71	5.57	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	5.42	4.85	3.00	2.42	4.57	4.00	2.85	3.71	5.14	6.57	9.14	6.85	11.71	14.42	9.71	5.57	

Calm : .00 %

Total # Operational Hours : 700

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	38	34	21	17	32	28	20	26	36	46	64	48	82	101	68	39	700
< 110																	
< 210																	
>= 210																	
Totals	38	34	21	17	32	28	20	26	36	46	64	48	82	101	68	39	

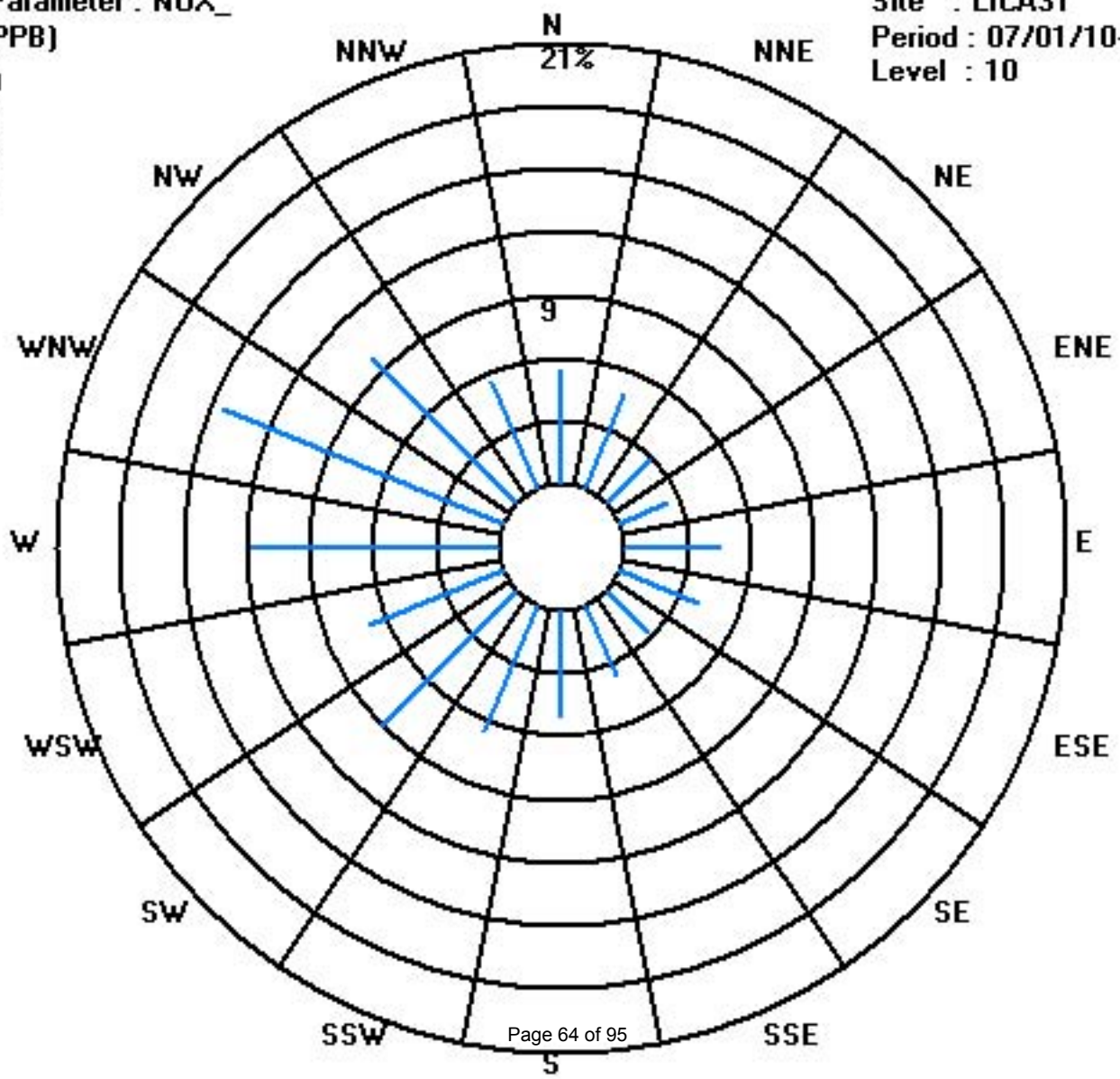
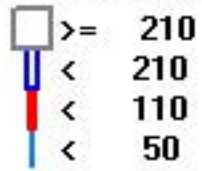
Calm : .00 %

Total # Operational Hours : 700

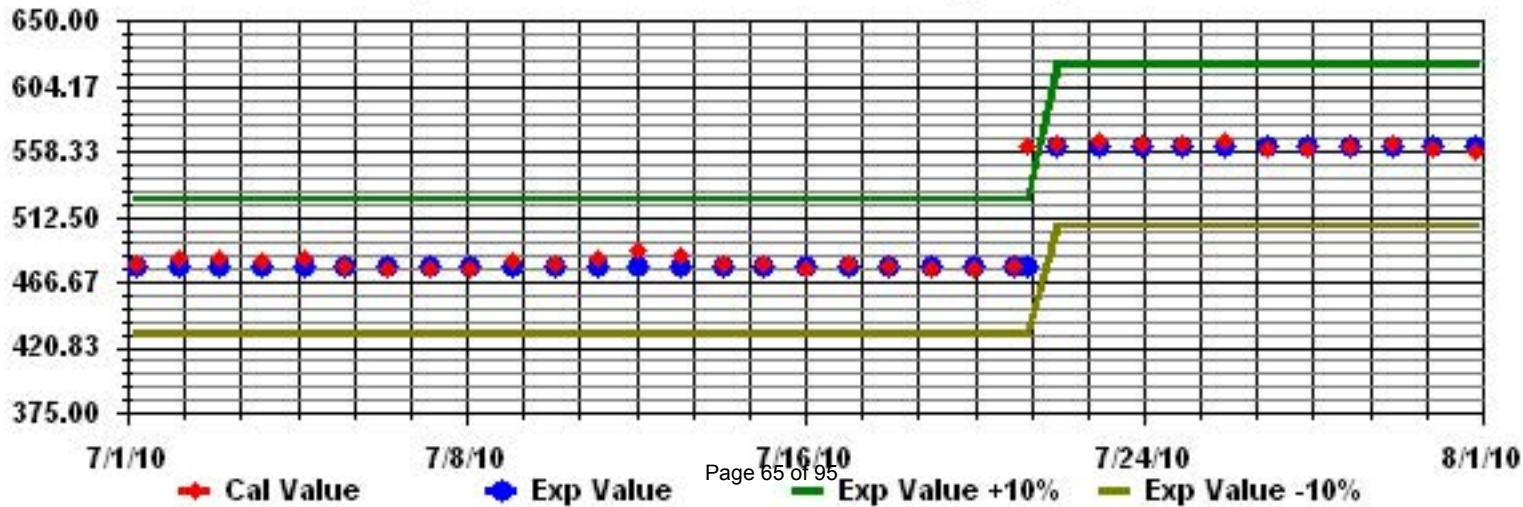
Class Limits (PPB)

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

Level : 10

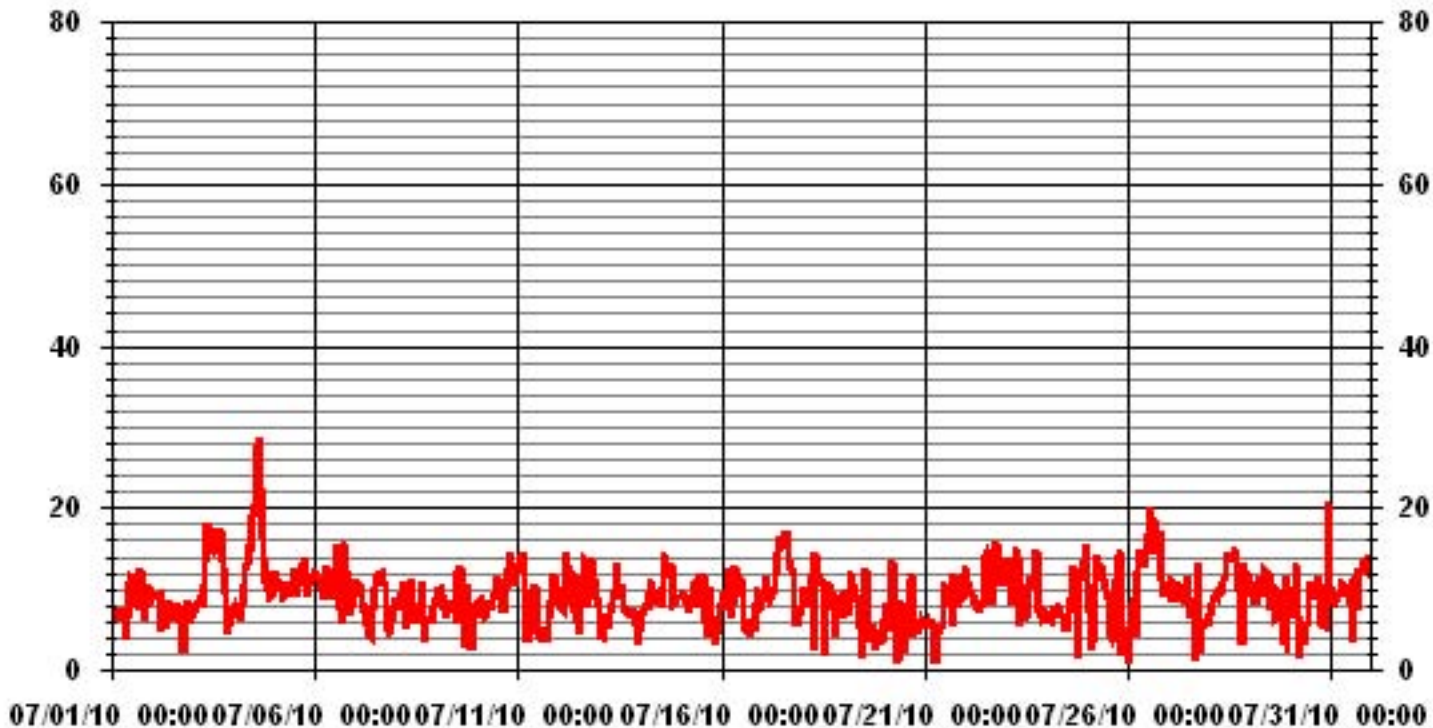


Calibration Graph for Site: LICA31 Parameter: NOX_ Sequence: NO2 Phase: SPAN



Vector Wind Speed

01 Hour Averages



— LICA31 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JULY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
HOUR START		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	MAX.	
DAY																											
1		10.5	12.1	12.5	10.8	11.1	12.8	13.8	16	11.7	18.9	25.6	27.4	32	27.6	25.2	23.8	18.5	27.6	23.1	17.5	13.1	12.7	18	14.6	32	
2		12.2	11.9	15.3	14.4	14.3	10.7	13.4	18.1	13.2	17.9	18.8	17.8	15.8	15.9	16.8	20.9	17.4	12.9	5.7	6.5	17.9	18	10.9	10.6	20.9	
3		15.6	13.9	12.8	11.7	14.2	12.6	20.3	23.1	30.1	29.7	29.5	33.2	31.2	38	40.1	34.8	37.5	29	25.5	23.4	12	8.6	10.5	12.5	40.1	
4		12.4	14.6	11.4	12.5	9.1	11.9	16.3	23.4	23.8	30.4	32.3	43	43.4	49.8	51.2	52.2	41.7	36.5	34.1	24.6	21	24.6	19.9	32.3	52.2	
5		24.6	27	24.2	21.1	20	24.4	21.1	21.8	20.6	24.1	24.6	28.1	27.3	45.4	53.7	27.3	26.6	32.7	54.8	17.8	21.2	28.4	23.6	24	54.8	
6		24.9	23.2	22.8	18	18.3	17.2	26	29.5	24.3	19.4	23.8	27.6	35.5	38.2	36.1	28.4	56.1	44.5	46.5	42.5	29.9	12	13.9	23.5	56.1	
7		21	21	19.7	19.5	12.8	P	13	15.3	15.5	13.9	21.1	24.4	24.8	28.2	30.8	29.6	31.8	27.8	20.8	12.1	6	7.8	12.9	14.4	31.8	
8		15.8	17.1	12.2	15.5	25.4	26.4	10.5	16.7	22	27.5	23.4	14.1	20.8	22.3	17.3	36.6	12.2	11.6	12	13.5	10.4	10.4	10.6	12	36.6	
9		14.4	13	13.9	11.9	9.7	8	23.4	M	M	M	17.5	27.6	23.4	29.7	22.9	23.6	22	16.1	P	15.1	11.5	17.2	15.7	14.4	29.7	
10		26.6	23.1	15.5	22.7	14.7	15.5	25.3	23.4	24	25.8	33.2	33.3	33	30.6	29.5	26.9	28	30.6	27.7	25.2	19	17.5	17.9	18.1	33.3	
11		18.6	16.4	19.9	18.3	19.2	7.8	11.3	12.4	22.3	30.2	32.3	36.7	34.1	35.2	37.6	35.4	38	36.5	32.6	33.4	21.8	20.1	24.7	27.1	38	
12		26.2	31.1	26	17.9	20.1	21.8	27.7	26	24.7	19.2	22.5	19.4	25.1	P	33.2	P	35.6	22.5	31.7	34.1	29.1	32.1	22.5	19.9	35.6	
13		15.5	9.8	10.1	17.9	27.3	32.1	33.2	29.7	35.2	32.4	27.7	35.4	32.6	33.9	35.2	42.6	40.9	24.3	20.3	19	19.4	13.3	9.4	12	42.6	
14		10.9	12.9	17.7	17.4	18.1	24.2	25.3	24	22	18.1	17.2	20.1	20.3	24.9	35	31	32.3	31.2	29.9	19.9	17.9	16.1	16.1	16.6	35	
15		17.2	18.1	17.2	15.9	15.1	13.1	19.2	23.3	24.2	26	29.3	29.7	25.3	26.6	22.3	23.8	21.4	24.4	43.3	30.2	11.3	9.8	8.1	19	43.3	
16		15.5	18.6	23.1	23.4	20.8	19.5	21.4	24	29.5	30.2	28.4	21.6	26.9	26.9	20.1	13.5	14.2	8	12.4	10.5	16.1	21	15.3	14	30.2	
17		17.4	16.6	18.2	16.8	14.8	13.5	17.7	23.4	27.1	31.5	37.6	37.1	38.2	37.1	41.1	39.3	36	32.2	32.6	21.8	8.7	10	9.4	10	41.1	
18		16.2	17	17.9	17.5	19.2	18.6	19.2	21.4	22	21.4	23.8	24.5	22.5	24.2	27.1	20.1	21.4	28.6	25.7	18.1	16.1	14.6	15.7	13.1	28.6	
19		18.3	18.1	15.3	15.5	20.5	19.3	19	20.5	20.9	18.6	22.3	22.3	30.8	29.5	20.1	10.5	12.4	13.1	12.7	7.4	11.6	9.4	9.8	10.2	30.8	
20		12	15.5	13.7	18.3	19.3	19	22.3	7.4	21.4	23.4	22.9	22.1	18.6	15.3	20.3	22.2	31.5	19.6	15.5	14.9	15.3	9.1	8.9	9.8	31.5	
21		7.4	8.3	8.1	8.3	9.4	8.7	6.3	11.6	15.3	17.2	22.3	24.7	25.8	29.7	27.5	27.7	25.3	21.6	20.1	28.4	19.6	16.1	19.6	22.5	29.7	
22		25.5	19.8	20.1	21.8	18.3	20.3	15.1	24.7	16.4	24.4	28.4	32.1	33	33	31	30.4	24.3	25.1	38.5	34.3	24.5	22.9	19.2	16.8	38.5	
23		18.4	16.1	18.6	21.8	19	17.9	20.1	20.6	20.3	25.7	25.5	26.4	28.8	27.5	24.7	20.1	20.9	19.6	20.5	19.9	11.1	12.4	11.2	10.1	28.8	
24		9.6	12.2	13.7	14.6	14.8	14	24.3	23.3	28.2	27.5	31.7	39.3	36.9	39.6	38.1	40.2	46.1	48.3	28	25.1	24	18.1	20.1	19.9	48.3	
25		19.6	P	8.3	20.5	19.9	18.8	17	20.1	26.2	21	21.4	21.4	20.3	28.4	26	27.7	23.6	20.7	20.7	20.3	3.5	7.2	10.7	9.6	28.4	
26		4.2	9.4	10.7	18.1	18.3	19.6	22.7	34.4	41.1	33.4	26.6	33.9	37.8	50.5	60.6	49.7	46.3	47.4	45	40.2	27.5	20.1	20.7	17	60.6	
27		19.4	24.7	26.4	18.3	21.4	21.4	16.6	20.5	18.8	17.5	22.3	21.8	22.8	22.5	22.9	21.6	21.8	22.5	5.7	6.3	7	7.4	8.3	8.5	26.4	
28		9.4	12.7	12	16.4	14.7	15.7	22.3	26.6	28	30.6	32.1	34.1	30.6	31.2	32.6	36.5	29.3	18.8	26.2	21.6	20.3	17.5	17.9	14.6	36.5	
29		15.1	15.9	16.2	24.5	26.2	19.6	24.7	27.3	21.6	22.5	22.1	24	21.8	22.7	20.7	21.2	21.8	22.9	21.9	5.9	18.1	19	8.7	N	27.3	
30		P	27.5	24.2	19.9	22	25.3	21.8	12.9	14.2	21.4	19.6	25.8	25.5	21.8	20.5	19.9	19.9	20.6	11.1	10	10.5	17.2	40.4	35	40.4	
31		21.6	17.3	17.9	15.1	15.1	15.5	19	16.1	17.7	21.2	25.3	23.6	21.6	29.9	26.9	24.7	23.6	22.7	20.1	18.6	17.2	17.7	17.9	17.2	29.9	
PEAK		26.6	31.1	26.4	24.5	27.3	32.1	33.2	34.4	41.1	33.4	37.6	43.0	43.4	50.5	60.6	52.2	56.1	48.3	54.8	42.5	29.9	32.1	40.4	35.0		

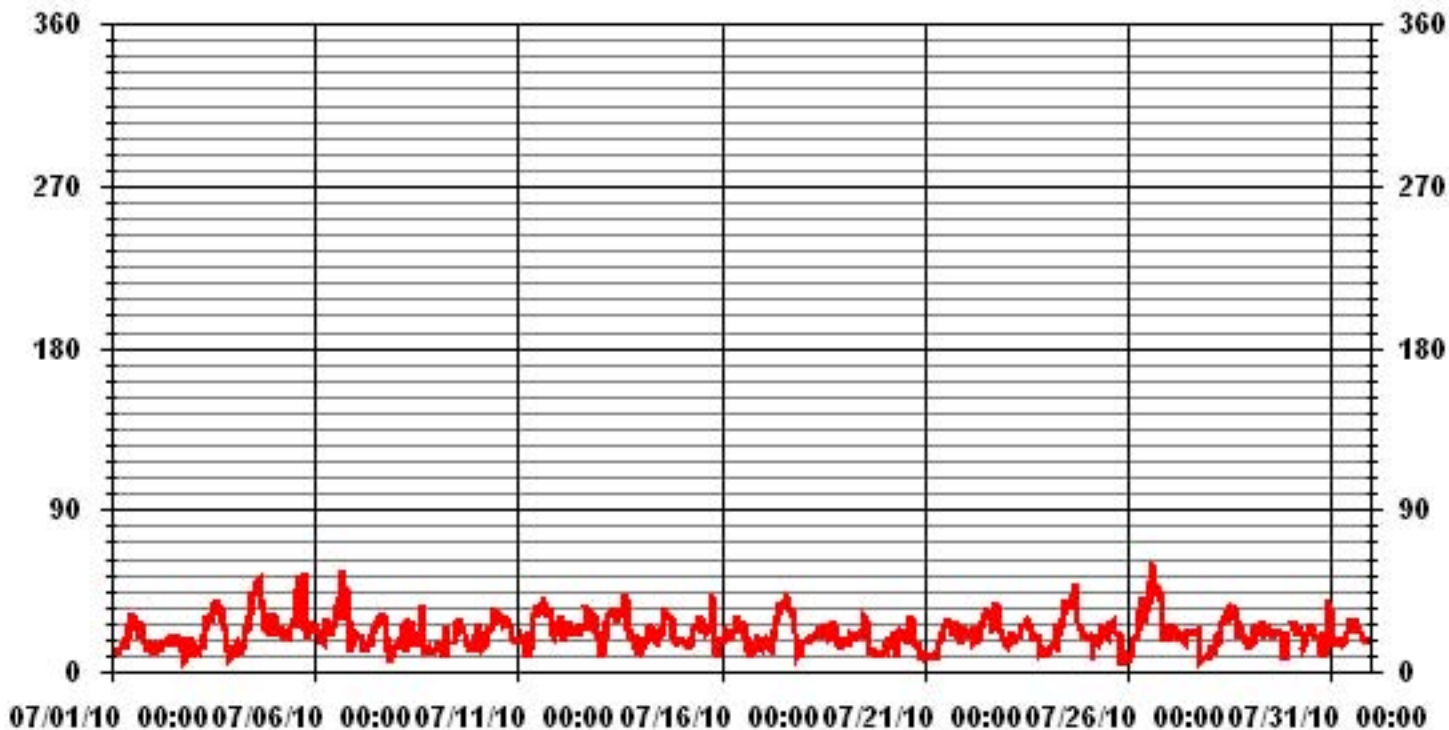
STATUS FLAG CODES

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

MAXIMUM INSTANTANEOUS READING	60.6	KPH	@ HOUR(S)	14
			ON DAY(S)	26

01 Hour Averages



— LICA31 WSMAX KPH

LICA31
WSP / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

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

Wind Parameter : WDR
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	1.07	1.21	.40	.13	.53	.53	.26	.80	.80	2.15	1.75	1.75	1.21	.53	2.42	1.34	17.00
< 12.0	3.37	2.69	2.02	1.21	2.42	2.69	2.29	3.37	4.18	3.37	5.53	3.10	7.96	10.25	5.66	2.83	63.02
< 20.0	.80	.80	.94	1.07	1.34	.67	.26	.53	.40	.80	1.88	1.21	2.15	3.37	1.34	1.07	18.75
< 29.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67	.26	.00	.00	.00	.94
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	5.26	4.72	3.37	2.42	4.31	3.91	2.83	4.72	5.39	6.34	9.17	6.74	11.60	14.17	9.44	5.26	

Calm : .26 %

Total # Operational Hours : 741

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	8	9	3	1	4	4	2	6	6	16	13	13	9	4	18	10	126
< 12.0	25	20	15	9	18	20	17	25	31	25	41	23	59	76	42	21	467
< 20.0	6	6	7	8	10	5	2	4	3	6	14	9	16	25	10	8	139
< 29.0												5	2				7
< 39.0																	
>= 39.0																	
Totals	39	35	25	18	32	29	21	35	40	47	68	50	86	105	70	39	

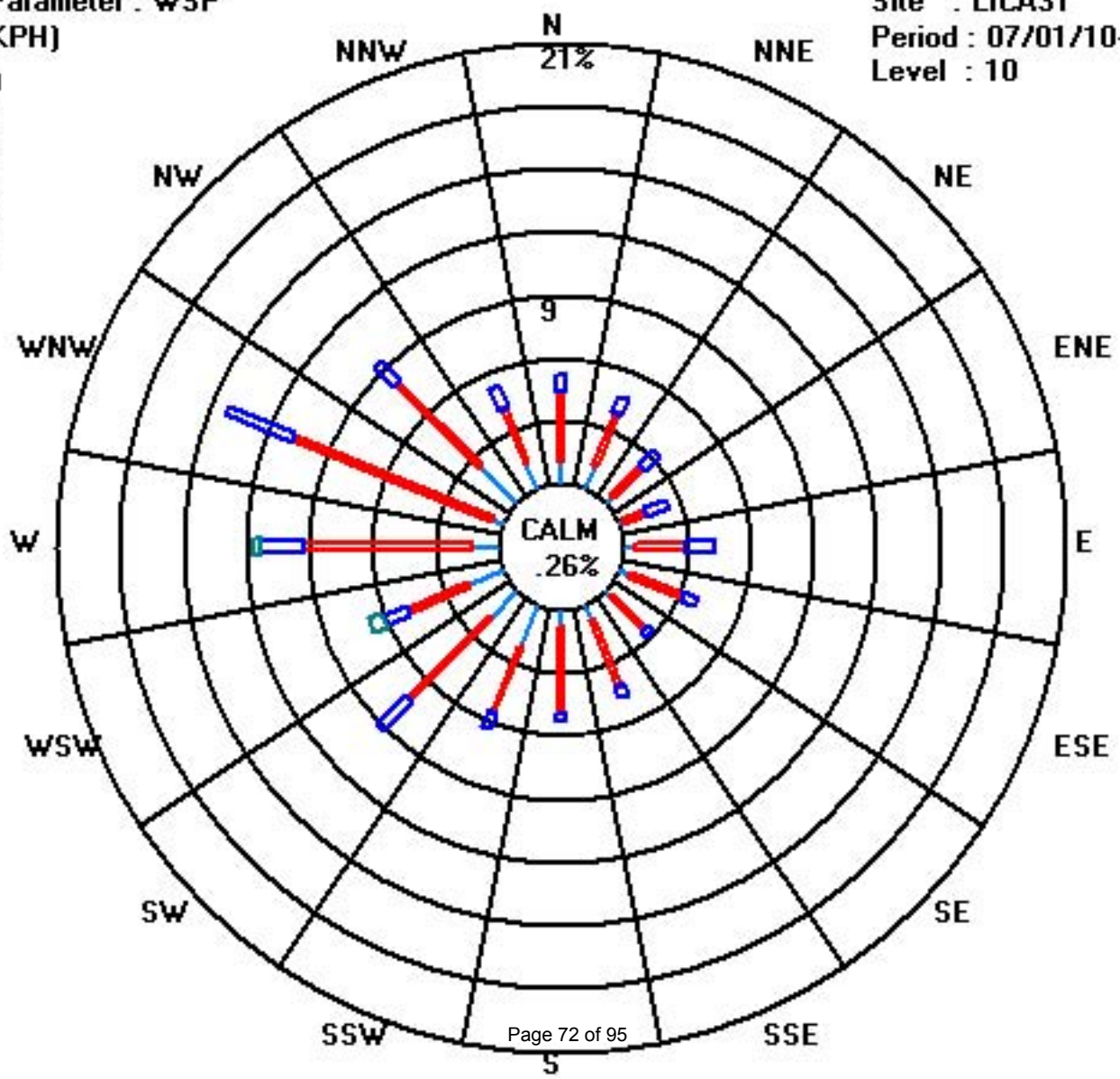
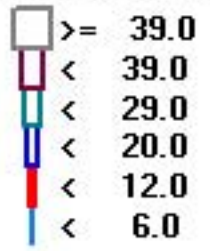
Calm : .26 %

Total # Operational Hours : 741

Class Limits (KPH)

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

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -ST. LINA

JULY 2010

WIND DIRECTION hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR	24-HOUR AVG	RDGS.
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	AVG.	QUADRANT	
DAY 1	233	223	225	236	240	212	208	224	211	196	194	193	195	195	184	197	175	174	168	152	104	106	114	102	186	S	24
2	85	97	120	166	187	209	235	257	308	297	315	317	306	313	318	300	305	314	300	207	165	177	215	245	252	WSW	24
3	282	283	270	253	258	261	252	253	259	267	260	265	278	294	273	282	285	279	260	278	268	215	222	231	267	W	24
4	222	221	221	205	226	241	250	249	255	261	259	255	263	256	257	254	251	280	291	293	282	285	289	303	259	WSW	24
5	305	295	282	286	290	299	297	303	317	322	336	317	315	336	308	300	289	294	311	287	291	297	301	285	302	WNW	24
6	294	302	292	280	280	280	284	299	296	286	280	284	291	295	297	13	336	356	314	307	322	273	275	279	298	WNW	24
7	277	273	270	268	288	292	332	7	16	351	336	313	314	327	320	337	327	322	320	310	258	222	223	223	303	WNW	24
8	220	226	233	257	276	315	224	229	262	308	307	279	285	275	262	234	210	214	256	292	280	288	245	266	262	W	24
9	264	265	266	259	234	224	217	221	M	M	217	278	328	244	197	177	188	354	347	308	186	319	297	302	257	WSW	22
10	5	7	345	350	338	334	15	28	9	0	351	21	24	25	27	10	357	41	47	64	71	74	79	85	28	NNE	24
11	82	90	104	107	124	202	197	204	185	183	182	184	1	11	321	319	348	54	43	32	37	45	44	33	85	E	24
12	33	42	29	27	34	35	35	33	47	111	99	265	340	307	1	31	36	8	355	343	333	338	319	303	12	NNE	24
13	305	318	319	351	53	111	126	131	134	142	135	124	136	122	118	109	129	120	71	40	33	25	17	314	102	E	24
14	302	291	281	299	306	304	305	309	315	309	298	294	309	287	245	239	238	241	230	271	277	280	284	281	279	W	24
15	280	279	289	289	272	246	268	299	295	296	267	240	239	229	242	30	102	96	12	8	293	191	241	278	272	W	24
16	294	298	250	253	217	200	189	319	307	330	298	327	295	28	245	284	269	232	227	250	285	272	281	279	277	W	24
17	284	267	267	278	270	262	263	281	275	275	292	300	293	284	295	299	300	314	307	294	247	243	226	226	281	W	24
18	249	269	292	303	278	200	268	180	182	198	186	175	185	317	55	90	82	319	282	307	300	318	316	309	240	WSW	24
19	317	318	334	328	215	221	209	216	223	276	229	0	321	298	296	352	336	19	8	13	0	337	312	330	289	WNW	24
20	327	333	331	269	201	193	219	334	159	213	85	121	281	283	254	199	178	109	85	95	100	176	184	188	197	SSW	24
21	202	199	203	202	218	247	225	195	172	166	175	128	153	149	159	161	193	335	4	32	40	59	82	97	141	SE	24
22	105	121	154	157	156	155	151	152	152	153	152	219	218	217	224	203	44	40	112	108	134	79	26	18	139	SE	24
23	352	10	18	139	13	4	331	337	229	139	131	201	165	129	126	106	91	89	83	108	225	228	191	225	75	ENE	24
24	197	199	207	210	193	196	196	201	193	357	336	304	295	283	295	302	218	296	252	181	163	160	155	156	208	SSW	24
25	147	165	218	218	84	91	95	69	53	60	58	59	87	129	152	167	110	71	78	84	65	228	264	314	87	E	24
26	207	179	178	189	308	336	311	305	262	233	240	260	274	274	290	274	288	317	303	312	315	302	290	272	282	W	24
27	277	302	302	290	298	291	290	299	294	286	215	206	222	72	93	85	14	355	135	156	147	172	171	171	271	W	24
28	156	169	163	171	170	166	169	175	175	171	210	213	222	218	219	222	229	251	232	338	20	15	16	16	199	SSW	24
29	7	18	7	13	350	349	359	358	345	353	0	344	331	105	90	117	354	350	328	319	42	271	49	N	359	N	23
30	306	137	166	152	298	306	258	307	255	202	193	133	128	121	104	105	100	119	220	242	225	222	245	238	179	S	24
31	295	285	261	245	267	236	254	265	268	276	266	239	274	55	53	37	61	64	76	81	76	82	72	89	19	NNE	24
HOURLY AVG	352	333	345	351	350	349	359	358	345	357	351	344	340	336	321	352	357	356	355	343	333	338	319	330			

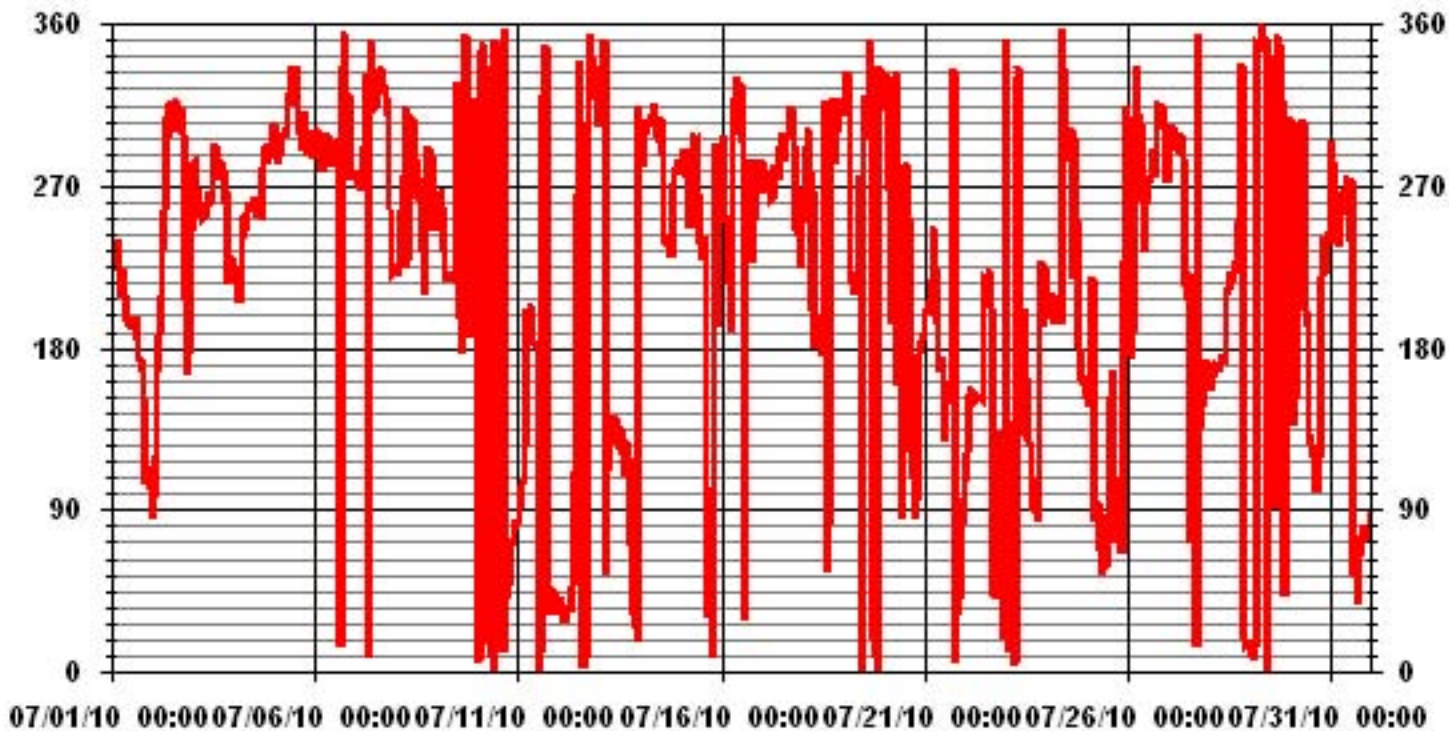
STATUS FLAG CODES

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

LAST CALIBRATION:	February 3, 2009
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	741 HRS
STANDARD DEVIATION	97.46	AMD OPERATION UPTIME	99.6 %
		MONTHLY AVERAGE	275 DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST.LINA

JULY 2010

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
DAY																									
1	8	6	6	8	7	14	19	17	35	40	28	28	26	26	21	23	20	17	14	11	8	6	7	7	
2	7	6	9	7	7	10	13	18	29	28	20	21	22	23	31	28	21	23	20	9	15	14	13	4	
3	11	10	9	4	6	7	11	13	14	19	17	15	18	19	19	19	19	18	14	16	15	7	7	10	
4	10	11	7	13	10	7	9	9	15	15	18	17	15	12	13	12	13	18	18	18	17	14	16	19	
5	16	17	15	16	17	17	18	17	19	20	22	22	21	25	21	18	18	18	18	13	14	16	17	14	
6	15	15	15	12	12	13	17	18	19	21	23	21	22	20	20	23	35	24	20	19	21	12	12	13	
7	11	12	10	7	12	14	21	25	36	45	26	24	21	22	23	24	22	21	20	17	9	4	6	9	
8	12	12	7	7	14	21	16	15	19	21	31	20	27	32	29	23	25	22	16	15	8	15	3	6	
9	6	4	5	3	5	5	11	15	61	19	19	27	29	33	25	36	49	19	38	27	54	14	13	14	
10	15	14	13	22	14	15	18	18	21	23	35	52	51	59	65	62	34	36	50	20	6	8	8	6	
11	6	6	5	4	22	14	16	20	21	47	56	64	50	58	70	55	60	56	39	24	15	16	21	24	
12	23	30	23	15	10	17	25	20	31	22	24	37	41	46	22	16	14	18	21	17	17	17	17	17	
13	17	17	25	15	31	59	45	40	30	27	22	33	35	33	43	47	41	54	60	16	16	13	15	14	
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15	11	10	11	11	10	14	13	17	18	20	27	41	47	38	49	52	46	16	66	21	21	11	13	12	
16	12	12	29	35	26	13	32	19	17	16	16	42	32	32	27	14	16	17	15	11	11	11	11	10	
17	12	7	8	10	9	7	11	19	19	17	19	19	18	18	17	18	18	19	19	15	6	4	4	4	
18	4	9	12	11	26	9	29	29	30	30	24	28	30	71	56	29	51	55	22	43	13	11	19	13	
19	11	10	13	12	28	40	48	55	54	27	56	70	57	33	37	20	20	19	24	20	13	55	22	26	
20	10	10	10	30	9	20	48	57	73	67	62	45	25	18	38	47	24	20	17	13	9	7	4	8	
21	5	7	6	9	8	8	45	52	27	26	61	34	47	55	54	61	35	35	32	18	13	10	11	12	
22	11	10	12	11	11	12	14	17	19	20	31	23	28	22	24	49	23	32	40	52	36	53	11	8	
23	13	6	15	33	10	6	23	24	44	50	57	55	67	26	28	13	22	13	9	18	8	6	10	9	
24	9	9	13	12	11	12	17	19	30	37	52	62	53	56	43	44	31	35	62	13	12	9	9	10	
25	23	16	15	30	41	2	4	14	21	18	23	24	30	55	59	65	58	22	27	32	23	18	13	16	
26	40	16	3	10	37	12	14	25	42	24	42	45	40	33	26	17	18	18	17	15	16	14	13	10	
27	12	15	16	14	14	14	18	18	19	25	34	29	55	46	37	59	65	41	26	10	9	4	6	7	
28	5	8	5	6	6	8	11	14	15	17	31	30	31	25	23	28	20	17	24	41	14	9	5	4	
29	8	9	12	21	14	9	15	25	15	20	24	25	46	39	30	51	43	55	26	16	17	18	31	57	
30	53	51	38	14	53	42	49	20	23	25	31	33	29	29	26	18	12	38	17	7	8	11	9	12	
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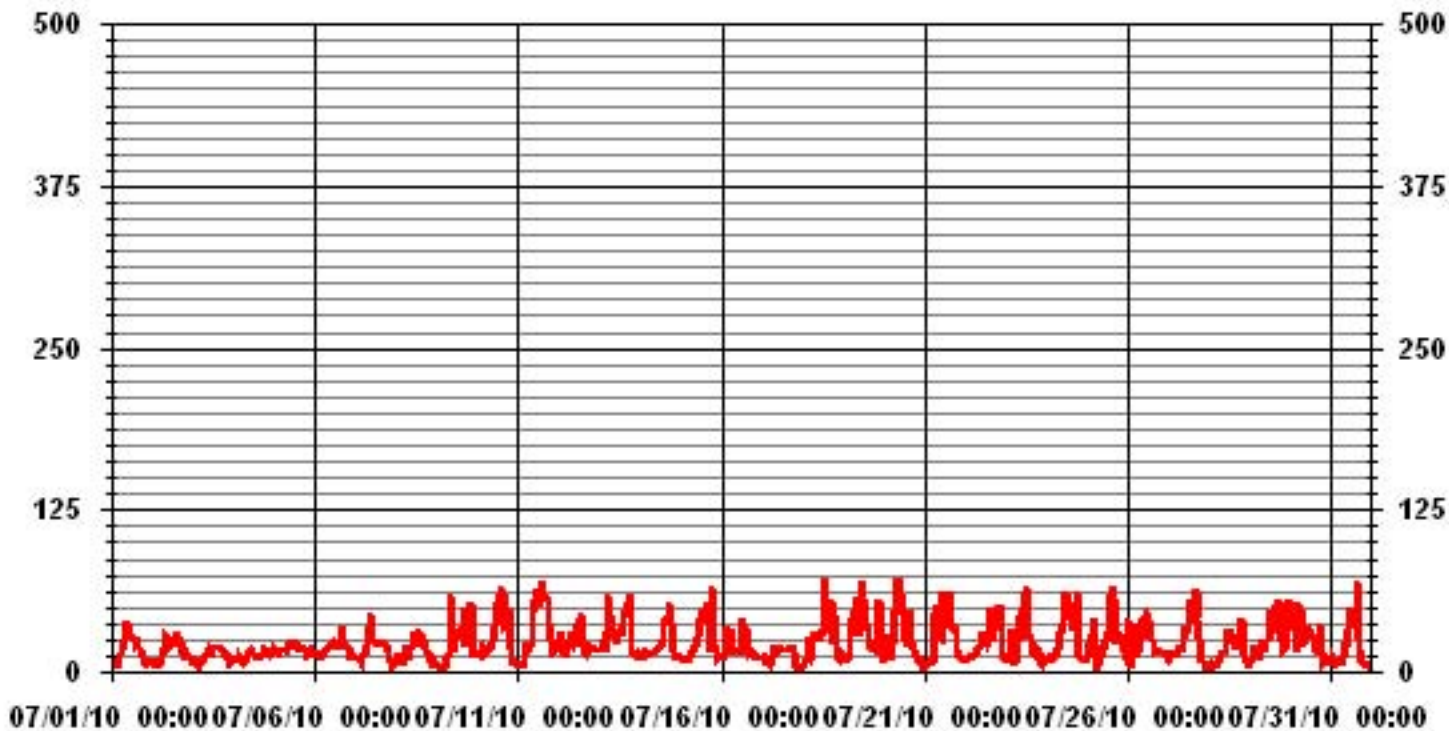
STATUS FLAG CODES

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: February 3, 2009

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 744 HRS

01 Hour Averages



— LICA31 STDWDIR DEG

Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

Calibration Date	July 20, 2010	Previous Calibration	June 22, 2010
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	11:18	End Time (MST)	15:41
Reason:	Monthly Calibration		
Barometric Pressure	- mmHg	Station Temperature	22 Deg C
Cal Gas	52.2 ppm	Cal Gas Expiry date	19/12/2010
DAS Output Voltage	0 - 1 Volts		

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	468	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 1000	ppb	
Sample Flow / Box Temp	560 ccm 31 Deg C	558 ccm 31.3 Deg C	
HVPS / Lamp Setting	529	2540	2539
PMT / RxCell Temp	7.8 Deg C 50 Deg C	7.8 Deg C 50 Deg C	
Converter / IZS Temp	NA Deg C 40 Deg C	NA Deg C 40 Deg C	
Offset / Slope	58.6 1.152	62.7 1.155	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3002	0	0	0	N/A
2962	43.2	750	762	0.9847
2988	20.2	351	352	0.9958
2999	9.8	170	170	1.0001
3002	0	0	0	N/A
Sum of Least Squares				0.9872
New Correction Factor				0.9847

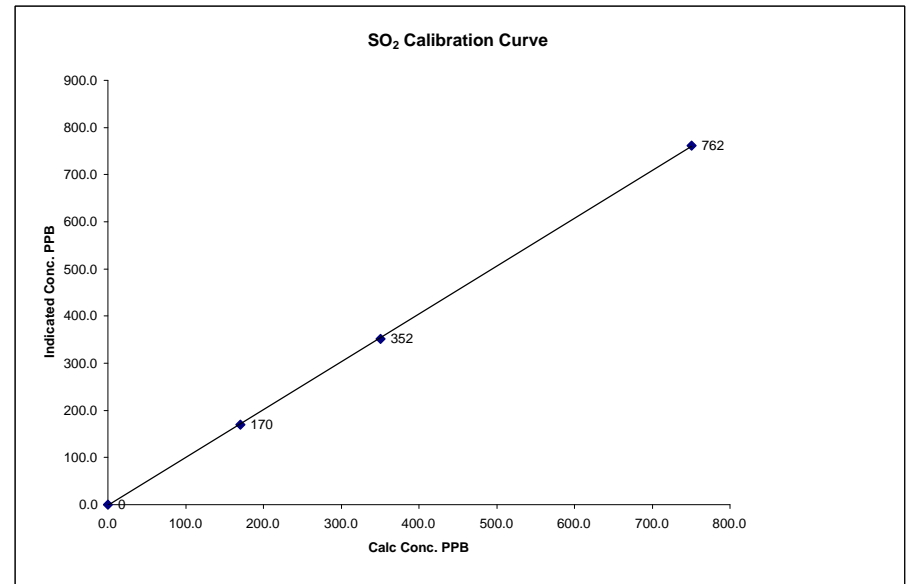
	Before Calibration	After Calibration
Auto Zero	1.4	-1.1
Auto Span	366	366
Sample Lines Connected		YES
Percent Change from Previous Calibration		1.6%

Calibration Performed by: Craig Snider / Ting Xu

SO₂ Calibration Curve

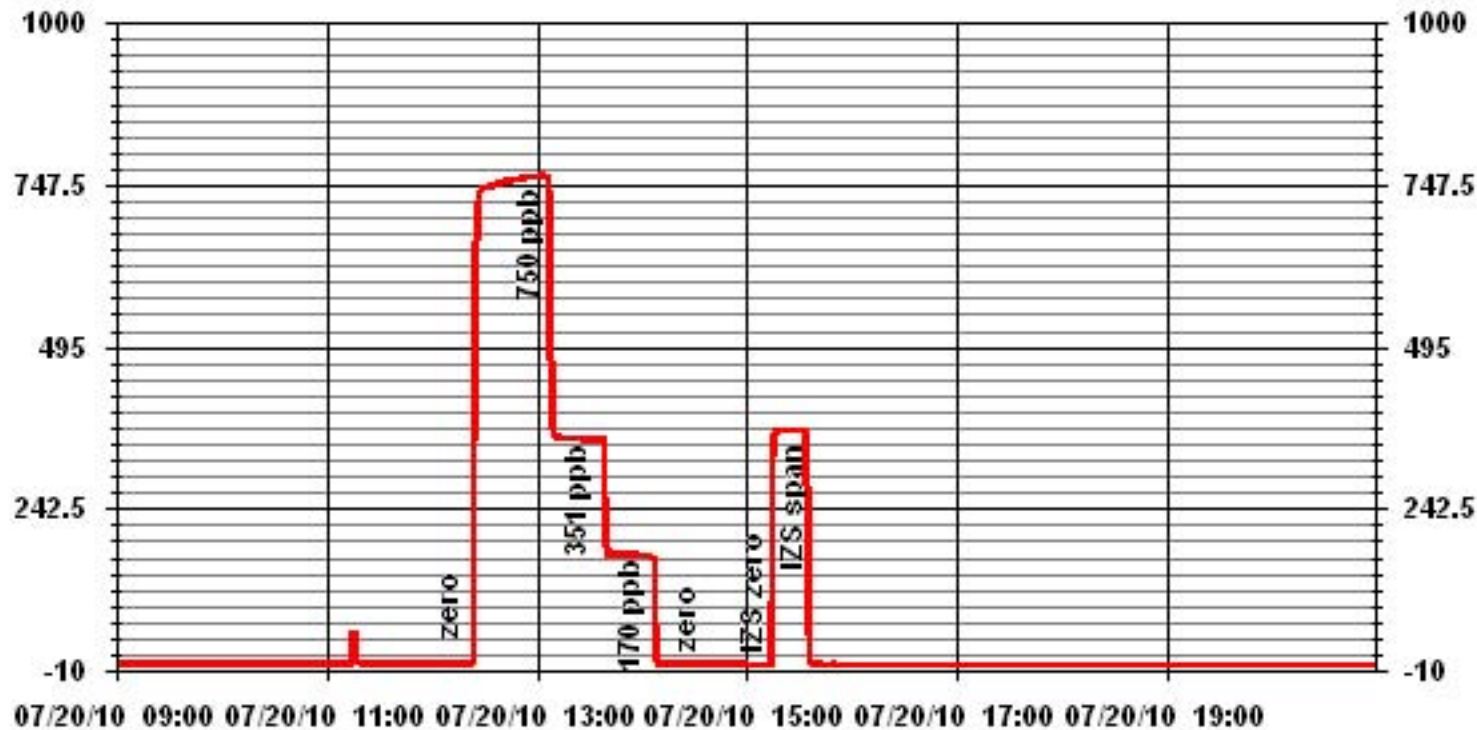
Calibration Date	July 20, 2010
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	ST. LINA
Start Time (MST)	11:18
End Time (MST)	15:41

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15)	Intercept (± 3% F.S.)
0	0	n/a	0.999964	1.016330
170	170	1.0001		
351	352	0.9958		
750	762	0.9847		-1.919311



Notes:

01 Minute Averages



Hydrogen Sulphide

H₂S Calibration Report

Station Information

Calibration Date	July 20, 2010	Previous Calibration	June 22, 2010		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION				
Plant / Location	ST.LINA				
Start Time (MST)	11:18	End Time (MST)	15:41		
Reason:	Monthly Calibration				
Barometric Pressure	-	mmHg	Station Temperature	21	Deg C
Cal Gas	10.8	ppm	Cal Gas Expiry date	06/22/2010	
DAS Output Voltage	0 - 1	Volts			

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	510	Method:	Fluorescent
Converter Make / Model:	Internal	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

		Before Calibration		After Calibration	
Concentration Range		0 - 100		ppb	
Sample Flow / Box Temp	550	ccm	33.8	Deg C	542
HVPS / Lamp Setting	534		2522		534
PMT / RxCell Temp	8.4	Deg C	50	Deg C	50
Converter / IZS Temp	315.6	Deg C	45	Deg C	315.3
Offset / Slope	58.5		0.876		60.9
					0.87

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4998	0	0	1	N/A
4999	0	0	0	N/A
4962	37	80	82	0.9748
4962	37	80	80	0.9992
4983	18.5	40	40	0.9987
4988	10.6	23	23	0.9958
4998	0	0	0	N/A
Sum of Least Squares				0.9989
New Correction Factor				0.9992

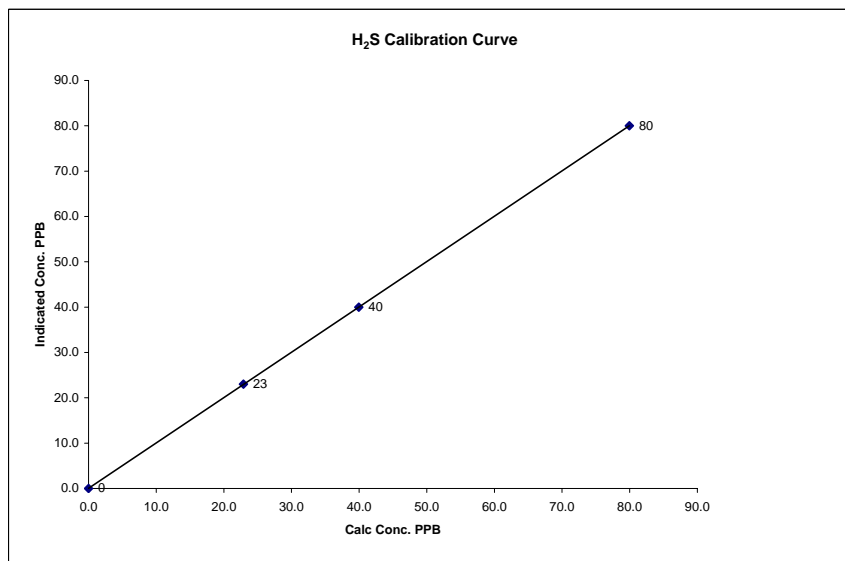
		Before Calibration	After Calibration
Auto Zero		1.5	0.6
Auto Span		54	52
Sample Lines Connected			YES
Percent Change from Previous Calibration			2.5%

Calibration Performed by: Craig Snider / Ting Xu

H₂S Calibration Curve

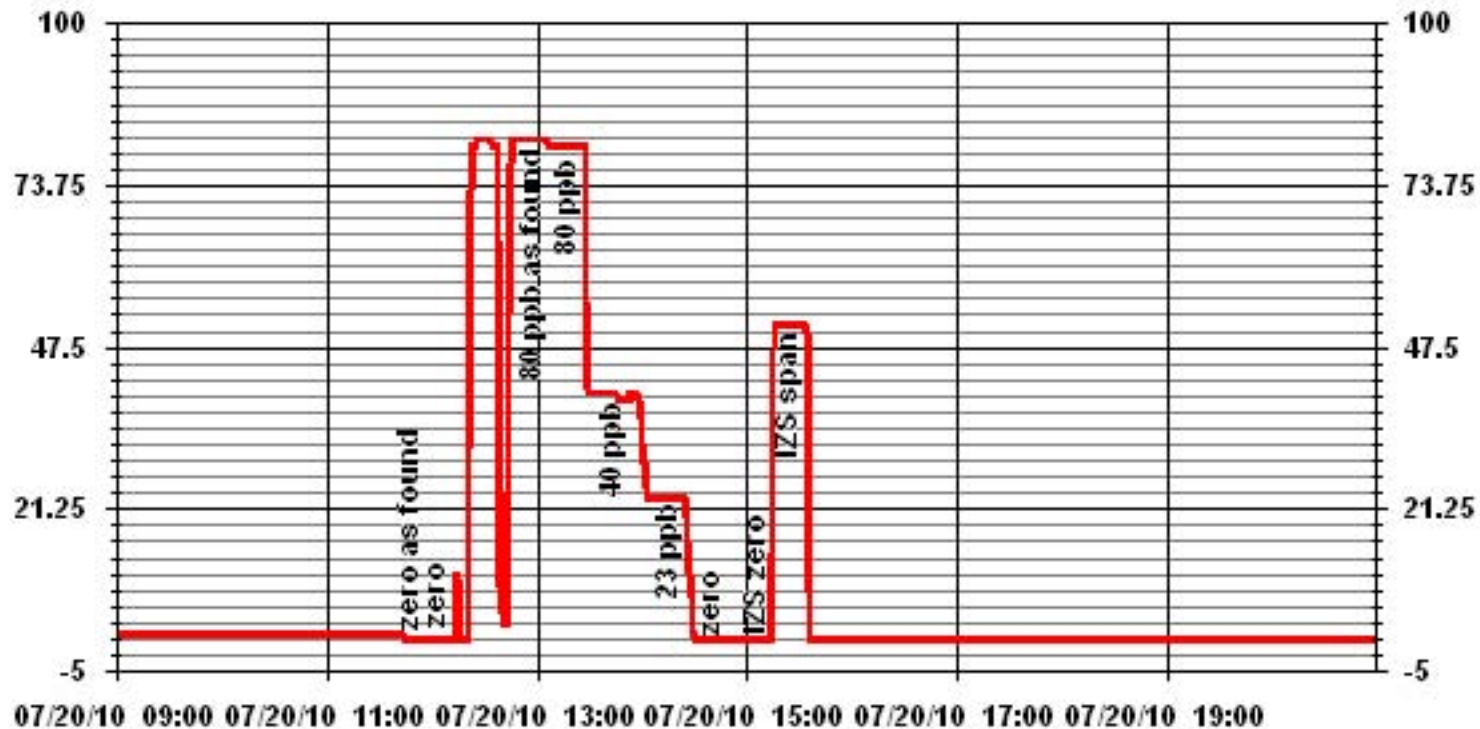
Calibration Date	July 20, 2010
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	ST.LINA
Start Time (MST)	11:18
End Time (MST)	15:41

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999999
ppb	ppb		Slope	(0.85 to 1.15)	1.000529
0	0	n/a	Intercept	(± 3% F.S.)	0.034525
23	23	0.9958			
40	40	0.9987			
80	80	0.9992			



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information			
Calibration Date:	July 21, 2010	Previous Calibration	June 23, 2010
Company:	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location:	ST. LINA		
:	(MST) 8:24	End Time	(MST) 13:16
Reason:	Monthly Calibration		
Barometric Pressure:	- mmHg	Station Temperature:	25 Deg C
Calibrator:	API 700	S/N:	831
Cal Gas Concentration:	207 Prop/ 602 Meth/1171.25 THC	ppm	Cal Gas Expiry Date: August 21, 2011
DAS make & Model:	ESC 8832	S/N :	AO717
Output Voltage Range:	0 - 10	VDC	

Analyzer Information

Make / Model	TECO 51C	S/N :	77021-384	Method	Flame Ionization
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Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 -50	ppm	0 - 50	ppm
Sample Pressure	6.9	psi	6.9	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	21	psi	21	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
1999	0.0	0.0	0.0	N/A
1999	70.0	39.6	39.7	0.9982
1999	35.0	20.2	22.7	0.8879
1999	20.0	11.6	11.6	1.0002
1999	0	0.0	0.0	N/A
Correction Factor:				0.9982

Previous Calibration Correction Factor:	0.9931
Current Correction Factor Before Span Adjust:	0.9982
Percent Change:	-0.50%

IZS Calibration Data

	Before Calibration		After Calibration	
Auto Zero	0.0		0.0	
Auto Span	36.2		36.1	
Sample Lines Connected			YES	

Cylinder Pressures

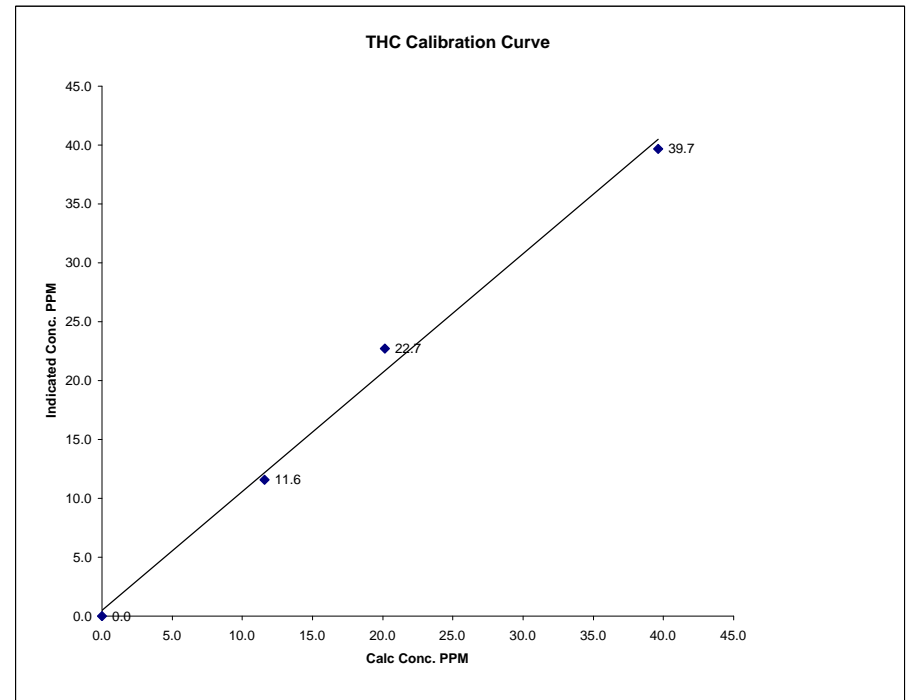
Span	1200	psi	
Hydrogen	700	psi	
Zero Air	32	psi	Unlimited API 701

Calibration Performed by: Craig Snider / Ting Xu

THC Calibration Curve

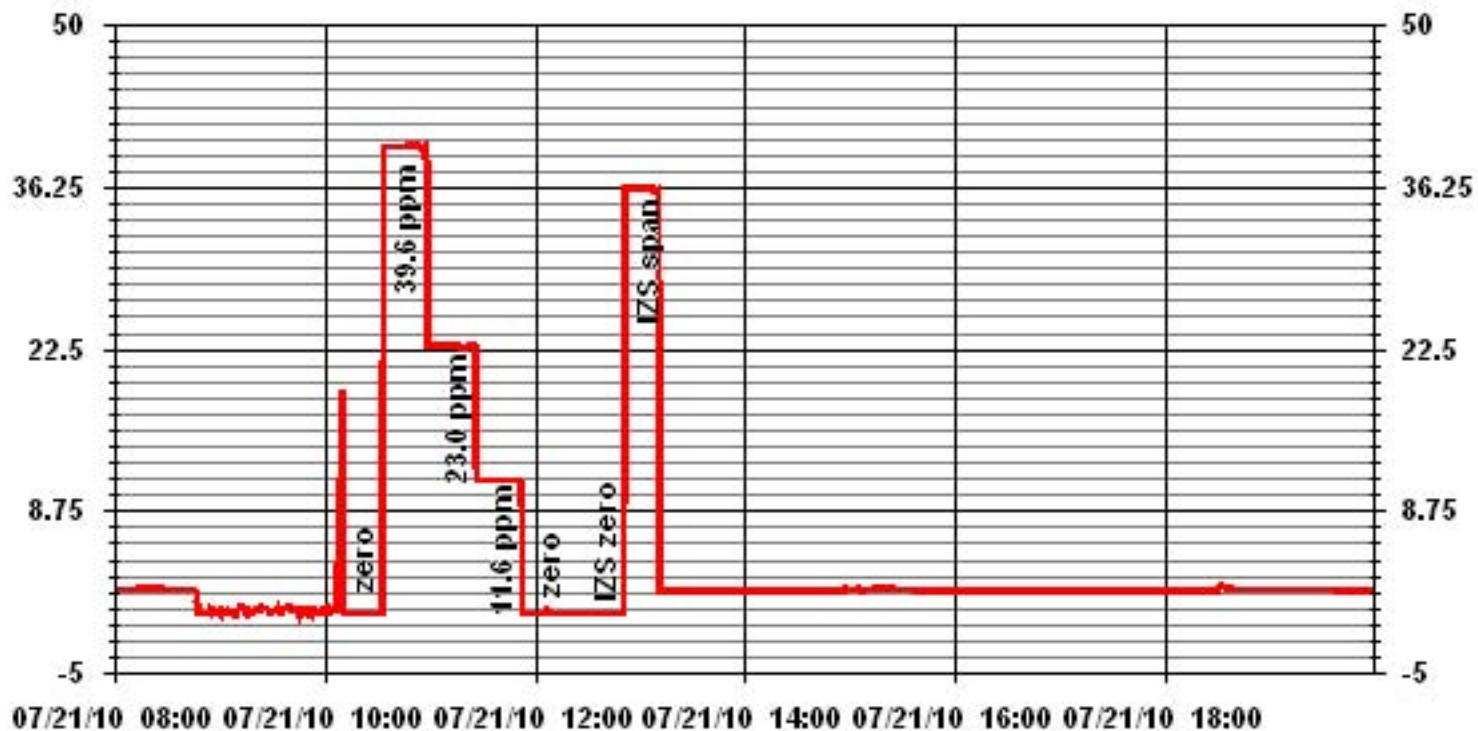
Calibration Date	July 21, 2010		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	8:24	End Time (MST)	13:16

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient (≥ 0.995)	Slope (0.85 to 1.15)	Intercept (± 3% F.S.)
0.0	0.0		0.994507	1.008945	0.494571
11.6	11.6	1.0002			
20.2	22.7	0.8879			
39.6	39.7	0.9982			



Notes: Flame temp 175.

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	July 21, 2010	Previous Calibration	June 22, 2010
Company	LICA	Plant/Location	St. Lina
Start Time (MST)	8:24	End Time (MST)	14:26
Reason:	Monthly Calibration		Other
Barometric Pressure	- mmHg	Station Temperature	22 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO 51.6 ppm	Cal Gas Expiry date 19/12/2010
DAS Output Voltage	0 - 1 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	593	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	AO 717		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	EnviroNics 2000	S/N :	1991		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0-1000			ppb			
Sample Flow/Conv. Temp	471 ccm	314.3 Deg C		475 ccm	314.5 Deg C		
Ozone Flow / Vacuum	73 ccm	4.0 "Hg-A		73 ccm	3.9 "Hg-A		
HVPS / A ZERO	646 Volts	18.1 MV		646 Volts	18.4 MV		
Rx/ Temp / PMT Temp	50.0 Deg C	6.9 Deg C		50.0 Deg C	6.9 Deg C		
Box Temp / IZS Temp	30.7 Deg C	45.3 Deg C		30.9 Deg C	45.2 Deg C		
Offset	2.5 NOx	-0.2 NO		2.5 NOx	-0.2 NO		
Slope	0.992 NOx	0.983 NO		1.170 NOx	1.167 NO		
NO ₂ COEF / Conv Efficiency	NA NO ₂	0.993		NA NO ₂	0.993		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO ₂	NOx	NO	NO ₂	NOx	NO
3005	0.0	----	0	0	0	0	1	0	----	----
2970	43.7	----	751	748	----	634	630	5	1.1847	1.1895
2965	43.7	----	752	749	----	750	751	0	1.0032	0.9993
2986	20.4	----	351	350	----	347	348	0	1.0129	1.0090
2999	9.9	----	170	170	----	169	169	0	1.0085	1.0106
3008	0.0	----	0	0	0	0	1	-1	----	----

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO ₂ Correction Factor	NO ₂ Conv Efficiency
			NOx	NO	NO ₂	NOx	NO	NO ₂		
2968	43.7	----	752	749	----	749	751	-1	----	
2968	43.7	550	752	----	495	752	255	496	0.9980	100.20%
2968	43.7	300	752	----	277	752	473	278	0.9964	100.36%
2968	43.7	100	752	----	84	751	666	86	0.9767	102.35%

Linearity	Sum of Least Squares		NOx= 1.005	NO= 1.000	NO ₂ = 0.997
OK?	Yes	No	Correction Factors:	NOx= 1.0032	NO= 0.9993
			Average Converter Efficiency= 100.97%		

Before Calibration				After Calibration			
Auto Zero	0.4 NOx	0.6 NO ₂		-0.8 NOx	-1.5 NO ₂		
Auto Span	479 NOx	467 NO ₂		563 NOx	551 NO ₂		
Sample Lines Connected				YES			

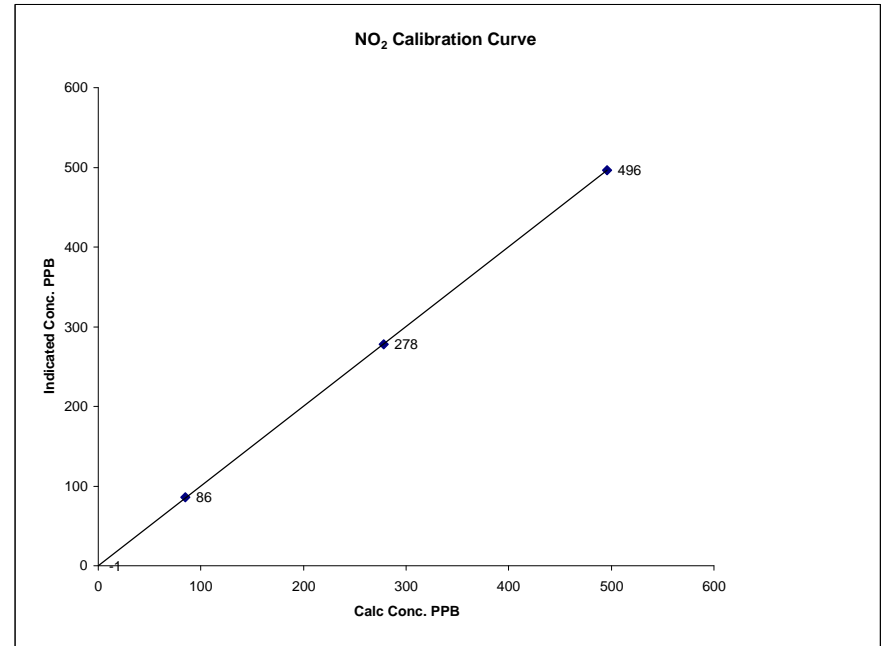
Notes Additional GPT point done for ozone calibration. O3 set point 450, NO=338, NO₂=413

Calibration Performed by: Craig Snider / Ting Xu

NO₂ Calibration Curve

Calibration Date	July 21, 2010	LICA	
Company		St. Lina	
Plant / Location		End Time (MST)	14:26
Start Time (MST)	8:24		

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999987
ppb	ppb		Slope	(0.85 to 1.15)	1.000582
0	-1	N/A	Intercept	(± 3% F.S.)	-0.12498
85	86	0.9884			
278	278	1.0000			
496	496	1.0000			

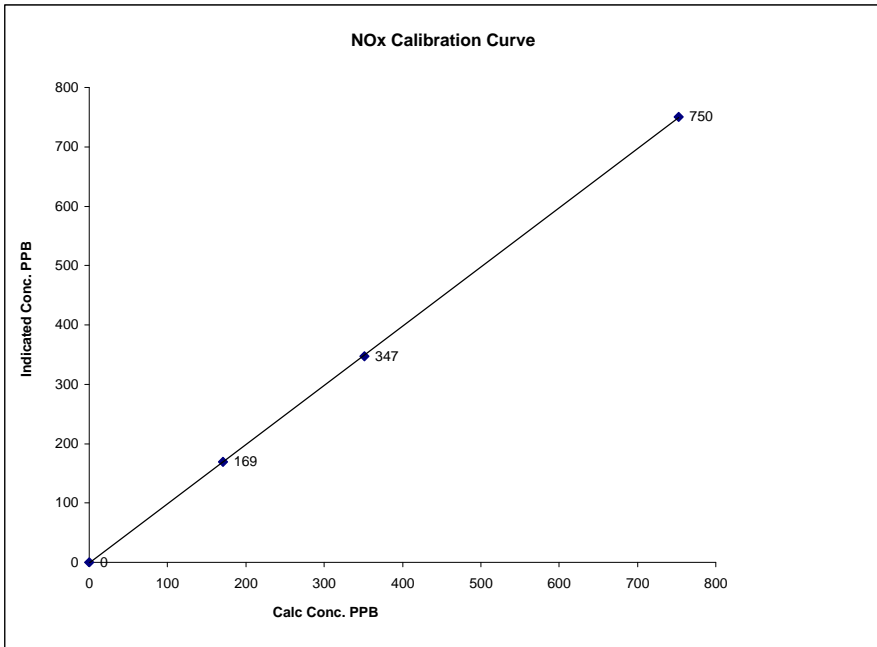


Notes:

NOx Calibration Curve

Calibration Date July 21, 2010
 Company LICA
 Plant / Location St. Lina
 Start Time (MST) 8:24 End Time (MST) 14:26

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999975
0	0	N/A	Slope (0.85 to 1.15)	0.996917
170	169	1.0085	Intercept (± 3% F.S.)	-1.09184
351	347	1.0129		
752	750	1.0032		

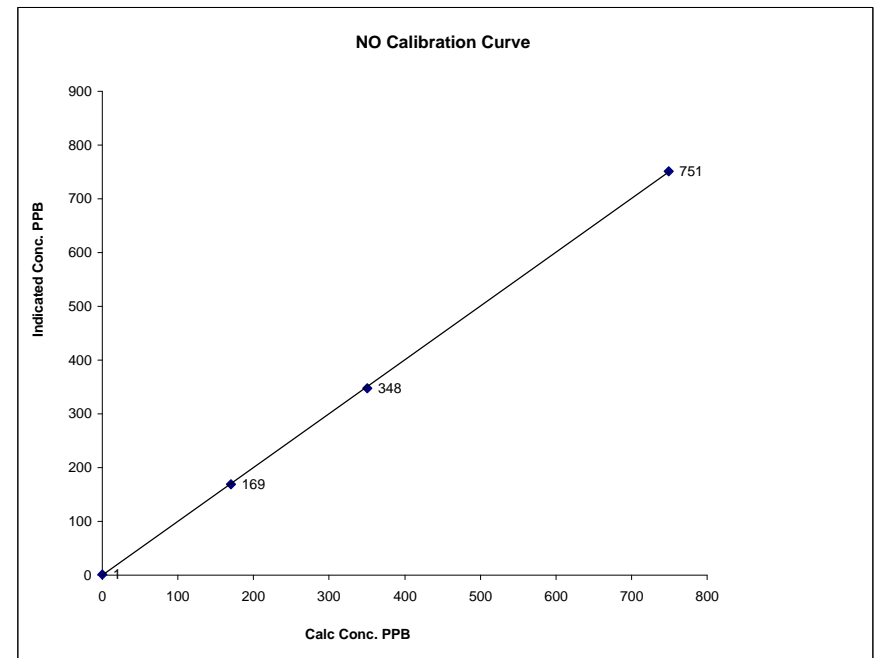


Notes:

NO Calibration Curve

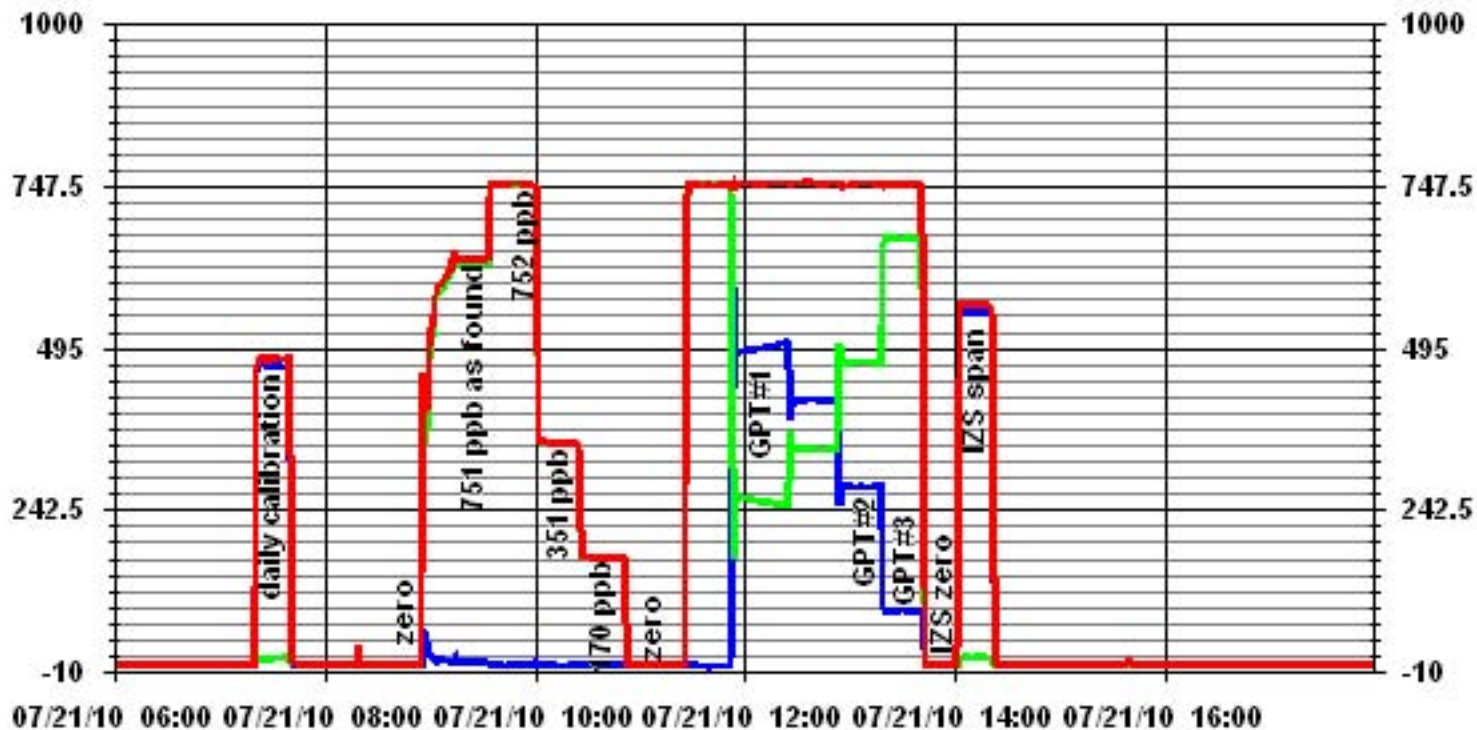
Calibration Date July 21, 2010
 Company LICA
 Plant / Location St. Lina
 Start Time (MST) 8:24 End Time (MST) 14:26

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999974
0	1	N/A	Slope (0.85 to 1.15)	1.004845
170	169	1.0046	Intercept (± 3% F.S.)	-5.3478
350	348	1.0061		
749	751	0.9980		



Notes:

01 Minute Averages



— LICA31 NOX_ PPB
 — LICA31 NO_ PPB
 — LICA31 NO2_ PPB

Ozone

O₃ Calibration Report

Station Information

Calibration Date	July 21, 2010	Previous Calibration	June 22, 2010
Company	Lakeland Industry & Community Association		
Plant / Location	St. Lina		
Start Time (MST)	13:53	End Time (MST)	17:18
Reason:	Monthly Calibration		
Barometric Pressure	- mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	Thermo 49i	S/N :	1002240371	Method:	Fluorescent
Calibrator Make / Model:	Enviroics 2000	S/N :	1991	Method:	GPT
DAS Make / Model:	ESC 8832	S/N :	AO 717		

Analyzer Settings

	Before Calibration		After Calibration	
	0 - 500			
Concentration Range	ppb			
Cell A Flow / Cell B Flow	737 ccm	728 ccm	735 ccm	725 ccm
Pressure	691.8 mmHg		695.7 mmHg	
Bench Temp	54.0 Deg C		53.8 Deg C	
O3 Lamp / Box Temp	68 Deg C	30.5 Deg C	68 Deg C	28.3 Deg C
Offset / Slope	-0.2	0.991	-0.2	1.013

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3003	0	0	0	N/A
3003	450	413	404	1.0223
3003	450	413	414	0.9976
3003	300	278	282	0.9858
3303	100	85	86	0.9884
3003	0	0	0	N/A
Sum of Least Squares				N/A
New Correction Factor				0.9976

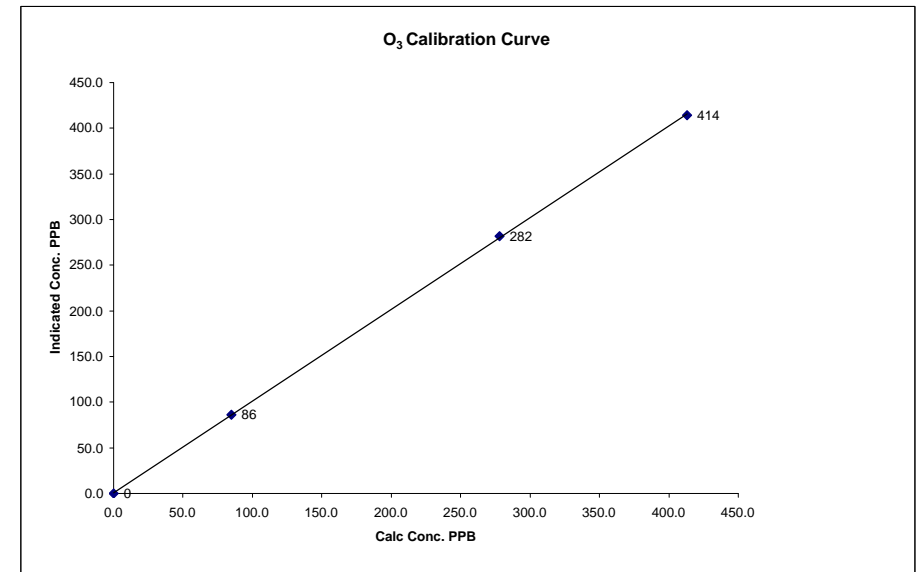
	Before Calibration	After Calibration
Auto Zero	0.2	0.1
Auto Span	326	334
Sample Lines Connected		YES
Percent Change from Previous Calibration		-2.2%

Calibration Performed by: Shea Beaton

O₃ Calibration Curve

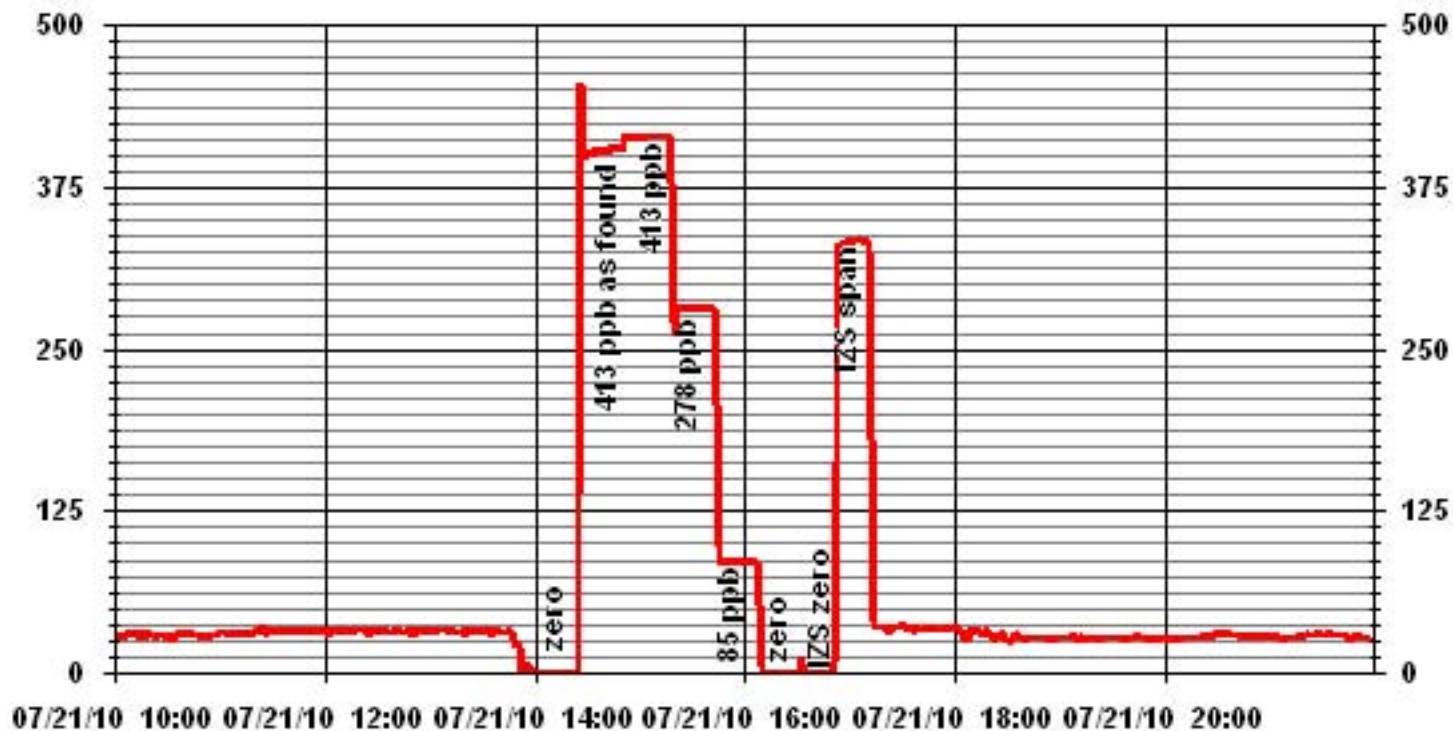
Calibration Date	July 21, 2010		
Company	Lakeland Industry & Community Association		
Plant / Location	St. Lina		
Start Time (MST)	13:53	End Time (MST)	17:18

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15)	Intercept (± 3% F.S.)	
0	0	n/a			0.999933
85	86	0.9884			1.004267
278	282	0.9858			
413	414	0.9976			0.672288



Notes:

01 Minute Averages



Lakeland Industry & Community Association

Portable / Devon Wellsite 13-16-62-5 W4M Monitoring Site

Ambient Air Monitoring Data Report

For

July 2010

Prepared By:



Driven by Service and Science

August 30, 2010

Lakeland Industry & Community Association Portable / Devon Wellsite 13-16-62-5 W4M Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

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

Monitoring Location: Portable / Devon Wellsite 13-16-62-5 W4M
Data Period: July 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

The 6-days analytical report for VOCs and PAHs:
Authorized by Petro Oh

Calibration Procedure

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

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

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

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

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

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE

Continuous Ambient Monitoring – July 2010

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PORTABEL / DEVON WELLSITE 13-16-62-5 W4M SITE						MAXIMUM VALUES							OPERATIONAL TIME (PERCENT)
						OBJECTIVES				EXCEEDENCES		MONTHLY AVERAGE	
PARAMETER	1-HR	24-HR	1-HR	24-HR	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING	DAY		
SO ₂ (PPB)	172	57	0	0	0.01	1	19, 22	VAR	VAR	VAR	0.1	19, 22	87.5
H ₂ S (PPB)	10	3	-	-	0.16	5	VAR	VAR	VAR	VAR	1.0	12	99.3
THC (PPM)	-	-	-	-	2.10	5.2	20	2	1.9	243(WSW)	2.8	28	98.1
NO ₂ (PPB)	212	106	0	0	1.01	8	6	16	9.1	307(NW)	2.0	20	85.3
NO (PPB)	-	-	-	-	0.23	10	21	14	4.9	211(SSW)	1.4	21	85.3
NO _x (PPB)	-	-	-	-	1.29	18	21	14	4.9	211(SSW)	3.1	21	85.3
O ₃ (PPB)	82	-	0	-	21.13	49	22, 30	13, 11	11.2, 8.5	160(SSE), 287(WNW)	34.5	30	99.3
PM 2.5 (UG/M ³)	-	30	-	0	5.22	42.6	14	16	13.9	278(W)	16.7	14	95.8
VECTOR WS (KPH)	-	-	-	-	8.07	25.9	22	16	-	90(E)	13.3	17	99.3
VECTOR WD (DEGREES)	-	-	-	-	271(W)	-	-	-	-	-	-	-	99.3

VAR-VARIOUS

Volatile Organics Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE

Xontech Model 910A – June 01, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – June 07, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – June 13, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – June 19, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – June 25, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

General Monthly Summary

Equipment Operation

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

AQM STATION – LICA – PORTABLE

Sulphur Dioxide (PPB)

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

A UV lamp calibration and a factory calibration were performed following the as found points on July 6th. A post-repair calibration was performed on July 7th. The inlet filter was replaced before the monthly calibration was started. The analyzer did not span on July 9th. During the trip on July 12th, it was noticed that the analyzer had a failure alarm. The alarm could not be clear and all the function buttons were frozen. The issue is likely due to an electronic storm causing analyzer CPU to hang up. Restarted the analyzer to clear the alarm and allowed the analyzer to stabilize. After that, as found points were put; the result was good. Data was invalidated back to the point when the analyzer failed on July 8th. 84 hours of data were invalidated. Four hours of data were invalidated due to a power failure on July 30th. Data was corrected using daily zero information. The operational time for the month is 651 hours, and the operational uptime is 87.5%.

Hydrogen Sulphide (PPB)

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

No operational issues observed during the month. The inlet filter was replaced before the monthly calibration was started. Four hours of data were invalidated due to a power failure on July 30th.Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – PORTABLE

Nitrogen Dioxide (PPB)

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

A monthly calibration attempted to be performed on July 7th, but was aborted in order to check the flow to the calibrator. The monthly calibration was performed on July 12th. The inlet filter was changed on July 7th. The analyzer did not span on July 9th. During the trip on July 12th, it was noticed that the analyzer had a failure alarm. The alarm could not be clear and all the function buttons were frozen. The issue is likely due to an electronic storm causing analyzer CPU to hang up. Restarted the analyzer to clear the alarm and allowed the analyzer to stabilize. After that, the as found points were put; the result was good. Data was invalidated back to the point when the analyzer failed on July 8th. 84 hours of data were invalidated. Starting at 22:00 on July 24th the analyzer was reading incorrectly due to another electronic storm. The analyzer was restarted, and it was allowed time to stabilize. A daily calibration was then run. 10 hours of data were invalidated. Four hours of data were invalidated due to a power failure on July 30th. Data was corrected using daily zero information. The operational time for the month is 635 hours, and the operational uptime is 85.3%.

Ozone (PPB)

- Analyzer make / model – API 700, S/N: 446 replaced to Thermo 49i, S/N: 1002240372

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started. Four hours of data were invalidated due to a power failure on July 30th. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – PORTABLE

THC (PPM)

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

No operational issues observed during the month. The inlet filter was replaced before the monthly calibration was started on July 7th. The flows were measured manually. Four hours of data were invalidated due to a power failure on July 30th. The analyzer failed on July 31st at 15:00 due to the H2 gas to be run out. The H2 gas cylinder was replaced on August 1st, and the analyzer was re-lit. 9 hours of data were invalidated. Data was corrected using daily zero information.

Particulate Matter 2.5 (ug/m³)

- Analyzer make / model –TEOM 1405F , S/N: 1405A207691003

The Teom unit was working well throughout the month. A routine audit was performed on July 8th. The FDMS filter was replaced on July 8th. Four hours of data were invalidated due to a power failure on July 30th. Data was corrected using Alberta air quality guideline for PM2.5 analyzer. If the data was between 0 to –3, the data was corrected to 0. If the data was below –3, the data was invalidated. 26 hours of data were invalidated as they were below –3.0 ug/m³. The new Teom 1405F unit output provides hourly average, but no instantaneous output. As a result, no hourly maximum value is recorded.

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

- System make / model – RM Young 5103VK, S/N: 41334

No operational issues observed during the month. The wind system is reported as vector wind speed and vector wind direction. Four hours of data were invalidated due to a power failure on July 30th.

Datalogger

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

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

General Monthly Summary

AQM STATION – LICA – PORTABLE

Trailer

No issue was observed this month. The filter in the Bard heater/ air conditioner was replaced on July 8th.

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly and daily calibrations, maintenance, and downtime. 4 hours of fair AQI values recorded in July 2010, and they were all due to PM2.5. The highest hourly concentration of Ozone was 49 ppb and an AQI value of 25 on July 22nd, hour 13 and July 30th, hour of 11. The highest hourly concentration of PM2.5 was 42.6 ug/m3 and an AQI value of 32, hour 16 on July 14th.

Volatile Organics (VOCs)

The volatile organics were sampled from July 2nd to July 26th. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle. The values for the VOCs in this report were reported as ug/m3 in 3 significant figures. No VOCs lab result is included for July in this report as the data is not available when the monthly report is completed. The results for July will be included in the monthly report next month. The lab results for June are included in this report.

Polycyclic Aromatic Hydrocarbons (PAHs)

The PAHs were sampled from July 2nd to July 26th. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle. The values for the PAHs in this report were reported as ng/m3. No PAHs lab result for July is included in this report as the data is not available when the monthly report is completed. The results for July will be included in the monthly report next month.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Air Quality Index

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -PORTABLESITE

JULY 2010

AIR QUALITY INDEX (AQI)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX	
1	7	6	6	6	5	6	7	9	11	12	13	14	14	15	16	-	17	15	-	11	9	8	8	8	8	17	
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3
2	8	6	4	3	3	3	6	9	11	15	17	18	19	19	20	18	-	17	16	13	14	15	14	20	20	20	
	O3	O3	O3	PM2	O3	O3	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
3	12	9	6	6	5	7	8	9	10	11	11	12	12	12	12	-	-	12	12	12	9	8	8	7	12	12	
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
4	7	7	6	5	6	6	8	9	11	12	-	12	13	-	15	-	12	12	10	9	9	8	-	7	15	15	
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5	8	7	6	6	5	5	5	5	6	7	9	10	11	13	-	13	14	14	16	14	12	11	12	12	19	19	
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
6	11	10	9	9	9	9	9	-	-	-	-	-	-	-	-	-	-	-	13	12	13	12	9	8	8	14	
	O3	O3	O3	O3	O3	O3	O3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3
7	7	7	6	5	3	3	7	-	-	-	-	-	-	16	16	16	15	14	12	12	9	7	9	8	16	16	
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8	9	7	8	5	6	6	6	9	-	14	14	-	14	13	12	13	13	13	-	-	-	-	-	-	-	14	
	PM2	O3	O3	O3	PM2	O3	O3	O3	NA	O3	O3	NA	O3	O3	O3	O3	O3	NA	NA	NA	NA	NA	NA	NA	NA	NA	O3
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	O3
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	O3
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	O3
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	O3
13	-	7	7	14	17	-	-	-	-	-	-	-	17	18	19	19	17	14	15	14	12	11	8	7	8	19	
	NA	O3	O3	O3	O3	NA	NA	NA	NA	NA	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
14	9	8	-	4	5	-	6	8	10	15	22	22	14	14	21	29	32	21	18	16	14	16	10	11	9	32	
	O3	O3	NA	O3	PM2	NA	O3	O3	PM2	PM2	PM2	PM2	PM2	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2
15	11	12	8	9	-	10	5	6	11	14	15	14	16	-	17	15	13	17	16	10	11	9	17	17	17	17	
	PM2	PM2	PM2	PM2	NA	PM2	PM2	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
16	7	4	3	-	3	4	8	11	12	14	12	11	12	14	-	13	12	-	8	7	7	5	5	7	14	14	
	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3
17	6	5	-	4	5	5	6	8	10	11	12	12	12	11	12	12	13	12	11	8	7	6	7	13	13	13	
	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
18	6	-	6	4	3	3	5	7	12	14	17	16	15	15	15	14	14	12	9	9	8	4	6	17	17	17	
	O3	NA	O3	O3	O3	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
19	-	4	4	3	4	2	2	3	7	8	11	12	14	15	15	15	16	13	10	7	5	7	-	-	-	16	
	NA	O3	PM2	PM2	PM2	PM2	O3	O3	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	PM2	PM2	NA	O3	
20	2	3	3	4	3	5	4	5	7	9	14	18	20	18	17	16	15	13	11	8	6	-	2	20	20	20	
	PM2	O3	PM2	PM2	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	
21	2	3	6	3	2	1	3	5	9	15	17	18	19	18	18	19	19	16	14	10	11	-	9	8	19	19	
	PM2	O3	PM2	O3	PM2	O3	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3
22	7	6	4	4	5	5	5	9	12	19	23	24	25	22	21	21	21	19	-	12	8	5	5	25	25	25	
	O3	O3	O3	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3
23	6	5	4	8	6	6	7	12	16	19	21	23	24	22	22	22	22	20	-	14	12	10	10	24	24	24	
	PM2	O3	O3	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3
24	8	9	10	8	7	11	11	12	14	17	20	21	19	19	19	19	18	16	-	18	10	7	-	-	21	21	
	O3	O3	O3	O3	O3	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	NA	NA	NA	O3	
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	PM2	PM2	O3	O3	
26	5	2	2	1	1	5	11	15	18	14	11	11	10	11	12	11	-	12	12	11	10	9	9	7	18	18	
	PM2	O3	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
27	7	6	5	4	4	4	4	6	7	9	11	13	17	17	18	-	19	22	20	22	18	27	28	25	28	28	
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	PM2	PM2	PM2	NA	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2
28	21	13	18	16	15	18	16	21	25	18	17	17	18	18	-	18	18	18	16	14	12	10	15	13	25	25	
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	PM2	PM2	PM2	PM2	PM2	PM2
29	11	10	13	13	8	5	6	10	14	16	18	20	21	-	24	24	24	20	15	8	7	10	6	11	24	24	
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	PM2	PM2	PM2	PM2	O3	O3
30	11	-	-	-	-	20	18	17	17	23	25	-	23	23	24	23	20	18	11	12	11	10	11	25	25	25	
	PM2	NA	NA	NA	NA	NA	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
31	13	14	13	10	11	9	11	13	15	19	20	-	19	21	21	21	20	20	17	15	12	11	13	9	21	21	
	O3	O3	O3	O3	PM2	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	PM2	PM2	PM2	PM2	O3	O3
PEAK	21	14	18	16	17	18	20	21	25	19	23	25	24	25	24	29	32	22	21	22	18	27	28	25	25	25	
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3

STATUS FLAG CODES NA - NOT APPLICABLE

V - VARIOUS

AQI CLASS	OZONE (O ₃)					PARTICULATE MATTER 2.5 (PM _{2.5})					NITROGEN DIOXIDE (NO ₂)					SULPHUR DIOXIDE (SO ₂)					FREQUENCY	
	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%
VERY POOR (101-255)	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-									

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
DAY	HOURLY MAX	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0.0	24
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24
6	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.0	24
7	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
8	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	N	N	N	N	N	0	0.0	19
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
12	N	N	N	N	N	N	N	N	M	M	M	M	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	13
13	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
14	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
15	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
16	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
18	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	IZS	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.1	24
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
22	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0.1	24
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0.0	24
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0.0	24
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
30	0	P	P	P	P	P	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	19
31	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
HOURLY MAX		0	0	0	0	0	0	0	0	0	1	1	1	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	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

STATUS FLAG CODES

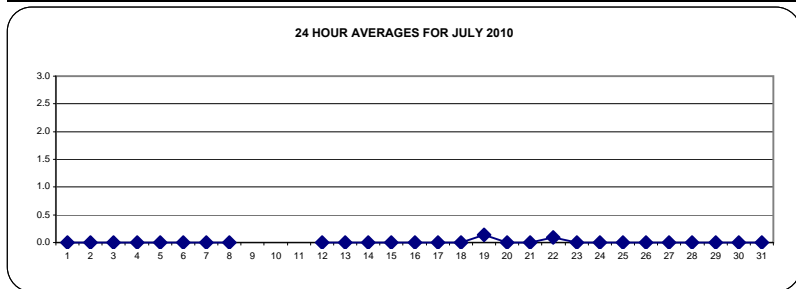
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

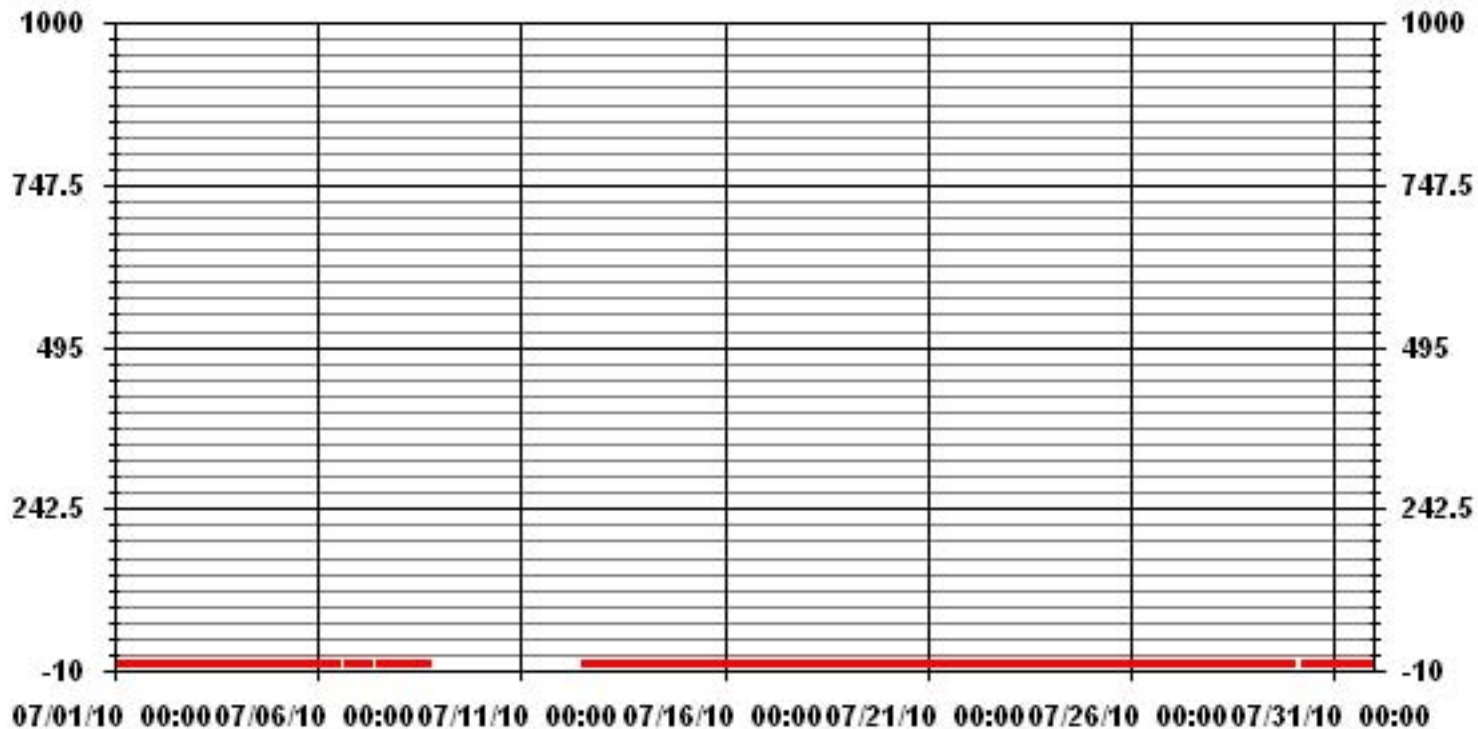
ALBERTA ENVIRONMENT:	1-HR	172	PPB	24-HR	57	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	5					
MAXIMUM 1-HR AVERAGE:	1	PPB	@ HOUR(S)	VAR	ON DAY(S)	19, 22
MAXIMUM 24-HR AVERAGE:	0.1	PPB			ON DAY(S)	19, 22
IZS CALIBRATION TIME:	26	HRS	OPERATIONAL TIME:	651	HRS	
MONTHLY CALIBRATION TIME:	13	HRS	AMD OPERATION UPTIME:	87.5	%	
STANDARD DEVIATION:	0.09		MONTHLY AVERAGE:	0.01	PPB	



01 Hour Averages



— LICA33 SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -PORTABLE SITE

JULY 2010

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR			
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
1		0	1	0	0	0	1	1	1	1	0	0	1	0	0	1	1	1	1	IZS	1	1	1	1	1	1	1	0.7	24	
2		1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	IZS	1	1	1	1	1	1	1	2	1.0	24	
3		1	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	1.0	24	
4		1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	IZS	1	1	1	1	1	1	1	1	1	2	1.0	24	
5		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	1	1.0	24	
6		1	1	1	1	1	1	0	1	1	1	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	0.9	24	
7		1	1	1	1	0	0	2	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	24	
8		1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	N	N	N	N	N	1	1.0	19	
9		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0	
10		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0	
11		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0	
12		N	N	N	N	N	N	N	M	M	M	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1.0	14	
13		1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.7	24	
14		0	1	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	1	0.3	24	
15		0	0	0	0	IZS	1	1	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	3	1	1	5	1.1	24	
16		1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
17		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	1.0	24	
18		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	1	1.0	24	
19		IZS	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	IZS	2	1.1	24
20		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	IZS	0	0.1	24
21		0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	0	0	1	1	1	1	1	IZS	1	2	0.6	24		
22		1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	IZS	1	1	1	2	1.1	24	
23		1	1	1	1	1	1	0	1	1	1	1	0	0	0	1	1	1	0	0	0	IZS	0	0	0	1	1	0.6	24	
24		1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	0	1	1	0.9	24		
25		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	1	1.0	24	
26		1	1	1	1	1	1	1	3	2	2	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	3	1.2	24	
27		1	1	0	0	0	1	0	0	1	1	1	1	1	1	1	1	IZS	1	0	1	1	1	1	1	1	1	0.7	24	
28		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	2	1	1	1	1	1	2	1.0	24	
29		1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	IZS	1	1	1	2	2	1	1	1	2	1.1	24	
30		1	P	P	P	P	P	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	19	
31		1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
HOURLY MAX		1	1	1	1	1	1	2	3	2	2	2	2	2	2	1	2	1	2	2	2	2	1	3	1	2				
HOURLY AVG		0.8	0.9	0.7	0.8	0.8	0.9	0.8	0.9	0.9	0.9	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.9	0.8	0.9				

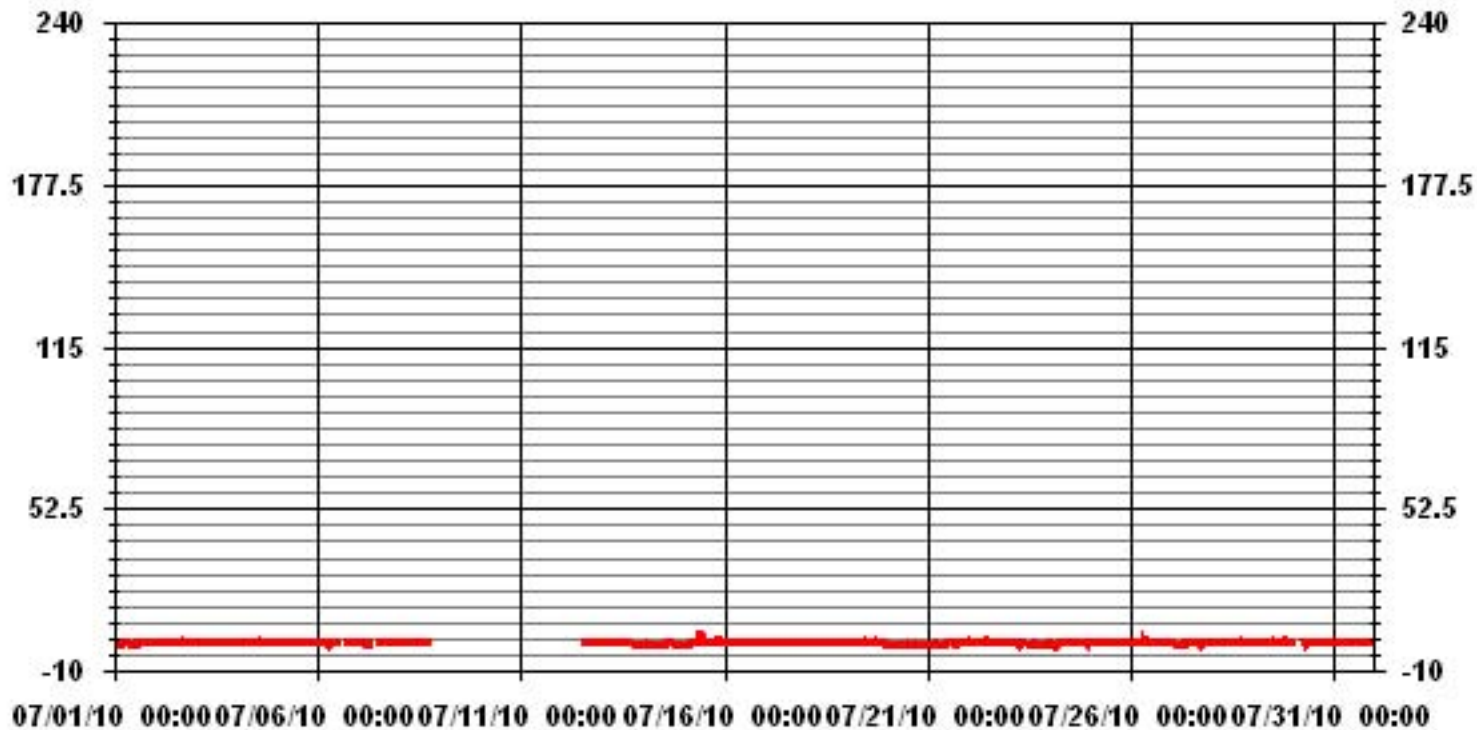
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	523					
MAXIMUM INSTANTANEOUS VALUE:	5	PPB	@ HOUR(S)	10	ON DAY(S)	15
IZS CALIBRATION TIME:	26	HRS	OPERATIONAL TIME:	652	HRS	
MONTHLY CALIBRATION TIME:	14	HRS				
STANDARD DEVIATION:	0.45					

01 Hour Averages



— LICA33 SO2MAX PPB

LICA33
 SO2_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : SO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	1.79	2.94	3.10	3.10	4.73	3.26	2.45	3.26	3.75	6.20	11.60	10.13	16.83	15.35	7.18	4.24	100.00
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 170	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.79	2.94	3.10	3.10	4.73	3.26	2.45	3.26	3.75	6.20	11.60	10.13	16.83	15.35	7.18	4.24	

Calm : .00 %

Total # Operational Hours : 612

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	11	18	19	19	29	20	15	20	23	38	71	62	103	94	44	26	612
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	11	18	19	19	29	20	15	20	23	38	71	62	103	94	44	26	

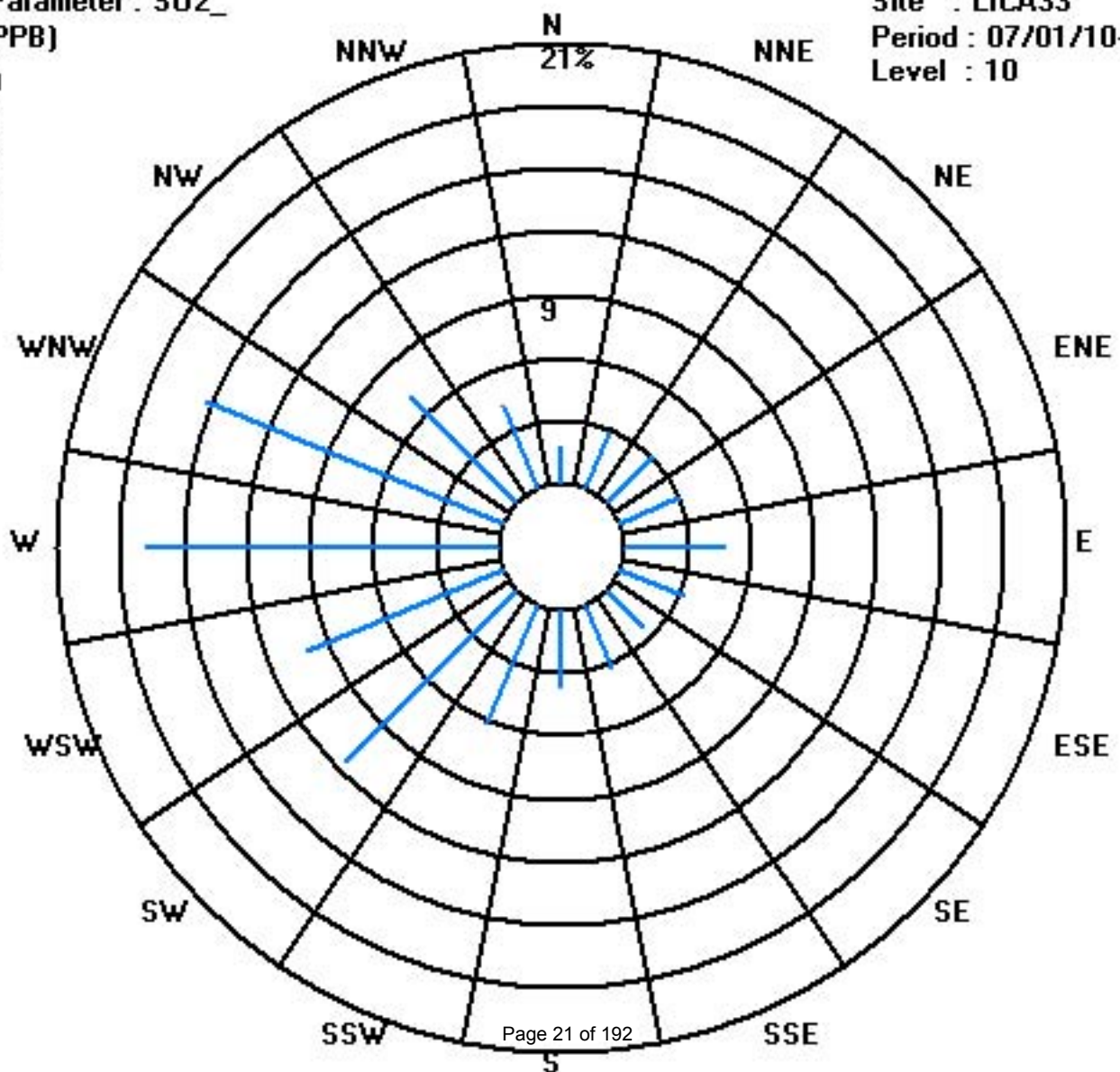
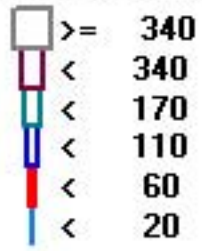
Calm : .00 %

Total # Operational Hours : 612

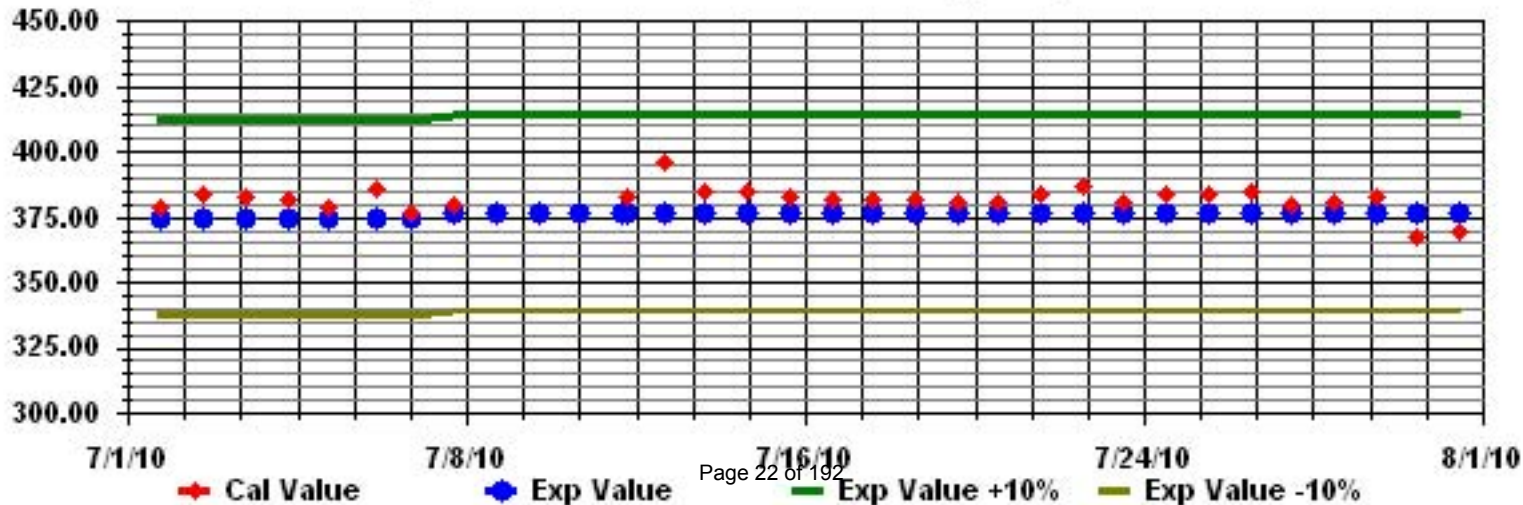
Class Limits (PPB)

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

Level : 10



Calibration Graph for Site: LICA33 Parameter: S02_ Sequence: S02 Phase: SPAN



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE

JULY 2010

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR				
DAY	HOURLY MAX	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.		
1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0.0	24	
2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24	
3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24	
6		0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0.0	24		
7		0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
8		0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	1	1	0.0	24	
9		0	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
10		0	0	0	0	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
11		0	0	0	0	0	0	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1	24	
12		0	1	2	1	2	1	1	IZS	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	2	1.0	24	
13		1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24	
14		0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
15		0	0	0	0	IZS	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24	
16		0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
17		0	0	IZS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
18		0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
19		IZS	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.1	24
20		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
21		0	3	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.3	24	
22		3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24	
23		1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
24		0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	1	0	0	0	IZS	0	0	1	0	0	1	0.3	24	
25		0	0	5	2	2	0	1	1	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	5	0.5	24	
26		0	0	4	5	3	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	5	0.5	24	
27		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24	
28		0	3	5	0	1	1	0	1	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	5	0.6	24	
29		1	1	0	0	0	0	1	1	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	1	0	1	0.3	24	
30		0	P	P	P	P	P	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	19	
31		0	0	0	0	0	1	1	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
HOURLY MAX		3	3	5	5	3	3	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1				
HOURLY AVG		0.2	0.4	0.6	0.5	0.4	0.3	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1				

STATUS FLAG CODES

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

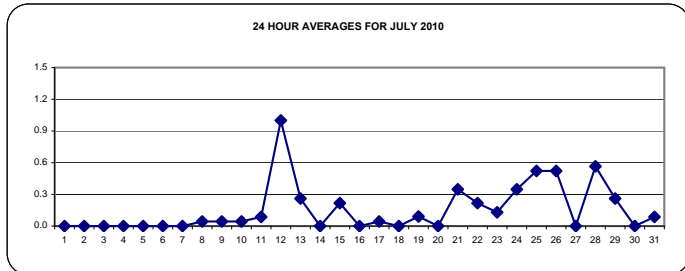
OBJECTIVE LIMIT:

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

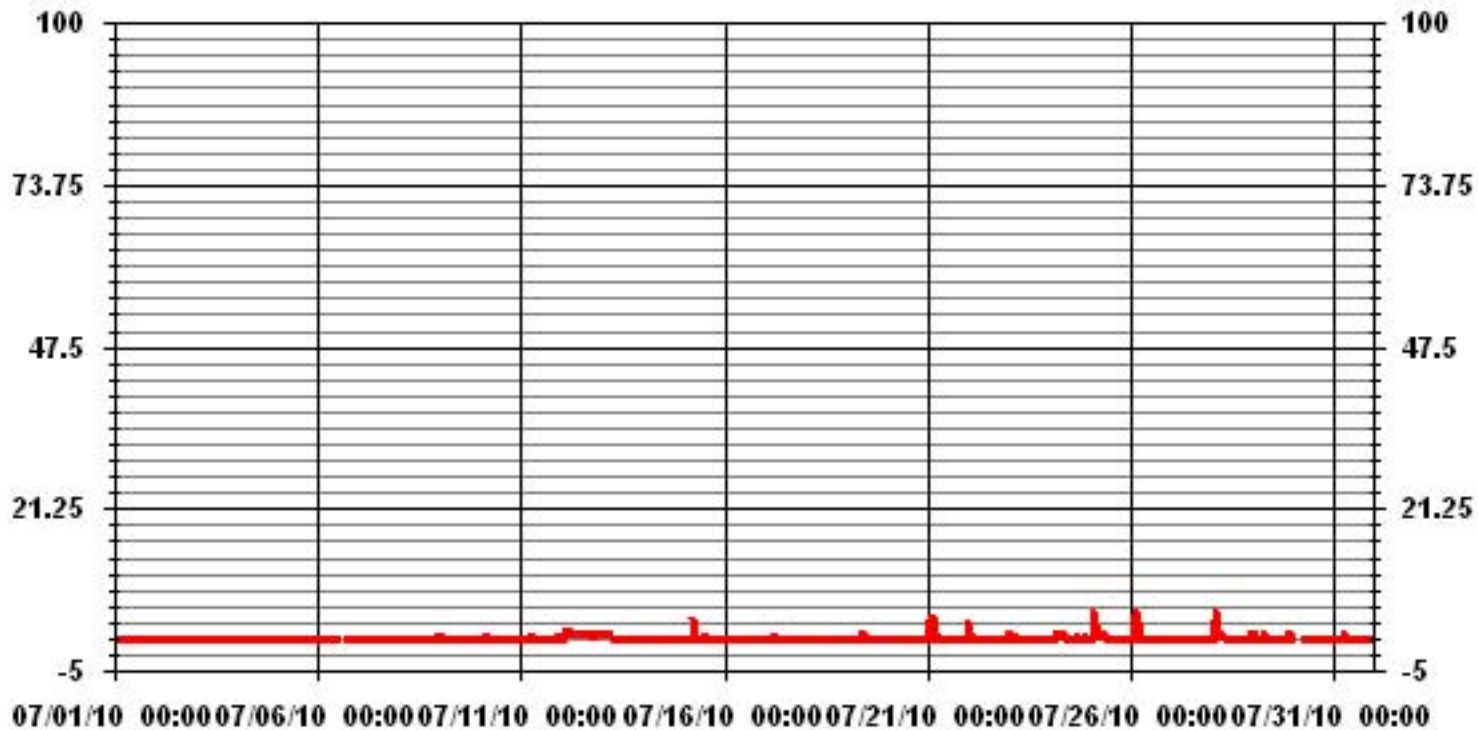
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	79
MAXIMUM 1-HR AVERAGE:	5 PPB @ HOUR(S) VAR ON DAY(S) VAR
MAXIMUM 24-HR AVERAGE:	1.0 PPB VAR ON DAY(S) VAR-VARIOUS
IZS CALIBRATION TIME:	31 HRS OPERATIONAL TIME: 739 HRS
MONTHLY CALIBRATION TIME:	5 HRS AMD OPERATION UPTIME: 99.3 %
STANDARD DEVIATION:	0.55 MONTHLY AVERAGE: 0.16 PPB

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA33 H2S_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

MST

DAY	HOUR																								DAILY 24-HOUR			
	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	2	2	2	0.2	24	
2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	2	0.1	24	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24	
6	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0.0	24	
7	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
8	0	0	0	0	1	0	0	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	0	2	2	2	0.3	24	
9	0	1	1	0	0	0	1	0	1	0	IZS	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.2	24	
10	1	1	1	1	1	0	0	0	0	IZS	0	0	0	1	0	0	1	1	0	0	0	0	0	0	1	0.3	24	
11	0	0	0	0	0	1	1	1	IZS	0	1	0	1	0	0	0	1	1	0	0	1	0	2	1	2	0.5	24	
12	1	2	3	3	3	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.3	24	
13	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24	
14	0	1	1	0	0	IZS	1	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0	0	1	0.3	24	
15	0	0	0	1	IZS	5	3	1	0	0	1	1	0	1	0	0	0	0	0	1	1	0	0	0	5	0.7	24	
16	1	0	0	IZS	1	1	1	0	0	1	1	0	1	0	0	0	0	0	1	1	0	0	1	1	1	0.5	24	
17	1	1	IZS	0	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0.3	24	
18	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	1	0.2	24	
19	IZS	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	IZS	2	0.2	24
20	0	0	0	0	1	1	1	0	0	3	1	1	0	1	0	1	1	0	1	1	0	0	IZS	0	3	0.6	24	
21	0	10	0	9	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	4	1.3	24	
22	5	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	5	0.7	24	
23	4	4	0	1	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	1	4	0.7	24
24	0	1	1	1	2	1	1	1	1	1	1	1	0	1	1	1	1	1	IZS	1	0	1	2	1	1	2	1.0	24
25	1	1	13	3	3	1	1	2	1	1	1	1	1	1	1	1	1	IZS	0	0	0	0	0	0	13	1.5	24	
26	0	2	17	8	5	1	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	17	1.4	24	
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24	
28	0	14	11	1	2	1	1	2	0	0	0	0	0	0	0	0	IZS	0	0	0	1	1	1	1	1	1.7	24	
29	1	1	1	1	1	1	1	2	1	1	0	0	1	IZS	0	1	0	1	1	1	1	1	1	1	2	0.9	24	
30	1	P	P	P	P	P	3	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	1	1	3	0.4	19
31	1	0	0	0	0	1	1	1	1	1	0	IZS	0	0	1	0	0	0	0	1	0	1	1	0	1	0.4	24	
HOURLY MAX	5	14	17	9	5	5	3	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	2	4				
HOURLY AVG	0.7	1.6	1.9	1.1	0.9	0.7	0.7	0.4	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.5	0.5				

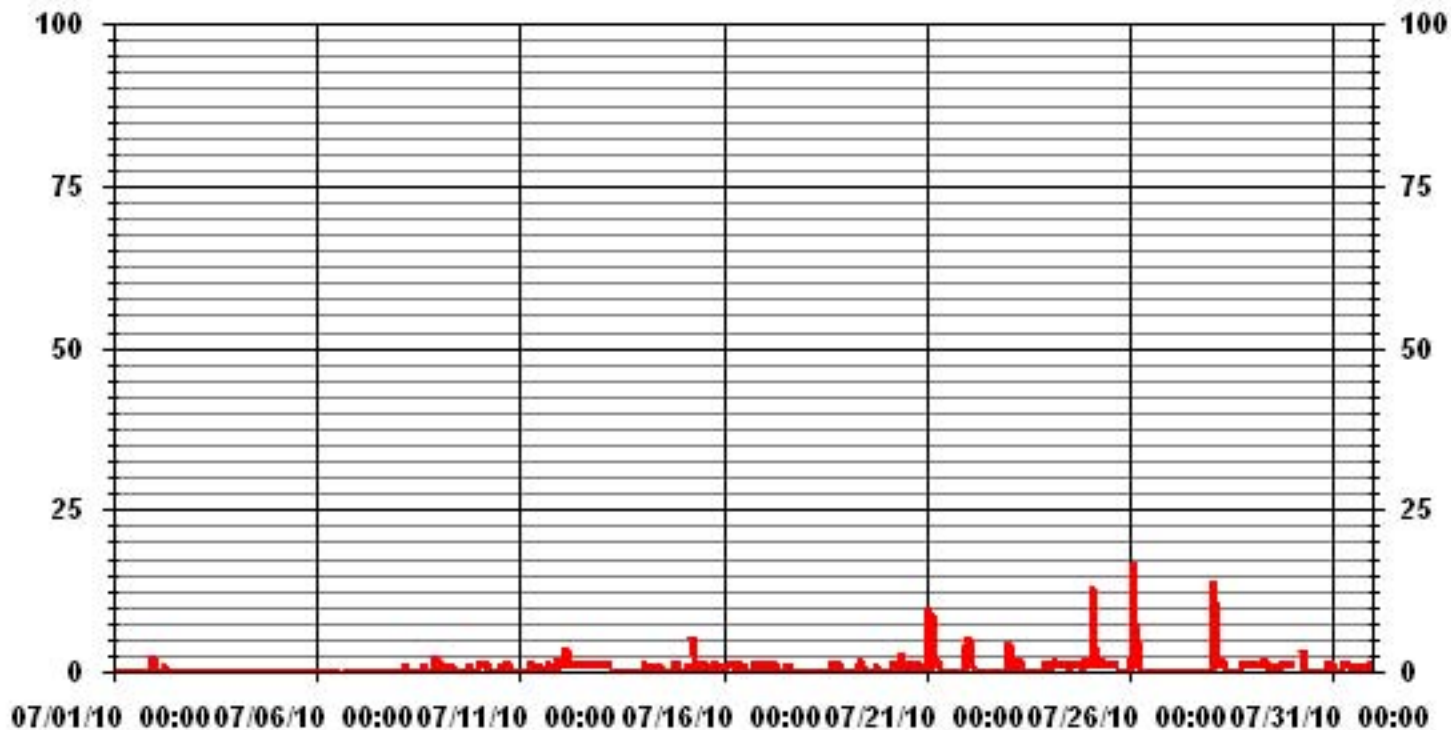
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	223					
MAXIMUM INSTANTANEOUS VALUE:	17	PPB	@ HOUR(S)	2	ON DAY(S)	26
	VAR - VARIOUS					
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	739	HRS	
MONTHLY CALIBRATION TIME:	5	HRS				
STANDARD DEVIATION:	1.37					

01 Hour Averages



LICA33
H2S_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
Site Name : LICA33
Parameter : H2S_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	2.27	3.12	2.70	2.98	4.83	2.84	2.70	2.98	4.40	5.97	13.22	9.38	14.93	13.79	7.11	5.26	98.57
< 10	.00	.00	.00	.00	.00	.42	.56	.14	.28	.00	.00	.00	.00	.00	.00	.00	1.42
< 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.27	3.12	2.70	2.98	4.83	3.27	3.27	3.12	4.69	5.97	13.22	9.38	14.93	13.79	7.11	5.26	

Calm : .00 %

Total # Operational Hours : 703

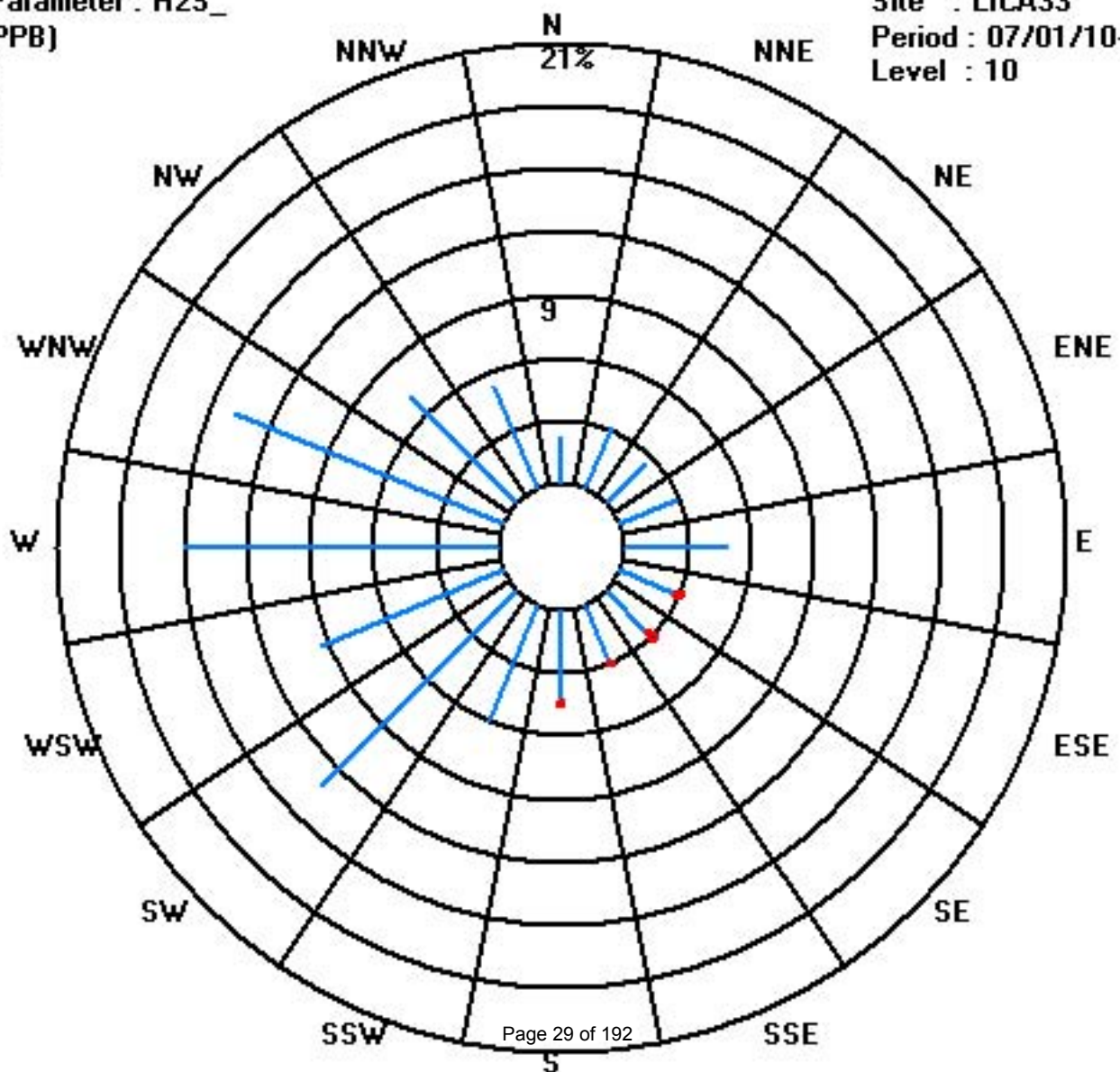
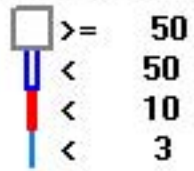
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	16	22	19	21	34	20	19	21	31	42	93	66	105	97	50	37	693
< 10						3	4	1	2								10
< 50																	
>= 50																	
Totals	16	22	19	21	34	23	23	22	33	42	93	66	105	97	50	37	

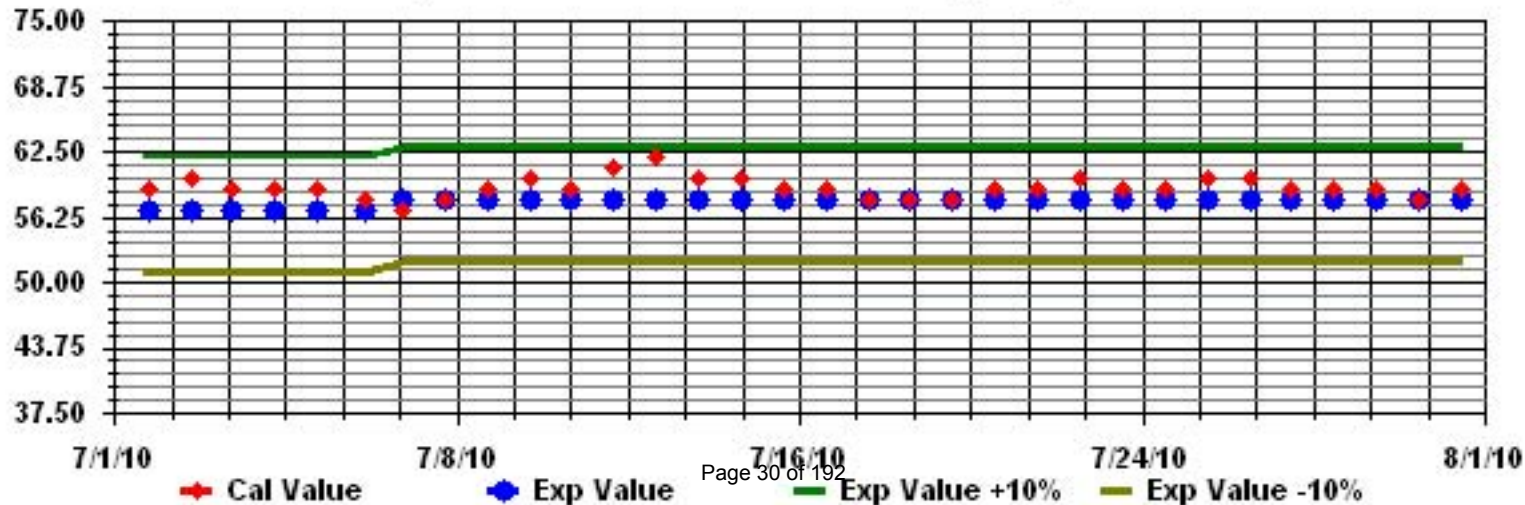
Calm : .00 %

Total # Operational Hours : 703

Class Limits (PPB)



Calibration Graph for Site: LICA33 Parameter: H2S_ Sequence: H2S Phase: SPAll



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

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

MST

DAY	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
1	0	2.1	0	3.6	0	0	0.1	5.1	0.1	0	2.1	5.1	0	2.6	1.1	N	5.6	5	3.6	0	3.6	1.1	0	0.2	5.6	1.8	23	
2	2.2	1.1	4.1	4.1	0.1	2.1	6.6	1.1	0	7.2	2.1	7.2	6.1	4.6	2.4	2.6	3.1	2.1	3.5	3.7	0	0	2.5	5.1	7.2	3.1	24	
3	1.6	0	3.6	2.1	2.1	1	1.7	0.7	4	1.5	0	1.1	3.2	0	0.5	N	0	0.8	4.1	2.6	0.3	2.9	0	4.1	4.1	1.6	23	
4	1.1	1.6	0.1	0	2	3	1.3	2.1	2.7	4.9	N	9.5	1.1	N	0	4.8	0	2.6	0	0.3	1.6	0	N	1.6	9.5	1.9	21	
5	0	1	0	0	0	0	0	0	0.9	5.8	4.2	5.2	6	8.3	8.4	10.6	5.2	1.8	3	4.9	2.9	3.8	1.7	0	10.6	3.1	24	
6	2.1	2.6	4.1	4.4	3.9	4.1	4.6	2.8	7.1	1.6	5.4	5.6	2.5	0	N	0	0	1.8	1.6	3.8	3.9	2.2	3	3.4	7.1	3.1	23	
7	4.5	3.6	0	0.4	1.6	2.6	6.6	2.6	5.5	4.9	3.1	0	4.1	0.5	7.4	0	9.4	2	5.1	6.9	5.6	6.3	1.4	9.9	9.9	3.9	24	
8	11	5	3.5	4.5	7.1	3.9	0	2.7	3.6	C	0	0	0	0	0	0	0	2.3	N	N	0	N	N	3	11.0	2.5	20	
9	N	0.7	2.1	0.6	0	0	0	2.5	0.6	0	N	N	0	0	N	3.2	3.6	4.1	3.1	14.1	7.6	9.1	1.1	0.2	14.1	2.6	20	
10	1	4.1	5.6	8.1	4.6	0	2.6	1.1	0	N	N	0	2.1	0	0	N	0	2.6	0	0	1	0	3.6	0	8.1	1.7	21	
11	0	0	0	0.1	0	0	3.1	0	4.1	0.6	9.6	N	0	0	0.1	2.1	2.6	9.6	5.1	0	6.6	0.1	0	2.6	9.6	2.0	23	
12	1.1	0	4.1	7.2	3.1	5.1	1.6	3.6	2.1	1.1	6.6	2.6	7.6	0	3.6	0	0	N	N	0.6	2.2	3.6	2.6	1.6	7.6	2.7	22	
13	N	7.6	2.1	1.1	2.1	N	4.1	3.6	0.6	0	11.6	4.6	0	6.1	4.1	3.6	2.1	0.6	0	2.1	0	5.1	4.1	6.6	11.6	3.3	22	
14	1.1	3.1	N	3.6	6.1	5.6	5.6	7.1	12.1	17.6	26.1	26.1	17.1	15.6	25	37.1	42.6	25	21.1	19.6	17.1	19.6	12.1	17.1	42.6	16.7	23	
15	12.6	14.1	10.1	10.6	12.6	11.6	5.6	4.1	2.6	5.1	4.6	6.6	4.1	2.6	N	6.1	3.1	7.1	0.1	0	0.6	1.1	5.6	2.1	14.1	5.8	23	
16	0.1	3.6	2.6	4.1	2.1	3.6	1.1	2.6	5.1	3.1	0.6	1.6	0	0	N	5.1	1.1	N	0	4.1	5.6	5.1	2.6	0.1	5.6	2.5	22	
17	3.6	0.1	0.1	1.1	1.1	0	0.6	3.1	2.2	0	4.1	0	0	0.6	0	6.1	4.6	0	2.6	0.1	0.6	5.6	2.2	0	6.1	1.6	24	
18	2.6	4.1	2.6	1.6	2.1	4.1	0	5.6	1.6	3.1	0	5.1	0.1	1.6	3.6	3.1	0	5.6	1.6	4.6	2.1	2.6	4.6	0	5.6	2.6	24	
19	2.6	3.1	4.6	4.1	5.1	2.1	1.6	0	8.1	7.6	6.1	8.1	4.6	3.6	2.1	3.6	0	6.1	2.1	4.6	4.1	5.6	8.6	1.6	8.6	4.2	24	
20	2.6	2.6	3.6	4.6	3.1	5.6	4.6	4.6	5.6	5.6	6.1	6.1	6.1	0.6	5.1	2.1	3.6	5.6	4.6	4.1	2.6	0.6	4.6	1.6	6.1	4.0	24	
21	2.6	1.6	7.1	1.6	2.1	0.1	3.1	2.6	3.1	5.6	7.1	2.1	6.1	6.1	16.1	5.6	0	2.1	10.1	3.1	6.6	6.6	9.6	8.6	16.1	5.0	24	
22	2.1	6.1	3.6	5.1	6.1	5.6	2.1	8.1	4.6	8.6	7.6	6.6	10.6	9.6	8.1	6.1	6.1	4.6	1.1	9.1	7.1	12.1	5.6	4.6	12.1	6.3	24	
23	7.1	4.1	3.6	10.1	6.6	6.6	7.1	2.6	7.1	5.1	2.1	4.6	10.6	4.6	4.1	5.6	5.6	4.1	7.1	4.1	6.6	5.6	1.6	5.1	10.6	5.5	24	
24	6.1	7.1	6.6	8.6	6.6	12.6	8.1	7.1	6.1	3.6	3.1	3.6	7.1	4.6	5.6	9.1	0.6	8.1	13.1	2.1	0	3.6	3.1	1.1	13.1	5.7	24	
25	4.1	3.6	5.6	2.1	1.1	2.1	4.1	3.6	2.6	7.1	5.1	0	7.1	0	2.6	4.1	3.1	3.6	1.1	5.1	1.6	7.1	6.6	2.6	7.1	3.6	24	
26	5.6	1.6	2.6	1.6	0.1	3.1	4.1	3.6	3.6	4.1	3.1	2.1	0	0.6	0	3.1	1.1	1.1	2.6	0	2.6	0	0	0	5.6	1.9	24	
27	0	0	2.1	1.6	3.6	0	2.1	0.1	1.6	7.1	9.6	14.1	20.6	20.6	22.1	20.6	22.6	26.6	24.1	26.1	22.1	31.6	34.1	29.6	34.1	14.3	24	
28	25	15.1	22.1	19.1	17.6	21.6	19.6	24.6	29.6	22.1	16.6	7.1	7.6	11.1	13.6	9.6	11.1	12.1	12.1	11.1	14.1	11.6	17.6	15.6	29.6	16.1	24	
29	12.6	12.1	16.1	15.1	10.1	5.6	7.1	9.1	6.1	3.1	2.6	7.1	6.6	7.1	5.1	12.1	5.1	9.6	8.1	7.1	7.1	12.1	6.6	13.6	16.1	8.6	24	
30	13.1	P	P	P	P	P	16.1	16.1	6.1	15.1	18.1	16.1	9.1	13.6	10.6	9.6	14.6	10.1	9.6	11.6	10.1	8.6	8.6	6.6	18.1	11.8	19	
31	9.6	8.6	12.6	10.1	12.6	7.1	12.6	9.1	7.1	9.6	12.1	12.6	10.1	15.6	12.1	13.1	14.6	16.6	10.1	10.1	10.6	13.6	15.1	10.6	16.6	11.5	24	
HOURLY MAX	25	15	22	19	18	22	20	25	30	22	26	26	21	21	25	37	43	27	24	26	22	32	34	30				
HOURLY AVG	4.7	4.0	4.7	4.7	4.2	4.1	4.4	4.6	4.7	5.5	6.4	5.9	5.2	4.7	6.1	6.7	5.5	6.3	5.5	5.5	5.0	6.2	5.8	5.1				

STATUS FLAG CODES

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

OBJECTIVE LIMIT:

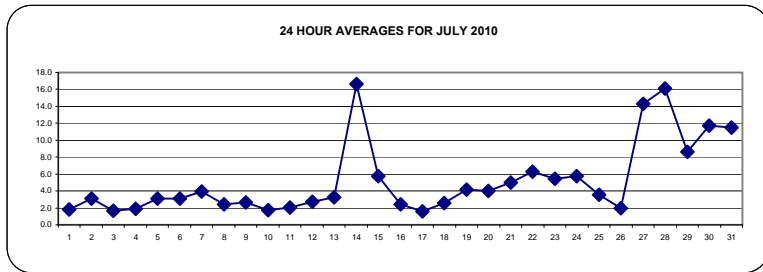
ALBERTA ENVIRONMENT:

1-HR	-	PPB	24-HR	30	PPB
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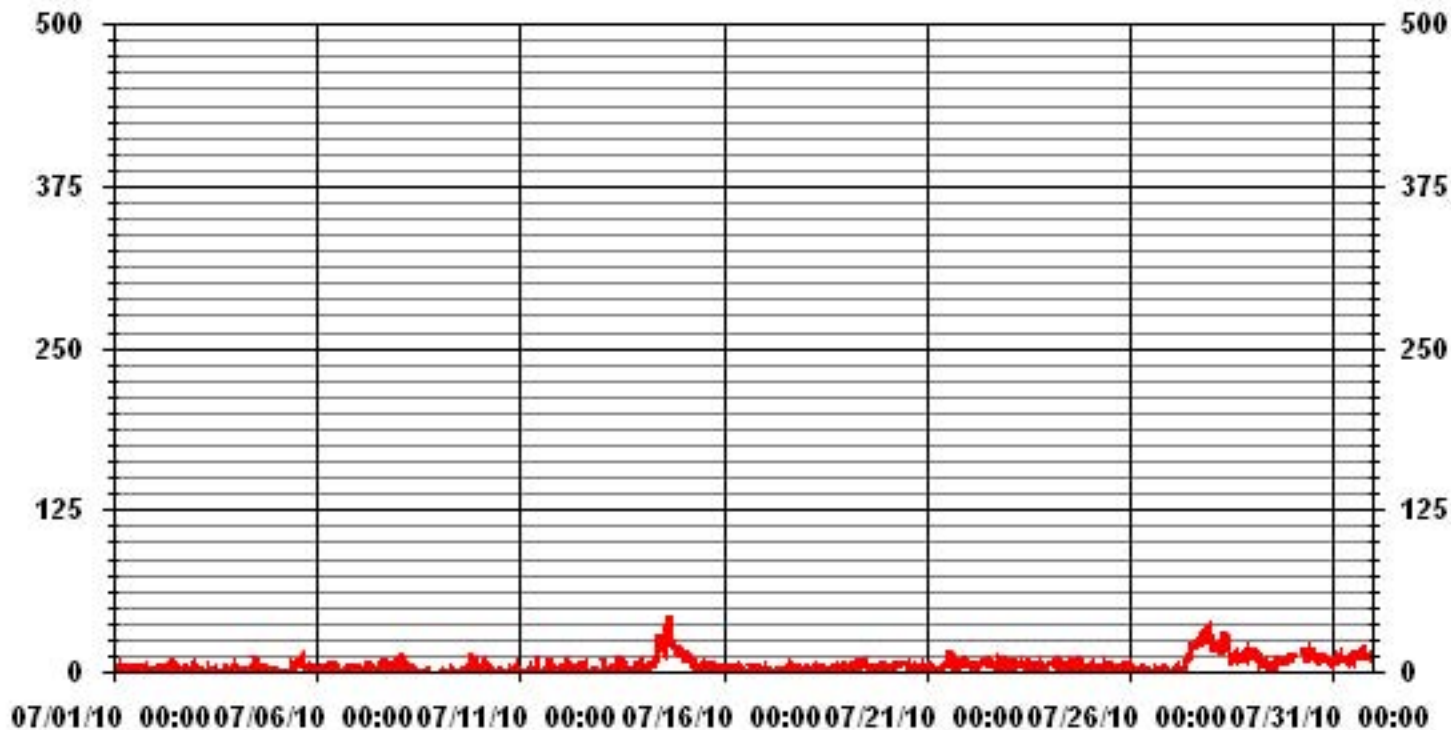
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-	PROPOSED CANADA WIDE GUIDELINE	
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	604		
MAXIMUM 1-HR AVERAGE:	42.6 UG/M ³	@ HOUR(S)	16 ON DAY(S)
MAXIMUM 24-HR AVERAGE:	16.7 UG/M ³		ON DAY(S)
IZS CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	713 HRS
MONTHLY CALIBRATION TIME:	1 HRS	AMD OPERATION UPTIME:	95.8 %
STANDARD DEVIATION:	5.82	MONTHLY AVERAGE:	5.22 UG/M ³

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA33 PM2 UG/M3

LICA33
 PM2 / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : PM2
 Units : UG/M3

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 30.0	2.24	2.94	2.80	2.94	4.77	3.23	3.51	3.23	4.49	5.75	12.35	9.26	14.88	14.60	7.58	4.77	99.43
< 60.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.28	.00	.14	.14	.00	.00	.56
< 80.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 120.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.24	2.94	2.80	2.94	4.77	3.23	3.51	3.23	4.49	5.75	12.64	9.26	15.02	14.74	7.58	4.77	

Calm : .00 %

Total # Operational Hours : 712

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 30.0	16	21	20	21	34	23	25	23	32	41	88	66	106	104	54	34	708
< 60.0											2		1	1			4
< 80.0																	
< 120.0																	
< 240.0																	
>= 240.0																	
Totals	16	21	20	21	34	23	25	23	32	41	90	66	107	105	54	34	

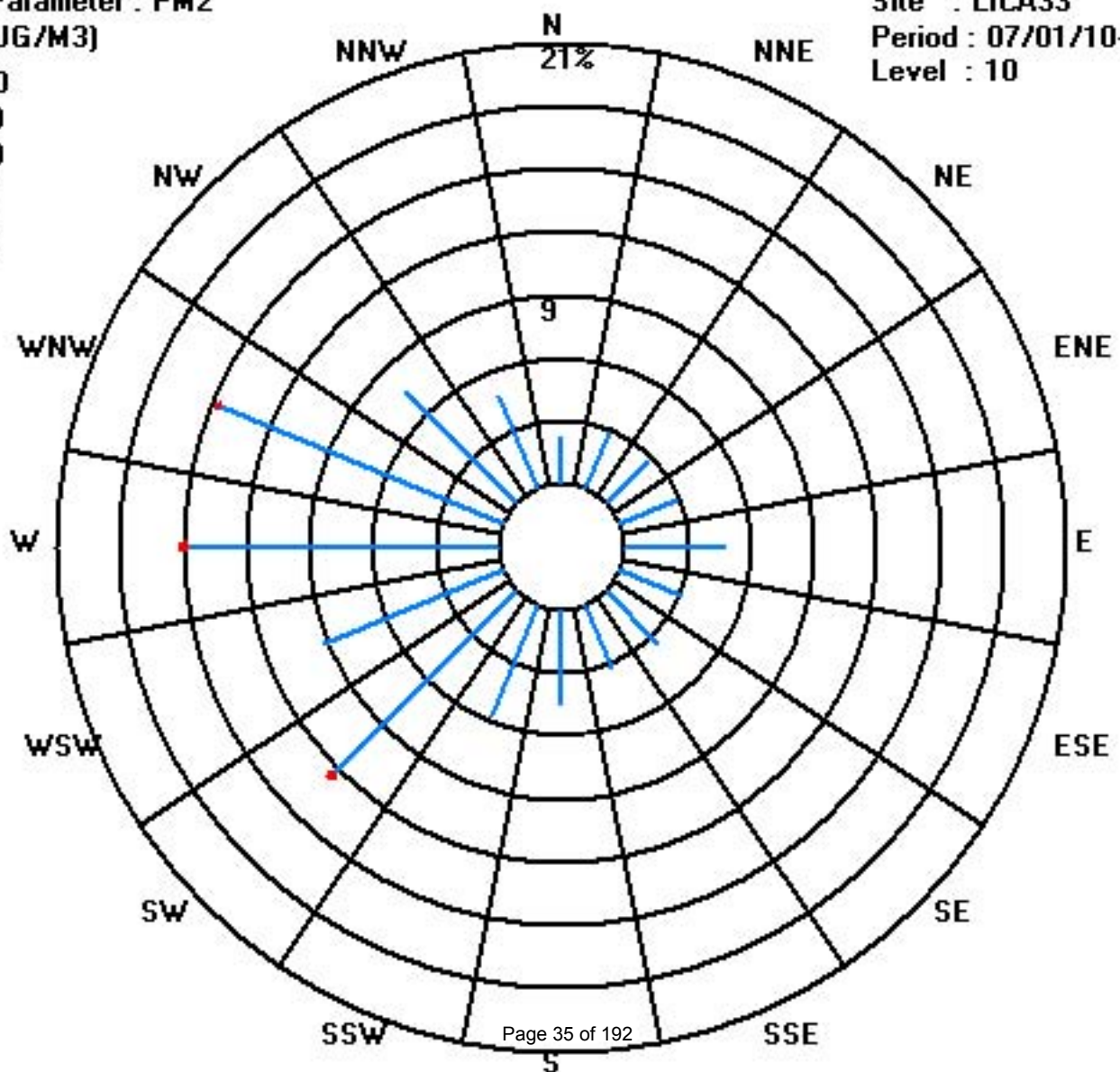
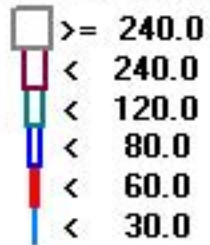
Calm : .00 %

Total # Operational Hours : 712

Class Limits (UG/M3)

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

Level : 10



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

NITROGEN DIOXIDE hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	HR	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	2	2	2	2	2	0.5	24
2	1	2	3	2	1	0	1	1	1	0	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	3	0.6	24
3	0	1	2	1	2	1	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	0	2	0.3	24	
4	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	0.2	24	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	1	1	1	1	1	0.1	24
6	0	0	2	1	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	1	2	0.3	24
7	3	2	1	2	3	4	2	C	C	C	C	C	0	0	0	0	0	0	1	1	1	5	2	1	5	1.5	24	
8	0	0	0	1	1	2	2	1	0	0	0	0	IZS	0	0	0	0	0	0	N	N	N	N	N	N	2	0.4	19
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
12	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	C	C	C	0	0	3	1	1	1	3	1.0	9
13	4	4	4	2	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	4	0.8	24	
14	3	2	2	6	5	IZS	2	2	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	2	6	1.3	24	
15	3	2	2	2	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	3	0.7	24	
16	2	2	3	IZS	2	2	2	2	1	1	0	0	0	0	0	0	0	1	0	1	1	2	1	0	3	1.0	24	
17	3	2	IZS	4	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	4	0.9	24	
18	1	IZS	2	3	4	4	2	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	4	1.0	24	
19	IZS	3	4	4	4	5	5	3	3	2	2	1	0	0	0	0	0	0	0	0	0	1	2	IZS	5	1.8	24	
20	2	2	3	4	5	4	4	4	4	3	3	2	1	1	0	0	0	0	0	0	0	0	0	IZS	2	5	1.7	24
21	2	2	2	2	2	2	3	2	1	0	0	0	0	1	8	0	0	0	2	2	3	IZS	1	3	8	1.7	24	
22	3	2	3	6	4	2	2	2	1	0	0	0	0	0	0	0	0	1	0	0	IZS	1	2	6	6	1.5	24	
23	3	3	3	4	3	3	2	2	2	1	0	0	0	0	0	0	0	0	0	IZS	1	2	2	2	4	1.4	24	
24	1	1	1	1	1	2	2	1	1	1	1	0	0	0	0	0	0	0	IZS	0	1	2	N	N	2	0.8	22	
25	N	N	N	N	N	N	N	N	M	M	C	0	0	0	0	0	0	0	IZS	0	0	1	2	3	4	4	0.8	14
26	3	2	3	1	1	2	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	3	0.5	24	
27	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	IZS	0	0	1	4	4	4	3	2	4	1.1	24	
28	3	2	2	3	4	2	3	2	1	0	0	0	0	0	IZS	0	0	0	0	1	2	1	1	4	4	1.3	24	
29	7	4	3	2	3	2	2	2	1	0	0	0	0	0	IZS	0	0	0	0	3	4	5	4	4	4	7	2.0	24
30	3	P	P	P	P	P	1	2	1	2	1	1	IZS	0	0	0	0	0	1	2	4	2	2	3	4	1.4	19	
31	2	1	1	2	1	2	2	2	1	1	0	IZS	0	0	0	0	1	0	1	3	4	2	4	4	4	1.5	24	
HOURLY MAX		7	4	4	6	5	5	5	4	3	3	2	1	1	1	8	0	1	1	2	4	4	5	4	6			
HOURLY AVG		2.0	1.7	2.0	2.4	2.2	2.0	1.7	1.2	0.8	0.5	0.3	0.2	0.0	0.0	0.3	0.0	0.0	0.1	0.3	0.7	1.2	1.5	1.6	1.8			

STATUS FLAG CODES

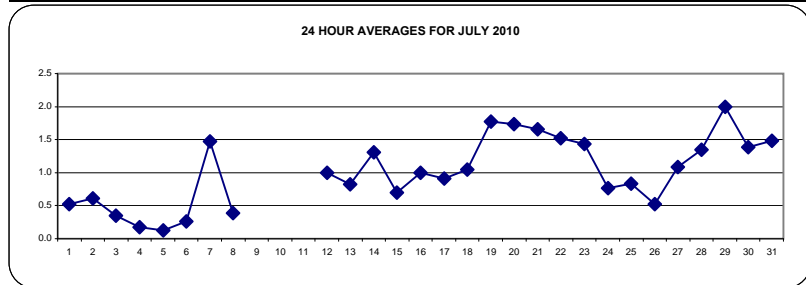
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

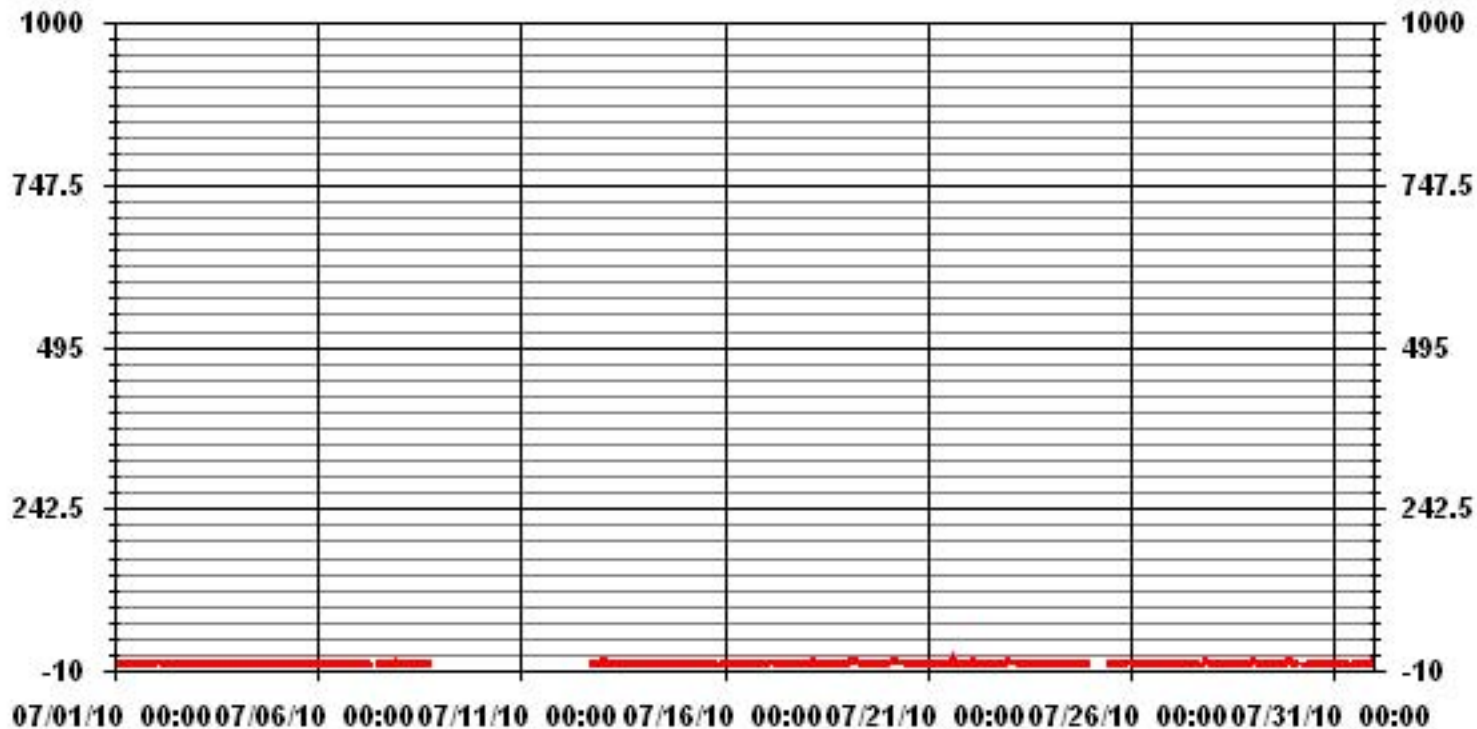
ALBERTA ENVIRONMENT:	1-HR	212	PPB	24-HR	106	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	290					
MAXIMUM 1-HR AVERAGE:	8	PPB	@ HOUR(S)	16	ON DAY(S)	6
MAXIMUM 24-HR AVERAGE:	2.0	PPB			ON DAY(S)	20
IZS CALIBRATION TIME:	27	HRS	OPERATIONAL TIME:	635	HRS	
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME:	85.3	%	
STANDARD DEVIATION:	1.35		MONTHLY AVERAGE:	1.01	PPB	



01 Hour Averages



— LICA33 IIO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	5	1	1	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	IZS	1	2	2	3	3	5	1.1	24
2	2	3	5	5	3	1	3	1	2	1	2	11	1	1	1	1	IZS	0	1	1	1	1	1	1	11	2.1	24
3	1	3	5	2	3	2	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	3	3	1	5	1.0	24	
4	2	4	1	1	1	2	1	0	0	0	0	0	0	0	IZS	0	0	0	0	1	0	1	2	4	0.7	24	
5	1	0	1	1	1	1	1	1	1	1	1	0	1	0	IZS	0	0	0	1	1	2	4	1	2	4	1.0	24
6	1	1	3	2	2	1	1	1	0	10	0	0	IZS	1	0	0	1	1	1	1	1	1	2	10	1.4	24	
7	6	4	2	4	4	5	3	C	C	C	C	C	1	8	0	0	0	0	4	5	3	14	4	2	14	3.6	24
8	1	1	1	1	2	3	3	2	1	0	0	IZS	0	0	0	0	0	1	34	N	N	N	N	N	34	2.8	19
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0
12	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	C	C	C	C	2	6	3	3	2	6	3.2	9
13	9	9	6	6	1	2	IZS	1	1	1	1	1	0	0	0	0	0	0	1	1	2	3	3	2	9	2.2	24
14	6	6	4	8	8	IZS	3	2	2	2	1	1	0	0	1	1	1	1	1	1	3	2	2	4	8	2.6	24
15	6	4	3	4	IZS	2	2	2	1	1	1	0	0	0	0	0	0	1	1	4	10	1	2	10	2.0	24	
16	3	3	4	IZS	3	3	3	3	2	2	1	0	1	1	1	1	1	2	1	2	3	6	2	2	6	2.2	24
17	4	3	IZS	5	5	4	5	1	0	0	0	0	0	0	0	0	0	0	1	1	2	6	2	6	1.7	24	
18	3	IZS	7	7	5	5	3	2	2	1	0	0	0	0	0	0	0	3	1	2	1	3	3	7	2.1	24	
19	IZS	4	7	7	5	7	6	6	3	3	3	2	1	1	0	1	1	1	1	0	1	5	4	IZS	7	3.1	24
20	2	5	5	7	7	6	6	5	4	4	3	2	2	1	1	1	1	1	1	1	1	1	IZS	7	7	3.2	24
21	6	3	3	3	4	5	5	3	2	1	1	1	0	18	77	3	1	1	4	4	6	IZS	4	5	77	7.0	24
22	5	3	5	10	7	3	3	3	2	1	1	1	1	0	1	1	6	1	1	1	IZS	3	3	8	10	3.0	24
23	6	4	5	5	6	6	3	6	3	2	1	0	1	0	0	0	0	0	0	IZS	1	3	2	2	6	2.4	24
24	2	2	2	2	3	3	3	2	19	3	1	1	3	3	9	0	0	1	IZS	2	4	4	N	N	19	3.3	22
25	N	N	N	N	N	N	N	N	M	M	C	0	0	0	0	0	0	IZS	0	1	2	3	6	6	6	1.5	14
26	6	3	6	2	2	3	1	1	2	2	1	0	0	0	0	1	IZS	0	0	0	0	1	1	2	6	1.5	24
27	1	1	2	2	2	3	3	1	1	1	1	1	0	0	0	IZS	0	1	10	8	32	28	5	3	32	4.6	24
28	4	3	3	5	7	4	5	3	2	1	1	0	0	0	IZS	0	1	1	1	1	4	2	2	11	11	2.7	24
29	10	7	5	3	5	4	4	2	3	1	1	1	1	IZS	1	1	1	1	2	8	7	7	6	7	10	3.8	24
30	6	P	P	P	P	P	3	5	2	2	1	2	IZS	1	1	1	1	2	2	3	7	4	4	7	7	3.0	19
31	3	3	3	5	2	3	3	3	2	2	1	IZS	1	1	1	1	2	1	3	8	10	3	7	6	10	3.2	24
HOURLY MAX	10	9	7	10	8	7	6	6	19	4	10	11	3	18	77	3	6	2	34	8	32	28	7	11			
HOURLY AVG	4.0	3.3	3.7	4.1	3.7	3.3	3.0	2.3	2.4	1.3	1.3	1.0	0.5	1.4	3.8	0.5	0.7	0.6	2.9	2.1	4.1	4.5	3.1	3.8			

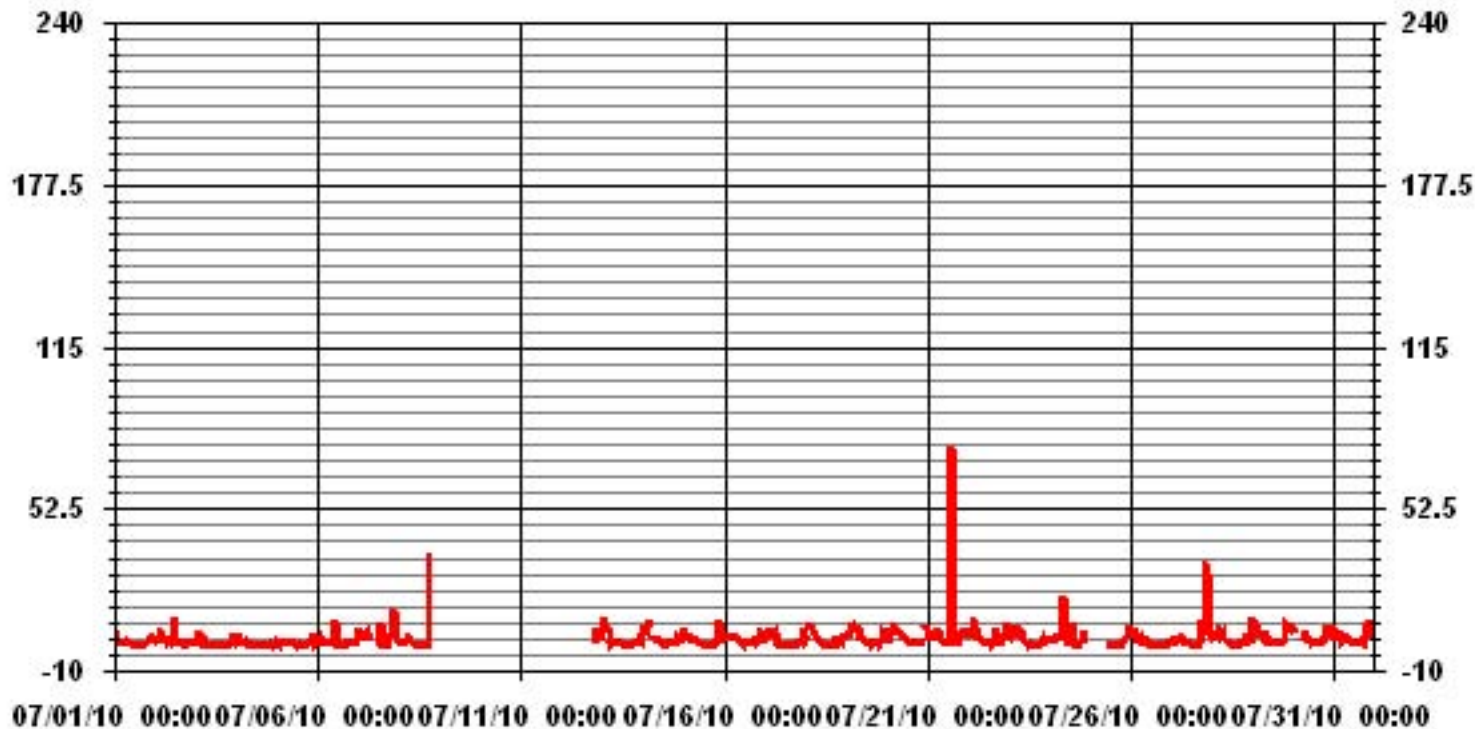
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	470					
MAXIMUM INSTANTANEOUS VALUE:	77	PPB	@ HOUR(S)	14	ON DAY(S)	21
IZS CALIBRATION TIME:	27	HRS	OPERATIONAL TIME:	635	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION	4.42					

01 Hour Averages



— LICA33 HO2MAX PPB

LICA33
 NO2_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : NO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	1.83	2.83	3.00	3.17	4.67	3.33	2.50	3.00	3.83	6.34	11.85	9.84	17.36	15.35	6.84	4.17	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.83	2.83	3.00	3.17	4.67	3.33	2.50	3.00	3.83	6.34	11.85	9.84	17.36	15.35	6.84	4.17	

Calm : .00 %

Total # Operational Hours : 599

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	11	17	18	19	28	20	15	18	23	38	71	59	104	92	41	25	599
< 110																	
< 210																	
>= 210																	
Totals	11	17	18	19	28	20	15	18	23	38	71	59	104	92	41	25	

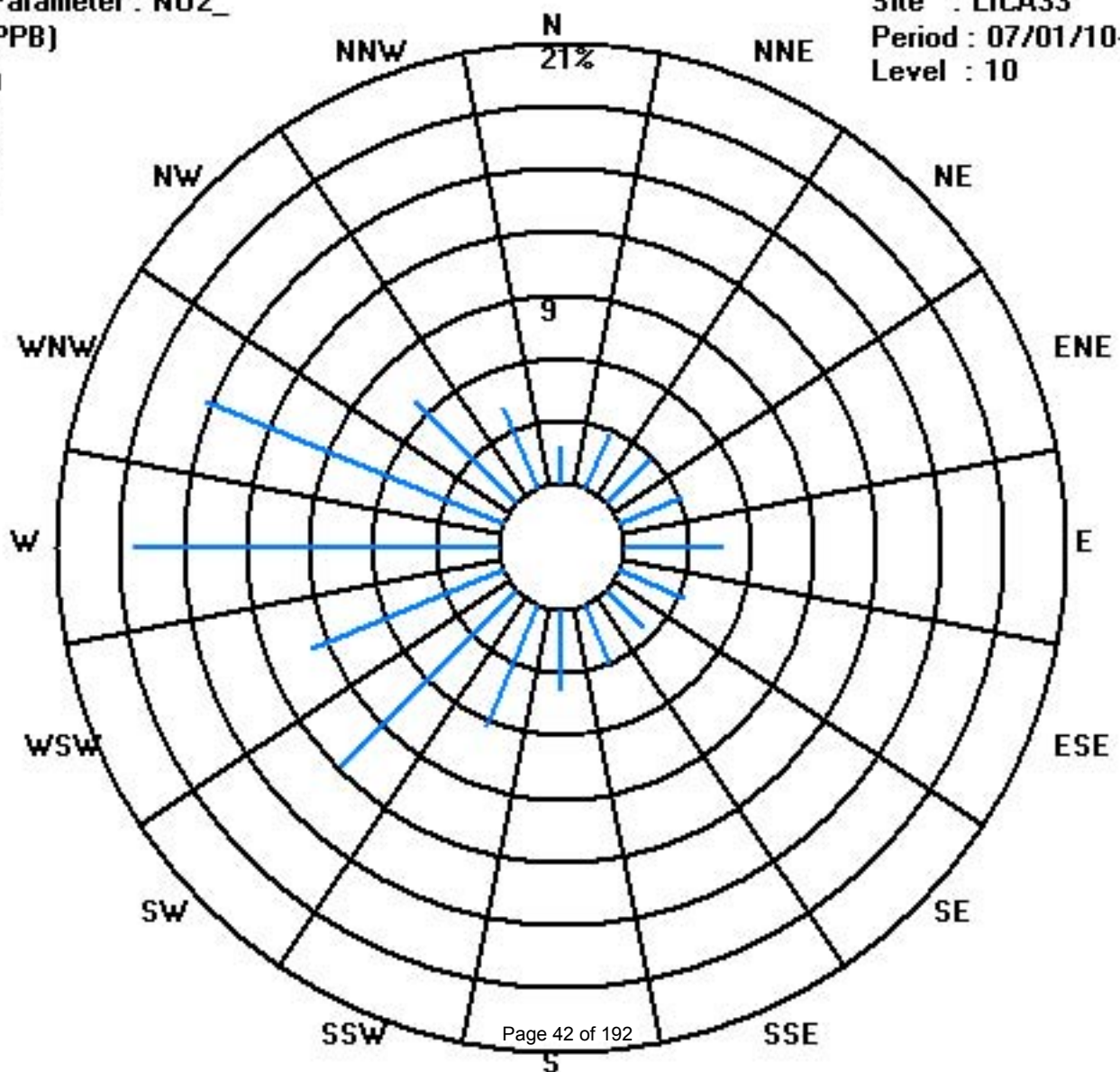
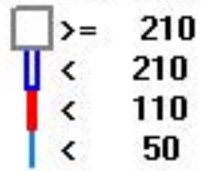
Calm : .00 %

Total # Operational Hours : 599

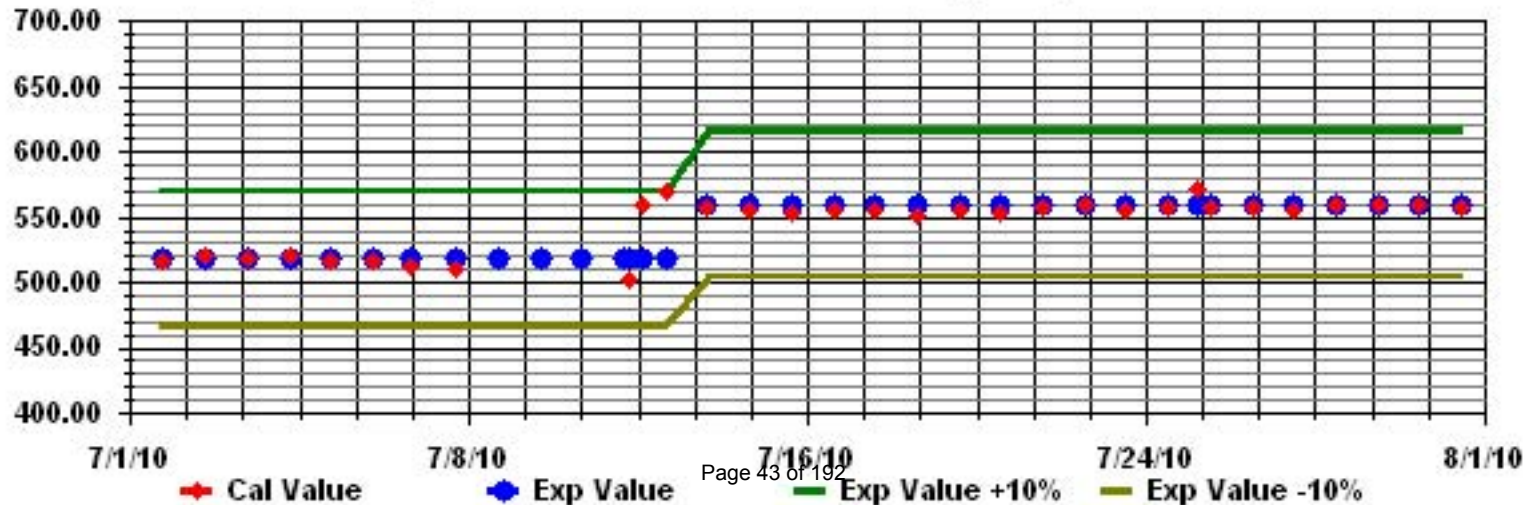
Class Limits (PPB)

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

Level : 10



Calibration Graph for Site: LICA33 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

NITRIC OXIDE hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	1	0.0	24
2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	1	0.0	24
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0.0	24
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24
6	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
7	0	0	0	0	0	2	1	C	C	C	C	C	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24
8	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	N	N	N	N	N	0	0.0	19
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
12	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	C	C	C	1	0	0	0	0	0	0	1	0.2	9
13	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
14	0	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
15	0	0	0	0	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
16	0	0	0	IZS	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
17	0	0	IZS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
18	0	IZS	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
19	IZS	0	0	0	0	3	5	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.8	24
20	0	0	0	1	1	4	8	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1.2	24
21	1	0	0	0	1	7	6	3	1	0	0	0	0	3	10	0	0	0	0	0	0	0	0	0	10	1.4	24	
22	0	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	2	0.3	24
23	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	1	0.2	24
24	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	IZS	0	0	0	N	N	1	0.1	22
25	N	N	N	N	N	N	N	N	M	M	C	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0.0	14
26	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	1	0.0	24
27	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	0.0	24
28	0	0	0	4	1	3	7	1	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	7	0.7	24
29	1	0	0	0	1	2	2	1	0	0	0	0	0	0	0	IZS	0	0	0	0	1	0	0	1	0	2	0.4	24
30	0	P	P	P	P	P	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0.0	19
31	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
HOURLY MAX	1	0	1	4	1	7	8	4	3	3	1	0	0	3	10	0	0	0	1	1	0	0	1	2				
HOURLY AVG	0.1	0.0	0.0	0.3	0.2	1.1	1.6	0.7	0.4	0.2	0.1	0.0	0.0	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1				

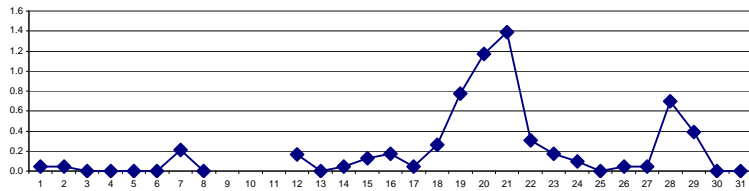
STATUS FLAG CODES

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

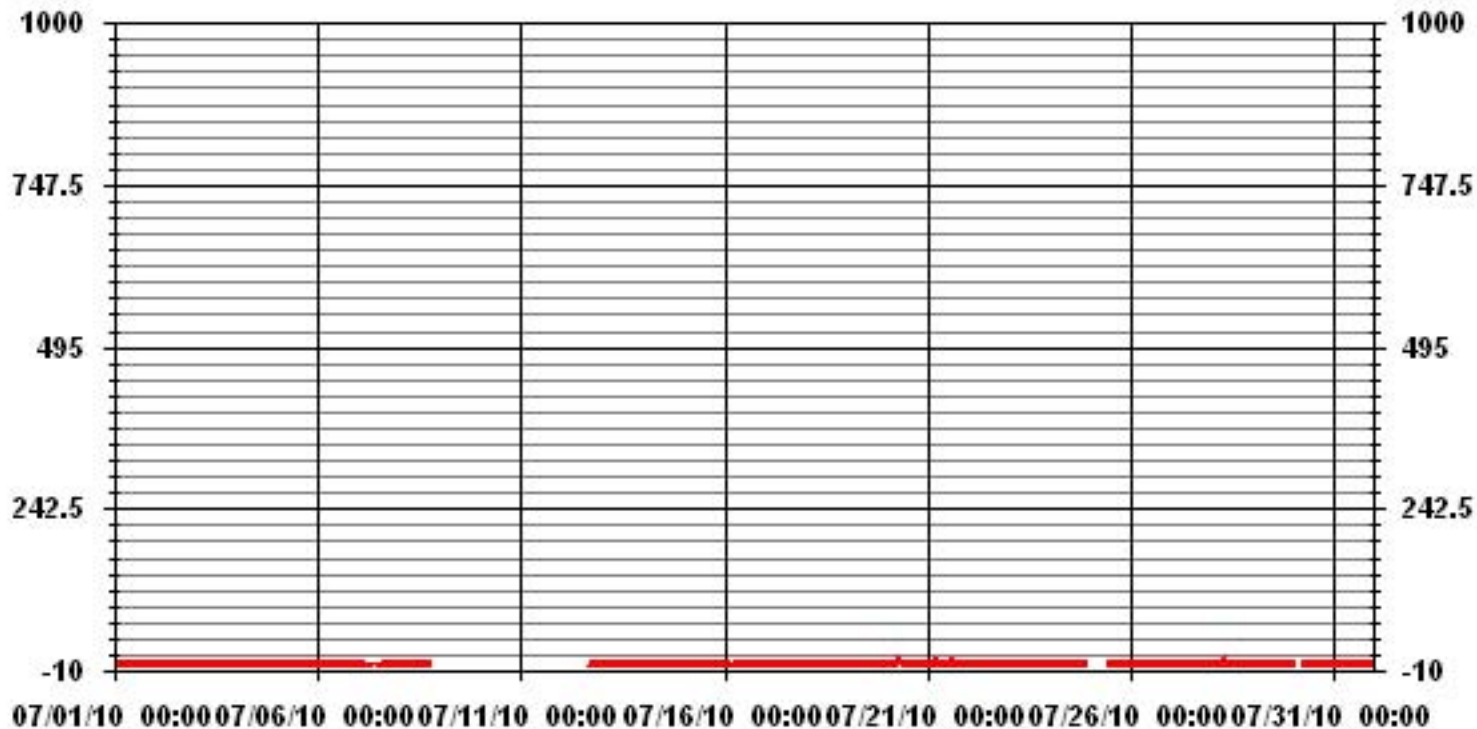
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	68					
MAXIMUM 1-HR AVERAGE:	10	PPB	@ HOUR(S)	14	ON DAY(S)	21
MAXIMUM 24-HR AVERAGE:	1.4	PPB			ON DAY(S)	21
IZS CALIBRATION TIME:	27	HRS	OPERATIONAL TIME:	635	HRS	
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME:	85.3	%	
STANDARD DEVIATION:	0.90		MONTHLY AVERAGE:	0.23	PPB	

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA33 NO_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

NITRIC OXIDE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	0	0	0	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	2	0.3	24
2	0	0	1	1	1	1	3	1	1	0	1	9	0	0	0	0	0	IZS	0	0	0	0	0	0	0	9	0.8	24
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24
4	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	0.1	24
5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	IZS	1	0	0	0	0	0	0	0	0	0	1	0.1	24
6	0	0	0	0	0	0	1	1	1	0	14	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	14	0.8	24
7	0	0	0	0	1	3	2	C	C	C	C	C	1	18	0	0	0	0	0	1	1	0	0	0	0	18	1.4	24
8	0	0	0	0	0	1	1	1	0	0	0	IZS	0	0	0	0	0	0	27	N	N	N	N	N	27	1.7	19	
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
12	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	C	C	C	C	0	0	0	0	0	0	0	0.0	9
13	0	0	1	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
14	0	0	0	0	0	IZS	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
15	0	0	1	1	IZS	2	2	3	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0.5	24
16	0	0	0	IZS	1	3	3	2	1	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	3	0.6	24
17	0	0	IZS	0	1	2	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.4	24
18	0	IZS	1	1	1	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0.6	24
19	IZS	0	1	0	1	7	8	7	3	4	1	1	0	0	0	0	0	0	0	0	0	0	0	1	IZS	8	1.5	24
20	1	1	0	3	2	7	10	7	5	5	2	1	1	0	0	1	0	0	0	0	0	0	0	IZS	7	10	2.3	24
21	4	1	0	2	3	30	13	4	2	1	2	1	0	62	164	2	0	0	1	0	1	IZS	0	0	164	12.7	24	
22	0	0	0	8	3	2	3	2	1	0	0	0	0	0	0	0	10	0	0	0	IZS	0	0	1	10	1.3	24	
23	1	0	0	3	2	4	2	4	1	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	4	0.8	24	
24	0	0	0	0	1	1	1	1	9	2	0	0	3	2	9	0	0	0	IZS	0	0	0	N	N	9	1.4	22	
25	N	N	N	N	N	N	N	N	M	M	C	0	0	1	0	0	0	IZS	0	1	0	1	1	1	1	0.4	14	
26	1	1	7	1	2	1	0	0	0	1	1	0	0	1	0	1	IZS	0	1	0	0	0	0	0	7	0.8	24	
27	0	0	0	0	0	2	1	1	1	1	1	1	0	0	0	IZS	0	0	11	1	11	6	0	0	11	1.6	24	
28	1	1	1	6	4	6	18	2	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	2	18	1.8	24	
29	3	1	1	0	4	4	6	2	1	0	0	0	0	IZS	0	0	0	0	0	4	2	3	6	2	6	1.7	24	
30	5	P	P	P	P	P	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	5	0.3	19	
31	0	0	0	0	0	1	1	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	24	
HOURLY MAX	5	1	7	8	4	30	18	7	9	5	14	9	3	62	164	2	10	0	27	4	11	6	6	7				
HOURLY AVG	0.6	0.2	0.6	1.1	1.1	3.5	3.4	1.8	1.3	0.8	1.0	0.6	0.3	3.4	7.0	0.2	0.4	0.0	1.6	0.3	0.5	0.4	0.4	0.6				

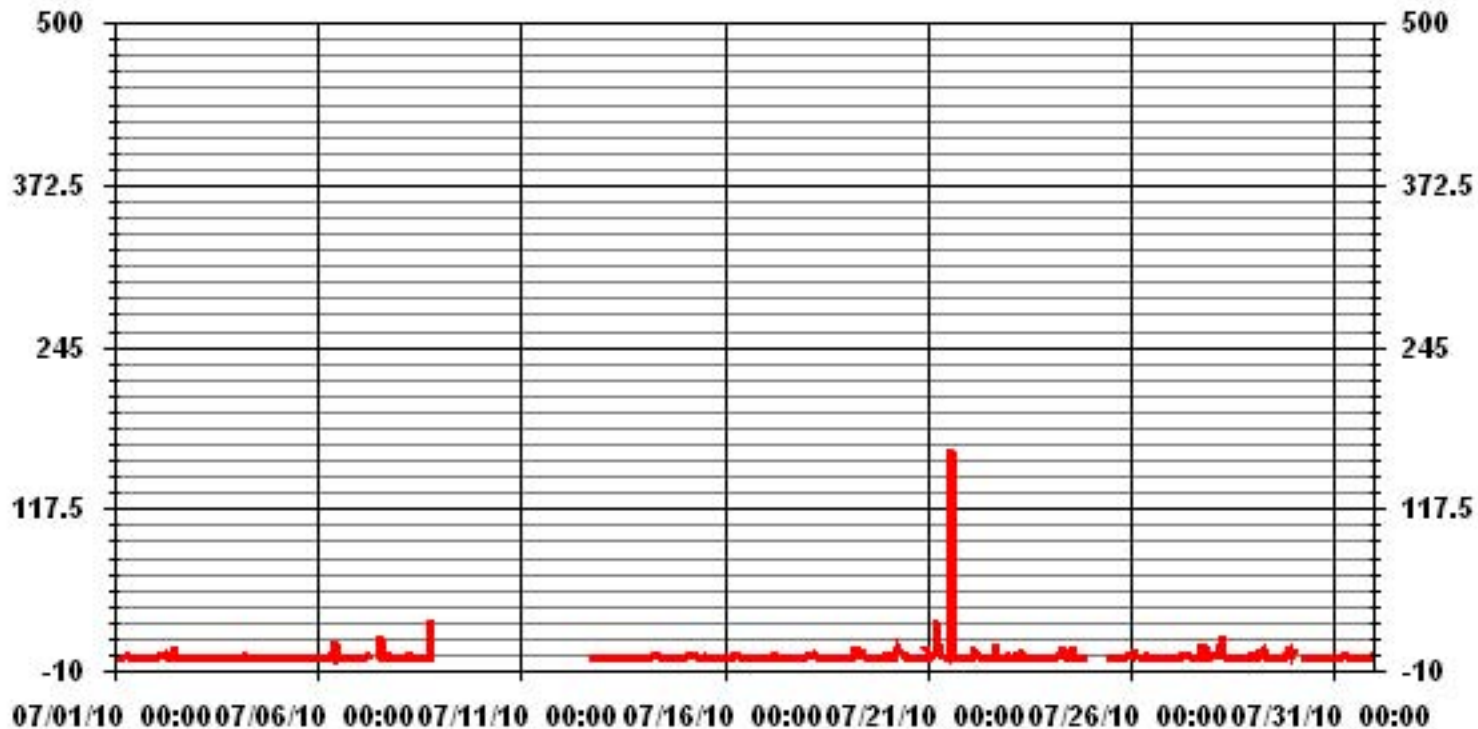
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	194					
MAXIMUM INSTANTANEOUS VALUE:	164	PPB	@ HOUR(S)	14	ON DAY(S)	21
IZS CALIBRATION TIME:	27	HRS	OPERATIONAL TIME:	635	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION	7.57					

01 Hour Averages



LICA33
 NO_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : NO_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	1.83	2.83	3.00	3.17	4.67	3.33	2.50	3.00	3.83	6.34	11.85	9.84	17.36	15.35	6.84	4.17	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.83	2.83	3.00	3.17	4.67	3.33	2.50	3.00	3.83	6.34	11.85	9.84	17.36	15.35	6.84	4.17	

Calm : .00 %

Total # Operational Hours : 599

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	11	17	18	19	28	20	15	18	23	38	71	59	104	92	41	25	599
< 110																	
< 210																	
>= 210																	
Totals	11	17	18	19	28	20	15	18	23	38	71	59	104	92	41	25	

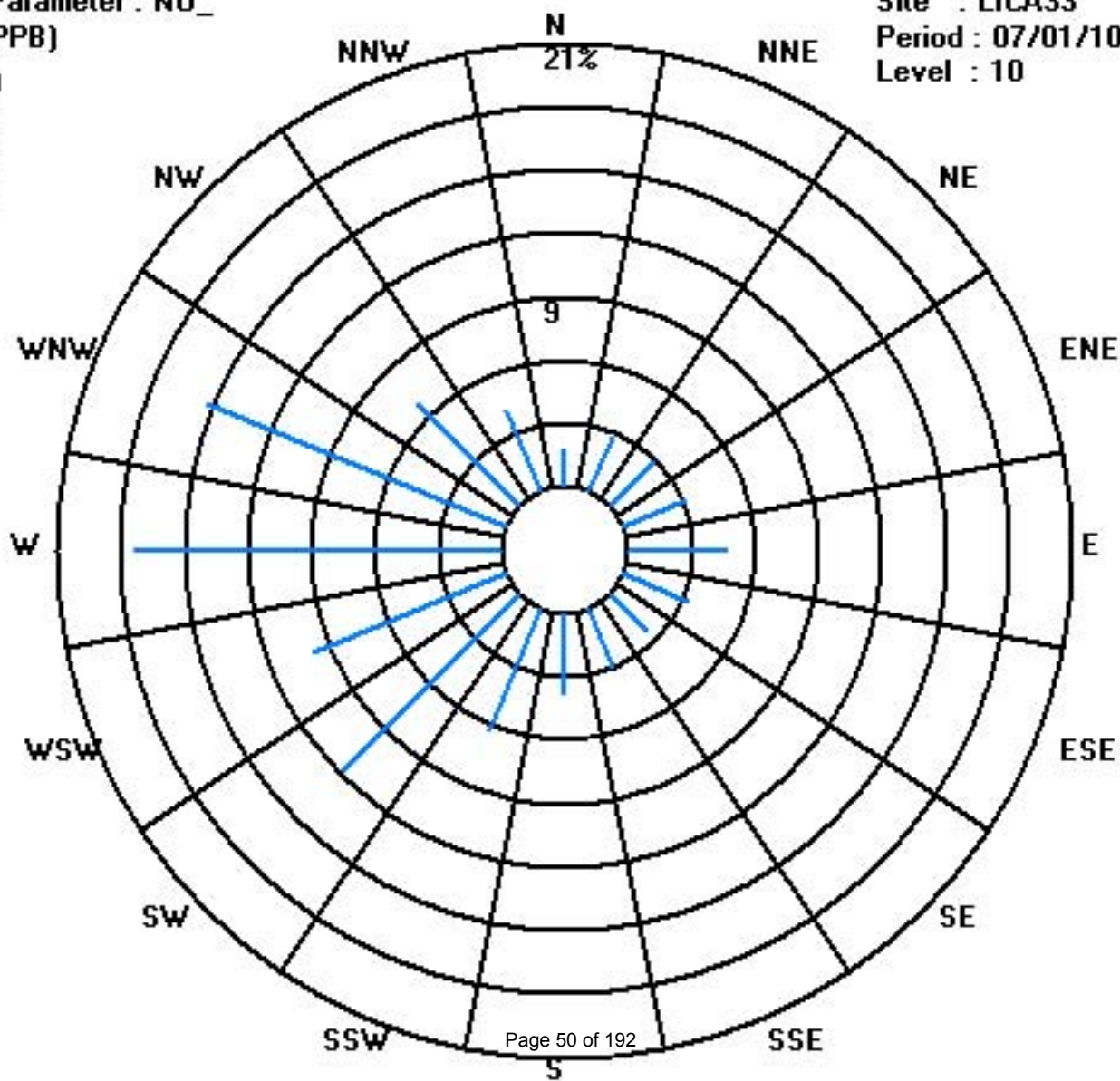
Calm : .00 %

Total # Operational Hours : 599

Class Limits (PPB)

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

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

OXIDES OF NITROGEN hourly averages in ppb

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	1	0	0	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	IZS	0	1	1	1	2	2	0.6	24	
2	1	2	3	2	2	1	3	2	2	0	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	3	0.9	24	
3	0	1	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	0	2	0.3	24
4	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	0.2	24
5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	1	0	1	1	0.1	24
6	0	0	1	1	1	1	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	1	1	0.3	24
7	3	2	1	2	4	5	3	C	C	C	C	C	0	1	0	0	0	0	0	1	1	5	1	1	5	1.6	24	
8	0	0	0	1	1	2	2	1	0	0	0	IZS	0	0	0	0	0	0	0	0	N	N	N	N	N	2	0.4	19
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			0
12	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	C	C	C	1	1	3	1	1	1	3	1.3	9	
13	4	4	4	2	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	4	0.8	24	
14	3	2	2	6	6	IZS	3	2	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	2	6	1.4	24	
15	3	2	2	2	IZS	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	0.8	24	
16	2	2	3	IZS	2	3	4	3	2	1	1	0	0	0	0	0	0	1	0	1	1	2	1	0	4	1.3	24	
17	2	2	IZS	4	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	4	0.9	24	
18	1	IZS	2	3	4	6	4	3	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	6	1.2	24	
19	IZS	3	4	4	4	8	10	7	5	4	3	2	0	1	0	0	0	0	0	0	0	1	2	IZS	10	2.6	24	
20	2	3	3	5	6	8	12	8	7	6	3	1	1	0	0	0	0	0	0	0	0	0	0	IZS	4	12	3.0	24
21	3	2	2	2	3	9	10	4	2	0	0	0	0	5	18	0	0	0	2	2	3	IZS	1	3	18	3.1	24	
22	3	2	3	7	5	3	4	3	2	0	0	0	0	0	0	0	1	1	0	0	IZS	1	2	6	7	1.9	24	
23	3	3	3	4	3	4	3	4	2	1	0	0	0	0	0	0	0	0	0	IZS	1	1	2	1	4	1.5	24	
24	1	1	1	1	1	2	2	1	2	1	1	0	0	1	1	0	0	0	IZS	1	2	2	N	N	2	1.0	22	
25	N	N	N	N	N	N	N	N	M	M	C	0	0	0	0	0	0	IZS	0	0	1	2	4	4	4	0.9	14	
26	3	3	4	2	2	2	1	0	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	4	0.8	24	
27	0	0	1	2	1	2	2	1	0	0	0	0	0	0	0	IZS	0	0	1	4	4	5	3	2	5	1.2	24	
28	3	2	2	7	5	6	10	4	1	0	0	0	0	0	IZS	0	0	0	0	1	2	1	1	5	10	2.2	24	
29	8	4	3	2	4	4	4	2	1	0	0	1	0	IZS	0	0	0	0	0	4	5	6	6	5	8	2.6	24	
30	4	P	P	P	P	P	1	2	2	2	1	1	IZS	0	0	0	0	0	1	2	4	2	2	3	4	1.5	19	
31	2	1	1	2	1	2	2	2	1	1	0	IZS	0	0	0	0	1	0	1	4	3	2	4	5	5	1.5	24	
HOURLY MAX	8	4	4	7	6	9	12	8	7	6	3	2	1	5	18	0	1	1	2	4	5	6	6	6				
HOURLY AVG	2.1	1.8	2.0	2.7	2.5	3.2	3.6	2.2	1.4	0.7	0.4	0.3	0.0	0.3	0.8	0.0	0.1	0.1	0.3	0.8	1.2	1.4	1.6	2.0				

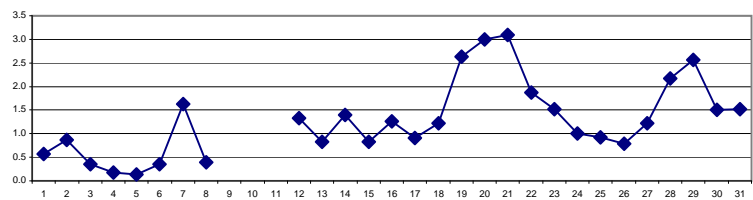
STATUS FLAG CODES

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

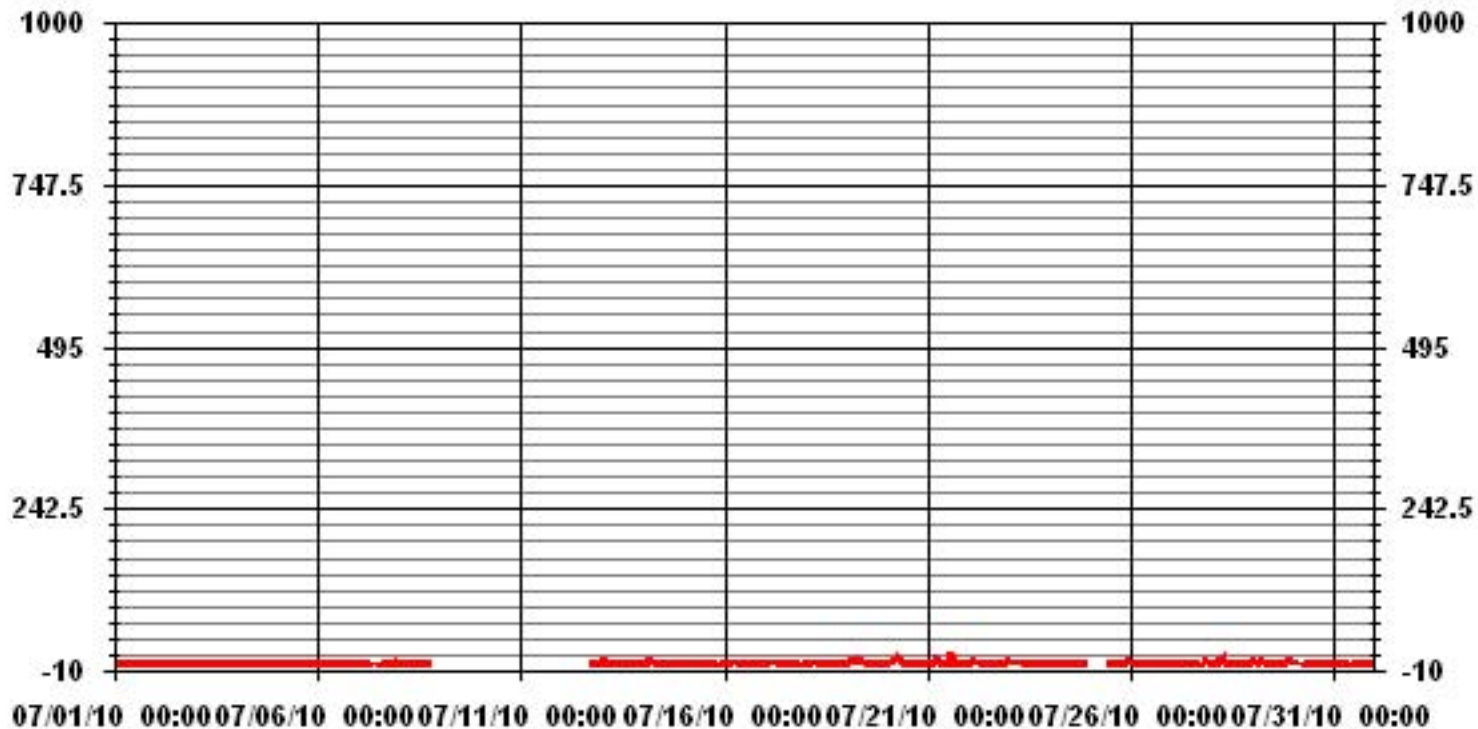
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	304					
MAXIMUM 1-HR AVERAGE:	18	PPB	@ HOUR(S)	14	ON DAY(S)	21
MAXIMUM 24-HR AVERAGE:	3.1	PPB			ON DAY(S)	21
IZS CALIBRATION TIME:	27	HRS	OPERATIONAL TIME:	635	HRS	
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME:	85.3	%	
STANDARD DEVIATION:	1.95		MONTHLY AVERAGE:	1.29	PPB	

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA33 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	5	1	1	1	1	2	4	2	2	1	1	0	0	0	0	0	0	0	IZS	1	2	2	2	3	5	1.3	24	
2	2	3	5	6	3	2	6	2	3	1	3	20	1	1	1	1	1	IZS	0	0	1	1	1	1	20	2.8	24	
3	1	2	5	2	2	2	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	3	3	1	5	1.0	24	
4	2	4	1	1	1	3	2	1	0	0	0	0	0	0	0	IZS	0	0	0	0	1	0	1	1	4	0.8	24	
5	1	0	0	0	1	1	1	1	1	1	1	0	1	1	IZS	1	0	0	1	1	2	4	1	1	4	0.9	24	
6	0	1	2	1	2	1	1	2	1	0	24	0	0	IZS	1	0	1	1	1	1	0	1	1	2	24	1.9	24	
7	5	3	2	4	5	8	5	C	C	C	C	C	2	24	1	1	0	0	5	6	3	14	4	2	24	4.9	24	
8	1	1	1	1	2	3	3	3	1	0	0	IZS	0	0	0	0	0	1	30	N	N	N	N	N	30	2.6	19	
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0	
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0	
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		0	
12	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	C	C	C	C	2	6	3	3	2	6	3.2	9	
13	9	9	6	6	1	2	IZS	1	1	1	1	1	0	0	0	0	0	0	1	1	2	3	3	2	9	2.2	24	
14	6	6	3	8	8	IZS	4	3	2	2	2	1	0	1	0	1	1	0	0	1	3	2	1	3	8	2.5	24	
15	6	3	3	4	IZS	3	4	5	1	1	1	0	1	0	0	0	0	0	1	1	4	10	1	2	10	2.2	24	
16	3	3	3	IZS	3	6	6	5	3	2	1	0	1	1	1	1	1	2	1	2	3	6	2	2	6	2.5	24	
17	3	3	IZS	5	5	7	7	1	0	1	0	0	0	0	0	0	0	0	0	0	1	2	6	2	7	1.9	24	
18	2	IZS	8	8	5	7	6	4	2	1	0	0	0	0	0	0	0	0	3	1	2	1	3	2	8	2.4	24	
19	IZS	4	7	7	5	14	14	13	6	7	4	3	1	1	0	1	1	1	1	0	1	5	4	IZS	14	4.5	24	
20	3	6	5	8	8	12	15	12	8	8	5	2	3	1	1	1	1	1	1	1	1	1	1	IZS	14	5.1	24	
21	10	3	3	5	8	35	18	6	4	1	3	2	0	69	170	5	1	1	4	4	6	IZS	4	5	170	16.0	24	
22	5	3	5	18	9	4	5	5	3	1	1	1	1	0	1	1	16	2	1	0	IZS	3	3	9	18	4.2	24	
23	7	4	5	6	7	9	4	9	4	2	1	0	1	1	0	0	0	0	0	IZS	1	3	2	2	9	3.0	24	
24	2	2	2	3	3	3	2	29	5	1	1	6	4	18	0	0	1	IZS	2	4	4	N	N	29	4.5	22		
25	N	N	N	N	N	N	N	N	M	M	C	0	0	0	0	0	0	IZS	1	1	2	4	6	7	7	1.8	14	
26	7	4	14	3	3	4	1	1	2	2	1	0	0	0	0	1	IZS	0	0	0	0	1	1	1	14	2.0	24	
27	1	1	2	2	2	4	4	2	2	1	1	1	0	0	0	0	IZS	0	1	21	8	41	33	5	3	41	5.9	24
28	4	3	4	10	9	11	22	5	3	1	1	0	0	0	IZS	1	1	1	1	1	4	2	2	13	22	4.3	24	
29	12	7	6	3	8	9	10	3	4	1	1	1	1	1	IZS	1	1	1	1	2	12	8	9	12	7	12	5.2	24
30	11	P	P	P	P	P	3	5	3	3	1	2	IZS	1	1	1	1	2	2	3	7	4	4	6	11	3.3	19	
31	3	2	3	5	2	3	3	3	2	2	1	IZS	1	1	1	1	2	1	3	8	10	3	7	7	10	3.2	24	
HOURLY MAX	12	9	14	18	9	35	22	13	29	8	24	20	6	69	170	5	16	2	30	12	41	33	12	14				
HOURLY AVG	4.4	3.3	4.0	4.8	4.3	6.5	6.1	3.8	3.5	1.8	2.2	1.5	0.8	4.2	7.9	0.7	1.1	0.6	3.2	2.2	4.4	4.8	3.3	4.0				

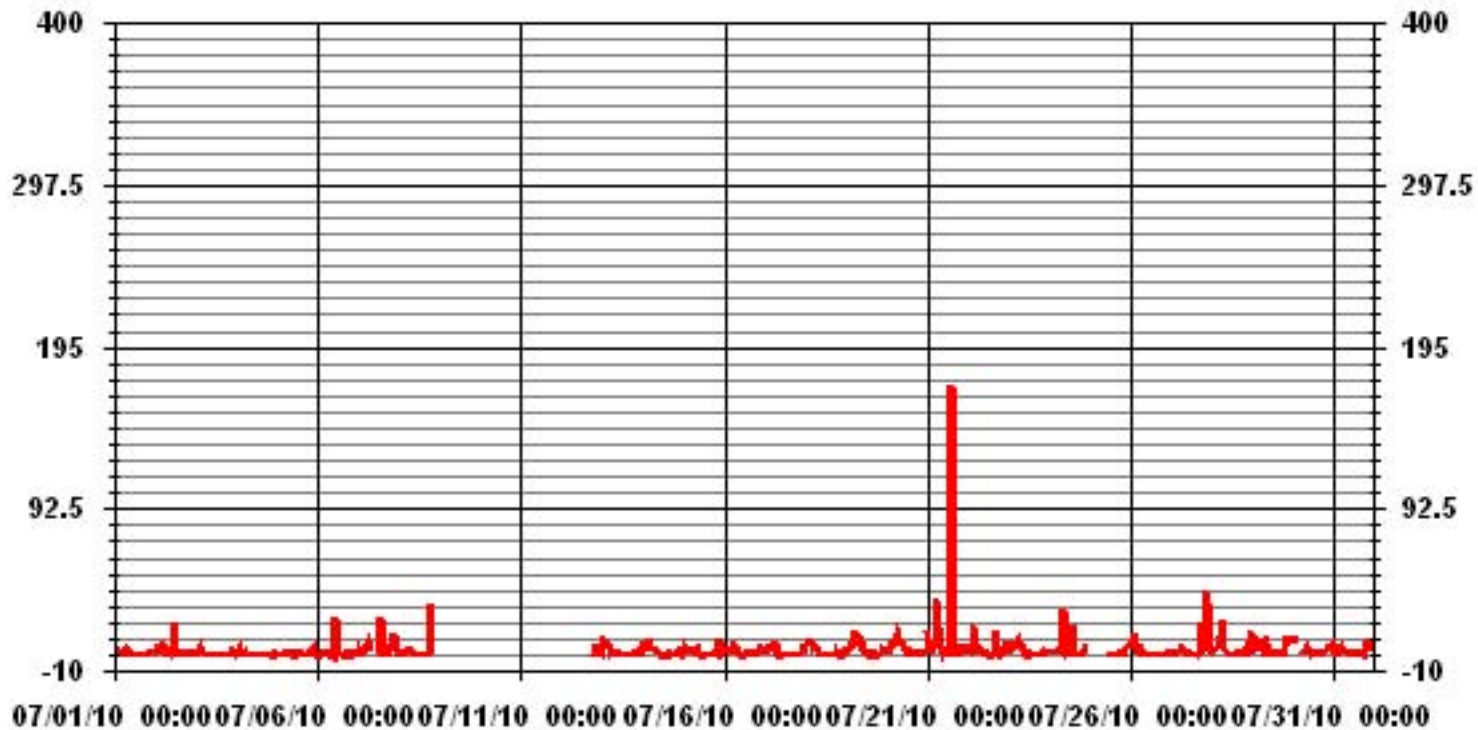
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	473
MAXIMUM INSTANTANEOUS VALUE:	170 PPB @ HOUR(S) 14 ON DAY(S) 21
IZS CALIBRATION TIME:	27 HRS
MONTHLY CALIBRATION TIME:	10 HRS
STANDARD DEVIATION	8.62
OPERATIONAL TIME:	635 HRS

01 Hour Averages



— LICA33 NOXMAX PPB

LICA33
 NOX_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : NOX_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	1.83	2.83	3.00	3.17	4.67	3.33	2.50	3.00	3.83	6.34	11.85	9.84	17.36	15.35	6.84	4.17	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.83	2.83	3.00	3.17	4.67	3.33	2.50	3.00	3.83	6.34	11.85	9.84	17.36	15.35	6.84	4.17	

Calm : .00 %

Total # Operational Hours : 599

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	11	17	18	19	28	20	15	18	23	38	71	59	104	92	41	25	599
< 110																	
< 210																	
>= 210																	
Totals	11	17	18	19	28	20	15	18	23	38	71	59	104	92	41	25	

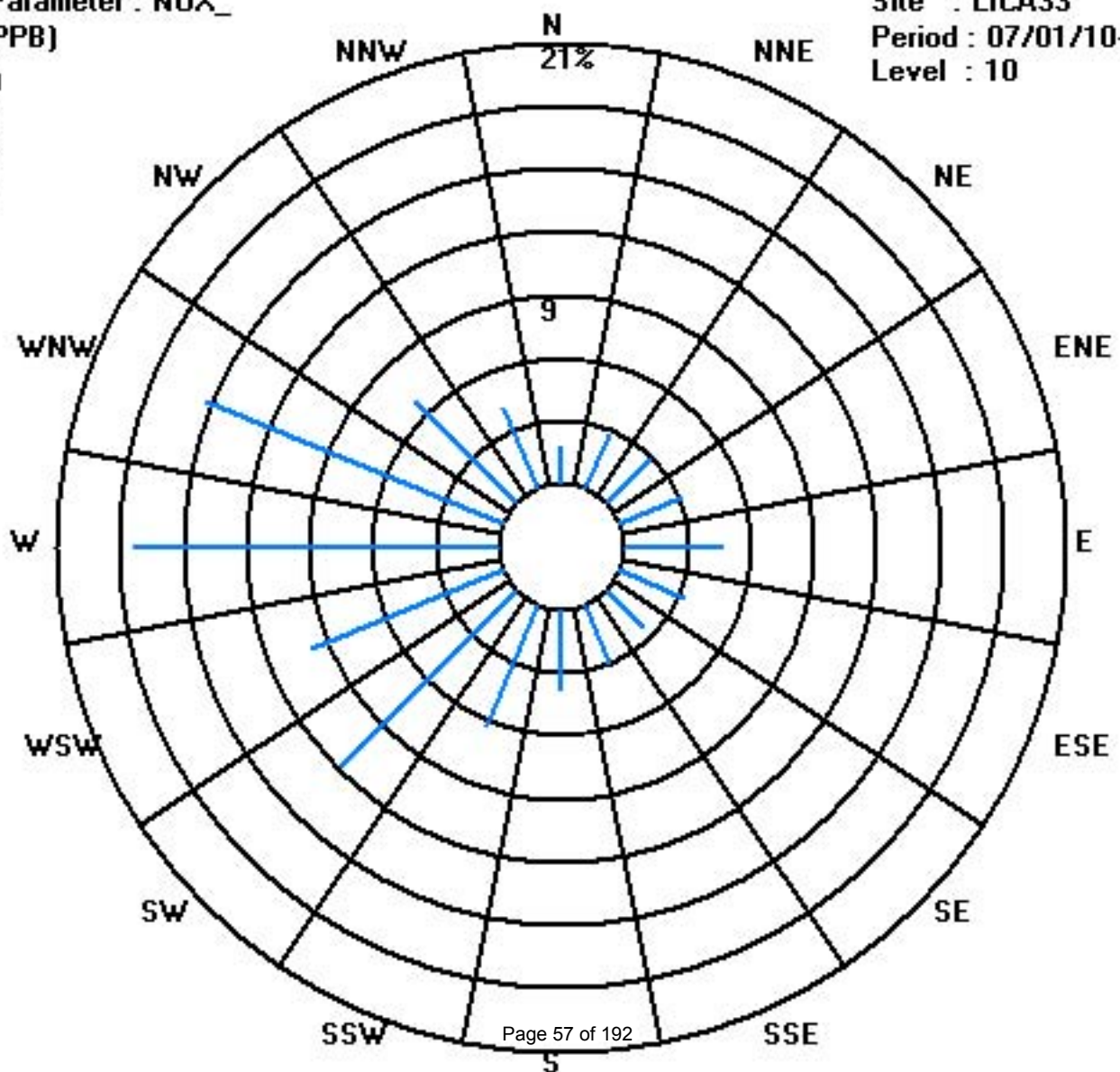
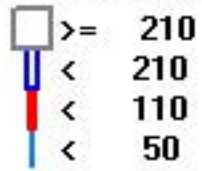
Calm : .00 %

Total # Operational Hours : 599

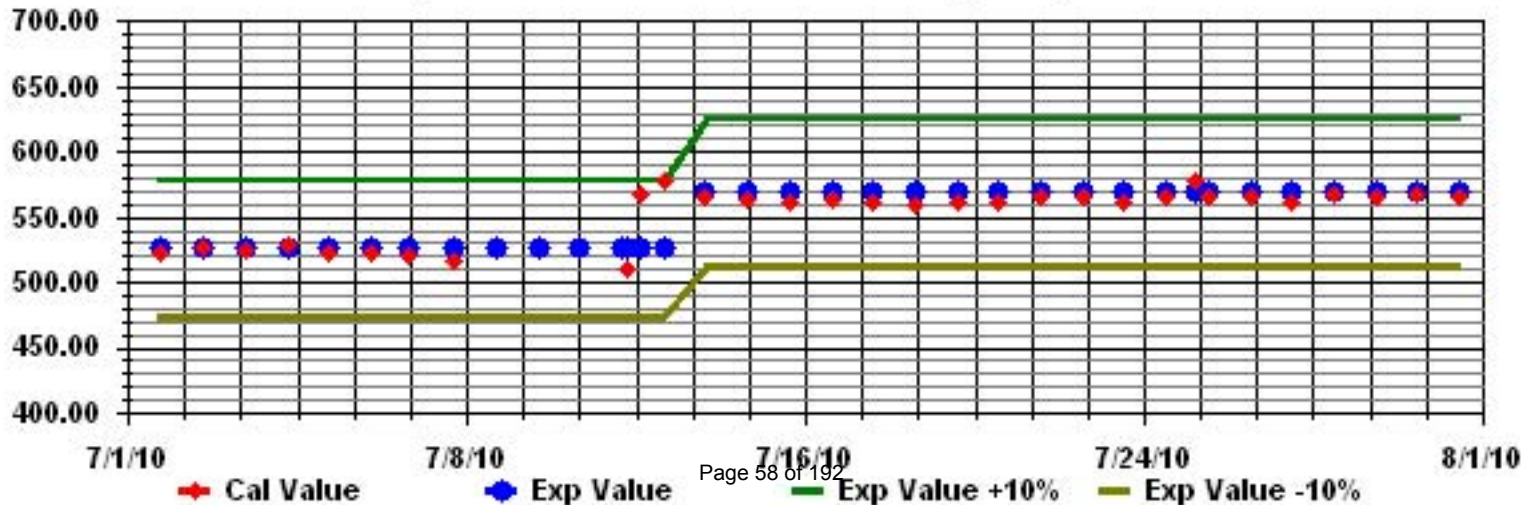
Class Limits (PPB)

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

Level : 10



Calibration Graph for Site: LICA33 Parameter: NOX_ Sequence: NO2 Phase: SPAll



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

OZONE (O₃) hourly averages in ppb

MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	RDGS.	
DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.		
1	13	12	12	12	10	12	14	18	21	24	26	27	28	30	31	33	33	29	IZS	22	17	15	15	15	33	20.4	24	
2	16	12	8	6	6	6	11	17	22	29	33	36	37	37	38	39	35	IZS	33	31	26	28	30	28	39	24.5	24	
3	24	17	12	11	10	13	15	18	20	21	22	24	24	24	23	24	IZS	24	24	23	17	15	15	14	24	18.9	24	
4	14	14	12	10	11	12	15	18	21	23	24	24	26	27	29	IZS	23	23	20	18	17	16	14	14	29	18.5	24	
5	15	14	12	11	10	10	10	10	11	13	17	19	21	25	IZS	26	27	28	31	27	23	21	23	23	31	18.6	24	
6	22	19	17	18	18	17	17	17	20	22	22	24	24	IZS	26	25	28	25	23	25	23	18	16	15	28	20.9	24	
7	13	13	11	9	6	6	13	20	24	27	29	29	IZS	31	31	31	30	28	24	23	18	13	18	15	31	20.1	24	
8	14	13	15	10	10	12	12	18	24	27	27	29	IZS	27	26	24	25	26	25	20	23	17	13	12	13	27	18.8	24
9	12	8	5	3	3	6	10	15	19	22	IZS	21	22	24	26	28	22	22	20	18	14	13	12	9	28	15.4	24	
10	6	8	10	10	14	14	15	19	25	IZS	27	28	30	30	31	31	29	28	27	23	18	12	12	8	31	19.8	24	
11	4	5	4	4	6	8	13	18	IZS	28	29	29	30	31	31	32	33	37	40	35	27	21	20	15	20	40	21.3	24
12	22	23	23	24	21	18	19	IZS	25	28	29	30	30	29	29	40	41	42	41	31	32	34	35	30	42	29.4	24	
13	20	14	14	28	34	28	IZS	C	C	C	C	34	36	37	37	33	28	30	27	24	21	15	14	16	37	25.8	24	
14	17	15	13	8	7	IZS	12	16	18	15	22	24	25	28	28	31	32	30	27	26	23	19	17	12	32	20.2	24	
15	10	11	8	5	IZS	3	7	12	21	27	29	28	28	32	34	33	33	30	26	34	31	20	21	18	34	21.8	24	
16	13	7	5	IZS	6	7	15	21	23	28	23	22	24	27	28	25	24	22	16	14	13	10	10	13	28	17.2	24	
17	11	10	IZS	8	9	10	12	16	20	22	24	24	24	22	24	24	24	25	24	21	16	13	12	13	25	17.7	24	
18	12	IZS	11	8	6	6	9	14	23	28	33	32	29	30	30	29	28	27	24	18	18	16	8	12	33	19.6	24	
19	IZS	8	7	5	3	2	3	6	10	16	21	23	28	29	30	30	32	31	25	20	14	9	5	IZS	32	16.2	24	
20	3	5	3	0	1	2	5	10	13	17	28	36	40	35	33	31	30	29	26	22	16	11	IZS	3	40	17.3	24	
21	1	5	6	5	1	2	5	9	17	29	33	36	37	36	35	38	38	32	27	19	21	IZS	18	15	38	20.2	24	
22	14	12	7	5	5	7	10	17	23	38	45	47	48	49	44	42	41	42	41	37	IZS	23	15	10	49	27.0	24	
23	8	9	7	4	6	6	13	24	31	38	42	45	47	44	44	44	44	43	39	IZS	28	23	19	19	47	27.3	24	
24	16	17	19	16	13	17	21	23	28	34	39	41	38	38	38	37	35	32	IZS	36	20	14	17	11	41	26.1	24	
25	6	2	2	4	5	3	5	8	15	25	29	31	31	31	30	30	30	IZS	26	23	16	8	6	6	31	16.2	24	
26	4	3	2	1	2	10	22	30	35	27	22	21	20	21	23	22	IZS	24	24	22	19	17	17	14	35	17.5	24	
27	14	12	9	8	7	8	8	11	14	17	22	22	26	28	29	32	IZS	35	35	31	22	20	9	9	6	35	17.9	24
28	5	5	3	0	1	1	5	16	29	32	33	34	36	36	IZS	35	35	36	32	27	19	16	14	8	36	19.9	24	
29	4	7	6	6	2	3	8	19	27	32	36	39	42	IZS	47	47	47	39	29	15	13	10	8	7	47	21.4	24	
30	16	P	P	P	P	P	39	36	33	34	45	49	IZS	46	46	48	46	39	35	22	23	22	20	22	49	34.5	19	
31	26	27	26	20	17	18	22	25	30	37	39	IZS	38	42	41	42	40	39	34	29	24	13	7	7	42	28.0	24	
HOURLY MAX	26	27	26	28	34	28	39	36	35	38	45	49	48	49	47	48	47	43	41	37	32	34	35	30				
HOURLY AVG	12.5	11.3	10.0	8.9	8.6	9.2	12.8	17.3	22.1	26.2	29.3	30.4	31.0	31.9	32.6	33.0	32.9	31.0	28.0	24.1	19.9	16.2	15.1	13.9				

STATUS FLAG CODES

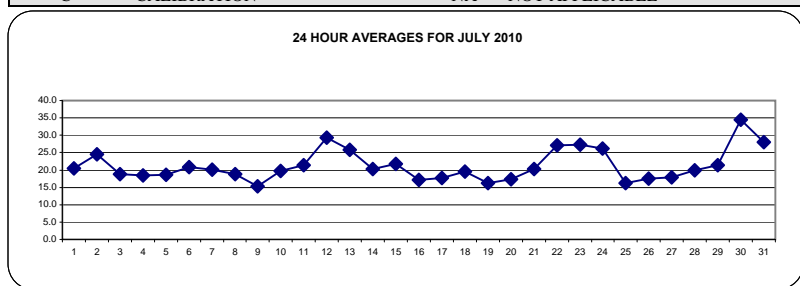
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

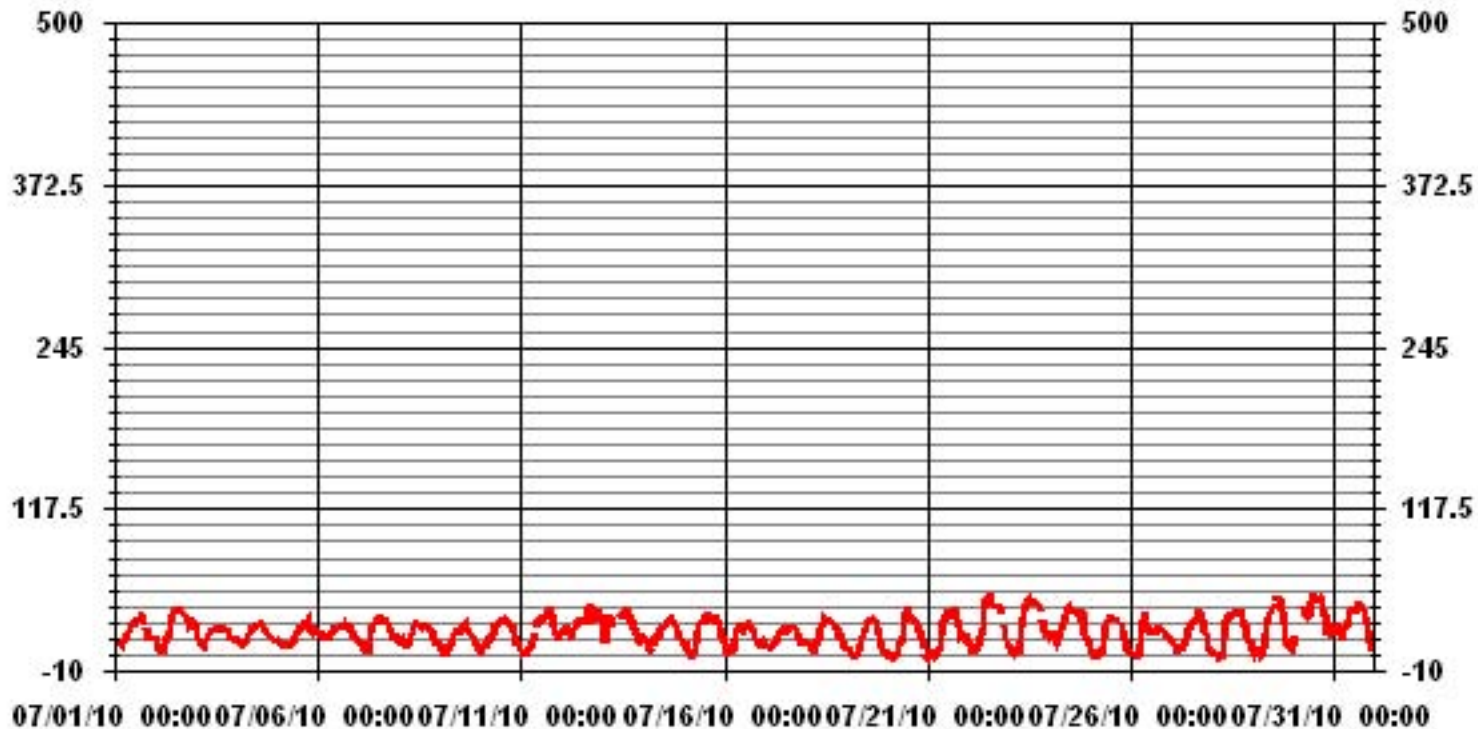
ALBERTA ENVIRONMENT: 1-HR 82 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0				
NUMBER OF NON-ZERO READINGS:	701				
MAXIMUM 1-HR AVERAGE:	49	PPB	@ HOUR(S)	13, 11	ON DAY(S) 22, 30
MAXIMUM 24-HR AVERAGE:	34.5	PPB			ON DAY(S) 30
					VAR-VARIOUS
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	739	HRS
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME	99.3	%
STANDARD DEVIATION	11.00		MONTHLY AVERAGE	21.13	PPB



01 Hour Averages



— LICA33_03_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

OZONE MAX instantaneous maximum in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	15	15	14	13	11	13	16	20	23	25	27	28	30	31	33	34	34	32	IZS	25	22	17	18	18	34	22.3	24	
2	17	14	11	8	8	10	14	20	26	31	36	38	39	39	40	41	41	IZS	36	35	29	30	31	29	41	27.1	24	
3	27	20	16	13	12	14	17	20	22	22	25	27	25	25	24	25	IZS	25	24	24	21	16	16	16	27	20.7	24	
4	15	16	14	12	12	14	17	20	22	23	25	25	27	28	30	IZS	25	25	22	20	18	18	16	15	30	20.0	24	
5	15	15	13	12	11	11	11	11	12	16	19	21	22	27	IZS	27	28	29	34	31	25	22	24	24	34	20.0	24	
6	24	21	19	19	18	18	18	19	22	23	24	26	26	IZS	28	28	29	28	25	28	27	20	18	16	29	22.8	24	
7	14	14	13	10	7	10	17	22	28	29	31	30	IZS	32	33	32	31	31	29	25	24	17	20	18	33	22.5	24	
8	16	15	17	13	13	13	14	24	29	29	28	IZS	28	27	26	27	27	29	39	25	36	18	16	16	39	22.8	24	
9	14	10	8	4	5	7	14	18	21	23	IZS	22	23	26	30	31	24	24	21	21	19	16	17	13	31	17.9	24	
10	9	9	12	12	16	15	17	25	28	IZS	29	33	31	33	33	32	31	29	27	26	21	17	16	11	33	22.3	24	
11	6	8	7	7	8	11	16	21	IZS	29	30	31	32	32	34	36	43	45	39	33	24	21	19	22	45	24.1	24	
12	24	23	24	26	23	21	21	IZS	27	31	31	33	31	31	42	45	45	49	45	36	36	35	39	37	49	32.8	24	
13	26	19	18	36	36	31	IZS	C	C	C	C	37	41	40	39	40	30	35	32	26	24	20	18	20	41	29.9	24	
14	23	19	19	14	13	IZS	14	19	19	18	26	28	27	31	31	33	34	32	30	28	28	23	23	17	34	23.9	24	
15	15	12	12	6	IZS	7	10	19	25	30	32	29	29	34	35	34	35	32	32	38	33	26	25	22	38	24.9	24	
16	16	10	7	IZS	9	11	21	24	25	32	31	24	27	29	31	28	26	26	21	19	14	13	16	17	32	20.7	24	
17	14	11	IZS	11	11	11	14	18	23	23	25	26	25	23	24	25	26	26	25	23	19	16	17	15	26	19.6	24	
18	14	IZS	14	10	7	7	11	20	27	32	35	34	30	30	31	30	30	30	27	23	20	18	11	14	35	22.0	24	
19	IZS	9	9	6	4	4	5	12	13	21	24	30	30	31	31	32	34	34	29	23	19	14	8	IZS	34	19.2	24	
20	5	12	5	1	2	3	10	14	16	25	32	38	43	40	35	34	31	32	29	24	21	17	IZS	11	43	20.9	24	
21	2	8	10	8	2	3	8	11	28	33	35	38	39	39	39	39	40	34	31	23	26	IZS	23	19	40	23.4	24	
22	16	15	11	8	8	8	12	23	33	41	47	50	50	50	49	44	43	44	43	40	IZS	27	18	13	50	30.1	24	
23	10	13	10	6	12	9	19	31	36	41	44	47	48	46	46	45	45	43	IZS	35	26	23	24	48	30.7	24		
24	20	20	23	22	19	20	22	25	32	38	42	43	40	39	40	40	36	36	IZS	43	31	17	21	19	43	29.9	24	
25	9	4	5	8	9	5	7	12	19	29	31	32	33	33	31	31	31	IZS	27	25	22	14	10	12	33	19.1	24	
26	6	6	4	4	5	19	26	35	37	34	24	23	22	21	26	26	IZS	26	27	23	22	18	18	16	37	20.3	24	
27	14	14	10	9	8	9	10	12	16	19	24	28	30	31	33	IZS	35	36	35	29	24	17	18	13	36	20.6	24	
28	10	10	5	3	2	2	12	25	33	34	35	36	39	39	IZS	37	37	39	35	30	26	18	20	12	39	23.4	24	
29	7	10	8	8	5	5	14	24	31	34	38	42	45	IZS	50	50	50	45	50	23	20	20	20	11	50	26.5	24	
30	43	P	P	P	P	P	44	42	39	45	48	51	IZS	48	50	50	50	43	40	34	26	26	23	27	51	40.5	19	
31	41	30	29	27	23	23	27	28	34	41	40	IZS	40	44	43	44	44	42	38	36	29	24	13	13	44	32.7	24	
HOURLY MAX	43	30	29	36	36	31	44	42	39	45	48	51	50	50	50	50	49	50	49	50	43	36	35	39	37			
HOURLY AVG	16.2	13.9	12.7	11.6	11.0	11.5	15.9	21.2	25.7	29.3	31.7	32.8	32.8	33.8	35.1	35.2	35.0	33.9	32.2	28.0	24.7	20.0	19.2	17.7				

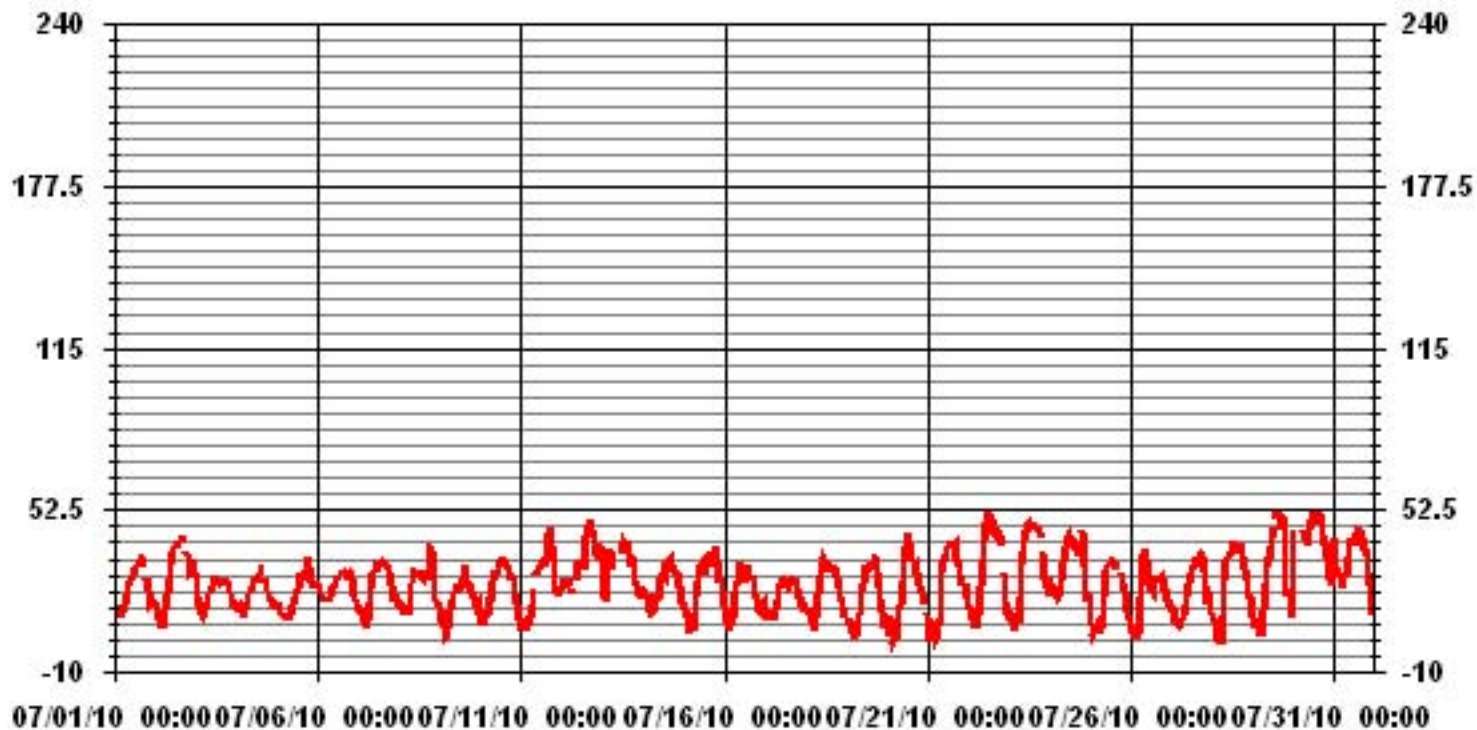
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	703					
MAXIMUM INSTANTANEOUS VALUE:	51	PPB	@ HOUR(S)	11	ON DAY(S)	30
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	739	HRS	
MONTHLY CALIBRATION TIME:	4	HRS				
STANDARD DEVIATION	11.13					

01 Hour Averages



— LICA33 O3MAX PPB

LICA33
 O3_ / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : O3_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	2.27	2.98	2.27	2.98	4.83	3.27	3.27	3.12	4.69	5.97	13.22	9.38	15.07	13.94	7.39	5.26	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.27	2.98	2.27	2.98	4.83	3.27	3.27	3.12	4.69	5.97	13.22	9.38	15.07	13.94	7.39	5.26	

Calm : .00 %

Total # Operational Hours : 703

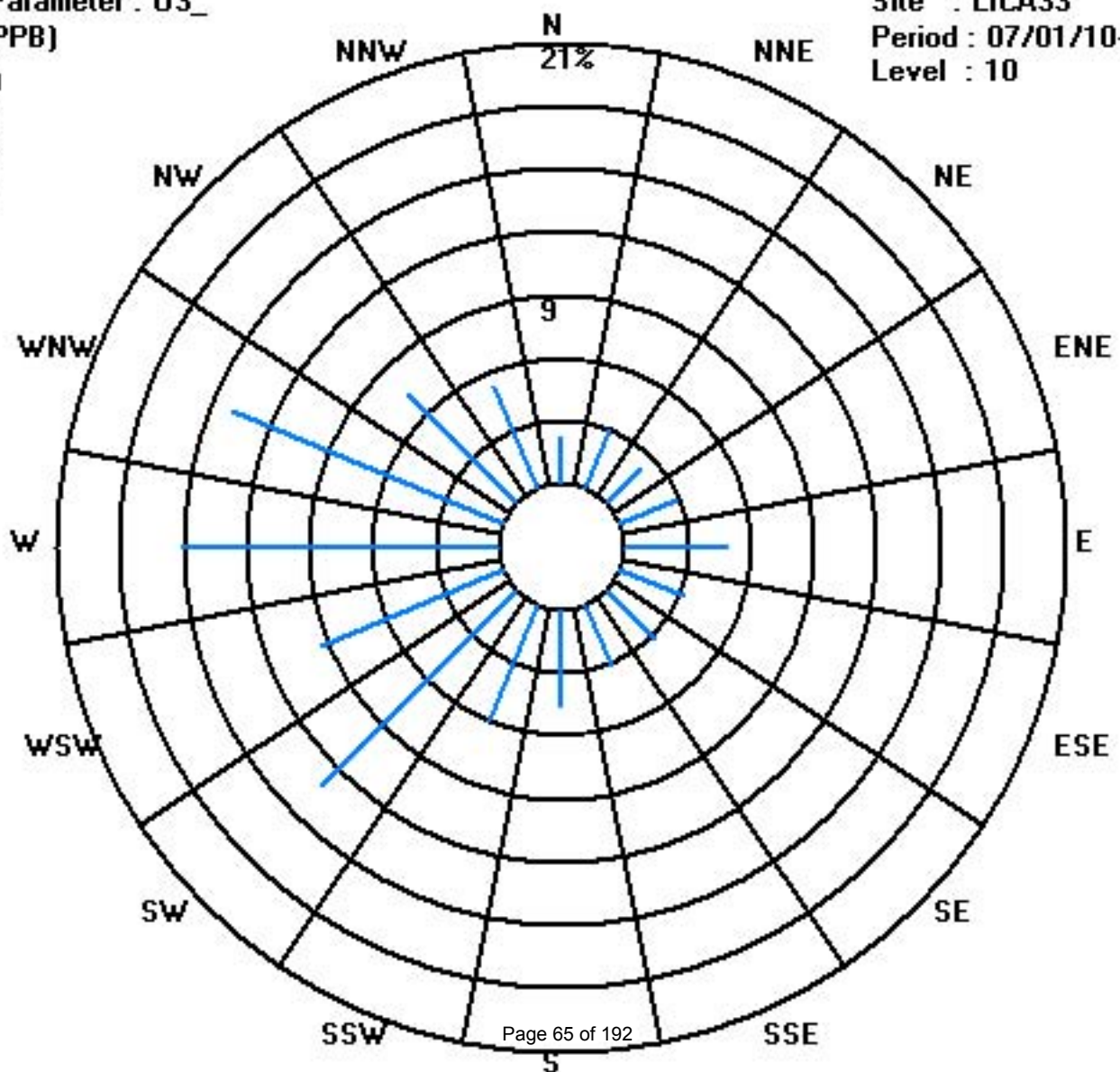
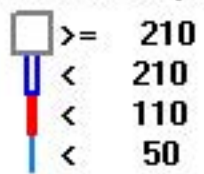
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	16	21	16	21	34	23	23	22	33	42	93	66	106	98	52	37	703
< 110																	
< 210																	
>= 210																	
Totals	16	21	16	21	34	23	23	22	33	42	93	66	106	98	52	37	

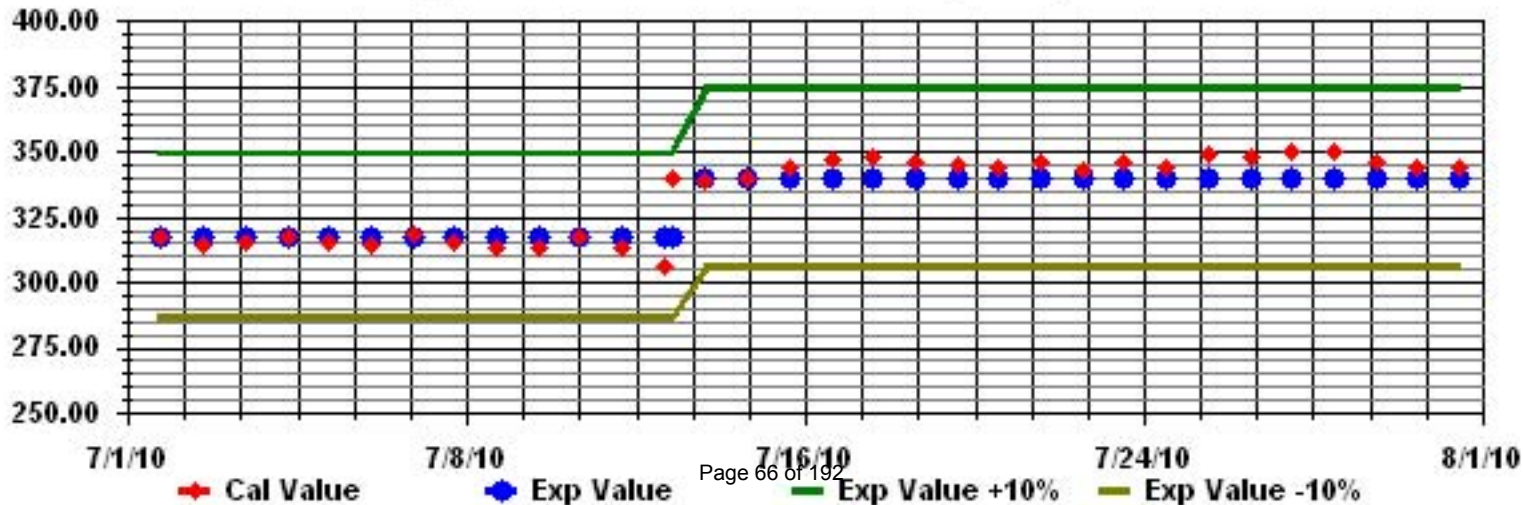
Calm : .00 %

Total # Operational Hours : 703

Class Limits (PPB)

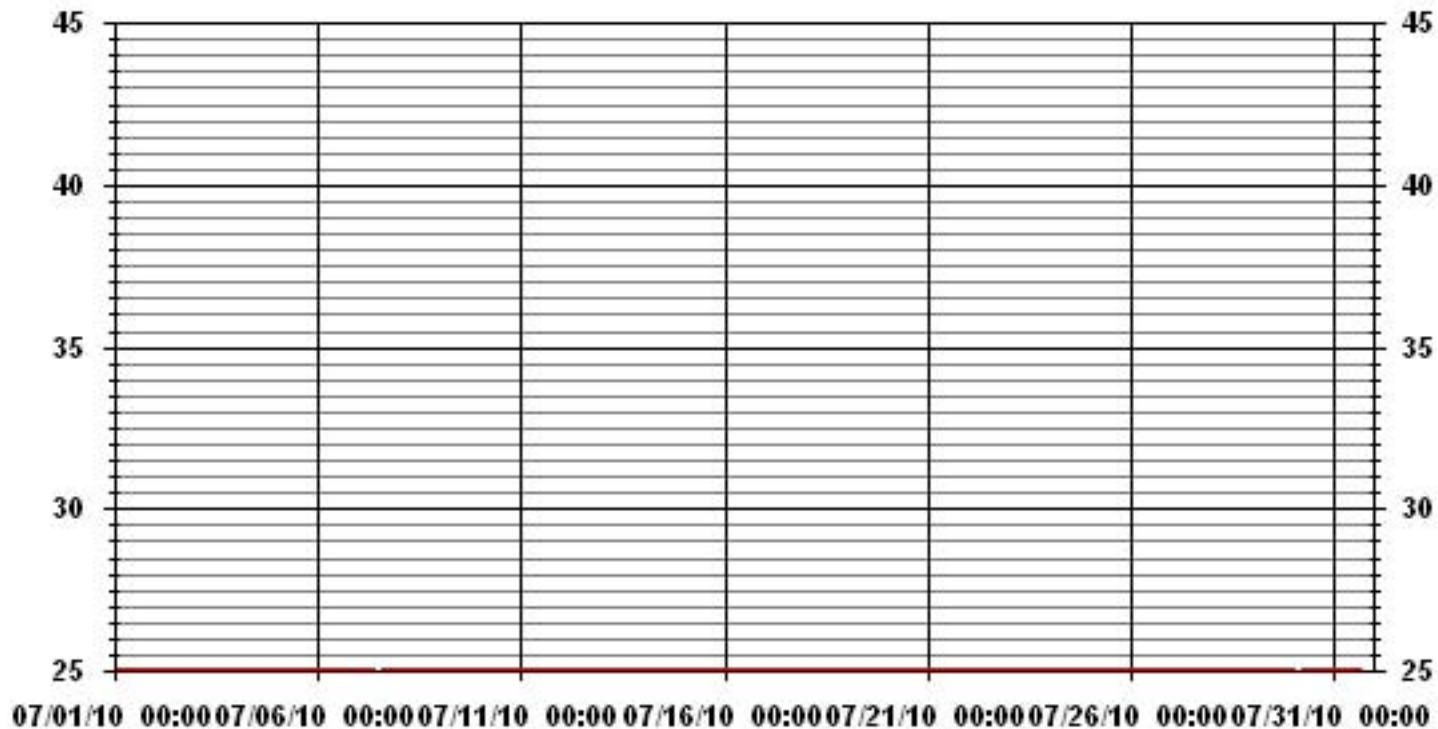


Calibration Graph for Site: LICA33 Parameter: 03_ Sequence: 03 Phase: SPAN



Total Hydrocarbons

01 Hour Averages



— LICA33 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
1	2	2	2	2.1	2.1	2	2	2	2	2	2	1.9	1.9	1.9	2	1.9	1.9	1.9	IZS	5.2	4.4	4.6	5.7	3	5.7	2.5	24	
2	2.6	3.3	10.3	7.5	2.6	2.9	6	6.1	2.4	2.2	2.2	2.1	2	2	2.3	2.5	6.1	IZS	1.9	2.2	2.3	2	2	1.9	10.3	3.4	24	
3	1.9	1.9	2	2	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	IZS	1.8	1.8	1.9	1.9	1.9	2	1.9	2	1.9	2	1.9	24
4	1.9	2	1.9	1.9	1.9	2	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	IZS	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2	1.9	24	
5	1.9	1.9	1.9	1.9	1.9	2	2	2	1.9	1.9	1.9	2	2	2	IZS	1.9	1.9	1.9	2.2	2.1	2	2	2	2.1	2.2	2.0	24	
6	1.9	2	2.4	2.2	2.1	2.1	2.1	2.1	2	2	2.3	2.1	1.9	IZS	1.9	1.9	1.9	2.6	1.9	2.2	1.9	2	2	1.9	2.6	2.1	24	
7	2	2.1	2.3	2.6	54.1	3.4	4.1	3.8	4.1	3	C	C	C	C	2.4	1.9	1.8	1.8	1.9	2	2.1	2.1	2.1	2	54.1	5.2	24	
8	2	1.9	2	2	2.2	2.3	2.5	2.3	1.9	1.9	1.8	IZS	1.8	1.8	1.8	9.9	2.9	4	1.9	1.9	5.5	2.2	4.7	2.4	9.9	2.8	24	
9	3.8	5.2	2.1	3.8	7.2	2.1	1.9	1.9	1.9	1.8	IZS	1.8	1.7	1.7	1.7	1.9	2.6	5.2	2.4	5.8	1.9	1.9	2.6	4.1	7.2	2.9	24	
10	7.9	4.7	3.6	2.3	2	2.3	2.1	2.1	1.9	IZS	1.9	1.9	2	1.9	1.9	2	1.9	1.8	1.9	1.9	34.9	2.2	2.4	34.9	3.9	24		
11	5.8	6.8	10.7	6.2	3	2.3	2.1	2	IZS	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.5	1.9	10.7	2.9	24		
12	2	2	2	1.9	4.8	4.2	4.3	IZS	2.4	2.4	3.5	2.9	2.6	2.9	3.1	1.7	2	3	2.2	8.5	4.2	2.2	3.4	1.9	8.5	3.0	24	
13	1.9	7.8	2.9	2.6	1.7	3.2	IZS	1.8	2.4	M	1.8	2.2	2.4	2.1	1.8	2.2	2.8	4.1	3.7	3.8	2.2	2.2	2.2	2.1	7.8	2.7	23	
14	7.7	6.8	2.1	2.7	2.9	IZS	2.2	2.2	2	2.1	2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	5.7	2.4	2	7.7	2.6	24	
15	2.2	2.1	2	5.8	IZS	6.3	2.6	2.1	1.9	1.8	1.9	1.8	1.8	1.7	1.8	1.8	1.8	1.8	5	15.8	5	1.8	2	15.8	3.2	24		
16	2.2	5.3	5.1	IZS	2.1	2.1	2	1.9	2	2.1	1.9	1.8	1.8	1.8	3.9	2.1	7.8	2	1.8	2	2	2.2	2	1.9	7.8	2.6	24	
17	2.2	2.3	IZS	2.1	2.1	2.1	2.1	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	2.1	1.9	2.3	1.9	24	
18	2	IZS	2.3	2.2	2.4	2.5	2.5	2.5	2.3	1.9	2.7	1.9	1.8	1.9	1.9	1.8	3.8	4.3	2.1	2	2.9	2.6	9.3	2.2	9.3	2.7	24	
19	IZS	2.5	4	2.8	2.8	9.3	7.5	11.2	5.1	2.2	2.3	2.2	2	2.1	1.9	3.7	3.4	3.2	3.9	3	1.9	2.1	3.4	IZS	11.2	3.8	24	
20	2.4	3.1	54.1	53.9	3.2	3.2	3.2	3	3	3.2	3.8	3.2	2.4	1.9	1.9	1.9	2.1	4	4.3	2.6	1.9	5.3	IZS	8.4	54.1	7.7	24	
21	7.6	6.1	14.4	18.6	9	10.2	8.6	6.9	3.4	3.4	2.4	2.5	2.2	1.9	2.2	3	2.2	2.1	4.5	2.5	7.7	IZS	3.1	4.6	18.6	5.6	24	
22	4.8	5.6	9.7	8.7	9.3	7.8	7.6	5.8	3.5	2.7	2.5	2	2	2	3.3	2.8	2.2	2.8	2.7	3.1	IZS	7.5	6.6	8.1	9.7	4.9	24	
23	5.5	6.4	5.9	6.6	11.5	4.3	5.1	3.6	2.6	2.4	2.2	2.1	2.3	1.8	1.8	1.8	1.8	1.8	1.8	IZS	1.9	2	2	3.6	11.5	3.5	24	
24	2.1	8.7	2.1	3	5.2	6	2	1.9	1.9	2	2.1	2.1	1.8	1.8	1.8	1.8	1.7	1.8	IZS	43.8	38.3	4.3	2.6	2.1	43.8	6.1	24	
25	2.2	5.4	4.1	3	6.6	2.9	2.7	2.5	2.6	2.7	1.9	1.9	1.8	1.8	1.8	1.8	1.8	IZS	1.8	1.9	2	7.8	7	2.1	7.8	3.0	24	
26	2.1	12.9	5.9	11.3	13.3	2.3	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	IZS	1.8	1.8	1.8	1.8	1.9	1.8	1.9	13.3	3.4	24	
27	1.9	2	2.2	2.2	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	IZS	1.8	1.8	1.8	1.9	1.9	7.3	8.1	2.2	8.1	2.4	24	
28	11.3	14.8	11.7	13.2	13.1	9.7	7.5	4.6	2.4	2.2	2.2	2	2	1.9	IZS	1.9	1.9	2	2.2	3.7	4.4	6.2	4.3	8	14.8	5.8	24	
29	10.1	10	8.8	8.7	11.6	6.2	5	3.1	2	2	2	2	1.9	IZS	1.8	1.8	1.8	1.8	1.8	3.8	4.9	21.9	5.5	7.5	21.9	5.5	24	
30	6.9	P	P	P	P	P	2.6	18.1	23.7	2.1	35	2	IZS	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	6.1	2	2	35	6.4	19	
31	2	1.8	1.9	3.4	2.5	6.4	1.9	1.8	1.8	1.8	1.8	IZS	1.8	1.7	1.8	N	N	N	N	N	N	N	N	N	6.4	2.3	15	
HOURLY MAX	11	15	54	54	54	10	9	18	24	3	35	3	3	3	4	10	8	5	5	44	38	35	9	8				
HOURLY AVG	3.8	4.8	6.3	6.5	6.5	4.0	3.4	3.6	3.1	2.2	3.3	2.0	1.9	1.9	2.0	2.3	2.5	2.4	2.3	4.3	4.4	5.2	3.4	3.1				

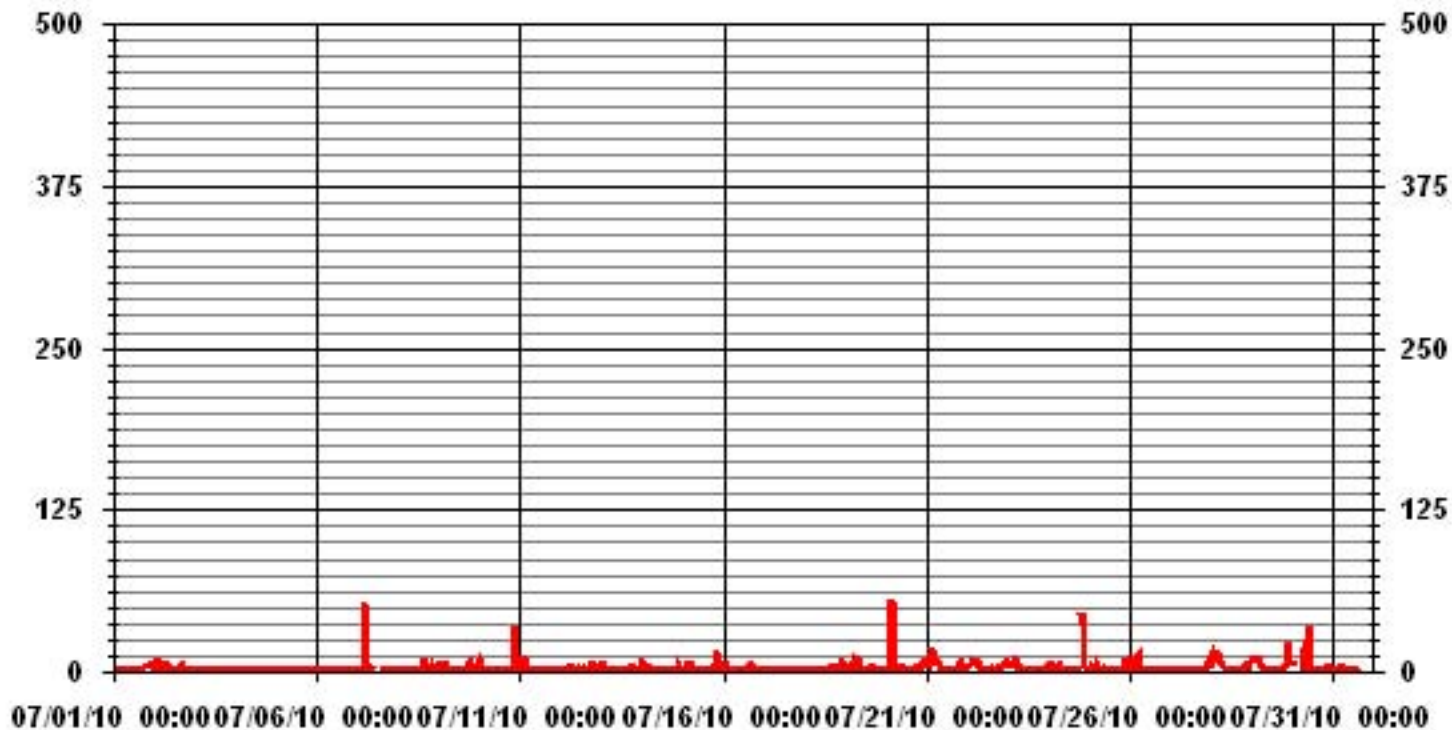
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	693					
MAXIMUM INSTANTANEOUS VALUE:	54.1	PPB	@ HOUR(S)	2	ON DAY(S)	20
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	729	HRS	
MONTHLY CALIBRATION TIME:	5	HRS				
STANDARD DEVIATION	4.99					

01 Hour Averages



— LICA33 THCMAX PPM

LICA33
 THC / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : THC
 Units : PPM

Wind Parameter : WDR
 Instrument Height : 10 Meters

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	1.44	2.88	2.44	1.72	3.45	2.73	2.59	2.88	4.32	6.05	13.25	8.78	14.84	13.68	7.20	4.03	92.36
< 10.0	.57	.28	.28	1.29	1.44	.57	.72	.28	.43	.00	.14	.57	.14	.43	.00	.43	7.63
< 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.01	3.17	2.73	3.02	4.89	3.31	3.31	3.17	4.75	6.05	13.40	9.36	14.98	14.12	7.20	4.46	

Calm : .00 %

Total # Operational Hours : 694

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	10	20	17	12	24	19	18	20	30	42	92	61	103	95	50	28	641
< 10.0	4	2	2	9	10	4	5	2	3		1	4	1	3		3	53
< 50.0																	
>= 50.0																	
Totals	14	22	19	21	34	23	23	22	33	42	93	65	104	98	50	31	

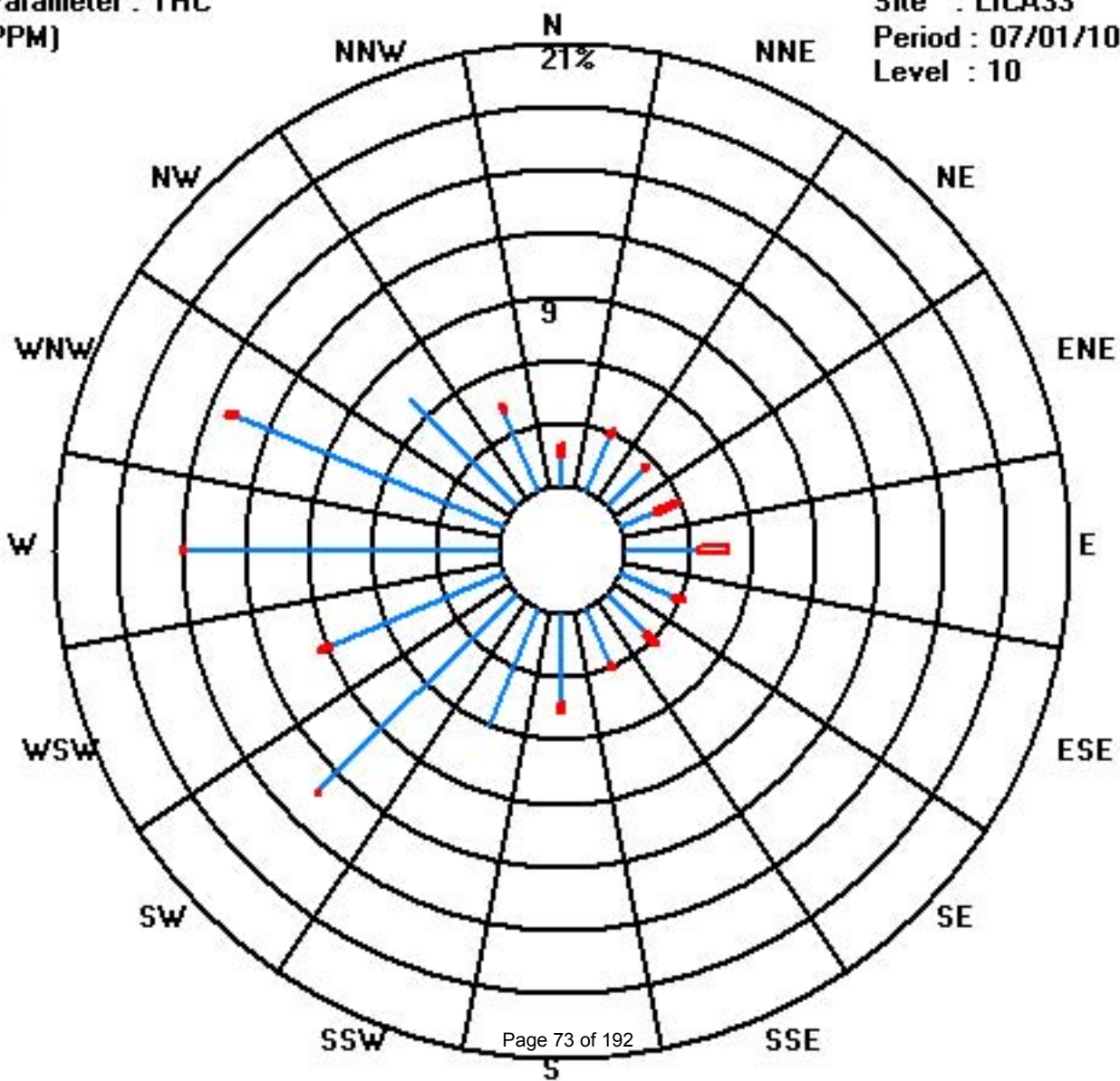
Calm : .00 %

Total # Operational Hours : 694

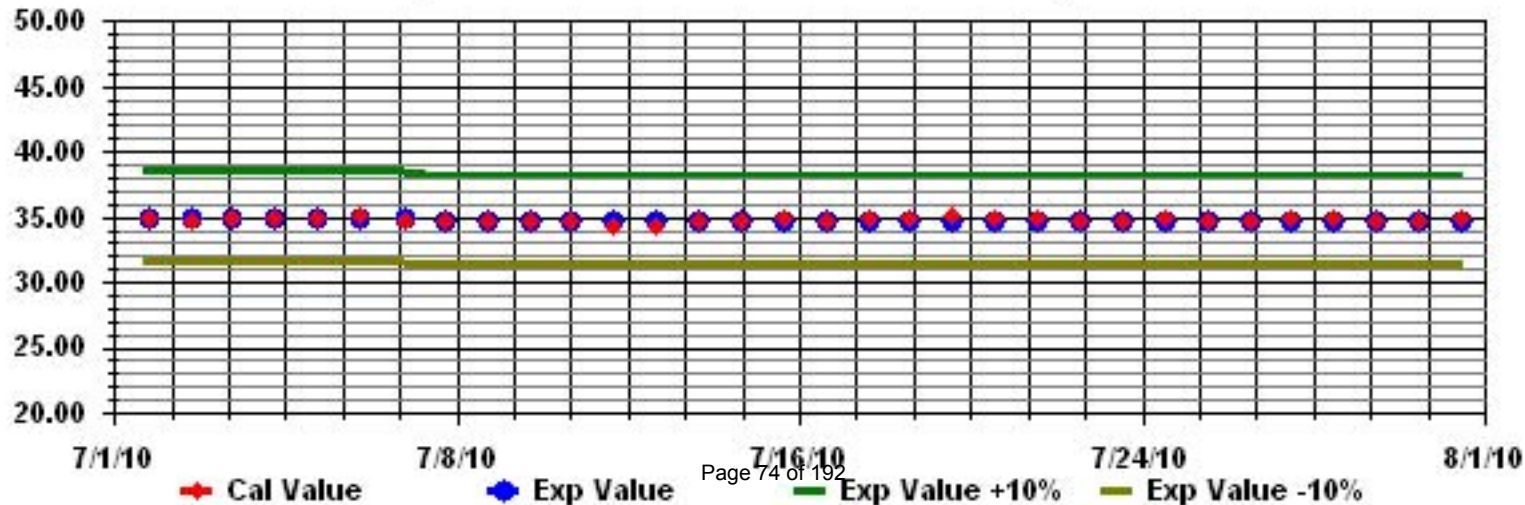
Class Limits (PPM)

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

Level : 10



Calibration Graph for Site: LICA33 Parameter: THC Sequence: THC Phase: SPAll



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

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

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	RDGS.
HOURLY MAX	HOURLY AVG	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	
DAY																												
1		9	6.7	3	2.7	3.5	6.3	8.1	6.5	6.7	5.7	7	9.4	10.4	7.5	8.1	7.6	8.5	7.1	5.8	3.8	5.6	5.3	4.9	6.4	10.4	4.8	24
2		5	4.5	4	4.1	3.8	5.5	4.1	2.6	3	3.7	6.1	6.4	5.7	3.9	3.3	3.3	8.9	15.8	14.2	7.4	6.1	4.8	7	6	15.8	1.4	24
3		5.1	8.1	7.8	9.6	9	6.3	7.5	11.2	10.3	12.8	14	13.6	15.8	16.8	16.2	17.6	17.6	16.9	14.8	13	7.2	9.5	11.7	11.2	17.6	11	24
4		9.1	9.6	3.8	5.7	9.2	7.1	6	6.9	9.3	11.8	12.4	14.9	15	14.9	18	19.1	16.8	13.1	14.6	11	12.2	9.9	6.9	8.9	19.1	10.8	24
5		10.5	9.1	11	12.1	12.5	12.4	12.5	9.2	10.1	10.3	9.5	10.9	8.5	13.2	11.9	18.7	20.6	19.3	13.7	11.5	10.7	12.7	12.4	11.6	20.6	12.3	24
6		11.4	9.2	9.7	11.8	10.3	10.4	13.3	14.7	13.5	15.9	10.4	4.9	14	17	18.5	15.3	9.1	6.9	9.1	7.1	5.3	6.6	5.7	7.1	18.5	10.7	24
7		7.5	10.8	7.3	6.4	3.5	3.9	6.8	6.9	3.4	3.9	8.7	7.2	8.5	7.6	9.6	11.4	9.8	10.5	6.6	3.4	4.6	6.9	8.8	8	11.4	7.2	24
8		9.1	7.8	2.8	2.1	5.6	10.3	5.7	5.8	8.2	14.4	15.1	10.9	7.2	10.4	12.4	9.3	6.2	7.5	7.4	6.5	4.2	3.4	4.8	3.8	15.1	7.5	24
9		4.7	4.6	6.1	4	3.8	5.9	6	5.7	9.2	10.3	11.4	11.8	12.2	11	10.9	4.6	12.7	8.9	7.2	3.4	4.4	2.6	3	3.9	12.7	7.0	24
10		4.6	5.2	5.3	4.8	6.3	8.1	7.5	6.3	12	12.2	12.6	12.5	13.5	11	11.4	13	12.3	11.2	9.4	5.3	3.9	1.1	4.3	5.8	13.5	8.3	24
11		1.9	4.3	2.8	1.9	3.5	2.7	2.9	3.5	5.2	6.8	7.3	7.1	7.2	10.3	10.1	11.4	14.4	12.3	12.8	8.6	11.1	10.5	8.2	8.5	14.4	7.3	24
12		9.6	10.3	12.1	10.8	8.3	7.6	8.3	11.6	14.5	14.9	11.6	12.2	16.5	17.9	6	16.5	10.7	14.6	1.5	4	11.1	11	9.9	5.3	17.9	10.7	24
13		2.9	2.1	8.6	10.7	9.6	11.2	15.9	15.4	15.4	13.2	13.8	18.4	21	21.8	24.5	20.2	17.9	17.4	11.3	8.8	3.5	5	5.4	4.9	24.5	12.5	24
14		4	3.5	3.7	5	6	3.6	4.8	9.3	11.4	7.5	8.7	9.1	8.4	11.7	15.5	14.7	13.9	18.1	15	10.6	6.9	1.2	5.4	5.3	18.1	8.5	24
15		4.1	5.2	3.2	4.2	2.3	3.7	5.4	4.8	6	6.6	9.3	11.8	14.9	18.9	20.9	16.5	10.1	4.1	3.4	17.3	9.8	4.3	7.2	5.7	20.9	8.3	24
16		4.2	1.4	3.1	2.4	3.5	3.8	3.5	2.7	6.7	9.8	15	12.8	12.7	6.5	6.5	3.9	4.7	1.3	3.1	5.3	3.2	5	3.3	5.4	15.0	5.4	24
17		11.1	7.7	5.9	7.4	8.3	11.6	12.7	14.8	21.5	20.9	21.5	21.8	19.9	16.8	18.6	18.1	20.2	19	14.7	6.8	5.1	5.2	5.4	4	21.8	13.3	24
18		6.5	5.1	6.5	5	4.5	8.7	6.9	7	11.3	13.8	13.1	11.7	13.6	12.5	9.8	8.5	4.8	2.7	6.1	3.3	6.8	3	5.5	5.1	13.8	7.6	24
19		5.4	6.5	4.6	3.2	2.5	2.2	0.6	4.1	3.4	3.7	2.9	8.8	7	11.2	10.7	12.4	12.2	9.5	10.5	6.7	3.2	4.3	1.2	2.5	12.4	5.8	24
20		5.3	4.3	1.9	2.1	4.1	3.1	4.5	6.1	4	3.6	1.6	0.8	3.5	6.7	6.8	7.2	14.2	8.7	7.3	2.3	2.3	1.2	1.7	1.2	14.2	4.4	24
21		1.6	5.2	1.7	0.9	0	1.3	1.1	0.6	1.6	3.1	3.9	3.4	4.7	6.8	4.9	4.1	1.1	9.7	4.4	3.3	7.7	6.3	3.9	6	9.7	3.6	24
22		4.1	2.9	3.7	5	4.6	6	6.2	7.2	9.6	10.4	10.2	10.3	12.2	11.2	11.6	20	25.9	19.9	14	14	9	5.3	5	4.7	25.9	9.7	24
23		4.6	2.2	1.5	4.5	2.4	3.9	2.9	1.8	3.1	2.2	3.2	4.4	5.3	6.3	9.1	10.7	12.9	11.1	5.4	4.3	4.3	5.7	5	4.1	12.9	5.0	24
24		3.3	3.7	3.9	1.8	2.4	4	6	6.1	7.4	8.4	10	11.6	11.5	11.3	13.7	12.2	9.8	7.8	7.7	4.1	6	5	4.1	1.3	13.7	6.8	24
25		4.8	1.5	2.2	1.1	1.7	2.2	2.9	3.1	6.4	11.3	11.9	11.1	9	12.8	12.8	13.2	12.2	13.2	9.8	5.4	3.4	2.1	3.4	3.2	13.2	6.7	24
26		1.5	0.6	2.2	2.2	2.1	11.5	14.2	14.8	13.8	19.9	16.3	14.6	14.5	15.4	13.5	11.4	12.5	18.7	19.5	14.8	15.6	13.4	14	8.9	19.9	11.9	24
27		13.8	14	9.4	11.1	8	8	7.8	10.3	12.6	12.1	11.9	12.8	10.6	9	8.7	8.4	7.2	7.3	5.9	5	4.9	1.9	2.2	0.7	14.0	8.5	24
28		0.6	2.5	2.1	2.1	0.8	1	3.4	4.8	6.6	9.2	11.9	12.4	12.1	13	12.9	12	10.7	12.2	9.6	8.1	7.8	2.8	5.9	4	13.0	7.0	24
29		4.2	2.7	4	3.1	2.9	2.7	1.9	3.3	8.6	9.1	7.9	6.8	8.5	7.4	7.8	7.5	5.3	5	3.8	1	1.8	2.1	1.3	2.4	9.1	4.6	24
30		8	P	P	P	P	P	7.4	7.7	5.5	5.8	4.9	8.5	8.7	7.1	7.4	8.6	7.9	6.9	3	5.7	6	3	6	7.4	8.7	6.6	19
31		11.8	6.4	8.9	5.7	2.6	4.5	8.6	9.6	6.9	6.6	11.2	12.5	14.2	15.7	7.1	6.8	4.9	6.7	6.2	4.7	2.6	3.4	3.4	3.7	15.7	7.3	24
HOURLY MAX		13.8	14.0	12.1	12.1	12.5	12.4	15.9	15.4	21.5	20.9	21.5	21.8	21.0	21.8	24.5	20.2	25.9	19.9	19.5	17.3	15.6	13.4	14.0	11.6			
HOURLY AVG		6.1	5.6	5.1	5.1	4.9	6.0	6.6	7.2	8.6	9.7	10.2	10.5	11.2	11.7	11.6	11.7	11.5	11.1	9.0	7.0	6.3	5.3	5.7	5.4			

STATUS FLAG CODES

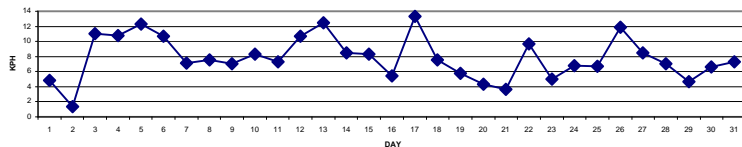
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION: September 24, 2009

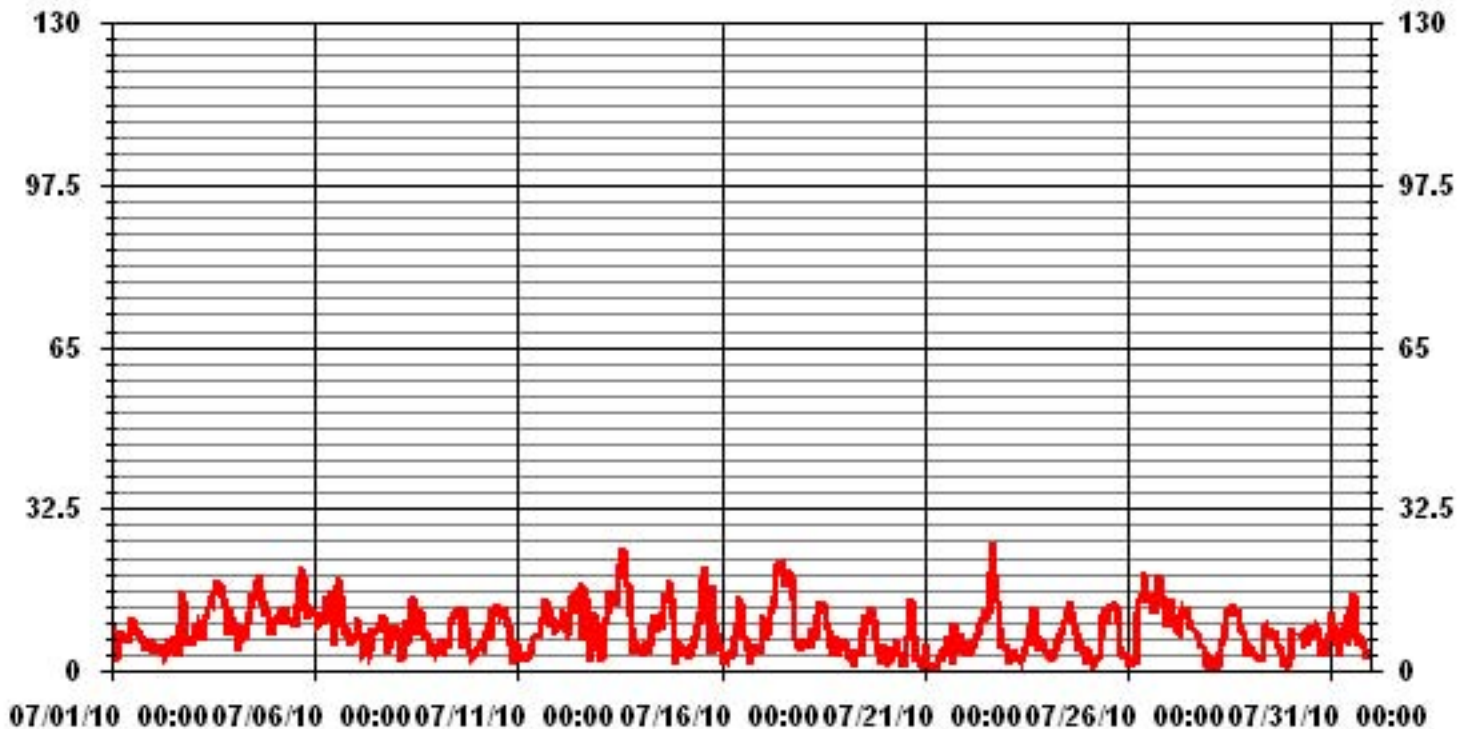
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	25.9	KPH	@ HOUR(S)	16	ON DAY(S)	22
MAXIMUM 24-HR AVERAGE:	13.3	KPH			ON DAY(S)	17
CALMS (≤ 0 KPH)	0.13	%				
MONTHLY CALIBRATION TIME:	0	HRS				
STANDARD DEVIATION:	4.71					
OPERATIONAL TIME:	739	HRS				
AMD OPERATION UPTIME	99.3	%				
MONTHLY AVERAGE	8.07	KPH				

24 HOUR AVERAGES FOR JULY 2010



01 Hour Averages



— LICA33 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
HOUR START	HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	
DAY																											
1		13.2	10.5	9.5	10.2	8.8	11.1	16.7	13.6	15.6	17.8	21.6	21.7	25.3	20.8	22.3	21.7	19.4	14.4	11.4	7.8	9.3	8.6	7	7.9	25.3	
2		7.1	6.3	6.2	6.6	6.9	8.7	8.7	7.4	14.2	10.7	15	13.5	11.3	9.4	7.3	8	25.1	28.4	28.2	20.7	11.3	13.3	19.1	18.2	28.4	
3		11.8	13.5	13.6	15.2	12.4	17.7	21.9	23.7	22.1	28.2	31.7	32.6	32.8	39	31.6	33.3	33.2	34.1	30.2	30	12.5	13.8	15.8	17.4	39	
4		13.6	18.5	13.7	11.2	14.8	15	14.2	15.9	22.6	29.5	27	28.6	31.5	34.8	39.1	44.2	37	28.6	27.5	22.4	22.2	23.6	15.3	17.6	44.2	
5		21.7	17.5	19.3	20.3	20.1	19.9	20.3	17.3	18.2	19.6	18.7	22.1	20	27.3	32.3	40.7	41.1	41.9	35.2	24.4	19.9	19.7	21.3	18.9	41.9	
6		17.9	14.5	16	18.3	17.5	19.7	25.5	26.8	22.7	29.2	23.6	26.2	31.3	31.3	33.7	61.9	21	20.8	21.4	25.6	14.8	15.6	12.1	14.1	61.9	
7		14.5	18.1	12	11.5	6.1	10.7	13.4	16.4	11	15	18.6	20.1	23.1	22.5	23.5	22.7	20.5	19.7	15.1	7.4	6.9	10.5	11.6	11.2	23.5	
8		14.1	13.8	9	5.6	13.6	17.1	13.7	14.8	22.1	27.9	28.4	26.5	16.3	26.3	25.1	22.7	24.6	17.5	15.4	14.8	7.1	13.6	18.5	8.6	28.4	
9		7.9	9.1	8.9	6.5	6.9	10.4	9.6	9.8	18.1	17.2	18.6	19.1	20.7	23.1	24.6	26.2	24.2	15.8	38	29.9	9	8.2	6.6	9.8	38	
10		9.5	10	11.7	9.7	11.9	15.9	12.7	14.9	27.9	23.1	27.3	28.2	28.7	22.4	28.8	29.1	24.6	24.5	19.5	9.8	6.5	8.4	7.4	8.4	29.1	
11		7	7.2	8.5	5	8.9	5.4	5.4	9.4	14	19.3	18.2	18.5	17.3	27.2	24.8	24.1	28	25	25.3	18	15.1	13.5	10.7	13.5	28	
12		16.5	19.2	21.3	33.9	38.9	18.8	14.8	20.1	22.9	26	21.6	21.9	27.4	30.3	47.6	59.5	108.6	49.1	115.3	58.6	24.5	23.5	25.6	10.8	115.3	
13		6.2	7.1	15	17.1	18.4	21.3	27.6	25.3	29.4	25.9	25	31.3	41.6	41.1	44.8	38.9	33.3	30.4	19.4	15.7	8.3	6.9	9.8	8.6	44.8	
14		9.1	7.3	8.8	11	11	6.3	10.8	17	18	15.7	17.2	21.5	19.9	25.7	30.6	27.5	27.4	29.8	30.5	19.7	16.2	19.7	9.6	9.5	30.6	
15		9	11.5	11.2	8.8	8.5	7	9.1	11.6	12.3	21.7	18.9	24.3	31.2	34.6	37.1	37.6	19.7	11.4	37.6	57.9	20	13.5	14.1	13.3	57.9	
16		10.2	5.9	9.1	8.3	11.4	7.2	7.1	7.3	15.7	17.8	26.2	27.1	23.2	22.4	20.5	15.8	13.5	6.4	7.5	10.2	6.3	7.4	7.5	12.6	27.1	
17		17.3	15	12.3	16.5	16.6	19	21.3	27.6	36.9	35.6	39.2	43	37.1	31.8	35.3	34.3	37.5	31.5	30.8	15.6	9.7	9	10.2	8.3	43	
18		9.8	7.5	9.6	10.9	9.7	14.1	12.7	15	23.6	25.3	26.5	24.1	27.6	28.7	24.4	21.6	14.8	10.5	19.5	10.9	12.7	8.1	11.5	12.9	28.7	
19		10.1	11.5	13.8	9.1	6	6.3	5	8.6	8.1	9.9	14.1	17.4	16.4	22.1	20	34.1	24.3	21.7	16.4	11.3	8.5	9.1	4.9	6.6	34.1	
20		7	8.7	5.4	6.8	6.7	6.7	8.7	12	10.9	12.8	6.8	7.3	14.6	18.3	14.7	22.2	40.1	38.2	11.9	7.7	6.5	6.2	5	5.9	40.1	
21		10.3	9.3	9	5.5	3.2	4.8	5.3	4.7	5.3	9.3	12.4	11.3	13.6	17.7	16.4	12.9	26	20.5	11.5	7.5	16.9	11.1	9	7.5	26	
22		7.5	5.6	5.9	8.2	8.4	9.7	9.4	12.4	16	17.7	19.3	21	25	21.8	24.3	29.7	38.1	38.3	22	22.4	14.8	10.8	9	8.5	38.3	
23		10.9	6.9	8.3	10.3	7.3	9.1	10.1	8.3	9.1	9.5	10.7	13.3	20.5	16.9	21.4	21.1	22.4	19.2	13.3	8.8	10.4	9.9	9.4	10.1	22.4	
24		9.4	9.3	9.7	7	7.2	11.6	12.5	13.5	15.6	22.2	22.5	28.4	26.6	30.7	28.5	31.4	24.9	38.9	44.3	13	11.2	10.4	7	5.5	44.3	
25		7	6.7	5.3	7.8	15.1	9.3	6.8	6.9	13.1	22	23.2	23.2	38.9	30.3	27.3	28.5	27.4	23.9	18.2	12.3	5.5	5.7	5.3	6.9	38.9	
26		7.7	5.2	7	7.1	12.5	18.6	24.8	25.7	33.2	36.8	31.6	28.6	38.5	37.5	37.5	36.6	25.7	32.4	33.3	30.2	28.4	23.7	21.8	16.2	38.5	
27		22.2	20.9	15.2	18.2	11.3	14.6	17.8	18.4	22.5	21.8	20.8	25.3	23.5	23.3	20.4	19.1	18.4	15.8	13.1	8.9	7.9	4.7	4.9	4	25.3	
28		3.7	4.4	4.5	5.6	3.9	7.3	6.7	8.9	17.5	19.1	25.1	24.8	23.4	22.4	23.9	20.7	20.1	22.7	16	11	10.7	7.9	9.1	6	25.1	
29		6.5	6.8	7.9	6.7	6.9	6.7	5.4	11.1	17.2	18.7	16.4	17.2	19.4	16.4	15.9	15.6	15.3	12	7.8	8.9	7.8	11.6	5.3	8.9	19.4	
30		45.2	P	P	P	P	P	20.5	17.8	18.3	12.3	13.8	17.5	19.3	18.3	18.1	19.7	15.3	12.9	8.1	9.1	10	9.5	14	17.5	45.2	
31		28.4	15.6	12.6	13.9	8.1	12.4	17.7	20.1	18.8	19.1	23.5	23	26.1	33.6	20.4	18.7	11	12.6	13.8	9.3	7	7.2	6.8	8.8	33.6	
PEAK		45.2	20.9	21.3	33.9	38.9	21.3	27.6	27.6	36.9	36.8	39.2	43.0	41.6	41.1	47.6	61.9	108.6	49.1	115.3	58.6	28.4	23.7	25.6	18.9		

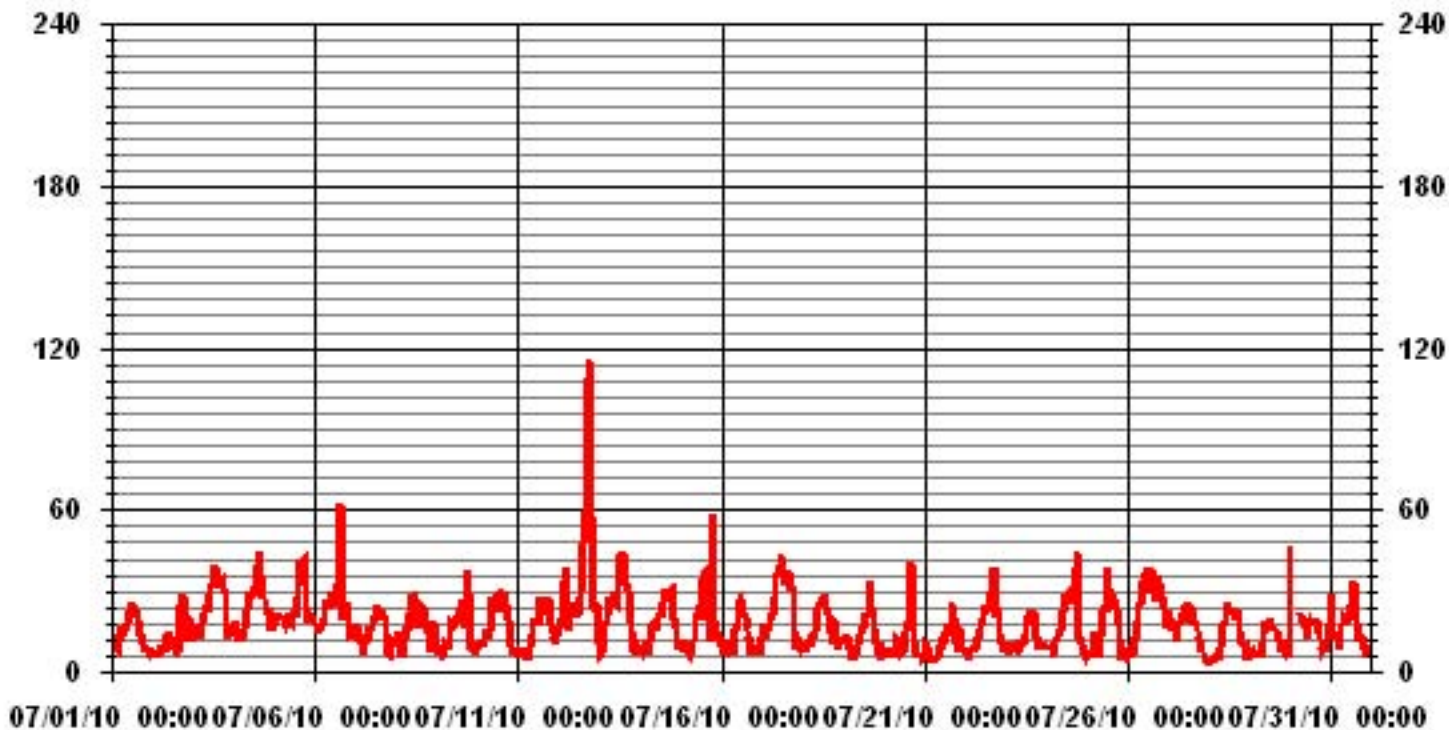
STATUS FLAG CODES

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

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	115.3	KPH	@ HOUR(S)	18
			ON DAY(S)	12

01 Hour Averages



— LICA33 WSMAX KPH

LICA33
WSP / WDR Joint Frequency Distribution (Percent)

July 2010

Distribution By % Of Samples

Logger Id : 33
Site Name : LICA33
Parameter : WSP
Units : KPH

Wind Parameter : WDR
Instrument Height : 10 Meters

		Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq	
< 6.0	.94	1.08	.81	1.48	2.84	1.48	1.48	1.08	1.75	3.65	5.95	5.14	3.78	2.70	2.43	2.30	38.97	
< 12.0	1.08	.94	1.08	.94	.94	1.21	1.35	1.35	2.30	2.02	6.49	2.57	7.30	5.68	2.97	1.75	40.05	
< 20.0	.27	.67	.81	.13	.81	.40	.54	.81	.54	.13	.54	1.48	3.51	5.68	1.75	.94	19.07	
< 29.0	.00	.27	.13	.27	.13	.00	.00	.00	.00	.00	.00	.00	.27	.54	.13	.00	1.75	
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Totals	2.30	2.97	2.84	2.84	4.73	3.11	3.38	3.24	4.60	5.81	12.99	9.20	14.88	14.61	7.30	5.00		

Calm : .13 %

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	
< 6.0	7	8	6	11	21	11	11	8	13	27	44	38	28	20	18	17	288	
< 12.0	8	7	8	7	7	9	10	10	17	15	48	19	54	42	22	13	296	
< 20.0	2	5	6	1	6	3	4	6	4	1	4	11	26	42	13	7	141	
< 29.0		2	1	2	1								2	4	1		13	
< 39.0																		
>= 39.0																		
Totals	17	22	21	21	35	23	25	24	34	43	96	68	110	108	54	37		

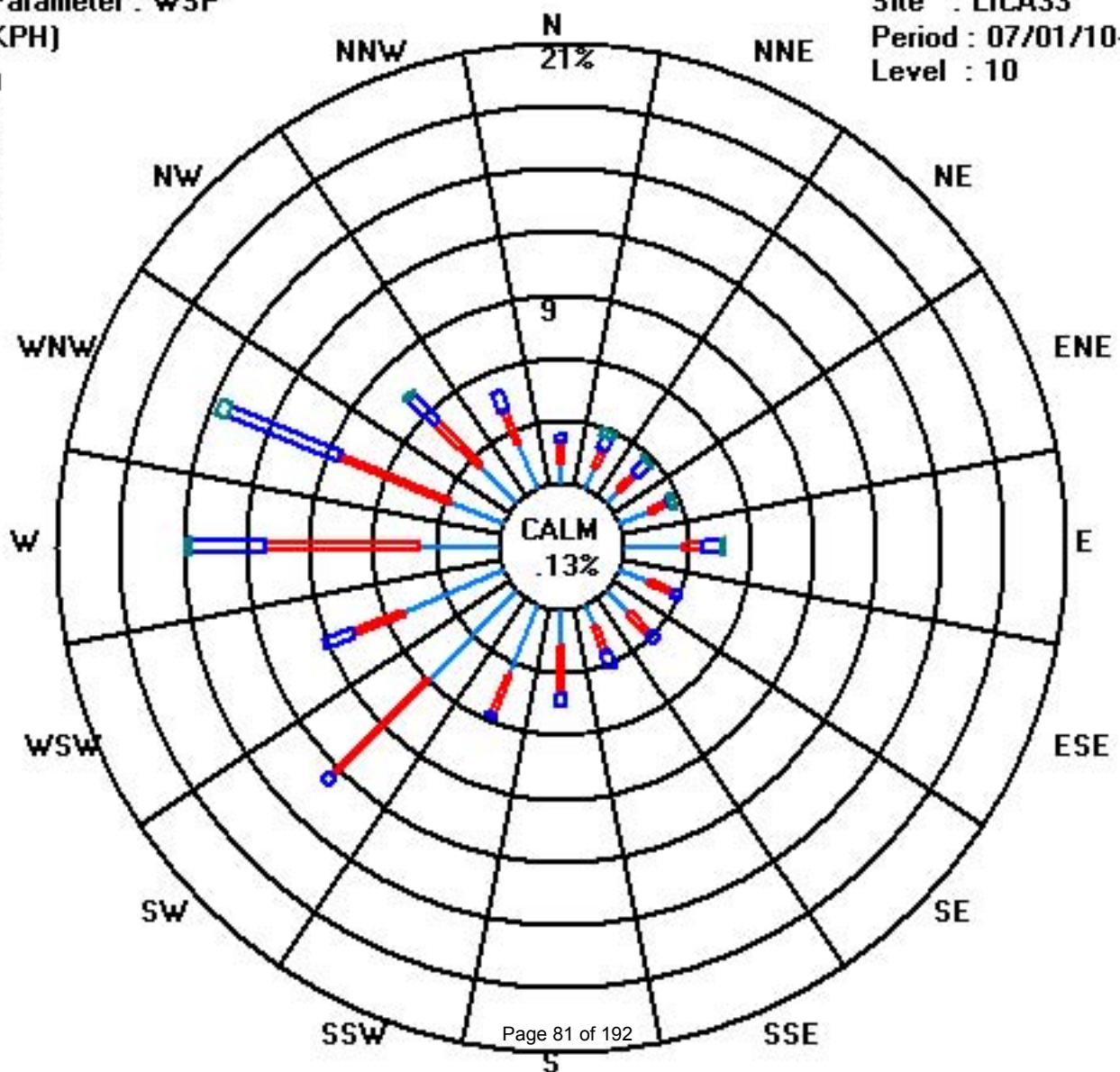
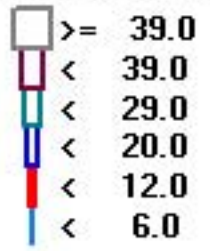
Calm : .13 %

Total # Operational Hours : 739

Class Limits (KPH)

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

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

VECTOR WIND DIRECTION (WD) hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	24-HOUR AVG.	24-HOUR QUADRANT	RDGS.
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	AVG.	QUADRANT	RDGS.	
DAY																												
1	233	226	204	198	208	234	237	239	231	223	206	213	206	198	199	189	170	169	165	111	101	99	98	108	195	SSW	24	
2	96	101	72	38	29	23	60	88	313	274	294	299	297	313	316	308	104	142	168	155	152	185	187	190	140	SE	24	
3	204	233	235	234	234	245	258	268	259	260	258	259	276	270	278	280	285	287	287	274	238	230	231	234	261	W	24	
4	236	237	259	231	234	238	251	251	255	239	249	247	261	246	255	248	251	249	279	272	275	274	266	271	253	WSW	24	
5	275	270	274	275	280	289	293	303	305	319	339	319	326	323	297	285	306	311	327	289	275	283	288	296	297	WNW	24	
6	290	287	275	277	276	282	289	290	286	297	328	281	275	292	287	313	307	298	269	322	261	271	267	273	288	WNW	24	
7	270	277	294	283	294	346	40	25	33	340	342	318	326	328	328	348	315	300	288	264	236	228	229	227	305	WNW	24	
8	229	227	204	225	247	279	262	240	267	283	284	294	261	250	274	310	350	109	149	173	134	201	93	173	255	WSW	24	
9	215	224	235	230	226	223	226	222	234	228	228	228	221	219	219	285	30	65	14	271	214	239	302	347	234	SW	24	
10	350	346	336	314	313	350	355	353	356	351	342	343	343	344	335	332	316	320	322	304	266	300	248	247	332	NNW	24	
11	257	233	228	221	234	231	220	218	194	204	201	204	181	175	173	173	169	177	177	161	141	139	129	138	176	S	24	
12	143	148	146	175	134	92	93	126	115	113	102	96	90	78	47	308	331	26	345	95	65	8	24	226	90	E	24	
13	235	26	26	30	21	37	47	39	41	38	28	43	45	33	33	65	85	82	60	52	3	298	304	307	41	NE	24	
14	330	285	265	270	297	293	283	293	292	280	291	273	262	266	285	282	278	284	276	274	266	22	221	236	278	W	24	
15	237	257	268	239	285	121	222	243	237	257	280	289	291	286	294	295	298	239	218	315	37	212	218	292	280	W	24	
16	270	235	236	221	220	226	233	253	308	307	304	308	306	293	227	237	313	255	192	228	257	229	248	264	274	W	24	
17	275	267	256	266	267	276	280	283	285	281	281	294	305	284	284	293	291	285	281	269	246	245	247	263	281	W	24	
18	235	246	234	262	262	286	281	280	295	305	320	334	329	328	329	312	2	338	315	238	280	265	237	265	297	WNW	24	
19	289	283	339	245	304	41	87	68	112	167	316	323	261	304	306	28	42	48	78	111	208	284	348	269	347	NNW	24	
20	293	314	243	232	268	249	290	297	269	327	348	39	210	261	266	292	29	90	110	156	241	206	261	51	293	WNW	24	
21	145	137	150	130	243	339	348	2	119	135	179	178	199	199	211	190	349	21	45	115	337	48	91	106	119	ESE	24	
22	116	134	94	75	70	73	80	88	111	129	139	157	156	160	68	74	90	92	98	102	86	95	91	56	100	E	24	
23	94	156	330	102	99	359	4	318	243	220	164	205	186	217	231	233	236	232	201	185	197	226	217	193	215	SSW	24	
24	211	209	198	228	171	197	209	181	197	194	180	183	185	192	182	192	189	274	278	270	35	87	147	313	195	SSW	24	
25	304	99	152	290	257	247	256	305	296	295	304	289	270	266	265	252	277	306	299	286	254	212	221	252	278	W	24	
26	279	126	137	175	178	226	234	234	242	293	296	276	264	258	277	296	293	280	291	297	290	287	298	275	274	W	24	
27	277	286	282	291	286	276	270	273	285	288	295	297	298	290	280	288	274	272	248	234	226	218	220	176	279	W	24	
28	190	143	118	70	110	18	79	130	173	164	157	160	154	167	162	145	156	144	134	102	98	106	125	66	143	SE	24	
29	61	76	57	98	63	28	96	178	216	214	204	207	225	222	220	221	212	211	215	298	259	79	117	22	204	SSW	24	
30	278	0	0	0	0	0	320	58	318	295	284	287	272	242	223	230	219	225	237	226	237	238	228	247	257	WSW	19	
31	234	242	284	238	202	212	220	241	270	266	289	288	297	292	356	6	346	10	348	341	318	265	246	276	282	W	24	
HOURLY AVG	350	346	339	314	313	359	355	353	356	351	348	343	343	344	356	348	350	338	348	341	337	300	348	347				

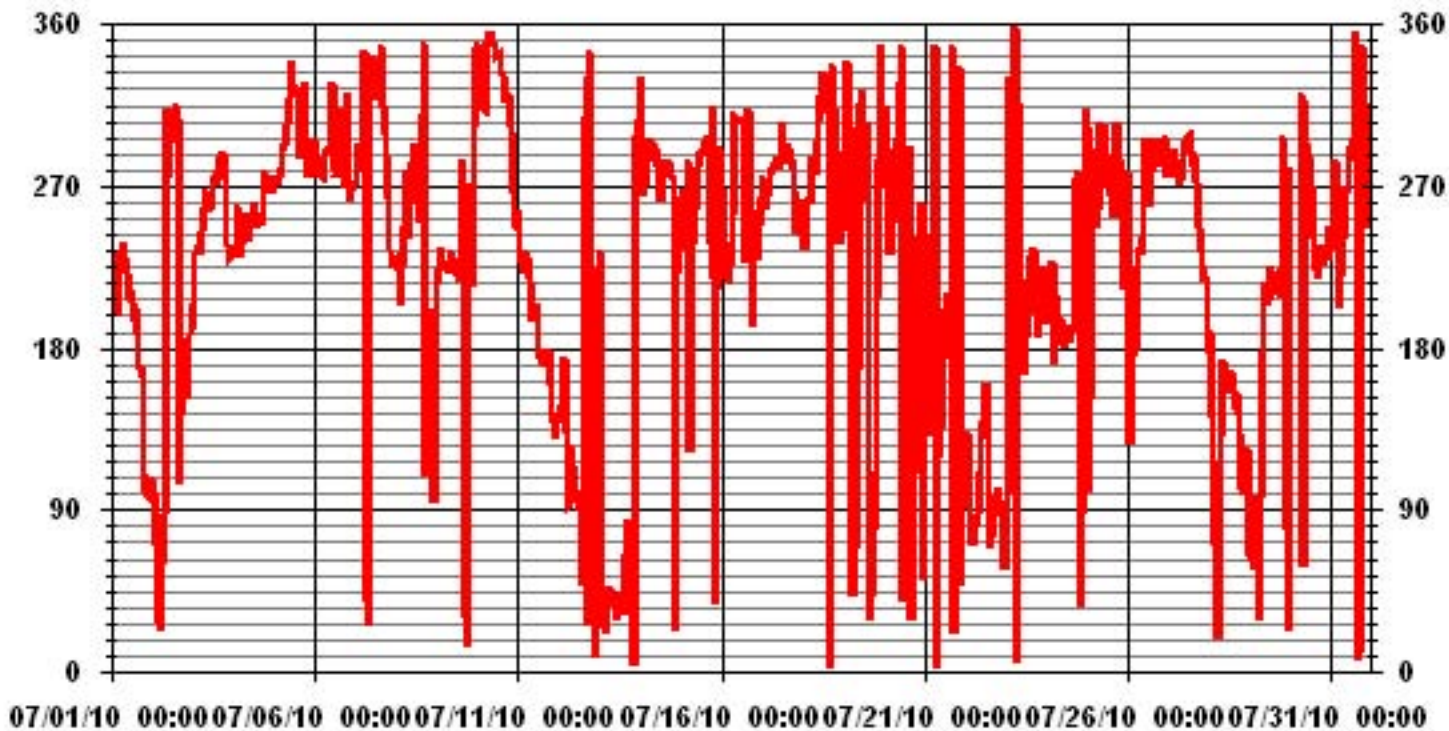
STATUS FLAG CODES

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

LAST CALIBRATION:	September 24, 2009
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	739 HRS
STANDARD DEVIATION	88.18	AMD OPERATION UPTIME	99.3 %
		MONTHLY AVERAGE	271 DEG

01 Hour Averages



— LICA33 WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JULY 2010

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

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

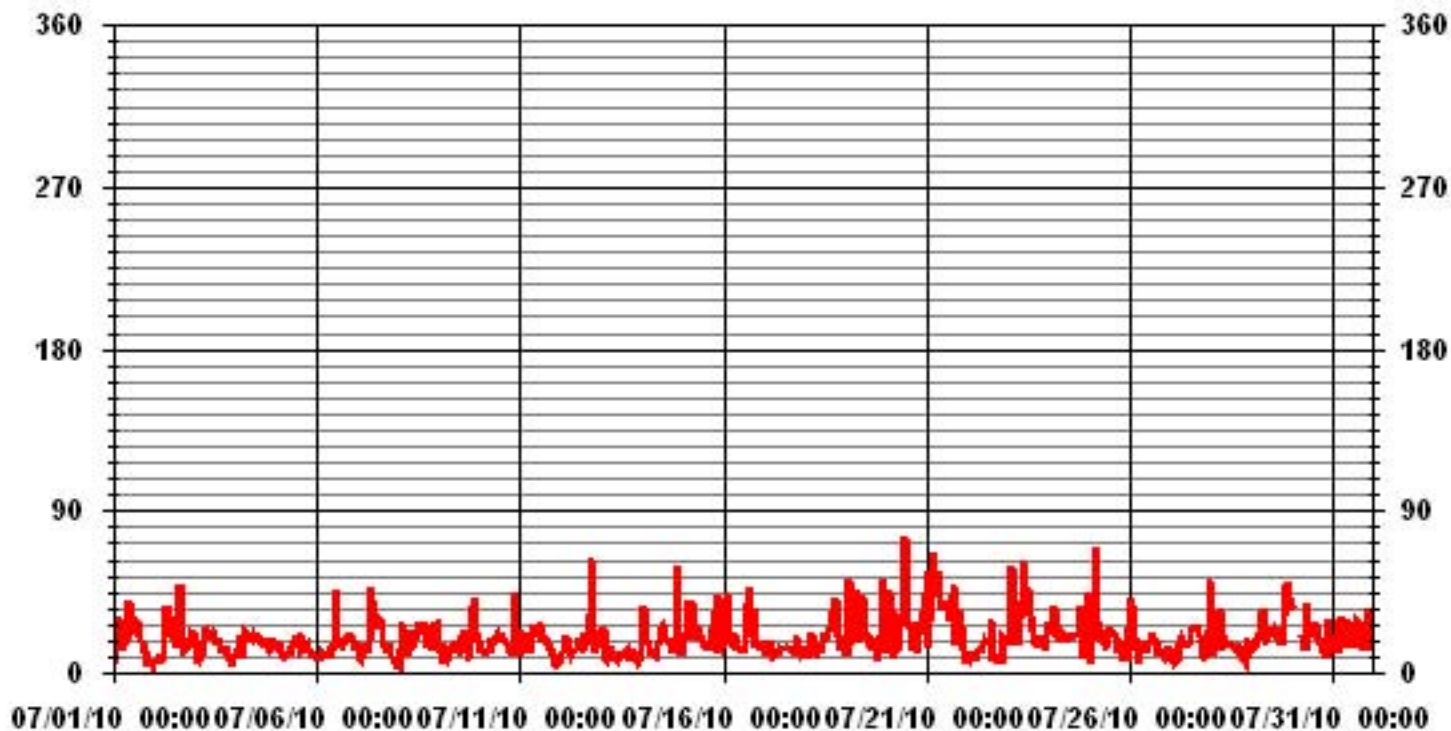
STATUS FLAG CODES

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

LAST CALIBRATION: September 24, 2009

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 739 HRS

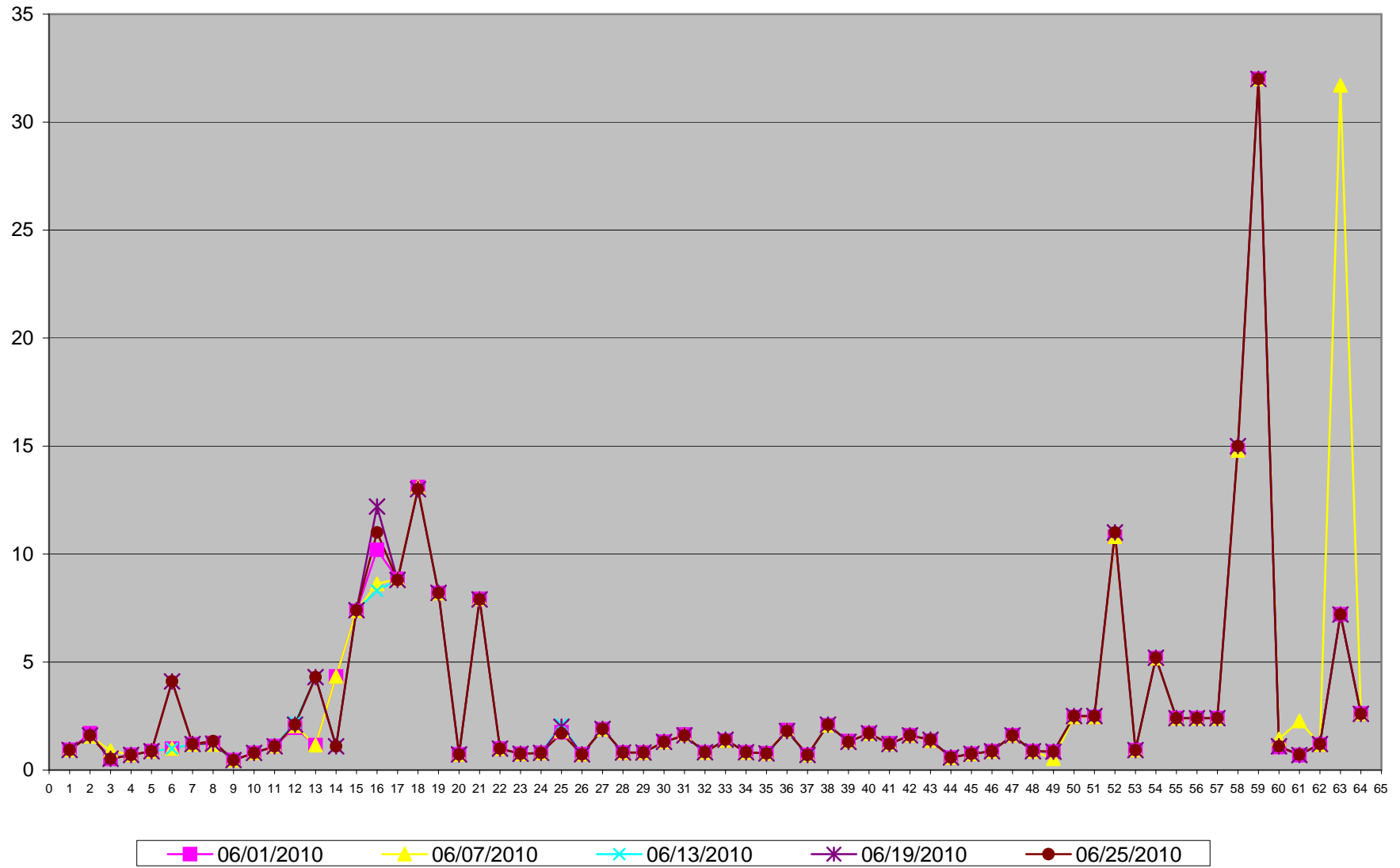
01 Hour Averages



— LICA33 STDWDIR DEG

Volatile Organics

Volatile Organics in ug/m3 Site: LICA - Portable Site

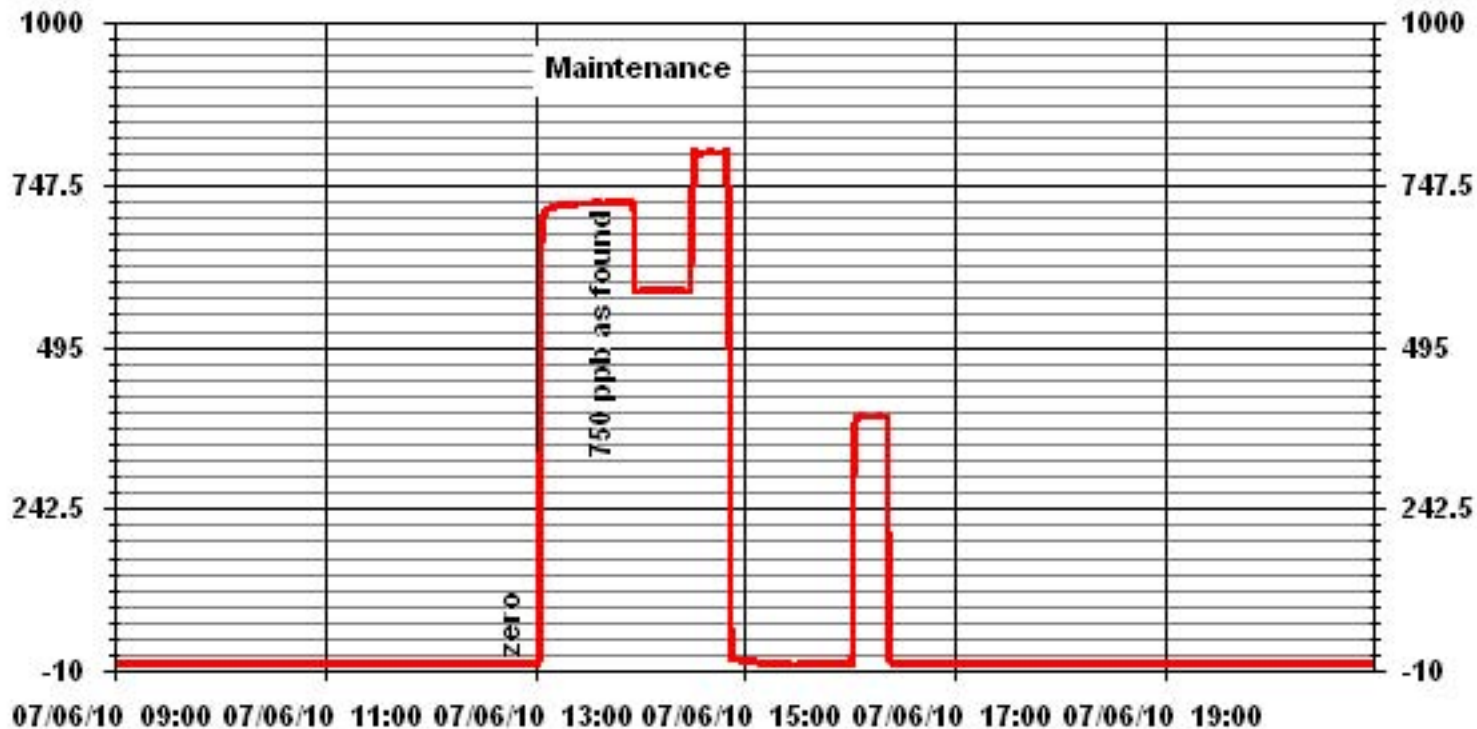


1	2,2,4-Trimethylpentane	33	1,1,2,2-Tetrachloroethane
2	Carbon Disulfide	34	cis-1,3-Dichloropropene
3	Propene	35	trans-1,3-Dichloropropene
4	Vinyl Acetate	36	1,2-Dichloropropane
5	Vinyl Bromide	37	Bromomethane
6	Dichlorodifluoromethane (FREON 12)	38	Bromoform
7	1,2-Dichlorotetrafluoroethane	39	Bromodichloromethane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

Calibration Reports

Sulphur Dioxide

01 Minute Averages



— LICA33 SO2_ PPB

SO₂ Calibration Report

Station Information

Calibration Date	July 7, 2010	Previous Calibration	June 16, 2010
Company	Lakeland Community and Industry Association		
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M		
Start Time (MST)	7:38	End Time (MST)	11:17
Reason:	Monthly Calibration		
Barometric Pressure	716 mmHg	Station Temperature	24 Deg C
Cal Gas	51.4 ppm	Cal Gas Expiry date	2/8/2012
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	467	Method:	UV absorbtion
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO 717		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb		
Sample Flow / Box Temp	592 ccm, 32.8 Deg C	586 ccm, 32.3 Deg C	
HVPS / Lamp Setting	604, 2810	604, 2809	
PMT / RxCell Temp	8.1 Deg C, 50.0 Deg C	8.1 Deg C, 50.0 Deg C	
Converter / IZS Temp	NA Deg C, 45.0 Deg C	NA Deg C, 45.0 Deg C	
Offset / Slope	58.8, 1	58.8, 0.983	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4998	0	0	0	N/A
4925	73	751	764	0.9826
4925	73	751	751	0.9997
4962	38.9	400	399	1.0021
4983	16.5	170	169	1.0038
4998	0	0	0	N/A
Sum of Least Squares				1.0003
New Correction Factor				0.9997

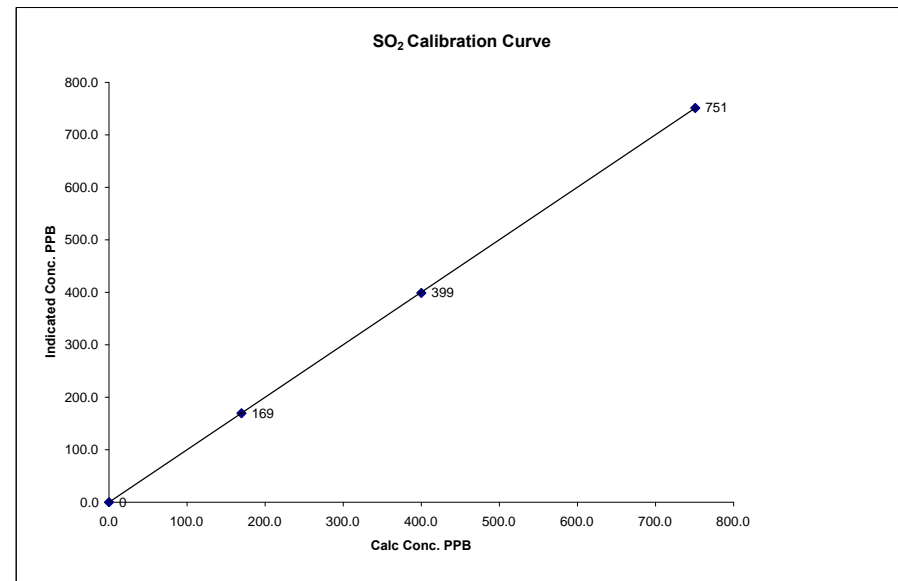
	Before Calibration	After Calibration
Auto Zero	0.7	0.5
Auto Span	387	377
Sample Lines Connected		YES
Percent Change from Previous Calibration		-

Calibration Performed by: Shea Beaton / Ting Xu

SO₂ Calibration Curve

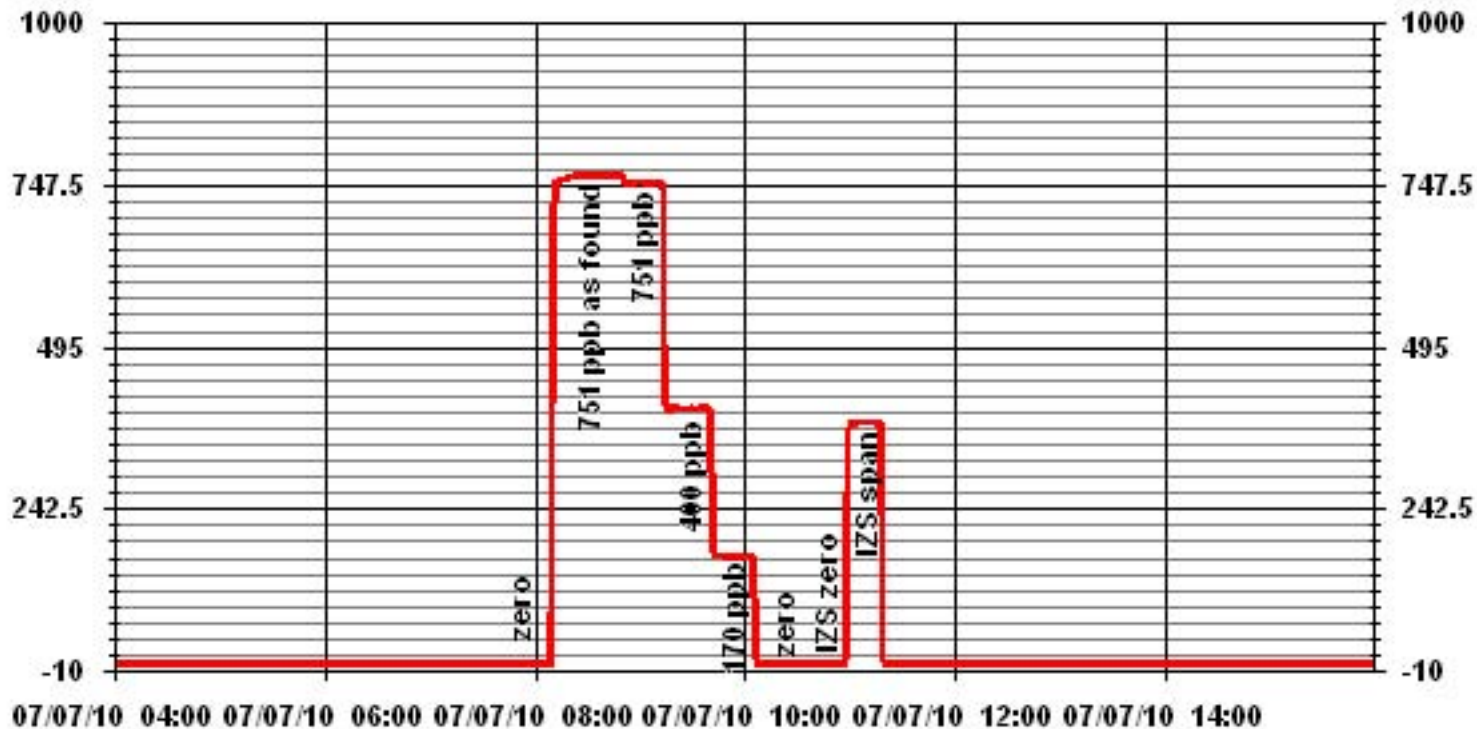
Calibration Date	July 7, 2010
Company	Lakeland Community and Industry Association
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M
Start Time (MST)	7:38
End Time (MST)	11:17

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999998
0	0	n/a	Intercept	(± 3% F.S.)	-0.460136
170	169	1.0038			
400	399	1.0021			
751	751	0.9997			



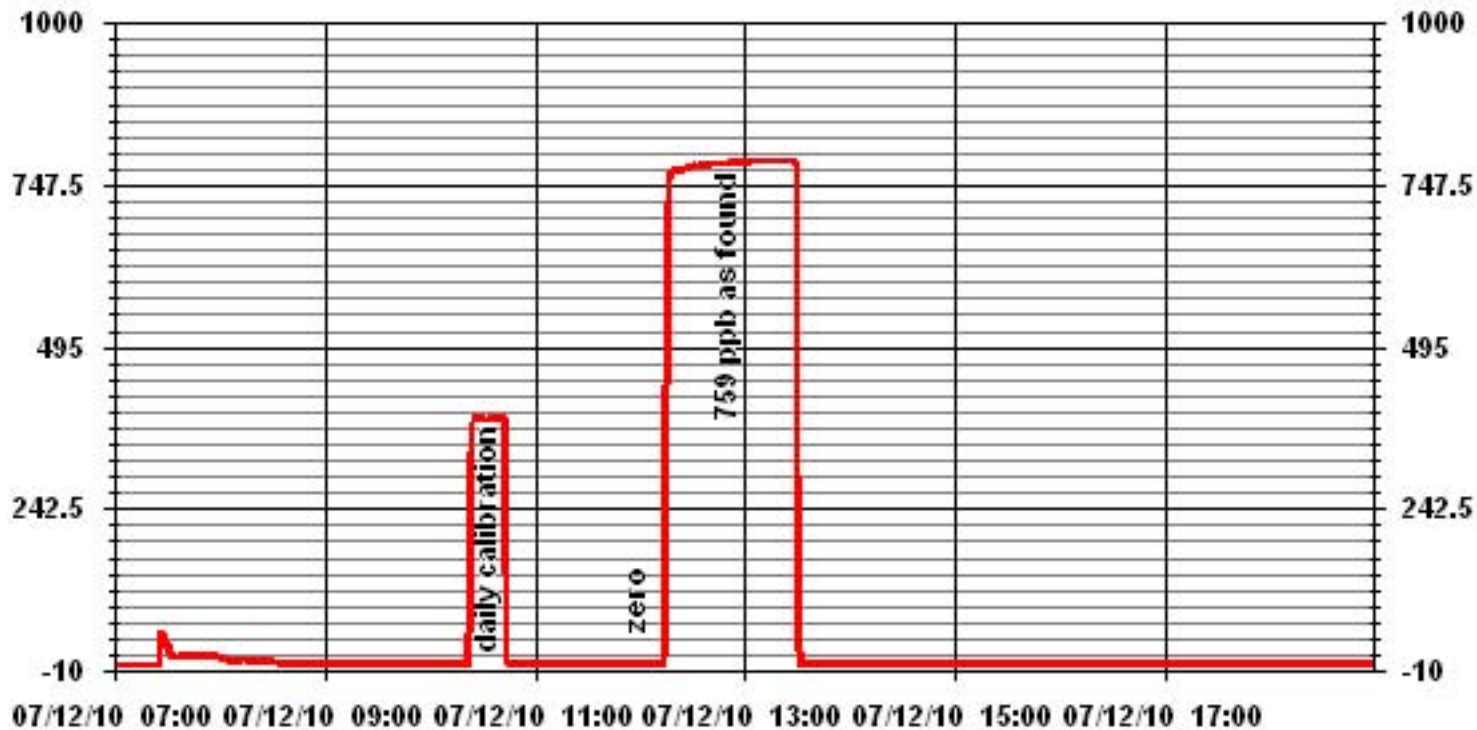
Notes:

01 Minute Averages



— LICA33 SO2_ PPB

01 Minute Averages



Hydrogen Sulphide

H₂S Calibration Report

Station Information

Calibration Date	July 6, 2010	Previous Calibration	June 16, 2010
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	Portable/ Devon Wellsite 13-16-62-5-W4M		
Start Time (MST)	12:17	End Time (MST)	16:16
Reason:	Monthly Calibration		
Barometric Pressure	712 mmHg	Station Temperature	24 Deg C
Cal Gas	10.8 ppm	Cal Gas Expiry date	06/22/2010
DAS Output Voltage	0 - 1 Volts		

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	509	Method:	Fluorescent
Converter Make / Model:	Internal	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 100 ppb	0 - 100 ppb	
Sample Flow / Box Temp	548 ccm 32.5 Deg C	548 ccm 32.2 Deg C	
HVPS / Lamp Setting	528 2522	528 2523	
PMT / RxCell Temp	7.9 Deg C 50 Deg C	7.9 Deg C 50 Deg C	
Converter / IZS Temp	314.4 Deg C 45 Deg C	313.9 Deg C 45 Deg C	
Offset / Slope	46.4 0.991	47.5 1.006	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4998	0	0	1	N/A
4998	0	0	0	N/A
4960	37	80	79	1.0123
4960	37	80	80	1.0000
4983	18.5	40	40	0.9987
4988	10.6	23	23	0.9958
4998	0	0	0	N/A
Sum of Least Squares				0.9992
New Correction Factor				1.0000

Before Calibration

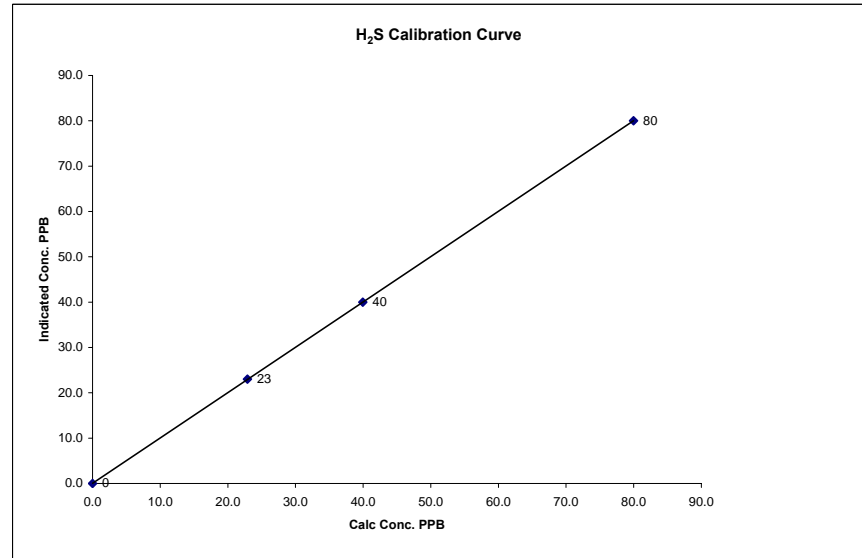
Before Calibration		After Calibration	
Auto Zero	1.0	Auto Zero	0.7
Auto Span	59	Auto Span	58
Sample Lines Connected		Sample Lines Connected	YES
Percent Change from Previous Calibration		Percent Change from Previous Calibration	-1.3%

Calibration Performed by: Shea Beaton / Ting Xu

H₂S Calibration Curve

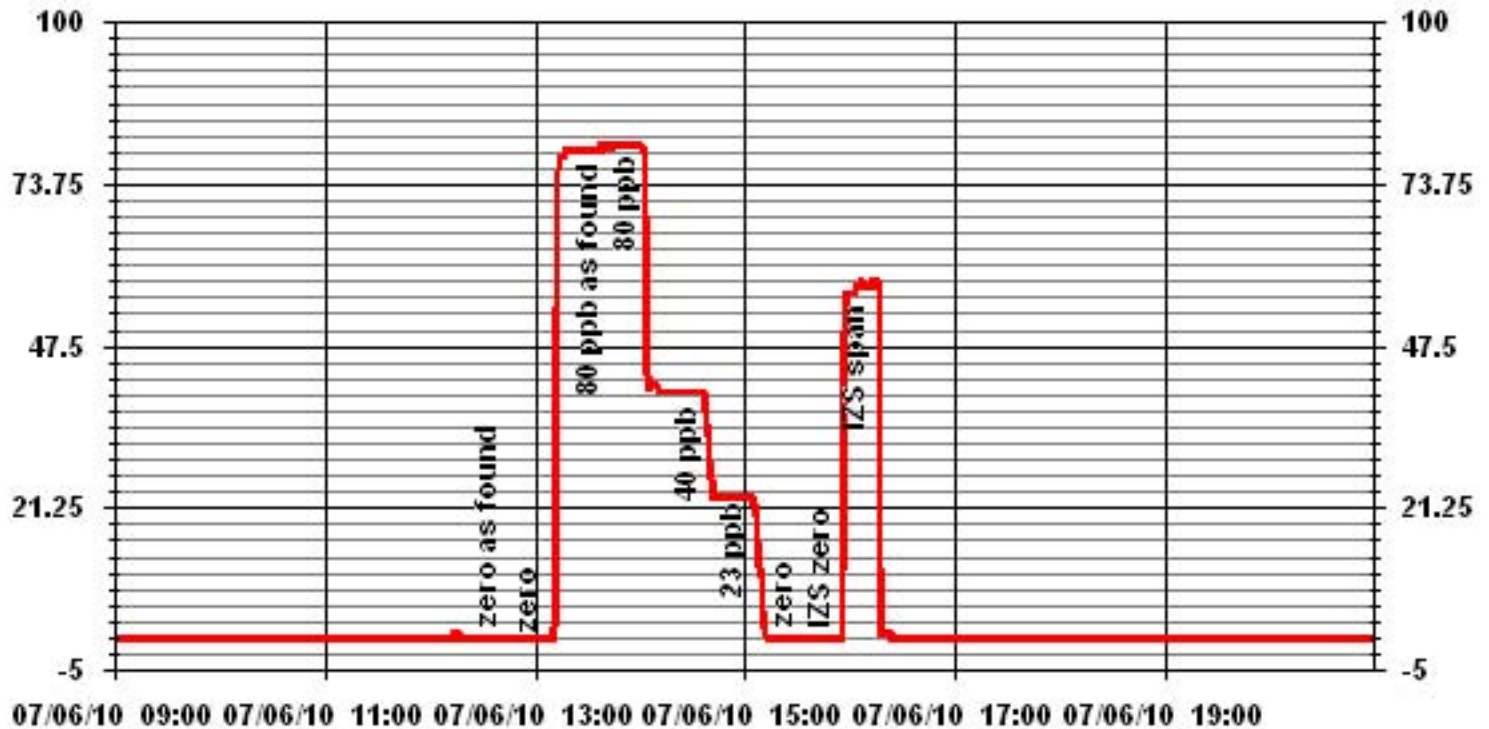
Calibration Date	July 6, 2010
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	Portable/ Devon Wellsite 13-16-62-5-W4M
Start Time (MST)	12:17
End Time (MST)	16:16

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999999
0	0	n/a	Intercept	(± 3% F.S.)	0.041337
23	23	0.9958			
40	40	0.9987			
80	80	0.9996			



Notes:

01 Minute Averages



Particulate Matter 2.5

TEOM 1405F Audit

	<u>Station</u>		<u>Audit Transfer Standard</u>
Date:	July 8, 2010	Make/Model:	Bios DC-2
Station Name:	Lica Portable (CASA # 33)	Serial Number:	1193
Location:	Devon Wellsite 13-16-62-5 W4M	Cell s/n:	2272
Operator:	LICA	Thermometer s/n:	TOTAL IMM 96-3470

	<u>Sampler</u>		<u>Set-up and current Sampler readings</u>
Make/Model	Thermo Scientific Series 1405F	F-Main Set Pt (l/min)	3.00
Unit #	NA	F-Aux Set Pt (l/min)	13.67
Unit s/n	1405A207691003	Filter Load (%)	24.9%
Firmware Ver.	1.51	K _o Factor	15634.0
Parameter	PM 2.5 (with FDMS)	Temp (°C)	21.6
		Press (ATM)	0.937

Conversion from mmHg or "Hg to ATM (Atmospheres)

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

Note: Tolerances are noted as BOLD in Brackets

Audit

Status			
Noise <0.10ug	0.002	Warnings	None
Pump Vacuum <0.40atm	0.31	Pump Gauge (inHg)	-20
Temperature/Pressure			
Measured Temp (± 2 °C)	21.6	D °C	0.0
Measured Press (± 0.01atm)	0.940	DATM	-0.003
Flow Audit			
Indicated Main Flow (l/min)	3.00	Main Flow Drift (±10.0%)	0.79%
Measured Main Flow (l/min)	2.99	Flow Adjusted to Measured?	Yes
Indicated Bypass Flow (l/min)	13.67	Bypass Flow Drift (±10.0%)	0.35%
Measured Bypass Flow (l/min)	13.70	Flow Adjusted to Measured?	Yes
Leak Check		Instrument Setup	
Main (< 0.15 l/min)	NA	Flow Control = Active	
Aux (< 0.6 l/min)	NA	Report Conditions = Standard (25.0 C and 1atm)	
K_o Factor			
Measured	NA		
K _o Difference (± 2.5%)	NA		

Start Time: 9:10 **Finish Time:** 10:45

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

New Filter Loading %: NA

Comments: replaced FDMS filter, didn't replace the Teom filter.

Auditor/s: Shea Beaton / Ting Xu

Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	July 12, 2010	Previous Calibration	June 16, 2010
Company	LICA	Plant/Location	Portable/ 13-16-62-5W4M
Start Time (MST)	11:45	End Time (MST)	17:58
Reason:	Monthly Calibration	Other	
Barometric Pressure	697 mmHg	Station Temperature	25 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO 51.6 ppm	Cal Gas Expiry date 19-Dec-10
DAS Output Voltage	0 - 1 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	593	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	AO 717		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	EnviroNics 2000	S/N :	1991		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0-1000			ppb			
Sample Flow/Conv. Temp	463 ccm	314.1 Deg C		466 ccm	314.7 Deg C		
Ozone Flow / Vacuum	77 ccm	4.7 "Hg-A		77 ccm	4.7 "Hg-A		
HVPS / A ZERO	634 Volts	5.7 MV		634 Volts	5.7 MV		
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C		50.0 Deg C	6.7 Deg C		
Box Temp / IZS Temp	33.4 Deg C	45.3 Deg C		33.7 Deg C	45.1 Deg C		
Offset	0.9 NOx	-0.2 NO		0.9 NOx	-0.2 NO		
Slope	1.031 NOx	1.027 NO		1.107 NOx	1.092 NO		
NO ₂ COEF / Conv Efficiency	NA	0.996		NA	0.996		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO ₂	NOx	NO	NO ₂	NOx	NO
3004	0.0	----	0	0	0	0	0	0	----	----
2961	43.7	----	753	750	----	703	705	-2	1.0717	1.0645
2961	43.7	----	753	750	----	755	750	4	0.9978	1.0006
2982	23.3	----	402	400	----	398	396	2	1.0091	1.0102
2996	11.7	----	202	201	----	198	197	1	1.0177	1.0189
3004	0.0	----	0	0	0	0	1	0	----	----

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO ₂ Correction Factor	NO ₂ Conv Efficiency
			NOx	NO	NO ₂	NOx	NO	NO ₂		
2961	43.7	----	753	750	----	756	751	5	----	----
2966	43.7	600	752	----	559	754	197	557	1.0036	99.64%
2961	43.7	250	753	----	239	757	517	240	0.9958	100.43%
2962	43.7	140	753	----	132	757	624	133	0.9925	100.79%

Linearity	Sum of Least Squares	NOx= 1.001	NO= 1.004	NO ₂ = 1.002
OK?	Correction Factors:	NOx= 0.9978	NO= 1.0006	NO ₂ = 1.0036
Average Converter Efficiency= 100.28%				

	Before Calibration				After Calibration			
Auto Zero	-0.5	NOx	0.3	NO ₂	-0.3	NOx	0.0	NO ₂
Auto Span	511	NOx	504	NO ₂	569	NOx	560	NO ₂
Sample Lines Connected					YES			

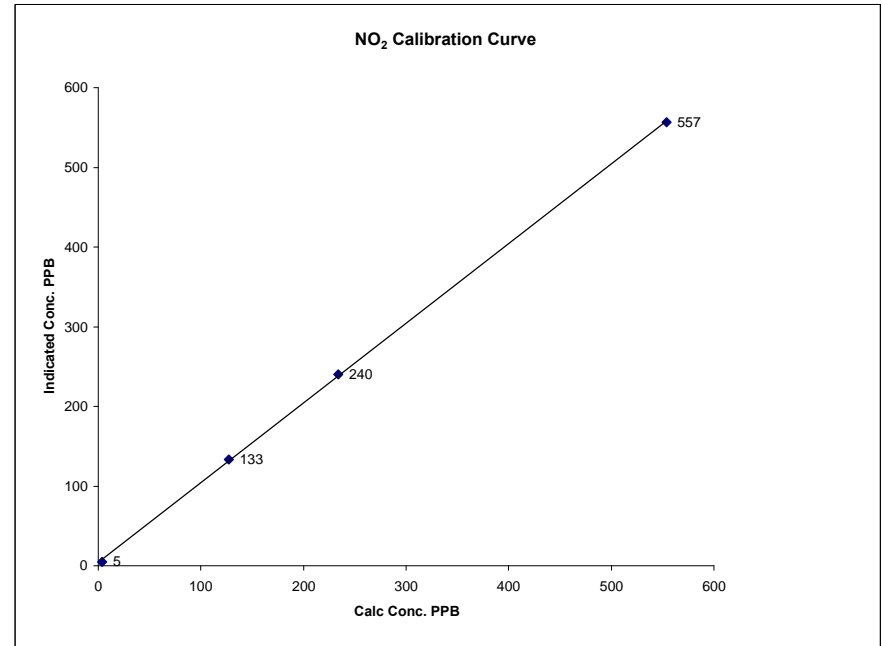
Notes: Additional point done for ozone cal (O3 set point= 420), NOx=756, NO=365, NO₂=391.

Calibration Performed by: Shea Beaton / Ting Xu

NO₂ Calibration Curve

Calibration Date	July 12, 2010	Company	LICA
Plant / Location	Portable/ 13-16-62-5W4M	Start Time (MST)	11:45
End Time (MST)	17:58		

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999893
ppb	ppb		Slope	(0.85 to 1.15)	1.000936
4	5	N/A	Intercept	(± 3% F.S.)	3.78497
127	133	0.9549			
234	240	0.9750			
554	557	0.9946			

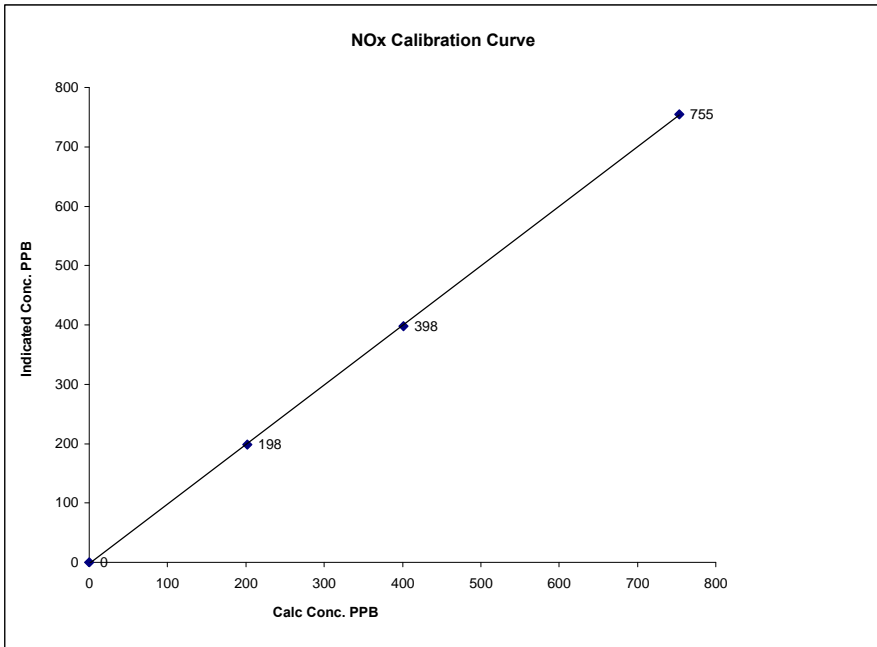


Notes:

NOx Calibration Curve

Calibration Date July 12, 2010
 Company LICA
 Plant / Location Portable/ 13-16-62-5W4M
 Start Time (MST) 11:45 End Time (MST) 17:58

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999943
0	0	N/A	Slope (0.85 to 1.15)	1.003008
202	198	1.0177	Intercept (± 3% F.S.)	-2.39000
402	398	1.0091		
753	755	0.9978		

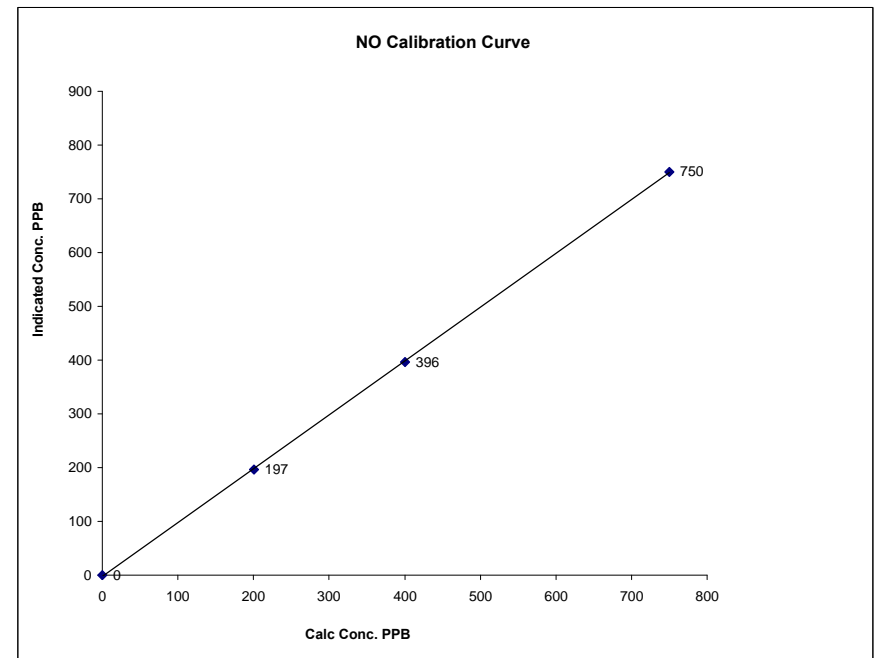


Notes:

NO Calibration Curve

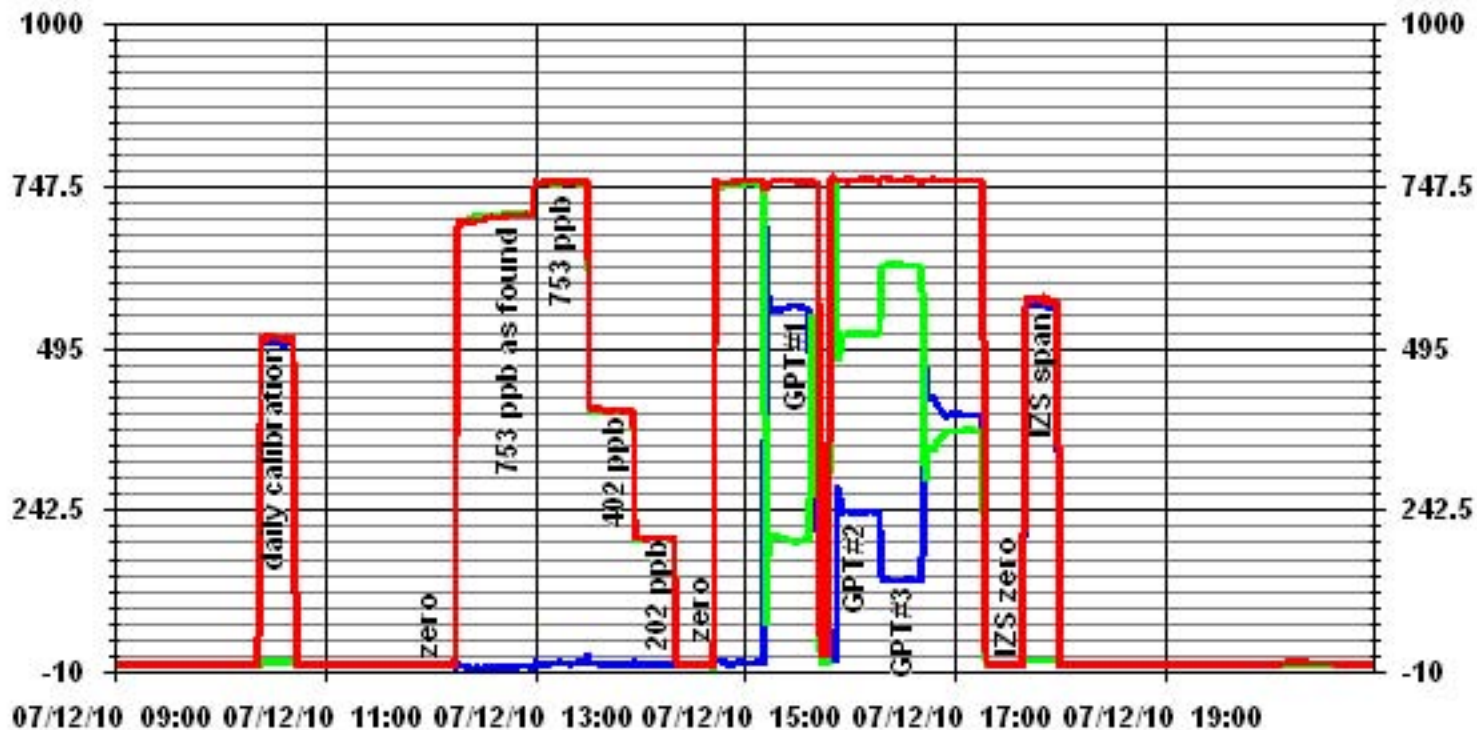
Calibration Date July 12, 2010
 Company LICA
 Plant / Location Portable/ 13-16-62-5W4M
 Start Time (MST) 11:45 End Time (MST) 17:58

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999956
0	0	N/A	Slope (0.85 to 1.15)	1.006422
201	197	1.0189	Intercept (± 3% F.S.)	-8.1506
400	396	1.0102		
750	750	1.0006		



Notes:

01 Minute Averages



— LICA33 NOX_ PPB
 — LICA33 NO_ PPB
 — LICA33 NO2_ PPB

Ozone

O₃ Calibration Report

Station Information

Calibration Date	July 13, 2010	Previous Calibration	June 17, 2010
Company	Lakeland Industry & Community Association		
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M		
Start Time (MST)	7:31	End Time (MST)	10:49
Reason:	Monthly Calibration		
Barometric Pressure	698 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	Thermo 49i	S/N :	1002240372	Method:	Photometric
Calibrator Make / Model:	EnviroNics 2000	S/N :	1991	Method:	GPT
DAS Make / Model:	ESC 8832	S/N :	AO717		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Cell A Flow / Cell B Flow	752 ccm	751 ccm	752 ccm	751 Deg C
Pressure	687 mmHg		687 mmHg	
Bench Lamp Temp	54.1 Deg C		54.1 Deg C	
O3 Lamp / Box Temp	68.2 Deg C	32.8 Deg C	68.3 Deg C	32.7 Deg C
Offset/Slop	0	0.943	0	1.038

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
2997	0	0	0	N/A
3000	420	386	351	1.0997
3002	420	386	388	0.9948
3002	250	234	235	0.9957
3002	140	127	127	1.0000
3002	0	0	0	N/A
Sum of Least Squares				N/A
New Correction Factor				0.9948

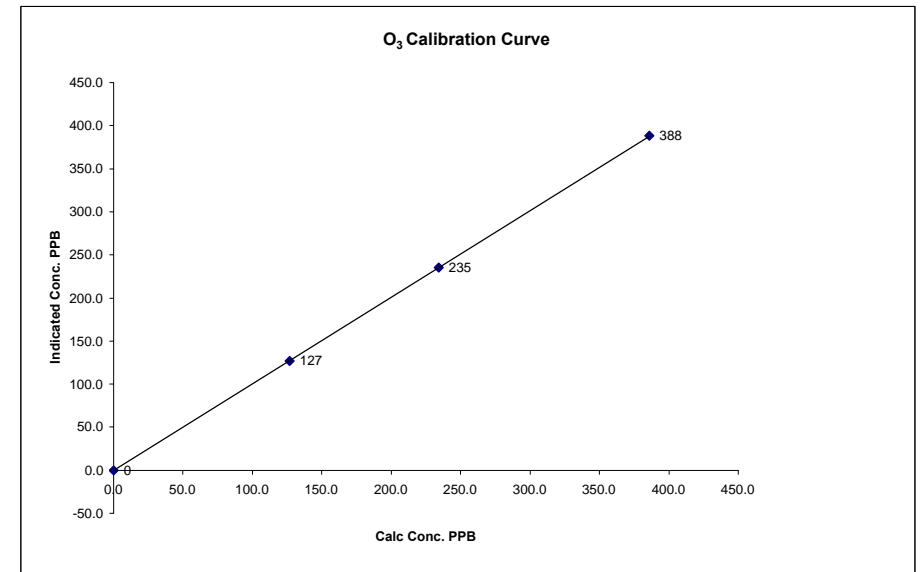
	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	306	340
Sample Lines Connected		YES
Percent Change from Previous Calibration		-9.1%

Calibration Performed by: Shea Beaton / Ting Xu

O₃ Calibration Curve

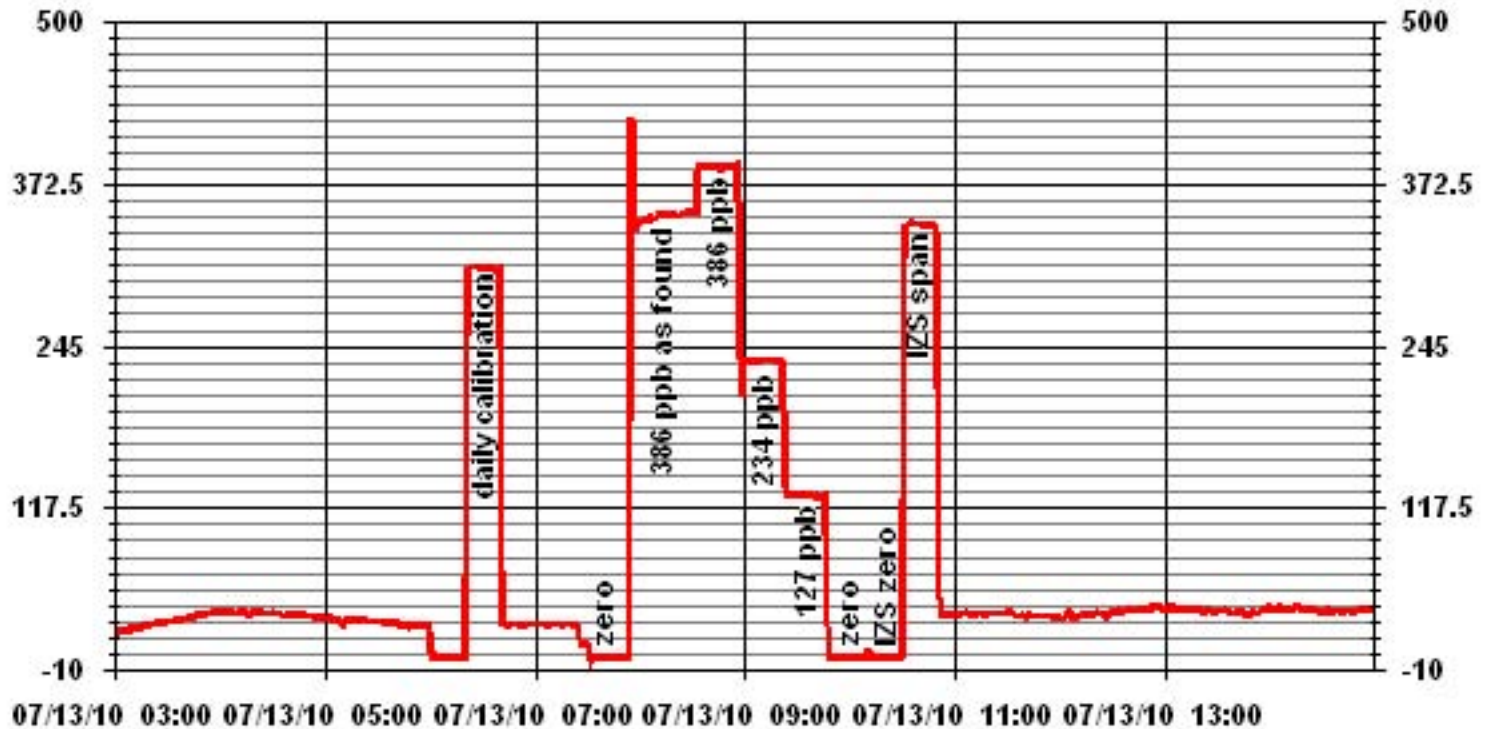
Calibration Date	July 13, 2010		
Company	Lakeland Industry & Community Association		
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M		
Start Time (MST)	7:31	End Time (MST)	10:49

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope (≥ 0.995)	Intercept (± 3% F.S.)	
0	0	n/a			0.999997
127	127	1.0000			1.005546
234	235	0.9957			
386	388	0.9948			-0.285645



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	July 7, 2010	Previous Calibration	June 17, 2010
Company:	Lakeland Industry and Community Association		
Plant / Location:	Portable Station Devon Wellsite 13-16-62-5W4M		
Start Time (MST)	10:20	End Time (MST)	14:59
Reason:	Monthly Calibration		
Barometric Pressure:	716 mmHg	Station Temperature:	24 Deg C
Calibrator:	API 700	S/N:	831
Cal Gas Concentration:	207Prop/602Meth/1171.25THC	ppm	Cal Gas Expiry Date: 9/21/2011
DAS make & Model:	ESC 8832	S/N :	AO717
Output Voltage Range:	0 - 10 VDC		

Analyzer Information

Make / Model	TECO 51C	S/N :	04366-09739	Method	Flame Ionization
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Analyzer Settings

	Before Calibration	After Calibration
Concentration Range	0 - 50 ppm	0 - 50 ppm
Sample Pressure	6.8 psi	6.8 psi
Hydrogen Pressure	8 psi	8 psi
Air Pressure	21 psi	21 psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2023	0	0.0	0.1	N/A
2023	0	0.0	0.0	N/A
2017	69.4	39.0	39.9	0.9764
2017	69.4	39.0	39.5	0.9863
2023	34.9	19.9	19.8	1.0032
2011	19.9	11.5	11.3	1.0156
2013	0	0.0	0.0	N/A
Correction Factor:				0.9863

Percent Change

Previous Calibration Correction Factor:	0.9936
Current Correction Factor Before Span Adjust:	0.9764
Percent Change:	1.8%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.1	0.0
Auto Span	35.2	34.8
Sample Lines Connected		YES

Cylinder Pressures

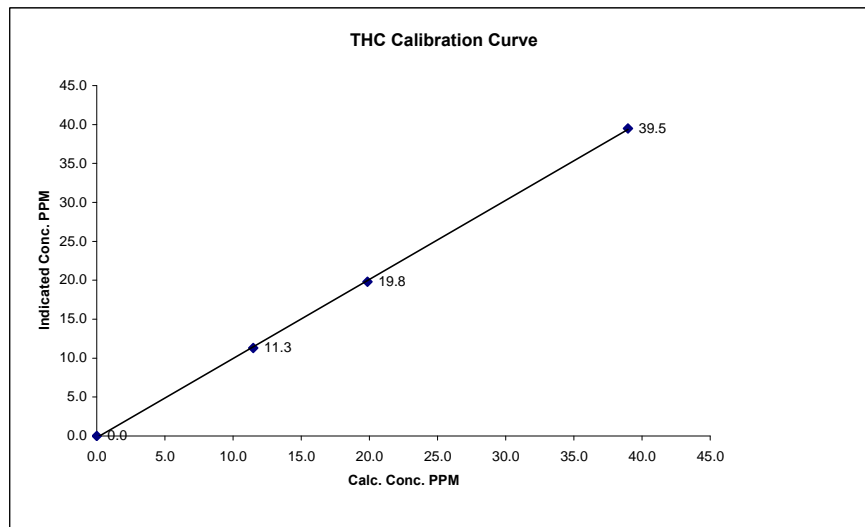
Span	1000 psi
Hydrogen	600 psi
Zero Air	30 psi Using API 700

Calibration Performed by: Ting Xu / Shea Beaton

THC Calibration Curve

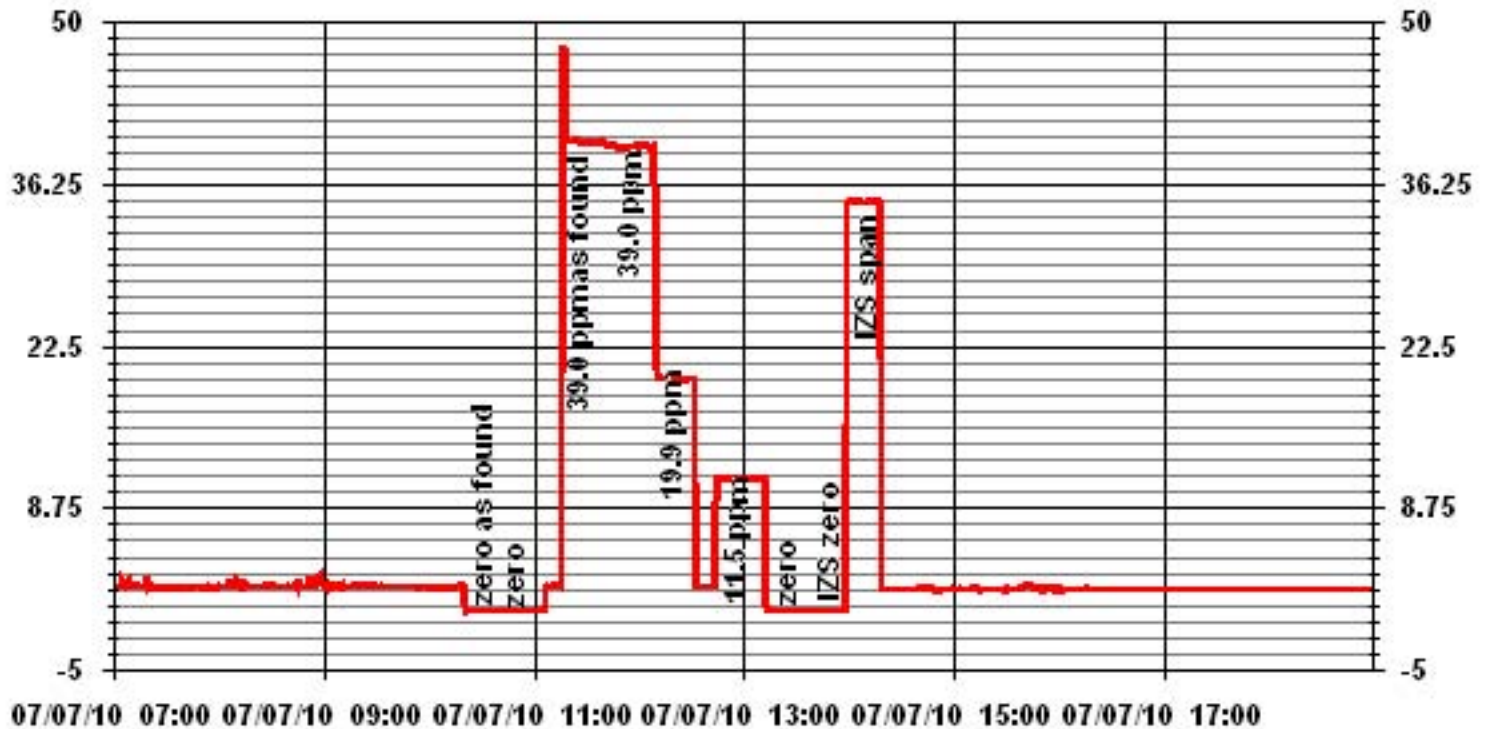
Calibration Date	July 7, 2010
Company	Lakeland Industry and Community Association
Plant / Location	Portable Station Devon Wellsite 13-16-62-5W4M
Start Time (MST)	10:20
End Time (MST)	14:59

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999866
0.0	0.0		Intercept	(0.85 to 1.15)	1.015452
11.5	11.3	1.0156		(± 3% F.S.)	-0.196368
19.9	19.8	1.0032			
39.0	39.5	0.9863			



Notes:

01 Minute Averages



Volatile Organics Laboratory Analysis

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: S2396
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: May 31, 10 @ 13:20 mst
 Field Sample ID: LICA VOC/PORT/ June 1, 10 Canister Removal Date/Time: June 2, 10 @ 14:10 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
01-Jun-10	06/01/2010 0:00	06/02/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1482	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21.5

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC# 2308

Technician Signature: Shea Beaton



Your C.O.C. #: 2308

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/06/17

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B072160

Received: 2010/06/05, 13:47

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/15	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/15	BRL SOP-00304	EPA TO-15

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

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

Encryption Key

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

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

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

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Total cover pages: 1

Maxxam Job #: B072160
 Report Date: 2010/06/17

RESULTS OF ANALYSES OF AIR

Maxxam ID		GC1817	GC1818	
Sampling Date		2010/06/01	2010/06/01	
COC Number		2308	2308	
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	LICA VOC/PORT/JUNE 1, 10 - S2396	QC Batch

Volatile Organics				
Pressure on Receipt	psig	16	22	2180443

QC Batch = Quality Control Batch

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1817				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2180496
Carbon Disulfide	ppbv	0.52	0.50	1.63	1.56	2180496
Propene	ppbv	<0.30	0.30	<0.516	0.516	2180496
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2180496
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2180496
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2180496
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2180496
Chloromethane	ppbv	0.61	0.30	1.26	0.620	2180496
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2180496
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2180496
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2180496
Trichlorofluoromethane (FREON 11)	ppbv	0.37	0.20	2.09	1.12	2180496
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2180496
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2180496
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2180496
2-Propanone	ppbv	3.15	0.80	7.49	1.90	2180496
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2180496
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2180496
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2180496
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2180496
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2180496
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2180496
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2180496
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2180496
Methylene Chloride(Dichloromethane)	ppbv	0.50	0.30	1.74	1.04	2180496
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2180496
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2180496
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2180496
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2180496
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1817				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2180496
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2180496
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2180496
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2180496
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2180496
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2180496
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2180496
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2180496
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2180496
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2180496
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2180496
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2180496
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2180496
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2180496
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2180496
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2180496
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2180496
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2180496
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2180496
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2180496
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2180496
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2180496
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2180496
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2180496
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2180496
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2180496
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2180496
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2180496
QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1817				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/CLS/JUNE 1, 10 - 7912	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	98		N/A	N/A	2180496
D5-Chlorobenzene	%	96		N/A	N/A	2180496
Difluorobenzene	%	99		N/A	N/A	2180496

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

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1818				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/PORT/JUNE 1, 10 - S2396	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2180496
Carbon Disulfide	ppbv	0.54	0.50	1.70	1.56	2180496
Propene	ppbv	<0.30	0.30	<0.516	0.516	2180496
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2180496
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2180496
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2180496
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2180496
Chloromethane	ppbv	0.61	0.30	1.25	0.620	2180496
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2180496
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2180496
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2180496
Trichlorofluoromethane (FREON 11)	ppbv	0.35	0.20	1.96	1.12	2180496
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2180496
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2180496
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2180496
2-Propanone	ppbv	4.29	0.80	10.2	1.90	2180496
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2180496
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2180496
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2180496
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2180496
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2180496
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2180496
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2180496
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2180496
Methylene Chloride(Dichloromethane)	ppbv	0.50	0.30	1.75	1.04	2180496
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2180496
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2180496
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2180496
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2180496
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2180496
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1818				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/PORT/JUNE 1, 10 - S2396	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2180496
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2180496
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2180496
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2180496
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2180496
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2180496
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2180496
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2180496
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2180496
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2180496
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2180496
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2180496
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2180496
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2180496
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2180496
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2180496
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2180496
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2180496
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2180496
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2180496
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2180496
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2180496
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2180496
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2180496
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2180496
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2180496
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2180496
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2180496
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2180496
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2180496
QC Batch = Quality Control Batch						

Maxxam Job #: B072160
 Report Date: 2010/06/17

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GC1818				
Sampling Date		2010/06/01				
COC Number		2308				
	Units	LICA VOC/PORT/JUNE 1, 10 - S2396	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	95		N/A	N/A	2180496
D5-Chlorobenzene	%	93		N/A	N/A	2180496
Difluorobenzene	%	96		N/A	N/A	2180496

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

Maxxam Job #: B072160
 Report Date: 2010/06/17

Test Summary

Maxxam ID GC1817
Sample ID LICA VOC/CLS/JUNE 1, 10 - 7912
Matrix AIR
Collected 2010/06/01
Shipped
Received 2010/06/05

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2180443	N/A	2010/06/15	LSY
Volatile Organics in Air (TO-15)	GC/MS	2180496	N/A	2010/06/15	LSY

Maxxam ID GC1818
Sample ID LICA VOC/PORT/JUNE 1, 10 - S2396
Matrix AIR
Collected 2010/06/01
Shipped
Received 2010/06/05

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2180443	N/A	2010/06/15	LSY
Volatile Organics in Air (TO-15)	GC/MS	2180496	N/A	2010/06/15	LSY

Maxxam Job #: B072160
Report Date: 2010/06/17

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB072160

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2180496 LSY	Spiked Blank	Bromochloromethane	2010/06/15		108	%	60 - 140
		D5-Chlorobenzene	2010/06/15		110	%	60 - 140
		Difluorobenzene	2010/06/15		110	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/15		92	%	70 - 130
		Carbon Disulfide	2010/06/15		94	%	70 - 130
		Propene	2010/06/15		95	%	70 - 130
		Vinyl Acetate	2010/06/15		108	%	70 - 130
		Vinyl Bromide	2010/06/15		96	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/06/15		87	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/06/15		86	%	70 - 130
		Chloromethane	2010/06/15		93	%	70 - 130
		Vinyl Chloride	2010/06/15		98	%	70 - 130
		Chloroethane	2010/06/15		98	%	70 - 130
		1,3-Butadiene	2010/06/15		82	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/06/15		101	%	70 - 130
		Trichlorotrifluoroethane	2010/06/15		99	%	70 - 130
		Ethanol	2010/06/15		111	%	70 - 130
		2-propanol	2010/06/15		98	%	70 - 130
		2-Propanone	2010/06/15		99	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/15		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/15		88	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/15		88	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/15		99	%	70 - 130
		Ethyl Acetate	2010/06/15		94	%	70 - 130
		1,1-Dichloroethylene	2010/06/15		98	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/15		97	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/15		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/15		86	%	70 - 130
		Chloroform	2010/06/15		99	%	70 - 130
		Carbon Tetrachloride	2010/06/15		112	%	70 - 130
		1,1-Dichloroethane	2010/06/15		96	%	70 - 130
		1,2-Dichloroethane	2010/06/15		99	%	70 - 130
		Ethylene Dibromide	2010/06/15		97	%	70 - 130
		1,1,1-Trichloroethane	2010/06/15		105	%	70 - 130
		1,1,2-Trichloroethane	2010/06/15		98	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/15		90	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/15		107	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/15		113	%	70 - 130
		1,2-Dichloropropane	2010/06/15		92	%	70 - 130
		Bromomethane	2010/06/15		91	%	70 - 130
		Bromoform	2010/06/15		110	%	70 - 130
		Bromodichloromethane	2010/06/15		103	%	70 - 130
		Dibromochloromethane	2010/06/15		105	%	70 - 130
		Heptane	2010/06/15		93	%	70 - 130
		Trichloroethylene	2010/06/15		95	%	70 - 130
		Tetrachloroethylene	2010/06/15		98	%	70 - 130
		Benzene	2010/06/15		94	%	70 - 130
		Toluene	2010/06/15		97	%	70 - 130
		Ethylbenzene	2010/06/15		94	%	70 - 130
		p+m-Xylene	2010/06/15		95	%	70 - 130
		o-Xylene	2010/06/15		96	%	70 - 130
		Styrene	2010/06/15		92	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/15		91	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/15		87	%	70 - 130
		4-ethyltoluene	2010/06/15		94	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB072160

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2180496 LSY	Spiked Blank	Chlorobenzene	2010/06/15		93	%	70 - 130	
		Benzyl chloride	2010/06/15		116	%	70 - 130	
1,3-Dichlorobenzene		2010/06/15		92	%	70 - 130		
1,4-Dichlorobenzene		2010/06/15		90	%	70 - 130		
1,2-Dichlorobenzene		2010/06/15		85	%	70 - 130		
1,2,4-Trichlorobenzene		2010/06/15		83	%	70 - 130		
Hexachlorobutadiene		2010/06/15		82	%	70 - 130		
Hexane		2010/06/15		92	%	70 - 130		
Cyclohexane		2010/06/15		94	%	70 - 130		
Tetrahydrofuran		2010/06/15		93	%	70 - 130		
1,4-Dioxane		2010/06/15		85	%	70 - 130		
Method Blank		Bromochloromethane	2010/06/15			96	%	60 - 140
		D5-Chlorobenzene	2010/06/15			93	%	60 - 140
		Difluorobenzene	2010/06/15			97	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/15	<0.20			ppbv	
	Carbon Disulfide	2010/06/15	<0.50			ppbv		
	Propene	2010/06/15	<0.30			ppbv		
	Vinyl Acetate	2010/06/15	<0.20			ppbv		
	Vinyl Bromide	2010/06/15	<0.20			ppbv		
	Dichlorodifluoromethane (FREON 12)	2010/06/15	<0.20			ppbv		
	1,2-Dichlorotetrafluoroethane	2010/06/15	<0.17			ppbv		
	Chloromethane	2010/06/15	<0.30			ppbv		
	Vinyl Chloride	2010/06/15	<0.18			ppbv		
	Chloroethane	2010/06/15	<0.30			ppbv		
	1,3-Butadiene	2010/06/15	<0.50			ppbv		
	Trichlorofluoromethane (FREON 11)	2010/06/15	<0.20			ppbv		
	Trichlorotrifluoroethane	2010/06/15	<0.15			ppbv		
	Ethanol	2010/06/15	<2.3			ppbv		
	2-propanol	2010/06/15	<3.0			ppbv		
	2-Propanone	2010/06/15	<0.80			ppbv		
	Methyl Ethyl Ketone (2-Butanone)	2010/06/15	<3.0			ppbv		
	Methyl Isobutyl Ketone	2010/06/15	<3.2			ppbv		
	Methyl Butyl Ketone (2-Hexanone)	2010/06/15	<2.0			ppbv		
	Methyl t-butyl ether (MTBE)	2010/06/15	<0.20			ppbv		
	Ethyl Acetate	2010/06/15	<2.2			ppbv		
	1,1-Dichloroethylene	2010/06/15	<0.25			ppbv		
	cis-1,2-Dichloroethylene	2010/06/15	<0.19			ppbv		
	trans-1,2-Dichloroethylene	2010/06/15	<0.20			ppbv		
	Methylene Chloride(Dichloromethane)	2010/06/15	0.47, RDL=0.30			ppbv		
	Chloroform	2010/06/15	<0.15			ppbv		
	Carbon Tetrachloride	2010/06/15	<0.30			ppbv		
	1,1-Dichloroethane	2010/06/15	<0.20			ppbv		
	1,2-Dichloroethane	2010/06/15	<0.20			ppbv		
	Ethylene Dibromide	2010/06/15	<0.17			ppbv		
	1,1,1-Trichloroethane	2010/06/15	<0.30			ppbv		
1,1,2-Trichloroethane	2010/06/15	<0.15			ppbv			
1,1,2,2-Tetrachloroethane	2010/06/15	<0.20			ppbv			
cis-1,3-Dichloropropene	2010/06/15	<0.18			ppbv			
trans-1,3-Dichloropropene	2010/06/15	<0.17			ppbv			
1,2-Dichloropropane	2010/06/15	<0.40			ppbv			
Bromomethane	2010/06/15	<0.18			ppbv			
Bromoform	2010/06/15	<0.20			ppbv			
Bromodichloromethane	2010/06/15	<0.20			ppbv			
Dibromochloromethane	2010/06/15	<0.20			ppbv			
Heptane	2010/06/15	<0.30			ppbv			

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB072160

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2180496 LSY	Method Blank	Trichloroethylene	2010/06/15	<0.30		ppbv	
		Tetrachloroethylene	2010/06/15	<0.20		ppbv	
		Benzene	2010/06/15	<0.18		ppbv	
		Toluene	2010/06/15	<0.20		ppbv	
		Ethylbenzene	2010/06/15	<0.20		ppbv	
		p+m-Xylene	2010/06/15	<0.37		ppbv	
		o-Xylene	2010/06/15	<0.20		ppbv	
		Styrene	2010/06/15	<0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/06/15	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/06/15	<0.50		ppbv	
		4-ethyltoluene	2010/06/15	<2.2		ppbv	
		Chlorobenzene	2010/06/15	<0.20		ppbv	
		Benzyl chloride	2010/06/15	<1.0		ppbv	
		1,3-Dichlorobenzene	2010/06/15	<0.40		ppbv	
		1,4-Dichlorobenzene	2010/06/15	<0.40		ppbv	
		1,2-Dichlorobenzene	2010/06/15	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/06/15	<2.0		ppbv	
		Hexachlorobutadiene	2010/06/15	<3.0		ppbv	
		Hexane	2010/06/15	<0.30		ppbv	
		Cyclohexane	2010/06/15	<0.20		ppbv	
		Tetrahydrofuran	2010/06/15	<0.40		ppbv	
		1,4-Dioxane	2010/06/15	<2.0		ppbv	
		Xylene (Total)	2010/06/15	<0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: 7786
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: June 6, 10 @ 14:00 mst
 Field Sample ID: LICA VOC/PORT/ June 7, 10 Canister Removal Date/Time: June 10, 10 @ 09:25 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
07-Jun-10	06/07/2010 0:00	06/08/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1482	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC 4707

Technician Signature: Shea Beaton



Your C.O.C. #: 4707

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/06/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B075789

Received: 2010/06/12, 13:04

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/14	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/14	BRL SOP-00304	EPA TO-15

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

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

Encryption Key

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

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

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

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Total cover pages: 1

Maxxam Job #: B075789
 Report Date: 2010/06/21

RESULTS OF ANALYSES OF AIR

Maxxam ID		GE0081	GE0082	
Sampling Date		2010/06/07	2010/06/07	
COC Number		4707	4707	
	Units	LICA VOC/CLS/JUNE7,10 - S7794	LICA VOC/PORT/JUNE7,10 - 7786	QC Batch

Volatile Organics				
Pressure on Receipt	psig	16	20	2179475

QC Batch = Quality Control Batch

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0081				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/CLS/JUNE7,10 - S7794	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2179495
Carbon Disulfide	ppbv	3.62	0.50	11.3	1.56	2179495
Propene	ppbv	0.33	0.30	0.559	0.516	2179495
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2179495
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2179495
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2179495
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2179495
Chloromethane	ppbv	0.60	0.30	1.24	0.620	2179495
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2179495
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2179495
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2179495
Trichlorofluoromethane (FREON 11)	ppbv	0.37	0.20	2.07	1.12	2179495
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2179495
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2179495
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2179495
2-Propanone	ppbv	3.65	0.80	8.67	1.90	2179495
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2179495
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2179495
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2179495
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2179495
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2179495
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2179495
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2179495
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2179495
Methylene Chloride(Dichloromethane)	ppbv	0.51	0.30	1.79	1.04	2179495
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2179495
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2179495
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2179495
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2179495
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0081				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/CLS/JUNE7,10 - S7794	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2179495
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2179495
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2179495
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2179495
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2179495
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2179495
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2179495
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2179495
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2179495
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2179495
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2179495
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2179495
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2179495
Toluene	ppbv	1.45	0.20	5.44	0.753	2179495
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2179495
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2179495
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2179495
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2179495
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2179495
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2179495
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2179495
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2179495
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2179495
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2179495
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2179495
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2179495
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2179495
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2179495
QC Batch = Quality Control Batch						

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0081				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/CLS/JUNE7,10 - S7794	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	84		N/A	N/A	2179495
D5-Chlorobenzene	%	82		N/A	N/A	2179495
Difluorobenzene	%	83		N/A	N/A	2179495

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

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0082				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/PORT/JUNE7,10 - 7786	RDL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2179495
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2179495
Propene	ppbv	0.52	0.30	0.895	0.516	2179495
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2179495
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2179495
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	0.20	<0.989	0.989	2179495
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2179495
Chloromethane	ppbv	0.57	0.30	1.18	0.620	2179495
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2179495
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2179495
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2179495
Trichlorofluoromethane (FREON 11)	ppbv	0.36	0.20	2.04	1.12	2179495
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2179495
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2179495
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2179495
2-Propanone	ppbv	3.63	0.80	8.62	1.90	2179495
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2179495
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2179495
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2179495
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2179495
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2179495
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2179495
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2179495
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2179495
Methylene Chloride(Dichloromethane)	ppbv	0.52	0.30	1.81	1.04	2179495
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2179495
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2179495
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2179495
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2179495
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2179495
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0082				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/PORT/JUNE7,10 - 7786	RDL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2179495
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2179495
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2179495
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2179495
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2179495
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2179495
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2179495
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2179495
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2179495
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2179495
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2179495
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2179495
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2179495
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2179495
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2179495
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2179495
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2179495
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2179495
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2179495
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2179495
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2179495
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2179495
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2179495
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2179495
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2179495
Hexane	ppbv	0.41	0.30	1.44	1.06	2179495
Cyclohexane	ppbv	0.66	0.20	2.27	0.688	2179495
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2179495
1,4-Dioxane	ppbv	8.8	2.0	31.7	7.21	2179495
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2179495
QC Batch = Quality Control Batch						

Maxxam Job #: B075789
 Report Date: 2010/06/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GE0082				
Sampling Date		2010/06/07				
COC Number		4707				
	Units	LICA VOC/PORT/JUNE7,10 - 7786	RDL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	82		N/A	N/A	2179495
D5-Chlorobenzene	%	82		N/A	N/A	2179495
Difluorobenzene	%	83		N/A	N/A	2179495

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

Maxxam Job #: B075789
 Report Date: 2010/06/21

Test Summary

Maxxam ID GE0081
Sample ID LICA VOC/CLS/JUNE7,10 - S7794
Matrix AIR
Collected 2010/06/07
Shipped
Received 2010/06/12

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2179475	N/A	2010/06/14	LSY
Volatile Organics in Air (TO-15)	GC/MS	2179495	N/A	2010/06/14	LSY

Maxxam ID GE0082
Sample ID LICA VOC/PORT/JUNE7,10 - 7786
Matrix AIR
Collected 2010/06/07
Shipped
Received 2010/06/12

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2179475	N/A	2010/06/14	LSY
Volatile Organics in Air (TO-15)	GC/MS	2179495	N/A	2010/06/14	LSY

Maxxam Job #: B075789
Report Date: 2010/06/21

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report

Maxxam Job Number: GB075789

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2179495 LSY	Spiked Blank	Bromochloromethane	2010/06/14		103	%	60 - 140
		D5-Chlorobenzene	2010/06/14		105	%	60 - 140
		Difluorobenzene	2010/06/14		104	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/14		92	%	70 - 130
		Carbon Disulfide	2010/06/14		95	%	70 - 130
		Propene	2010/06/14		96	%	70 - 130
		Vinyl Acetate	2010/06/14		108	%	70 - 130
		Vinyl Bromide	2010/06/14		95	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/06/14		86	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/06/14		85	%	70 - 130
		Chloromethane	2010/06/14		93	%	70 - 130
		Vinyl Chloride	2010/06/14		99	%	70 - 130
		Chloroethane	2010/06/14		98	%	70 - 130
		1,3-Butadiene	2010/06/14		81	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/06/14		97	%	70 - 130
		Trichlorotrifluoroethane	2010/06/14		97	%	70 - 130
		Ethanol	2010/06/14		112	%	70 - 130
		2-propanol	2010/06/14		97	%	70 - 130
		2-Propanone	2010/06/14		97	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/14		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/14		87	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/14		86	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/14		99	%	70 - 130
		Ethyl Acetate	2010/06/14		94	%	70 - 130
		1,1-Dichloroethylene	2010/06/14		96	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/14		97	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/14		96	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/14		85	%	70 - 130
		Chloroform	2010/06/14		96	%	70 - 130
		Carbon Tetrachloride	2010/06/14		106	%	70 - 130
		1,1-Dichloroethane	2010/06/14		95	%	70 - 130
		1,2-Dichloroethane	2010/06/14		95	%	70 - 130
		Ethylene Dibromide	2010/06/14		94	%	70 - 130
		1,1,1-Trichloroethane	2010/06/14		100	%	70 - 130
		1,1,2-Trichloroethane	2010/06/14		96	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/14		90	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/14		105	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/14		109	%	70 - 130
		1,2-Dichloropropane	2010/06/14		93	%	70 - 130
		Bromomethane	2010/06/14		91	%	70 - 130
		Bromoform	2010/06/14		107	%	70 - 130
		Bromodichloromethane	2010/06/14		99	%	70 - 130
		Dibromochloromethane	2010/06/14		101	%	70 - 130
		Heptane	2010/06/14		91	%	70 - 130
		Trichloroethylene	2010/06/14		94	%	70 - 130
		Tetrachloroethylene	2010/06/14		96	%	70 - 130
		Benzene	2010/06/14		93	%	70 - 130
		Toluene	2010/06/14		96	%	70 - 130
		Ethylbenzene	2010/06/14		93	%	70 - 130
		p+m-Xylene	2010/06/14		94	%	70 - 130
		o-Xylene	2010/06/14		94	%	70 - 130
		Styrene	2010/06/14		92	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/14		89	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/14		86	%	70 - 130
		4-ethyltoluene	2010/06/14		91	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB075789

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2179495 LSY	Spiked Blank	Chlorobenzene	2010/06/14		93	%	70 - 130
		Benzyl chloride	2010/06/14		115	%	70 - 130
		1,3-Dichlorobenzene	2010/06/14		90	%	70 - 130
		1,4-Dichlorobenzene	2010/06/14		88	%	70 - 130
		1,2-Dichlorobenzene	2010/06/14		85	%	70 - 130
		1,2,4-Trichlorobenzene	2010/06/14		86	%	70 - 130
		Hexachlorobutadiene	2010/06/14		82	%	70 - 130
		Hexane	2010/06/14		94	%	70 - 130
		Cyclohexane	2010/06/14		94	%	70 - 130
		Tetrahydrofuran	2010/06/14		93	%	70 - 130
		1,4-Dioxane	2010/06/14		85	%	70 - 130
	Method Blank	Bromochloromethane	2010/06/14		89	%	60 - 140
		D5-Chlorobenzene	2010/06/14		89	%	60 - 140
		Difluorobenzene	2010/06/14		91	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/14	<0.20		ppbv	
		Carbon Disulfide	2010/06/14	<0.50		ppbv	
		Propene	2010/06/14	<0.30		ppbv	
		Vinyl Acetate	2010/06/14	<0.20		ppbv	
		Vinyl Bromide	2010/06/14	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/06/14	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/06/14	<0.17		ppbv	
		Chloromethane	2010/06/14	<0.30		ppbv	
		Vinyl Chloride	2010/06/14	<0.18		ppbv	
		Chloroethane	2010/06/14	<0.30		ppbv	
		1,3-Butadiene	2010/06/14	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/06/14	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/06/14	<0.15		ppbv	
		Ethanol	2010/06/14	<2.3		ppbv	
		2-propanol	2010/06/14	<3.0		ppbv	
		2-Propanone	2010/06/14	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/06/14	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/06/14	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/06/14	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/06/14	<0.20		ppbv	
		Ethyl Acetate	2010/06/14	<2.2		ppbv	
		1,1-Dichloroethylene	2010/06/14	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/06/14	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/06/14	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/06/14	0.43, RDL=0.30		ppbv	
		Chloroform	2010/06/14	<0.15		ppbv	
		Carbon Tetrachloride	2010/06/14	<0.30		ppbv	
		1,1-Dichloroethane	2010/06/14	<0.20		ppbv	
		1,2-Dichloroethane	2010/06/14	<0.20		ppbv	
		Ethylene Dibromide	2010/06/14	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/06/14	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/06/14	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/06/14	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/06/14	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/06/14	<0.17		ppbv	
		1,2-Dichloropropane	2010/06/14	<0.40		ppbv	
		Bromomethane	2010/06/14	<0.18		ppbv	
		Bromoform	2010/06/14	<0.20		ppbv	
		Bromodichloromethane	2010/06/14	<0.20		ppbv	
		Dibromochloromethane	2010/06/14	<0.20		ppbv	
		Heptane	2010/06/14	<0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB075789

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2179495 LSY	Method Blank	Trichloroethylene	2010/06/14	<0.30		ppbv	
		Tetrachloroethylene	2010/06/14	<0.20		ppbv	
		Benzene	2010/06/14	<0.18		ppbv	
		Toluene	2010/06/14	<0.20		ppbv	
		Ethylbenzene	2010/06/14	<0.20		ppbv	
		p+m-Xylene	2010/06/14	<0.37		ppbv	
		o-Xylene	2010/06/14	<0.20		ppbv	
		Styrene	2010/06/14	<0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/06/14	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/06/14	<0.50		ppbv	
		4-ethyltoluene	2010/06/14	<2.2		ppbv	
		Chlorobenzene	2010/06/14	<0.20		ppbv	
		Benzyl chloride	2010/06/14	<1.0		ppbv	
		1,3-Dichlorobenzene	2010/06/14	<0.40		ppbv	
		1,4-Dichlorobenzene	2010/06/14	<0.40		ppbv	
		1,2-Dichlorobenzene	2010/06/14	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/06/14	<2.0		ppbv	
		Hexachlorobutadiene	2010/06/14	<3.0		ppbv	
		Hexane	2010/06/14	<0.30		ppbv	
		Cyclohexane	2010/06/14	<0.20		ppbv	
		Tetrahydrofuran	2010/06/14	<0.40		ppbv	
		1,4-Dioxane	2010/06/14	<2.0		ppbv	
		Xylene (Total)	2010/06/14	<0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: S2241
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: June 11, 10 @ 11:05 mst
 Field Sample ID: LICA VOC/PORT/ June 13, 10 Canister Removal Date/Time: June 14, 10 @ 08:20 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
13-Jun-10	06/13/2010 0:00	06/14/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1482	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC 4706

Technician Signature: Shea Beaton



Your C.O.C. #: 4706

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B078354

Received: 2010/06/17, 08:37

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/21	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/21	BRL SOP-00304	EPA TO-15

Sample Matrix: PUF AND FILTER
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/06/18	2010/07/23	BRL SOP-00201	CARB429(ARBM1,M2)mod

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

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

Encryption Key

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

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

=====



Your C.O.C. #: 4706

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

-2-

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

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Total cover pages: 2

Page 2 of 15

Page 145 of 192

Maxxam Job #: B078354
 Report Date: 2010/07/28

RESULTS OF ANALYSES OF AIR

Maxxam ID		GF2209	GF2210	
Sampling Date		2010/06/13 00:00	2010/06/13 00:00	
COC Number		4706	4706	
	Units	LICA VOC/CLS/JUNE 13,10 - 7791	LICA VOC/PORT/JUNE 13,10 -S2241	QC Batch
Volatile Organics				
Pressure on Receipt	psig	18	20	2185777
QC Batch = Quality Control Batch				

Maxxam Job #: B078354
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GF2211	GF2212		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA PUF/CLS/JUNE 13,10	LICA PUF/PORT/JUNE 13,10	RDL	QC Batch

Semivolatile Organics					
1-Methylnaphthalene	ug	<0.10	<0.10	0.10	2183826
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2183826
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2183826
2-Methylantracene	ug	<0.10	<0.10	0.10	2183826
2-Methylnaphthalene	ug	0.12	0.16	0.10	2183826
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2183826
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2183826
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2183826
Acenaphthene	ug	<0.050	<0.050	0.050	2183826
Acenaphthylene	ug	<0.050	<0.050	0.050	2183826
Anthracene	ug	<0.050	<0.050	0.050	2183826
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2183826
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2183826
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2183826
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2183826
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2183826
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2183826
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2183826
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2183826
Biphenyl	ug	<0.10	<0.10	0.10	2183826
Chrysene	ug	<0.050	<0.050	0.050	2183826
Coronene	ug	<0.10	<0.10	0.10	2183826
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2183826
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2183826
Fluoranthene	ug	<0.050	<0.050	0.050	2183826
Fluorene	ug	0.070	<0.050	0.050	2183826
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2183826
m-Terphenyl	ug	<0.10	<0.10	0.10	2183826
Naphthalene	ug	0.098	0.108	0.072	2183826
o-Terphenyl	ug	<0.10	<0.10	0.10	2183826
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: B078354
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GF2211	GF2212		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA PUF/CLS/JUNE 13,10	LICA PUF/PORT/JUNE 13,10	RDL	QC Batch

Perylene	ug	<0.10	<0.10	0.10	2183826
Phenanthrene	ug	0.394	0.158	0.050	2183826
p-Terphenyl	ug	<0.10	<0.10	0.10	2183826
Pyrene	ug	<0.050	<0.050	0.050	2183826
Quinoline	ug	<0.40	<0.40	0.40	2183826
Tetralin	ug	<0.10	<0.10	0.10	2183826
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	58	60		2183826
D10-Fluoranthene	%	102	102		2183826
D10-Fluorene (FS)	%	44 (1)	40 (1)		2183826
D10-Phenanthrene	%	86	86		2183826
D12-Benzo(a)anthracene	%	116	112		2183826
D12-Benzo(a)pyrene	%	88	84		2183826
D12-Benzo(b)fluoranthene	%	92	92		2183826
D12-Benzo(ghi)perylene	%	90	92		2183826
D12-Benzo(k)fluoranthene	%	84	84		2183826
D12-Chrysene	%	86	84		2183826
D12-Indeno(1,2,3-cd)pyrene	%	88	90		2183826
D12-Perylene	%	84	82		2183826
D14-Dibenzo(a,h)anthracene	%	80	80		2183826
D14-Terphenyl (FS)	%	83	79		2183826
D8-Acenaphthylene	%	70	72		2183826
D8-Naphthalene	%	64	66		2183826

QC Batch = Quality Control Batch
 (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B078354
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GF2209	GF2210		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA VOC/CLS/JUNE 13,10 - 7791	LICA VOC/PORT/JUNE 13,10 -S2241	RDL	QC Batch

Volatile Organics					
2,2,4-Trimethylpentane	ppbv	<0.20	<0.20	0.20	2185831
Carbon Disulfide	ppbv	<0.50	<0.50	0.50	2185831
Propene	ppbv	<0.30	<0.30	0.30	2185831
Vinyl Acetate	ppbv	<0.20	<0.20	0.20	2185831
Vinyl Bromide	ppbv	<0.20	<0.20	0.20	2185831
Dichlorodifluoromethane (FREON 12)	ppbv	<0.20	<0.20	0.20	2185831
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	<0.17	0.17	2185831
Chloromethane	ppbv	0.60	0.58	0.30	2185831
Vinyl Chloride	ppbv	<0.18	<0.18	0.18	2185831
Chloroethane	ppbv	<0.30	<0.30	0.30	2185831
1,3-Butadiene	ppbv	<0.50	<0.50	0.50	2185831
Trichlorofluoromethane (FREON 11)	ppbv	0.39	0.38	0.20	2185831
Trichlorotrifluoroethane	ppbv	<0.15	<0.15	0.15	2185831
Ethanol	ppbv	<2.3	<2.3	2.3	2185831
2-propanol	ppbv	<3.0	<3.0	3.0	2185831
2-Propanone	ppbv	4.66	3.50	0.80	2185831
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	<3.0	3.0	2185831
Methyl Isobutyl Ketone	ppbv	<3.2	<3.2	3.2	2185831
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	<2.0	2.0	2185831
Methyl t-butyl ether (MTBE)	ppbv	<0.20	<0.20	0.20	2185831
Ethyl Acetate	ppbv	<2.2	<2.2	2.2	2185831
1,1-Dichloroethylene	ppbv	<0.25	<0.25	0.25	2185831
cis-1,2-Dichloroethylene	ppbv	<0.19	<0.19	0.19	2185831
trans-1,2-Dichloroethylene	ppbv	<0.20	<0.20	0.20	2185831
Methylene Chloride(Dichloromethane)	ppbv	0.57	0.62	0.30	2185831
Chloroform	ppbv	<0.15	<0.15	0.15	2185831
Carbon Tetrachloride	ppbv	<0.30	<0.30	0.30	2185831
1,1-Dichloroethane	ppbv	<0.20	<0.20	0.20	2185831
1,2-Dichloroethane	ppbv	<0.20	<0.20	0.20	2185831
Ethylene Dibromide	ppbv	<0.17	<0.17	0.17	2185831

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B078354
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GF2209	GF2210		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA VOC/CLS/JUNE 13,10 - 7791	LICA VOC/PORT/JUNE 13,10 -S2241	RDL	QC Batch
1,1,1-Trichloroethane	ppbv	<0.30	<0.30	0.30	2185831
1,1,2-Trichloroethane	ppbv	<0.15	<0.15	0.15	2185831
1,1,2,2-Tetrachloroethane	ppbv	<0.20	<0.20	0.20	2185831
cis-1,3-Dichloropropene	ppbv	<0.18	<0.18	0.18	2185831
trans-1,3-Dichloropropene	ppbv	<0.17	<0.17	0.17	2185831
1,2-Dichloropropane	ppbv	<0.40	<0.40	0.40	2185831
Bromomethane	ppbv	<0.18	<0.18	0.18	2185831
Bromoform	ppbv	<0.20	<0.20	0.20	2185831
Bromodichloromethane	ppbv	<0.20	<0.20	0.20	2185831
Dibromochloromethane	ppbv	<0.20	<0.20	0.20	2185831
Heptane	ppbv	<0.30	<0.30	0.30	2185831
Trichloroethylene	ppbv	0.33	<0.30	0.30	2185831
Tetrachloroethylene	ppbv	<0.20	<0.20	0.20	2185831
Benzene	ppbv	<0.18	<0.18	0.18	2185831
Toluene	ppbv	<0.20	<0.20	0.20	2185831
Ethylbenzene	ppbv	<0.20	<0.20	0.20	2185831
p+m-Xylene	ppbv	<0.37	<0.37	0.37	2185831
o-Xylene	ppbv	<0.20	<0.20	0.20	2185831
Styrene	ppbv	<0.20	<0.20	0.20	2185831
1,3,5-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2185831
1,2,4-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2185831
4-ethyltoluene	ppbv	<2.2	<2.2	2.2	2185831
Chlorobenzene	ppbv	<0.20	<0.20	0.20	2185831
Benzyl chloride	ppbv	<1.0	<1.0	1.0	2185831
1,3-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2185831
1,4-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2185831
1,2-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2185831
1,2,4-Trichlorobenzene	ppbv	<2.0	<2.0	2.0	2185831
Hexachlorobutadiene	ppbv	<3.0	<3.0	3.0	2185831
Hexane	ppbv	<0.30	<0.30	0.30	2185831
Cyclohexane	ppbv	<0.20	<0.20	0.20	2185831
Tetrahydrofuran	ppbv	<0.40	<0.40	0.40	2185831
QC Batch = Quality Control Batch					

Maxxam Job #: B078354
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GF2209	GF2210		
Sampling Date		2010/06/13 00:00	2010/06/13 00:00		
COC Number		4706	4706		
	Units	LICA VOC/CLS/JUNE 13,10 - 7791	LICA VOC/PORT/JUNE 13,10 -S2241	RDL	QC Batch

1,4-Dioxane	ppbv	<2.0	<2.0	2.0	2185831
Xylene (Total)	ppbv	<0.60	<0.60	0.60	2185831
Surrogate Recovery (%)					
Bromochloromethane	%	77	77		2185831
D5-Chlorobenzene	%	74	75		2185831
Difluorobenzene	%	78	79		2185831

QC Batch = Quality Control Batch

Maxxam Job #: B078354
 Report Date: 2010/07/28

Test Summary

Maxxam ID GF2209 **Collected** 2010/06/13
Sample ID LICA VOC/CLS/JUNE 13,10 - 7791 **Shipped**
Matrix AIR **Received** 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2185777	N/A	2010/06/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2185831	N/A	2010/06/21	LSY

Maxxam ID GF2210 **Collected** 2010/06/13
Sample ID LICA VOC/PORT/JUNE 13,10 -S2241 **Shipped**
Matrix AIR **Received** 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2185777	N/A	2010/06/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2185831	N/A	2010/06/21	LSY

Maxxam ID GF2211 **Collected** 2010/06/13
Sample ID LICA PUF/CLS/JUNE 13,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2183826	2010/07/23	2010/07/23	JIW

Maxxam ID GF2212 **Collected** 2010/06/13
Sample ID LICA PUF/PORT/JUNE 13,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2183826	2010/06/18	2010/07/23	JIW

Maxxam Job #: B078354
Report Date: 2010/07/28

GENERAL COMMENTS

Sample GF2211-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Sample GF2212-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
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Quality Assurance Report
 Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2183826 JIW	Spiked Blank	D10-2-Methylnaphthalene	2010/07/23		70	%	50 - 150
		D10-Fluoranthene	2010/07/23		86	%	50 - 150
		D10-Phenanthrene	2010/07/23		78	%	50 - 150
		D12-Benzo(a)anthracene	2010/07/23		96	%	50 - 150
		D12-Benzo(a)pyrene	2010/07/23		80	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/07/23		88	%	50 - 150
		D12-Benzo(ghi)perylene	2010/07/23		84	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/07/23		84	%	50 - 150
		D12-Chrysene	2010/07/23		90	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/07/23		80	%	50 - 150
		D12-Perylene	2010/07/23		82	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/07/23		70	%	50 - 150
		RPD	D8-Acenaphthylene	2010/07/23		74	%
	D8-Naphthalene		2010/07/23		88	%	50 - 150
	RPD	Acenaphthene	2010/07/23		82	%	60 - 130
		Acenaphthene	2010/07/23	8.3		%	50
	Spiked Blank	Acenaphthylene	2010/07/23		80	%	60 - 130
		Acenaphthylene	2010/07/23	7.4		%	50
	Spiked Blank	Anthracene	2010/07/23		71	%	60 - 130
		Anthracene	2010/07/23	3.1		%	50
	Spiked Blank	Benzo(a)anthracene	2010/07/23		79	%	60 - 130
		Benzo(a)anthracene	2010/07/23	3.9		%	50
	Spiked Blank	Benzo(a)pyrene	2010/07/23		74	%	60 - 130
		Benzo(a)pyrene	2010/07/23	3.3		%	50
	Spiked Blank	Benzo(b)fluoranthene	2010/07/23		81	%	60 - 130
		Benzo(b)fluoranthene	2010/07/23	0.9		%	50
	Spiked Blank	Benzo(g,h,i)perylene	2010/07/23		79	%	60 - 130
		Benzo(g,h,i)perylene	2010/07/23	3.1		%	50
	Spiked Blank	Benzo(k)fluoranthene	2010/07/23		85	%	60 - 130
		Benzo(k)fluoranthene	2010/07/23	3.8		%	50
	Spiked Blank	Chrysene	2010/07/23		89	%	60 - 130
		Chrysene	2010/07/23	7.0		%	50
	Spiked Blank	Dibenz(a,h)anthracene	2010/07/23		71	%	60 - 130
		Dibenz(a,h)anthracene	2010/07/23	7.1		%	50
	Spiked Blank	Fluoranthene	2010/07/23		87	%	60 - 130
		Fluoranthene	2010/07/23	0.3		%	50
	Spiked Blank	Fluorene	2010/07/23		79	%	60 - 130
		Fluorene	2010/07/23	6.2		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/07/23		73	%	60 - 130
		Indeno(1,2,3-cd)pyrene	2010/07/23	4.4		%	50
Spiked Blank	Naphthalene	2010/07/23		86	%	60 - 130	
	Naphthalene	2010/07/23	10.0		%	50	
Spiked Blank	Phenanthrene	2010/07/23		76	%	60 - 130	
	Phenanthrene	2010/07/23	3.0		%	50	
Spiked Blank	Pyrene	2010/07/23		82	%	60 - 130	
	Pyrene	2010/07/23	0.6		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/07/23		70	%	50 - 150	
	D10-Fluoranthene	2010/07/23		90	%	50 - 150	
	D10-Phenanthrene	2010/07/23		78	%	50 - 150	
	D12-Benzo(a)anthracene	2010/07/23		96	%	50 - 150	
	D12-Benzo(a)pyrene	2010/07/23		82	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/07/23		88	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/07/23		84	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/07/23		84	%	50 - 150	
	D12-Chrysene	2010/07/23		90	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
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 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2183826 JIW	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/07/23		80	%	50 - 150	
		D12-Perylene	2010/07/23		84	%	50 - 150	
		D14-Dibenzo(a,h)anthracene	2010/07/23		72	%	50 - 150	
		D8-Acenaphthylene	2010/07/23		72	%	50 - 150	
		D8-Naphthalene	2010/07/23		84	%	50 - 150	
		1-Methylnaphthalene	2010/07/23	<0.10			ug	
		1-Methylphenanthrene	2010/07/23	<0.10			ug	
		2-Chloronaphthalene	2010/07/23	<0.10			ug	
		2-Methylanthracene	2010/07/23	<0.10			ug	
		2-Methylnaphthalene	2010/07/23	<0.10			ug	
		3-Methylcholanthrene	2010/07/23	<2.0			ug	
		7,12-Dimethylbenzo(a)anthracene	2010/07/23	<0.10			ug	
		9,10-Dimethylanthracene	2010/07/23	<0.40			ug	
		Acenaphthene	2010/07/23	<0.050			ug	
		Acenaphthylene	2010/07/23	<0.050			ug	
		Anthracene	2010/07/23	<0.050			ug	
		Benzo(a)anthracene	2010/07/23	<0.050			ug	
		Benzo(a)fluorene	2010/07/23	<0.10			ug	
		Benzo(a)pyrene	2010/07/23	<0.050			ug	
		Benzo(b)fluoranthene	2010/07/23	<0.050			ug	
		Benzo(b)fluorene	2010/07/23	<0.10			ug	
		Benzo(e)pyrene	2010/07/23	<0.10			ug	
		Benzo(g,h,i)perylene	2010/07/23	<0.050			ug	
		Benzo(k)fluoranthene	2010/07/23	<0.050			ug	
		Biphenyl	2010/07/23	<0.10			ug	
		Chrysene	2010/07/23	<0.050			ug	
		Coronene	2010/07/23	<0.10			ug	
		Dibenz(a,h)anthracene	2010/07/23	<0.050			ug	
		Dibenzo(a,e)pyrene	2010/07/23	<0.20			ug	
		Fluoranthene	2010/07/23	<0.050			ug	
		Fluorene	2010/07/23	<0.050			ug	
		Indeno(1,2,3-cd)pyrene	2010/07/23	<0.050			ug	
		m-Terphenyl	2010/07/23	<0.10			ug	
		Naphthalene	2010/07/23	<0.072			ug	
		o-Terphenyl	2010/07/23	<0.10			ug	
		Perylene	2010/07/23	<0.10			ug	
		Phenanthrene	2010/07/23	<0.050			ug	
		p-Terphenyl	2010/07/23	<0.10			ug	
		Pyrene	2010/07/23	<0.050			ug	
		Quinoline	2010/07/23	<0.40			ug	
Tetralin	2010/07/23	<0.10			ug			
2185831 LSY	Spiked Blank	Bromochloromethane	2010/06/21		107	%	60 - 140	
		D5-Chlorobenzene	2010/06/21		107	%	60 - 140	
		Difluorobenzene	2010/06/21		109	%	60 - 140	
		2,2,4-Trimethylpentane	2010/06/21		93	%	70 - 130	
		Carbon Disulfide	2010/06/21		94	%	70 - 130	
		Propene	2010/06/21		95	%	70 - 130	
		Vinyl Acetate	2010/06/21		108	%	70 - 130	
		Vinyl Bromide	2010/06/21		95	%	70 - 130	
		Dichlorodifluoromethane (FREON 12)	2010/06/21		87	%	70 - 130	
		1,2-Dichlorotetrafluoroethane	2010/06/21		86	%	70 - 130	
		Chloromethane	2010/06/21		93	%	70 - 130	
		Vinyl Chloride	2010/06/21		99	%	70 - 130	
		Chloroethane	2010/06/21		99	%	70 - 130	
		1,3-Butadiene	2010/06/21		82	%	70 - 130	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
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Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2185831 LSY	Spiked Blank	Trichlorofluoromethane (FREON 11)	2010/06/21		98	%	70 - 130
		Trichlorotrifluoroethane	2010/06/21		97	%	70 - 130
		Ethanol	2010/06/21		112	%	70 - 130
		2-propanol	2010/06/21		96	%	70 - 130
		2-Propanone	2010/06/21		101	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/21		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/21		87	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/21		85	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/21		99	%	70 - 130
		Ethyl Acetate	2010/06/21		94	%	70 - 130
		1,1-Dichloroethylene	2010/06/21		97	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/21		97	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/21		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/21		86	%	70 - 130
		Chloroform	2010/06/21		97	%	70 - 130
		Carbon Tetrachloride	2010/06/21		109	%	70 - 130
		1,1-Dichloroethane	2010/06/21		96	%	70 - 130
		1,2-Dichloroethane	2010/06/21		97	%	70 - 130
		Ethylene Dibromide	2010/06/21		95	%	70 - 130
		1,1,1-Trichloroethane	2010/06/21		102	%	70 - 130
		1,1,2-Trichloroethane	2010/06/21		97	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/21		89	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/21		106	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/21		110	%	70 - 130
		1,2-Dichloropropane	2010/06/21		92	%	70 - 130
		Bromomethane	2010/06/21		91	%	70 - 130
		Bromoform	2010/06/21		105	%	70 - 130
		Bromodichloromethane	2010/06/21		101	%	70 - 130
		Dibromochloromethane	2010/06/21		102	%	70 - 130
		Heptane	2010/06/21		94	%	70 - 130
		Trichloroethylene	2010/06/21		94	%	70 - 130
		Tetrachloroethylene	2010/06/21		96	%	70 - 130
		Benzene	2010/06/21		94	%	70 - 130
		Toluene	2010/06/21		96	%	70 - 130
		Ethylbenzene	2010/06/21		92	%	70 - 130
		p+m-Xylene	2010/06/21		93	%	70 - 130
		o-Xylene	2010/06/21		94	%	70 - 130
		Styrene	2010/06/21		83	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/21		85	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/21		83	%	70 - 130
		4-ethyltoluene	2010/06/21		89	%	70 - 130
		Chlorobenzene	2010/06/21		92	%	70 - 130
		Benzyl chloride	2010/06/21		115	%	70 - 130
		1,3-Dichlorobenzene	2010/06/21		87	%	70 - 130
		1,4-Dichlorobenzene	2010/06/21		85	%	70 - 130
		1,2-Dichlorobenzene	2010/06/21		81	%	70 - 130
		1,2,4-Trichlorobenzene	2010/06/21		83	%	70 - 130
		Hexachlorobutadiene	2010/06/21		82	%	70 - 130
		Hexane	2010/06/21		94	%	70 - 130
		Cyclohexane	2010/06/21		94	%	70 - 130
		Tetrahydrofuran	2010/06/21		93	%	70 - 130
		1,4-Dioxane	2010/06/21		84	%	70 - 130
	Method Blank	Bromochloromethane	2010/06/21		91	%	60 - 140
		D5-Chlorobenzene	2010/06/21		86	%	60 - 140
		Difluorobenzene	2010/06/21		93	%	60 - 140

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2185831 LSY	Method Blank	2,2,4-Trimethylpentane	2010/06/21	<0.20		ppbv	
		Carbon Disulfide	2010/06/21	<0.50		ppbv	
		Propene	2010/06/21	<0.30		ppbv	
		Vinyl Acetate	2010/06/21	<0.20		ppbv	
		Vinyl Bromide	2010/06/21	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/06/21	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/06/21	<0.17		ppbv	
		Chloromethane	2010/06/21	<0.30		ppbv	
		Vinyl Chloride	2010/06/21	<0.18		ppbv	
		Chloroethane	2010/06/21	<0.30		ppbv	
		1,3-Butadiene	2010/06/21	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/06/21	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/06/21	<0.15		ppbv	
		Ethanol	2010/06/21	<2.3		ppbv	
		2-propanol	2010/06/21	<3.0		ppbv	
		2-Propanone	2010/06/21	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/06/21	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/06/21	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/06/21	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/06/21	<0.20		ppbv	
		Ethyl Acetate	2010/06/21	<2.2		ppbv	
		1,1-Dichloroethylene	2010/06/21	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/06/21	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/06/21	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/06/21	0.49, RDL=0.30		ppbv	
		Chloroform	2010/06/21	<0.15		ppbv	
		Carbon Tetrachloride	2010/06/21	<0.30		ppbv	
		1,1-Dichloroethane	2010/06/21	<0.20		ppbv	
		1,2-Dichloroethane	2010/06/21	<0.20		ppbv	
		Ethylene Dibromide	2010/06/21	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/06/21	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/06/21	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/06/21	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/06/21	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/06/21	<0.17		ppbv	
		1,2-Dichloropropane	2010/06/21	<0.40		ppbv	
		Bromomethane	2010/06/21	<0.18		ppbv	
		Bromoform	2010/06/21	<0.20		ppbv	
		Bromodichloromethane	2010/06/21	<0.20		ppbv	
		Dibromochloromethane	2010/06/21	<0.20		ppbv	
		Heptane	2010/06/21	<0.30		ppbv	
		Trichloroethylene	2010/06/21	<0.30		ppbv	
		Tetrachloroethylene	2010/06/21	<0.20		ppbv	
		Benzene	2010/06/21	<0.18		ppbv	
		Toluene	2010/06/21	<0.20		ppbv	
		Ethylbenzene	2010/06/21	<0.20		ppbv	
		p+m-Xylene	2010/06/21	<0.37		ppbv	
		o-Xylene	2010/06/21	<0.20		ppbv	
		Styrene	2010/06/21	<0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/06/21	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/06/21	<0.50		ppbv	
		4-ethyltoluene	2010/06/21	<2.2		ppbv	
		Chlorobenzene	2010/06/21	<0.20		ppbv	
		Benzyl chloride	2010/06/21	<1.0		ppbv	
		1,3-Dichlorobenzene	2010/06/21	<0.40		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB078354

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2185831 LSY	Method Blank	1,4-Dichlorobenzene	2010/06/21	<0.40		ppbv	
		1,2-Dichlorobenzene	2010/06/21	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/06/21	<2.0		ppbv	
		Hexachlorobutadiene	2010/06/21	<3.0		ppbv	
		Hexane	2010/06/21	<0.30		ppbv	
		Cyclohexane	2010/06/21	<0.20		ppbv	
		Tetrahydrofuran	2010/06/21	<0.40		ppbv	
		1,4-Dioxane	2010/06/21	<2.0		ppbv	
		Xylene (Total)	2010/06/21	<0.60		ppbv	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: 7809
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: June 17, 10 @ 11:37 mst
 Field Sample ID: LICA VOC/PORT/ June 19, 10 Canister Removal Date/Time: June 21,10 @ 14:35 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
19-Jun-10	06/19/2010 0:00	06/20/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1482	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	20.5

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC # 2309

Technician Signiture: Shea Beaton



Your C.O.C. #: 2309

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/29

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B083433

Received: 2010/06/25, 09:18

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/06/28	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (ug/m3)	2	N/A	2010/07/29	BRL SOP-00304	EPA TO15 Calculated
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/06/28	BRL SOP-00304	EPA TO-15

Sample Matrix: PUF AND FILTER

Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/06/29	2010/07/23	BRL SOP-00201	CARB429(ARBM1,M2)mod

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

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

Encryption Key

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

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



Your C.O.C. #: 2309

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/29

CERTIFICATE OF ANALYSIS

-2-

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

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Total cover pages: 2

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Page 161 of 192

Maxxam Job #: B083433
 Report Date: 2010/07/29

RESULTS OF ANALYSES OF AIR

Maxxam ID		GH8491	GH8492	
Sampling Date		2010/06/19	2010/06/19	
COC Number		2309	2309	
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	QC Batch

Volatile Organics				
Pressure on Receipt	psig	18	21	2192691

QC Batch = Quality Control Batch

Maxxam Job #: B083433
 Report Date: 2010/07/29

CALCULATED VOLATILE ORGANICS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch

Calculated Parameters					
2,2,4-Trimethylpentane	ug/m3	<0.93	<0.93	0.93	2220828
Carbon Disulfide	ug/m3	1.7	<1.6	1.6	2220828
Propene	ug/m3	<0.52	<0.52	0.52	2220828
Vinyl Acetate	ug/m3	<0.70	<0.70	0.70	2220828
Vinyl Bromide	ug/m3	<0.87	<0.87	0.87	2220828
Dichlorodifluoromethane (FREON 12)	ug/m3	3.91	4.10	0.99	2220828
1,2-Dichlorotetrafluoroethane	ug/m3	<1.2	<1.2	1.2	2220828
Chloromethane	ug/m3	1.25	1.22	0.62	2220828
Vinyl Chloride	ug/m3	<0.46	<0.46	0.46	2220828
Chloroethane	ug/m3	<0.79	<0.79	0.79	2220828
1,3-Butadiene	ug/m3	<1.1	<1.1	1.1	2220828
Trichlorofluoromethane (FREON 11)	ug/m3	2.2	2.1	1.1	2220828
Ethanol	ug/m3	<4.3	<4.3	4.3	2220828
Trichlorotrifluoroethane	ug/m3	<1.1	<1.1	1.1	2220828
2-propanol	ug/m3	<7.4	<7.4	7.4	2220828
2-Propanone	ug/m3	13.8	12.2	1.9	2220828
Methyl Ethyl Ketone (2-Butanone)	ug/m3	<8.8	<8.8	8.8	2220828
Methyl Isobutyl Ketone	ug/m3	<13	<13	13	2220828
Methyl Butyl Ketone (2-Hexanone)	ug/m3	<8.2	<8.2	8.2	2220828
Methyl t-butyl ether (MTBE)	ug/m3	<0.72	<0.72	0.72	2220828
Ethyl Acetate	ug/m3	<7.9	<7.9	7.9	2220828
1,1-Dichloroethylene	ug/m3	<0.99	<0.99	0.99	2220828
cis-1,2-Dichloroethylene	ug/m3	<0.75	<0.75	0.75	2220828
trans-1,2-Dichloroethylene	ug/m3	<0.79	<0.79	0.79	2220828
Methylene Chloride(Dichloromethane)	ug/m3	2.6	2.0	1.0	2220828
Chloroform	ug/m3	<0.73	<0.73	0.73	2220828
Carbon Tetrachloride	ug/m3	<1.9	<1.9	1.9	2220828
1,1-Dichloroethane	ug/m3	<0.81	<0.81	0.81	2220828
1,2-Dichloroethane	ug/m3	<0.81	<0.81	0.81	2220828
Ethylene Dibromide	ug/m3	<1.3	<1.3	1.3	2220828
1,1,1-Trichloroethane	ug/m3	<1.6	<1.6	1.6	2220828

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B083433
 Report Date: 2010/07/29

CALCULATED VOLATILE ORGANICS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch
1,1,2-Trichloroethane	ug/m3	<0.82	<0.82	0.82	2220828
1,1,2,2-Tetrachloroethane	ug/m3	<1.4	<1.4	1.4	2220828
cis-1,3-Dichloropropene	ug/m3	<0.82	<0.82	0.82	2220828
trans-1,3-Dichloropropene	ug/m3	<0.77	<0.77	0.77	2220828
1,2-Dichloropropane	ug/m3	<1.8	<1.8	1.8	2220828
Bromomethane	ug/m3	<0.70	<0.70	0.70	2220828
Bromoform	ug/m3	<2.1	<2.1	2.1	2220828
Bromodichloromethane	ug/m3	<1.3	<1.3	1.3	2220828
Dibromochloromethane	ug/m3	<1.7	<1.7	1.7	2220828
Trichloroethylene	ug/m3	<1.6	<1.6	1.6	2220828
Tetrachloroethylene	ug/m3	<1.4	<1.4	1.4	2220828
Benzene	ug/m3	<0.58	<0.58	0.58	2220828
Toluene	ug/m3	1.08	<0.75	0.75	2220828
Ethylbenzene	ug/m3	<0.87	<0.87	0.87	2220828
p+m-Xylene	ug/m3	<1.6	<1.6	1.6	2220828
o-Xylene	ug/m3	<0.87	<0.87	0.87	2220828
Styrene	ug/m3	<0.85	<0.85	0.85	2220828
4-ethyltoluene	ug/m3	<11	<11	11	2220828
1,3,5-Trimethylbenzene	ug/m3	<2.5	<2.5	2.5	2220828
1,2,4-Trimethylbenzene	ug/m3	<2.5	<2.5	2.5	2220828
Chlorobenzene	ug/m3	<0.92	<0.92	0.92	2220828
Benzyl chloride	ug/m3	<5.2	<5.2	5.2	2220828
1,3-Dichlorobenzene	ug/m3	<2.4	<2.4	2.4	2220828
1,4-Dichlorobenzene	ug/m3	<2.4	<2.4	2.4	2220828
1,2-Dichlorobenzene	ug/m3	<2.4	<2.4	2.4	2220828
1,2,4-Trichlorobenzene	ug/m3	<15	<15	15	2220828
Hexachlorobutadiene	ug/m3	<32	<32	32	2220828
Hexane	ug/m3	<1.1	<1.1	1.1	2220828
Heptane	ug/m3	<1.2	<1.2	1.2	2220828
Cyclohexane	ug/m3	<0.69	<0.69	0.69	2220828
Tetrahydrofuran	ug/m3	<1.2	<1.2	1.2	2220828
1,4-Dioxane	ug/m3	<7.2	<7.2	7.2	2220828
Xylene (Total)	ug/m3	<2.6	<2.6	2.6	2220828
QC Batch = Quality Control Batch					

Maxxam Job #: B083433
 Report Date: 2010/07/29

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GH8493	GH8494		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA PUF/QFF/CLS/JUN 19, 10	LICA PUF/QFF/PORT/JUN 19, 10	RDL	QC Batch
Semivolatile Organics					
1-Methylnaphthalene	ug	0.12	0.11	0.10	2193362
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2193362
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2193362
2-Methylantracene	ug	<0.10	<0.10	0.10	2193362
2-Methylnaphthalene	ug	0.25	0.27	0.10	2193362
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2193362
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2193362
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2193362
Acenaphthene	ug	<0.050	<0.050	0.050	2193362
Acenaphthylene	ug	<0.050	<0.050	0.050	2193362
Anthracene	ug	<0.050	<0.050	0.050	2193362
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2193362
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2193362
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2193362
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2193362
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2193362
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2193362
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2193362
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2193362
Biphenyl	ug	<0.10	<0.10	0.10	2193362
Chrysene	ug	<0.050	<0.050	0.050	2193362
Coronene	ug	<0.10	<0.10	0.10	2193362
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2193362
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2193362
Fluoranthene	ug	<0.050	<0.050	0.050	2193362
Fluorene	ug	0.100	0.082	0.050	2193362
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2193362
m-Terphenyl	ug	<0.10	<0.10	0.10	2193362
Naphthalene	ug	0.138	0.110	0.072	2193362
o-Terphenyl	ug	<0.10	<0.10	0.10	2193362
Perylene	ug	<0.10	<0.10	0.10	2193362
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: B083433
 Report Date: 2010/07/29

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GH8493	GH8494		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA PUF/QFF/CLS/JUN 19, 10	LICA PUF/QFF/PORT/JUN 19, 10	RDL	QC Batch
Phenanthrene	ug	0.358	0.172	0.050	2193362
p-Terphenyl	ug	<0.10	<0.10	0.10	2193362
Pyrene	ug	<0.050	<0.050	0.050	2193362
Quinoline	ug	<0.40	<0.40	0.40	2193362
Tetralin	ug	<0.10	<0.10	0.10	2193362
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	58	62		2193362
D10-Fluoranthene	%	98	100		2193362
D10-Fluorene (FS)	%	48 (1)	48 (1)		2193362
D10-Phenanthrene	%	84	84		2193362
D12-Benzo(a)anthracene	%	112	116		2193362
D12-Benzo(a)pyrene	%	90	90		2193362
D12-Benzo(b)fluoranthene	%	90	90		2193362
D12-Benzo(ghi)perylene	%	88	90		2193362
D12-Benzo(k)fluoranthene	%	84	84		2193362
D12-Chrysene	%	84	84		2193362
D12-Indeno(1,2,3-cd)pyrene	%	88	90		2193362
D12-Perylene	%	86	86		2193362
D14-Dibenzo(a,h)anthracene	%	76	78		2193362
D14-Terphenyl (FS)	%	81	81		2193362
D8-Acenaphthylene	%	68	72		2193362
D8-Naphthalene	%	64	70		2193362
QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.					

Maxxam Job #: B083433
 Report Date: 2010/07/29

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch

Volatile Organics					
2,2,4-Trimethylpentane	ppbv	<0.20	<0.20	0.20	2193201
Carbon Disulfide	ppbv	0.56	<0.50	0.50	2193201
Propene	ppbv	<0.30	<0.30	0.30	2193201
Vinyl Acetate	ppbv	<0.20	<0.20	0.20	2193201
Vinyl Bromide	ppbv	<0.20	<0.20	0.20	2193201
Dichlorodifluoromethane (FREON 12)	ppbv	0.79	0.83	0.20	2193201
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	<0.17	0.17	2193201
Chloromethane	ppbv	0.60	0.59	0.30	2193201
Vinyl Chloride	ppbv	<0.18	<0.18	0.18	2193201
Chloroethane	ppbv	<0.30	<0.30	0.30	2193201
1,3-Butadiene	ppbv	<0.50	<0.50	0.50	2193201
Trichlorofluoromethane (FREON 11)	ppbv	0.38	0.37	0.20	2193201
Trichlorotrifluoroethane	ppbv	<0.15	<0.15	0.15	2193201
Ethanol	ppbv	<2.3	<2.3	2.3	2193201
2-propanol	ppbv	<3.0	<3.0	3.0	2193201
2-Propanone	ppbv	5.80	5.12	0.80	2193201
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	<3.0	3.0	2193201
Methyl Isobutyl Ketone	ppbv	<3.2	<3.2	3.2	2193201
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	<2.0	2.0	2193201
Methyl t-butyl ether (MTBE)	ppbv	<0.20	<0.20	0.20	2193201
Ethyl Acetate	ppbv	<2.2	<2.2	2.2	2193201
1,1-Dichloroethylene	ppbv	<0.25	<0.25	0.25	2193201
cis-1,2-Dichloroethylene	ppbv	<0.19	<0.19	0.19	2193201
trans-1,2-Dichloroethylene	ppbv	<0.20	<0.20	0.20	2193201
Methylene Chloride(Dichloromethane)	ppbv	0.75	0.56	0.30	2193201
Chloroform	ppbv	<0.15	<0.15	0.15	2193201
Carbon Tetrachloride	ppbv	<0.30	<0.30	0.30	2193201
1,1-Dichloroethane	ppbv	<0.20	<0.20	0.20	2193201
1,2-Dichloroethane	ppbv	<0.20	<0.20	0.20	2193201
Ethylene Dibromide	ppbv	<0.17	<0.17	0.17	2193201
1,1,1-Trichloroethane	ppbv	<0.30	<0.30	0.30	2193201
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: B083433
 Report Date: 2010/07/29

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	<0.15	0.15	2193201
1,1,2,2-Tetrachloroethane	ppbv	<0.20	<0.20	0.20	2193201
cis-1,3-Dichloropropene	ppbv	<0.18	<0.18	0.18	2193201
trans-1,3-Dichloropropene	ppbv	<0.17	<0.17	0.17	2193201
1,2-Dichloropropane	ppbv	<0.40	<0.40	0.40	2193201
Bromomethane	ppbv	<0.18	<0.18	0.18	2193201
Bromoform	ppbv	<0.20	<0.20	0.20	2193201
Bromodichloromethane	ppbv	<0.20	<0.20	0.20	2193201
Dibromochloromethane	ppbv	<0.20	<0.20	0.20	2193201
Heptane	ppbv	<0.30	<0.30	0.30	2193201
Trichloroethylene	ppbv	<0.30	<0.30	0.30	2193201
Tetrachloroethylene	ppbv	<0.20	<0.20	0.20	2193201
Benzene	ppbv	<0.18	<0.18	0.18	2193201
Toluene	ppbv	0.29	<0.20	0.20	2193201
Ethylbenzene	ppbv	<0.20	<0.20	0.20	2193201
p+m-Xylene	ppbv	<0.37	<0.37	0.37	2193201
o-Xylene	ppbv	<0.20	<0.20	0.20	2193201
Styrene	ppbv	<0.20	<0.20	0.20	2193201
1,3,5-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2193201
1,2,4-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2193201
4-ethyltoluene	ppbv	<2.2	<2.2	2.2	2193201
Chlorobenzene	ppbv	<0.20	<0.20	0.20	2193201
Benzyl chloride	ppbv	<1.0	<1.0	1.0	2193201
1,3-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2193201
1,4-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2193201
1,2-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2193201
1,2,4-Trichlorobenzene	ppbv	<2.0	<2.0	2.0	2193201
Hexachlorobutadiene	ppbv	<3.0	<3.0	3.0	2193201
Hexane	ppbv	<0.30	<0.30	0.30	2193201
Cyclohexane	ppbv	<0.20	<0.20	0.20	2193201
Tetrahydrofuran	ppbv	<0.40	<0.40	0.40	2193201
1,4-Dioxane	ppbv	<2.0	<2.0	2.0	2193201
Xylene (Total)	ppbv	<0.60	<0.60	0.60	2193201
QC Batch = Quality Control Batch					

Maxxam Job #: B083433
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VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GH8491	GH8492		
Sampling Date		2010/06/19	2010/06/19		
COC Number		2309	2309		
	Units	LICA VOC/CLS/JUN 19,10 - 7813	LICAVOC/PORT/JUN 19,10 - 7809	RDL	QC Batch

Surrogate Recovery (%)					
Bromochloromethane	%	87	83		2193201
D5-Chlorobenzene	%	85	82		2193201
Difluorobenzene	%	90	86		2193201

QC Batch = Quality Control Batch

Maxxam Job #: B083433
 Report Date: 2010/07/29

Test Summary

Maxxam ID GH8491 **Collected** 2010/06/19
Sample ID LICA VOC/CLS/JUN 19,10 - 7813 **Shipped**
Matrix AIR **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2192691	N/A	2010/06/28	LSY
Volatile Organics in Air (ug/m3)	GC/MS	2220828	N/A	2010/07/29	
Volatile Organics in Air (TO-15)	GC/MS	2193201	N/A	2010/06/28	LSY

Maxxam ID GH8492 **Collected** 2010/06/19
Sample ID LICAVOC/PORT/JUN 19,10 - 7809 **Shipped**
Matrix AIR **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2192691	N/A	2010/06/28	LSY
Volatile Organics in Air (ug/m3)	GC/MS	2220828	N/A	2010/07/29	
Volatile Organics in Air (TO-15)	GC/MS	2193201	N/A	2010/06/28	LSY

Maxxam ID GH8493 **Collected** 2010/06/19
Sample ID LICA PUF/QFF/CLS/JUN 19, 10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2193362	2010/06/29	2010/07/23	JIW

Maxxam ID GH8494 **Collected** 2010/06/19
Sample ID LICA PUF/QFF/PORT/JUN 19, 10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/25

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2193362	2010/06/29	2010/07/23	JIW

Maxxam Job #: B083433
Report Date: 2010/07/29

GENERAL COMMENTS

Continuing calibration Standard

Worksheet #2193201: 3 compounds exceed 130%RSD criteria. Compounds meet criteria in the reference standard. These 3 compounds are not found in the job. The failure of these 3 compounds is not believed to have an effect on the integrity of the results, therefore the data was accepted.

PAHMS-F(WS:2193362)

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positive found for this compound.

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.10ug.

Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample GH8493-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Sample GH8494-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
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Quality Assurance Report
 Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193201 LSY	Spiked Blank	Bromochloromethane	2010/06/28		112	%	60 - 140
		D5-Chlorobenzene	2010/06/28		115	%	60 - 140
		Difluorobenzene	2010/06/28		116	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/28		94	%	70 - 130
		Carbon Disulfide	2010/06/28		95	%	70 - 130
		Propene	2010/06/28		97	%	70 - 130
		Vinyl Acetate	2010/06/28		111	%	70 - 130
		Vinyl Bromide	2010/06/28		96	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/06/28		89	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/06/28		88	%	70 - 130
		Chloromethane	2010/06/28		95	%	70 - 130
		Vinyl Chloride	2010/06/28		99	%	70 - 130
		Chloroethane	2010/06/28		102	%	70 - 130
		1,3-Butadiene	2010/06/28		84	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/06/28		103	%	70 - 130
		Trichlorotrifluoroethane	2010/06/28		99	%	70 - 130
		Ethanol	2010/06/28		119	%	70 - 130
		2-propanol	2010/06/28		99	%	70 - 130
		2-Propanone	2010/06/28		109	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/06/28		99	%	70 - 130
		Methyl Isobutyl Ketone	2010/06/28		88	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/06/28		85	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/06/28		103	%	70 - 130
		Ethyl Acetate	2010/06/28		97	%	70 - 130
		1,1-Dichloroethylene	2010/06/28		101	%	70 - 130
		cis-1,2-Dichloroethylene	2010/06/28		100	%	70 - 130
		trans-1,2-Dichloroethylene	2010/06/28		100	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/06/28		88	%	70 - 130
		Chloroform	2010/06/28		101	%	70 - 130
		Carbon Tetrachloride	2010/06/28		115	%	70 - 130
		1,1-Dichloroethane	2010/06/28		97	%	70 - 130
		1,2-Dichloroethane	2010/06/28		103	%	70 - 130
		Ethylene Dibromide	2010/06/28		97	%	70 - 130
		1,1,1-Trichloroethane	2010/06/28		108	%	70 - 130
		1,1,2-Trichloroethane	2010/06/28		99	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/06/28		92	%	70 - 130
		cis-1,3-Dichloropropene	2010/06/28		107	%	70 - 130
		trans-1,3-Dichloropropene	2010/06/28		115	%	70 - 130
		1,2-Dichloropropane	2010/06/28		94	%	70 - 130
		Bromomethane	2010/06/28		92	%	70 - 130
		Bromoform	2010/06/28		109	%	70 - 130
		Bromodichloromethane	2010/06/28		105	%	70 - 130
		Dibromochloromethane	2010/06/28		107	%	70 - 130
		Heptane	2010/06/28		96	%	70 - 130
		Trichloroethylene	2010/06/28		94	%	70 - 130
		Tetrachloroethylene	2010/06/28		99	%	70 - 130
		Benzene	2010/06/28		94	%	70 - 130
		Toluene	2010/06/28		97	%	70 - 130
		Ethylbenzene	2010/06/28		95	%	70 - 130
		p+m-Xylene	2010/06/28		95	%	70 - 130
		o-Xylene	2010/06/28		97	%	70 - 130
		Styrene	2010/06/28		78	%	70 - 130
		1,3,5-Trimethylbenzene	2010/06/28		87	%	70 - 130
		1,2,4-Trimethylbenzene	2010/06/28		84	%	70 - 130
		4-ethyltoluene	2010/06/28		92	%	70 - 130

Lakeland Industry & Community Assoc.
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Quality Assurance Report (Continued)

Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193201 LSY	Spiked Blank	Chlorobenzene	2010/06/28		93	%	70 - 130
		Benzyl chloride	2010/06/28		119	%	70 - 130
		1,3-Dichlorobenzene	2010/06/28		91	%	70 - 130
		1,4-Dichlorobenzene	2010/06/28		86	%	70 - 130
		1,2-Dichlorobenzene	2010/06/28		84	%	70 - 130
		1,2,4-Trichlorobenzene	2010/06/28		84	%	70 - 130
		Hexachlorobutadiene	2010/06/28		85	%	70 - 130
		Hexane	2010/06/28		94	%	70 - 130
		Cyclohexane	2010/06/28		95	%	70 - 130
		Tetrahydrofuran	2010/06/28		94	%	70 - 130
		1,4-Dioxane	2010/06/28		84	%	70 - 130
	Method Blank	Bromochloromethane	2010/06/28		94	%	60 - 140
		D5-Chlorobenzene	2010/06/28		92	%	60 - 140
		Difluorobenzene	2010/06/28		97	%	60 - 140
		2,2,4-Trimethylpentane	2010/06/28	<0.20		ppbv	
		Carbon Disulfide	2010/06/28	<0.50		ppbv	
		Propene	2010/06/28	<0.30		ppbv	
		Vinyl Acetate	2010/06/28	<0.20		ppbv	
		Vinyl Bromide	2010/06/28	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/06/28	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/06/28	<0.17		ppbv	
		Chloromethane	2010/06/28	<0.30		ppbv	
		Vinyl Chloride	2010/06/28	<0.18		ppbv	
		Chloroethane	2010/06/28	<0.30		ppbv	
		1,3-Butadiene	2010/06/28	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/06/28	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/06/28	<0.15		ppbv	
		Ethanol	2010/06/28	<2.3		ppbv	
		2-propanol	2010/06/28	<3.0		ppbv	
		2-Propanone	2010/06/28	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/06/28	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/06/28	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/06/28	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/06/28	<0.20		ppbv	
		Ethyl Acetate	2010/06/28	<2.2		ppbv	
		1,1-Dichloroethylene	2010/06/28	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/06/28	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/06/28	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/06/28	0.43, RDL=0.30		ppbv	
		Chloroform	2010/06/28	<0.15		ppbv	
		Carbon Tetrachloride	2010/06/28	<0.30		ppbv	
		1,1-Dichloroethane	2010/06/28	<0.20		ppbv	
		1,2-Dichloroethane	2010/06/28	<0.20		ppbv	
		Ethylene Dibromide	2010/06/28	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/06/28	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/06/28	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/06/28	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/06/28	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/06/28	<0.17		ppbv	
		1,2-Dichloropropane	2010/06/28	<0.40		ppbv	
		Bromomethane	2010/06/28	<0.18		ppbv	
		Bromoform	2010/06/28	<0.20		ppbv	
		Bromodichloromethane	2010/06/28	<0.20		ppbv	
		Dibromochloromethane	2010/06/28	<0.20		ppbv	
		Heptane	2010/06/28	<0.30		ppbv	

Lakeland Industry & Community Assoc.
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Quality Assurance Report (Continued)

Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2193201 LSY	Method Blank	Trichloroethylene	2010/06/28	<0.30		ppbv		
		Tetrachloroethylene	2010/06/28	<0.20		ppbv		
		Benzene	2010/06/28	<0.18		ppbv		
		Toluene	2010/06/28	<0.20		ppbv		
		Ethylbenzene	2010/06/28	<0.20		ppbv		
		p+m-Xylene	2010/06/28	<0.37		ppbv		
		o-Xylene	2010/06/28	<0.20		ppbv		
		Styrene	2010/06/28	<0.20		ppbv		
		1,3,5-Trimethylbenzene	2010/06/28	<0.50		ppbv		
		1,2,4-Trimethylbenzene	2010/06/28	<0.50		ppbv		
		4-ethyltoluene	2010/06/28	<2.2		ppbv		
		Chlorobenzene	2010/06/28	<0.20		ppbv		
		Benzyl chloride	2010/06/28	<1.0		ppbv		
		1,3-Dichlorobenzene	2010/06/28	<0.40		ppbv		
		1,4-Dichlorobenzene	2010/06/28	<0.40		ppbv		
		1,2-Dichlorobenzene	2010/06/28	<0.40		ppbv		
		1,2,4-Trichlorobenzene	2010/06/28	<2.0		ppbv		
		Hexachlorobutadiene	2010/06/28	<3.0		ppbv		
		Hexane	2010/06/28	<0.30		ppbv		
		Cyclohexane	2010/06/28	<0.20		ppbv		
		Tetrahydrofuran	2010/06/28	<0.40		ppbv		
1,4-Dioxane	2010/06/28	<2.0		ppbv				
Xylene (Total)	2010/06/28	<0.60		ppbv				
2193362 JIW	Spiked Blank	D10-2-Methylnaphthalene	2010/07/23		58	%	50 - 150	
		D10-Fluoranthene	2010/07/23		88	%	50 - 150	
		D10-Phenanthrene	2010/07/23		74	%	50 - 150	
		D12-Benzo(a)anthracene	2010/07/23		100	%	50 - 150	
		D12-Benzo(a)pyrene	2010/07/23		86	%	50 - 150	
		D12-Benzo(b)fluoranthene	2010/07/23		84	%	50 - 150	
		D12-Benzo(ghi)perylene	2010/07/23		86	%	50 - 150	
		D12-Benzo(k)fluoranthene	2010/07/23		82	%	50 - 150	
		D12-Chrysene	2010/07/23		84	%	50 - 150	
		D12-Indeno(1,2,3-cd)pyrene	2010/07/23		84	%	50 - 150	
		D12-Perylene	2010/07/23		84	%	50 - 150	
		D14-Dibenzo(a,h)anthracene	2010/07/23		74	%	50 - 150	
		D8-Acenaphthylene	2010/07/23		62	%	50 - 150	
		D8-Naphthalene	2010/07/23		66	%	50 - 150	
		Acenaphthene	2010/07/23		70	%	60 - 130	
		RPD	Acenaphthene	2010/07/23	17.2		%	50
		Spiked Blank	Acenaphthylene	2010/07/23		69	%	60 - 130
		RPD	Acenaphthylene	2010/07/23	20.1		%	50
		Spiked Blank	Anthracene	2010/07/23		74	%	60 - 130
		RPD	Anthracene	2010/07/23	6.6		%	50
		Spiked Blank	Benzo(a)anthracene	2010/07/23		80	%	60 - 130
		RPD	Benzo(a)anthracene	2010/07/23	2.2		%	50
		Spiked Blank	Benzo(a)pyrene	2010/07/23		72	%	60 - 130
		RPD	Benzo(a)pyrene	2010/07/23	5.8		%	50
		Spiked Blank	Benzo(b)fluoranthene	2010/07/23		72	%	60 - 130
		RPD	Benzo(b)fluoranthene	2010/07/23	7.3		%	50
		Spiked Blank	Benzo(g,h,i)perylene	2010/07/23		77	%	60 - 130
		RPD	Benzo(g,h,i)perylene	2010/07/23	5.7		%	50
Spiked Blank	Benzo(k)fluoranthene	2010/07/23		84	%	60 - 130		
RPD	Benzo(k)fluoranthene	2010/07/23	2.7		%	50		
Spiked Blank	Chrysene	2010/07/23		84	%	60 - 130		
RPD	Chrysene	2010/07/23	3.2		%	50		

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Quality Assurance Report (Continued)
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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193362 JIW	Spiked Blank	Dibenz(a,h)anthracene	2010/07/23		71	%	60 - 130
	RPD	Dibenz(a,h)anthracene	2010/07/23	6.5		%	50
	Spiked Blank	Fluoranthene	2010/07/23		88	%	60 - 130
	RPD	Fluoranthene	2010/07/23	2.8		%	50
	Spiked Blank	Fluorene	2010/07/23		71	%	60 - 130
	RPD	Fluorene	2010/07/23	13.4		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/07/23		72	%	60 - 130
	RPD	Indeno(1,2,3-cd)pyrene	2010/07/23	5.8		%	50
	Spiked Blank	Naphthalene	2010/07/23		65	%	60 - 130
	RPD	Naphthalene	2010/07/23	21.8		%	50
	Spiked Blank	Phenanthrene	2010/07/23		71	%	60 - 130
	RPD	Phenanthrene	2010/07/23	9.0		%	50
	Spiked Blank	Pyrene	2010/07/23		83	%	60 - 130
	RPD	Pyrene	2010/07/23	3.3		%	50
	Method Blank	D10-2-Methylnaphthalene	2010/07/23		68	%	50 - 150
		D10-Fluoranthene	2010/07/23		86	%	50 - 150
		D10-Phenanthrene	2010/07/23		72	%	50 - 150
		D12-Benzo(a)anthracene	2010/07/23		98	%	50 - 150
		D12-Benzo(a)pyrene	2010/07/23		84	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/07/23		84	%	50 - 150
		D12-Benzo(ghi)perylene	2010/07/23		84	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/07/23		82	%	50 - 150
		D12-Chrysene	2010/07/23		88	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/07/23		82	%	50 - 150
		D12-Perylene	2010/07/23		86	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/07/23		70	%	50 - 150
		D8-Acenaphthylene	2010/07/23		72	%	50 - 150
		D8-Naphthalene	2010/07/23		80	%	50 - 150
		1-Methylnaphthalene	2010/07/23	<0.10		ug	
		1-Methylphenanthrene	2010/07/23	<0.10		ug	
		2-Chloronaphthalene	2010/07/23	<0.10		ug	
		2-Methylantracene	2010/07/23	<0.10		ug	
		2-Methylnaphthalene	2010/07/23	<0.10		ug	
		3-Methylcholanthrene	2010/07/23	<2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/07/23	<0.10		ug	
		9,10-Dimethylantracene	2010/07/23	<0.40		ug	
		Acenaphthene	2010/07/23	<0.050		ug	
		Acenaphthylene	2010/07/23	<0.050		ug	
		Anthracene	2010/07/23	<0.050		ug	
		Benzo(a)anthracene	2010/07/23	<0.050		ug	
		Benzo(a)fluorene	2010/07/23	<0.10		ug	
		Benzo(a)pyrene	2010/07/23	<0.050		ug	
		Benzo(b)fluoranthene	2010/07/23	<0.050		ug	
		Benzo(b)fluorene	2010/07/23	<0.10		ug	
		Benzo(e)pyrene	2010/07/23	<0.10		ug	
		Benzo(g,h,i)perylene	2010/07/23	<0.050		ug	
		Benzo(k)fluoranthene	2010/07/23	<0.050		ug	
		Biphenyl	2010/07/23	<0.10		ug	
		Chrysene	2010/07/23	<0.050		ug	
		Coronene	2010/07/23	<0.10		ug	
		Dibenz(a,h)anthracene	2010/07/23	<0.050		ug	
		Dibenzo(a,e)pyrene	2010/07/23	<0.20		ug	
		Fluoranthene	2010/07/23	<0.050		ug	
		Fluorene	2010/07/23	<0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/07/23	<0.050		ug	

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Quality Assurance Report (Continued)

Maxxam Job Number: GB083433

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2193362 JIW	Method Blank	m-Terphenyl	2010/07/23	<0.10		ug	
		Naphthalene	2010/07/23	<0.072		ug	
		o-Terphenyl	2010/07/23	<0.10		ug	
		Perylene	2010/07/23	<0.10		ug	
		Phenanthrene	2010/07/23	<0.050		ug	
		p-Terphenyl	2010/07/23	<0.10		ug	
		Pyrene	2010/07/23	<0.050		ug	
		Quinoline	2010/07/23	<0.40		ug	
		Tetralin	2010/07/23	<0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: 7837
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: June 24, 10 @ 15:28 mst
 Field Sample ID: LICA VOC/PORT/ June 25, 10 Canister Removal Date/Time: June 28,10 @ 8:35 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
25-Jun-10	06/25/2010 0:00	06/26/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1482	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	20.5

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC # 0563

Technician Signature: Shea Beaton



Your C.O.C. #: 0563

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B085824

Received: 2010/06/30, 09:09

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/07/05	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/07/05	BRL SOP-00304	EPA TO-15

Sample Matrix: PUF AND FILTER
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/07/09	2010/07/24	BRL SOP-00201	CARB429(ARBM1,M2)mod

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

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

Encryption Key

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

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

=====



Your C.O.C. #: 0563

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/07/28

CERTIFICATE OF ANALYSIS

-2-

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

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Total cover pages: 2

Page 2 of 15

Page 179 of 192

Maxxam Job #: B085824
 Report Date: 2010/07/28

RESULTS OF ANALYSES OF AIR

Maxxam ID		GJ6735	GJ6736	
Sampling Date		2010/06/25	2010/06/25	
COC Number		0563	0563	
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	QC Batch

Volatile Organics				
Pressure on Receipt	psig	20	21	2197951

QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GJ0752	GJ0753		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICAPUF/QFF/CLS/JUNE25,10	LICAPUF/QFF/PORT/JUNE25,10	RDL	QC Batch

Semivolatile Organics					
1-Methylnaphthalene	ug	<0.10	<0.10	0.10	2202480
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2202480
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2202480
2-Methylantracene	ug	<0.10	<0.10	0.10	2202480
2-Methylnaphthalene	ug	0.17	0.12	0.10	2202480
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2202480
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2202480
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2202480
Acenaphthene	ug	0.050	<0.050	0.050	2202480
Acenaphthylene	ug	<0.050	0.092	0.050	2202480
Anthracene	ug	<0.050	<0.050	0.050	2202480
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2202480
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2202480
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2202480
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2202480
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2202480
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2202480
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2202480
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2202480
Biphenyl	ug	<0.10	<0.10	0.10	2202480
Chrysene	ug	<0.050	<0.050	0.050	2202480
Coronene	ug	<0.10	<0.10	0.10	2202480
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2202480
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2202480
Fluoranthene	ug	0.066	0.162	0.050	2202480
Fluorene	ug	0.132	0.100	0.050	2202480
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2202480
m-Terphenyl	ug	<0.10	<0.10	0.10	2202480
Naphthalene	ug	0.144	0.090	0.072	2202480
o-Terphenyl	ug	<0.10	<0.10	0.10	2202480
Perylene	ug	<0.10	<0.10	0.10	2202480
Phenanthrene	ug	0.566	0.562	0.050	2202480

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		GJ0752	GJ0753		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICAPUF/QFF/CLS/JUNE25,10	LICAPUF/QFF/PORT/JUNE25,10	RDL	QC Batch

p-Terphenyl	ug	<0.10	<0.10	0.10	2202480
Pyrene	ug	<0.050	0.136	0.050	2202480
Quinoline	ug	<0.40	<0.40	0.40	2202480
Tetralin	ug	<0.10	<0.10	0.10	2202480
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	62	60		2202480
D10-Fluoranthene	%	106	100		2202480
D10-Fluorene (FS)	%	51	46 (1)		2202480
D10-Phenanthrene	%	92	86		2202480
D12-Benzo(a)anthracene	%	124	114		2202480
D12-Benzo(a)pyrene	%	100	92		2202480
D12-Benzo(b)fluoranthene	%	98	90		2202480
D12-Benzo(ghi)perylene	%	98	92		2202480
D12-Benzo(k)fluoranthene	%	90	80		2202480
D12-Chrysene	%	90	80		2202480
D12-Indeno(1,2,3-cd)pyrene	%	96	90		2202480
D12-Perylene	%	94	88		2202480
D14-Dibenzo(a,h)anthracene	%	84	82		2202480
D14-Terphenyl (FS)	%	87	78		2202480
D8-Acenaphthylene	%	82	76		2202480
D8-Naphthalene	%	68	64		2202480

QC Batch = Quality Control Batch

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B085824
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GJ6735	GJ6736		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	RDL	QC Batch

Volatile Organics					
2,2,4-Trimethylpentane	ppbv	<0.20	<0.20	0.20	2197955
Carbon Disulfide	ppbv	<0.50	<0.50	0.50	2197955
Propene	ppbv	<0.30	<0.30	0.30	2197955
Vinyl Acetate	ppbv	<0.20	<0.20	0.20	2197955
Vinyl Bromide	ppbv	<0.20	<0.20	0.20	2197955
Dichlorodifluoromethane (FREON 12)	ppbv	0.71	0.83	0.20	2197955
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	<0.17	0.17	2197955
Chloromethane	ppbv	0.64	0.65	0.30	2197955
Vinyl Chloride	ppbv	<0.18	<0.18	0.18	2197955
Chloroethane	ppbv	<0.30	<0.30	0.30	2197955
1,3-Butadiene	ppbv	<0.50	<0.50	0.50	2197955
Trichlorofluoromethane (FREON 11)	ppbv	0.33	0.37	0.20	2197955
Trichlorotrifluoroethane	ppbv	<0.15	<0.15	0.15	2197955
Ethanol	ppbv	2.9	<2.3	2.3	2197955
2-propanol	ppbv	<3.0	<3.0	3.0	2197955
2-Propanone	ppbv	4.47	4.63	0.80	2197955
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	<3.0	3.0	2197955
Methyl Isobutyl Ketone	ppbv	<3.2	<3.2	3.2	2197955
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	<2.0	2.0	2197955
Methyl t-butyl ether (MTBE)	ppbv	<0.20	<0.20	0.20	2197955
Ethyl Acetate	ppbv	<2.2	<2.2	2.2	2197955
1,1-Dichloroethylene	ppbv	<0.25	<0.25	0.25	2197955
cis-1,2-Dichloroethylene	ppbv	<0.19	<0.19	0.19	2197955
trans-1,2-Dichloroethylene	ppbv	<0.20	<0.20	0.20	2197955
Methylene Chloride(Dichloromethane)	ppbv	0.59	0.48	0.30	2197955
Chloroform	ppbv	<0.15	<0.15	0.15	2197955
Carbon Tetrachloride	ppbv	<0.30	<0.30	0.30	2197955
1,1-Dichloroethane	ppbv	<0.20	<0.20	0.20	2197955
1,2-Dichloroethane	ppbv	<0.20	<0.20	0.20	2197955
Ethylene Dibromide	ppbv	<0.17	<0.17	0.17	2197955
1,1,1-Trichloroethane	ppbv	<0.30	<0.30	0.30	2197955

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GJ6735	GJ6736		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	RDL	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	<0.15	0.15	2197955
1,1,2,2-Tetrachloroethane	ppbv	<0.20	<0.20	0.20	2197955
cis-1,3-Dichloropropene	ppbv	<0.18	<0.18	0.18	2197955
trans-1,3-Dichloropropene	ppbv	<0.17	<0.17	0.17	2197955
1,2-Dichloropropane	ppbv	<0.40	<0.40	0.40	2197955
Bromomethane	ppbv	<0.18	<0.18	0.18	2197955
Bromoform	ppbv	<0.20	<0.20	0.20	2197955
Bromodichloromethane	ppbv	<0.20	<0.20	0.20	2197955
Dibromochloromethane	ppbv	<0.20	<0.20	0.20	2197955
Heptane	ppbv	<0.30	<0.30	0.30	2197955
Trichloroethylene	ppbv	<0.30	<0.30	0.30	2197955
Tetrachloroethylene	ppbv	<0.20	<0.20	0.20	2197955
Benzene	ppbv	<0.18	<0.18	0.18	2197955
Toluene	ppbv	0.26	<0.20	0.20	2197955
Ethylbenzene	ppbv	<0.20	<0.20	0.20	2197955
p+m-Xylene	ppbv	<0.37	<0.37	0.37	2197955
o-Xylene	ppbv	<0.20	<0.20	0.20	2197955
Styrene	ppbv	<0.20	<0.20	0.20	2197955
1,3,5-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2197955
1,2,4-Trimethylbenzene	ppbv	<0.50	<0.50	0.50	2197955
4-ethyltoluene	ppbv	<2.2	<2.2	2.2	2197955
Chlorobenzene	ppbv	<0.20	<0.20	0.20	2197955
Benzyl chloride	ppbv	<1.0	<1.0	1.0	2197955
1,3-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2197955
1,4-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2197955
1,2-Dichlorobenzene	ppbv	<0.40	<0.40	0.40	2197955
1,2,4-Trichlorobenzene	ppbv	<2.0	<2.0	2.0	2197955
Hexachlorobutadiene	ppbv	<3.0	<3.0	3.0	2197955
Hexane	ppbv	<0.30	<0.30	0.30	2197955
Cyclohexane	ppbv	<0.20	0.21	0.20	2197955
Tetrahydrofuran	ppbv	<0.40	<0.40	0.40	2197955
1,4-Dioxane	ppbv	<2.0	<2.0	2.0	2197955
Xylene (Total)	ppbv	<0.60	<0.60	0.60	2197955
QC Batch = Quality Control Batch					

Maxxam Job #: B085824
 Report Date: 2010/07/28

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		GJ6735	GJ6736		
Sampling Date		2010/06/25	2010/06/25		
COC Number		0563	0563		
	Units	LICA VOC/CLS/JUNE 25,10	LICA VOC/PORT/JUNE 25,10	RDL	QC Batch

Surrogate Recovery (%)					
Bromochloromethane	%	99	79		2197955
D5-Chlorobenzene	%	99	77		2197955
Difluorobenzene	%	103	81		2197955

QC Batch = Quality Control Batch

Maxxam Job #: B085824
 Report Date: 2010/07/28

Test Summary

Maxxam ID GJ0752 **Collected** 2010/06/25
Sample ID LICAPUF/QFF/CLS/JUNE25,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2202480	2010/07/09	2010/07/24	JIW

Maxxam ID GJ0753 **Collected** 2010/06/25
Sample ID LICAPUF/QFF/PORT/JUNE25,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2202480	2010/07/09	2010/07/24	JIW

Maxxam ID GJ6735 **Collected** 2010/06/25
Sample ID LICA VOC/CLS/JUNE 25,10 **Shipped**
Matrix AIR **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2197951	N/A	2010/07/05	LSY
Volatile Organics in Air (TO-15)	GC/MS	2197955	N/A	2010/07/05	LSY

Maxxam ID GJ6736 **Collected** 2010/06/25
Sample ID LICA VOC/PORT/JUNE 25,10 **Shipped**
Matrix AIR **Received** 2010/06/30

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2197951	N/A	2010/07/05	LSY
Volatile Organics in Air (TO-15)	GC/MS	2197955	N/A	2010/07/05	LSY

Maxxam Job #: B085824
Report Date: 2010/07/28

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positive found for this compound.

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.10ug.

Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample GJ0753-01: PAHMS-F

Low D10-Fluorene field spike recovery. Suspect sample matrix as cause due to acceptable recovery of D14-Terphenyl field spike.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB085824

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2197955 LSY	Spiked Blank	Bromochloromethane	2010/07/05		100	%	60 - 140
		D5-Chlorobenzene	2010/07/05		103	%	60 - 140
		Difluorobenzene	2010/07/05		104	%	60 - 140
		2,2,4-Trimethylpentane	2010/07/05		91	%	70 - 130
		Carbon Disulfide	2010/07/05		94	%	70 - 130
		Propene	2010/07/05		94	%	70 - 130
		Vinyl Acetate	2010/07/05		106	%	70 - 130
		Vinyl Bromide	2010/07/05		95	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/07/05		99	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/07/05		85	%	70 - 130
		Chloromethane	2010/07/05		92	%	70 - 130
		Vinyl Chloride	2010/07/05		97	%	70 - 130
		Chloroethane	2010/07/05		97	%	70 - 130
		1,3-Butadiene	2010/07/05		80	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/07/05		98	%	70 - 130
		Trichlorotrifluoroethane	2010/07/05		97	%	70 - 130
		Ethanol	2010/07/05		112	%	70 - 130
		2-propanol	2010/07/05		94	%	70 - 130
		2-Propanone	2010/07/05		109	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/07/05		97	%	70 - 130
		Methyl Isobutyl Ketone	2010/07/05		82	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/07/05		77	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/07/05		101	%	70 - 130
		Ethyl Acetate	2010/07/05		93	%	70 - 130
		1,1-Dichloroethylene	2010/07/05		96	%	70 - 130
		cis-1,2-Dichloroethylene	2010/07/05		96	%	70 - 130
		trans-1,2-Dichloroethylene	2010/07/05		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/07/05		85	%	70 - 130
		Chloroform	2010/07/05		97	%	70 - 130
		Carbon Tetrachloride	2010/07/05		110	%	70 - 130
		1,1-Dichloroethane	2010/07/05		96	%	70 - 130
		1,2-Dichloroethane	2010/07/05		97	%	70 - 130
		Ethylene Dibromide	2010/07/05		96	%	70 - 130
		1,1,1-Trichloroethane	2010/07/05		103	%	70 - 130
		1,1,2-Trichloroethane	2010/07/05		98	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/07/05		90	%	70 - 130
		cis-1,3-Dichloropropene	2010/07/05		106	%	70 - 130
		trans-1,3-Dichloropropene	2010/07/05		111	%	70 - 130
		1,2-Dichloropropane	2010/07/05		92	%	70 - 130
		Bromomethane	2010/07/05		90	%	70 - 130
		Bromoform	2010/07/05		108	%	70 - 130
		Bromodichloromethane	2010/07/05		101	%	70 - 130
		Dibromochloromethane	2010/07/05		104	%	70 - 130
		Heptane	2010/07/05		91	%	70 - 130
		Trichloroethylene	2010/07/05		95	%	70 - 130
		Tetrachloroethylene	2010/07/05		99	%	70 - 130
		Benzene	2010/07/05		93	%	70 - 130
		Toluene	2010/07/05		97	%	70 - 130
		Ethylbenzene	2010/07/05		93	%	70 - 130
		p+m-Xylene	2010/07/05		93	%	70 - 130
		o-Xylene	2010/07/05		94	%	70 - 130
		Styrene	2010/07/05		70	%	70 - 130
		1,3,5-Trimethylbenzene	2010/07/05		82	%	70 - 130
		1,2,4-Trimethylbenzene	2010/07/05		81	%	70 - 130
		4-ethyltoluene	2010/07/05		90	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB085824

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2197955 LSY	Spiked Blank	Chlorobenzene	2010/07/05		92	%	70 - 130
		Benzyl chloride	2010/07/05		118	%	70 - 130
		1,3-Dichlorobenzene	2010/07/05		90	%	70 - 130
		1,4-Dichlorobenzene	2010/07/05		88	%	70 - 130
		1,2-Dichlorobenzene	2010/07/05		83	%	70 - 130
		1,2,4-Trichlorobenzene	2010/07/05		81	%	70 - 130
		Hexachlorobutadiene	2010/07/05		82	%	70 - 130
		Hexane	2010/07/05		93	%	70 - 130
		Cyclohexane	2010/07/05		93	%	70 - 130
		Tetrahydrofuran	2010/07/05		89	%	70 - 130
		1,4-Dioxane	2010/07/05		82	%	70 - 130
	Method Blank	Bromochloromethane	2010/07/05		83	%	60 - 140
		D5-Chlorobenzene	2010/07/05		83	%	60 - 140
		Difluorobenzene	2010/07/05		86	%	60 - 140
		2,2,4-Trimethylpentane	2010/07/05	<0.20		ppbv	
		Carbon Disulfide	2010/07/05	<0.50		ppbv	
		Propene	2010/07/05	<0.30		ppbv	
		Vinyl Acetate	2010/07/05	<0.20		ppbv	
		Vinyl Bromide	2010/07/05	<0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/07/05	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/07/05	<0.17		ppbv	
		Chloromethane	2010/07/05	<0.30		ppbv	
		Vinyl Chloride	2010/07/05	<0.18		ppbv	
		Chloroethane	2010/07/05	<0.30		ppbv	
		1,3-Butadiene	2010/07/05	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/07/05	<0.20		ppbv	
		Trichlorotrifluoroethane	2010/07/05	<0.15		ppbv	
		Ethanol	2010/07/05	<2.3		ppbv	
		2-propanol	2010/07/05	<3.0		ppbv	
		2-Propanone	2010/07/05	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/07/05	<3.0		ppbv	
		Methyl Isobutyl Ketone	2010/07/05	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/07/05	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/07/05	<0.20		ppbv	
		Ethyl Acetate	2010/07/05	<2.2		ppbv	
		1,1-Dichloroethylene	2010/07/05	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/07/05	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/07/05	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/07/05	0.43, RDL=0.30		ppbv	
		Chloroform	2010/07/05	<0.15		ppbv	
		Carbon Tetrachloride	2010/07/05	<0.30		ppbv	
		1,1-Dichloroethane	2010/07/05	<0.20		ppbv	
		1,2-Dichloroethane	2010/07/05	<0.20		ppbv	
		Ethylene Dibromide	2010/07/05	<0.17		ppbv	
		1,1,1-Trichloroethane	2010/07/05	<0.30		ppbv	
		1,1,2-Trichloroethane	2010/07/05	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/07/05	<0.20		ppbv	
		cis-1,3-Dichloropropene	2010/07/05	<0.18		ppbv	
		trans-1,3-Dichloropropene	2010/07/05	<0.17		ppbv	
		1,2-Dichloropropane	2010/07/05	<0.40		ppbv	
		Bromomethane	2010/07/05	<0.18		ppbv	
		Bromoform	2010/07/05	<0.20		ppbv	
		Bromodichloromethane	2010/07/05	<0.20		ppbv	
		Dibromochloromethane	2010/07/05	<0.20		ppbv	
		Heptane	2010/07/05	<0.30		ppbv	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2197955 LSY	Method Blank	Trichloroethylene	2010/07/05	<0.30		ppbv		
		Tetrachloroethylene	2010/07/05	<0.20		ppbv		
		Benzene	2010/07/05	<0.18		ppbv		
		Toluene	2010/07/05	<0.20		ppbv		
		Ethylbenzene	2010/07/05	<0.20		ppbv		
		p+m-Xylene	2010/07/05	<0.37		ppbv		
		o-Xylene	2010/07/05	<0.20		ppbv		
		Styrene	2010/07/05	<0.20		ppbv		
		1,3,5-Trimethylbenzene	2010/07/05	<0.50		ppbv		
		1,2,4-Trimethylbenzene	2010/07/05	<0.50		ppbv		
		4-ethyltoluene	2010/07/05	<2.2		ppbv		
		Chlorobenzene	2010/07/05	<0.20		ppbv		
		Benzyl chloride	2010/07/05	<1.0		ppbv		
		1,3-Dichlorobenzene	2010/07/05	<0.40		ppbv		
		1,4-Dichlorobenzene	2010/07/05	<0.40		ppbv		
		1,2-Dichlorobenzene	2010/07/05	<0.40		ppbv		
		1,2,4-Trichlorobenzene	2010/07/05	<2.0		ppbv		
		Hexachlorobutadiene	2010/07/05	<3.0		ppbv		
		Hexane	2010/07/05	<0.30		ppbv		
		Cyclohexane	2010/07/05	<0.20		ppbv		
Tetrahydrofuran	2010/07/05	<0.40		ppbv				
1,4-Dioxane	2010/07/05	<2.0		ppbv				
Xylene (Total)	2010/07/05	<0.60		ppbv				
2202480 JIW	Spiked Blank	D10-2-Methylnaphthalene	2010/07/24		72	%	50 - 150	
		D10-Fluoranthene	2010/07/24		96	%	50 - 150	
		D10-Phenanthrene	2010/07/24		88	%	50 - 150	
		D12-Benzo(a)anthracene	2010/07/24		108	%	50 - 150	
		D12-Benzo(a)pyrene	2010/07/24		92	%	50 - 150	
		D12-Benzo(b)fluoranthene	2010/07/24		94	%	50 - 150	
		D12-Benzo(ghi)perylene	2010/07/24		94	%	50 - 150	
		D12-Benzo(k)fluoranthene	2010/07/24		86	%	50 - 150	
		D12-Chrysene	2010/07/24		86	%	50 - 150	
		D12-Indeno(1,2,3-cd)pyrene	2010/07/24		94	%	50 - 150	
		D12-Perylene	2010/07/24		92	%	50 - 150	
		D14-Dibenzo(a,h)anthracene	2010/07/24		84	%	50 - 150	
		D8-Acenaphthylene	2010/07/24		82	%	50 - 150	
		D8-Naphthalene	2010/07/24		82	%	50 - 150	
		Acenaphthene	2010/07/24		89	%	60 - 130	
		RPD	Acenaphthene	2010/07/24	2.9		%	50
		Spiked Blank	Acenaphthylene	2010/07/24		93	%	60 - 130
		RPD	Acenaphthylene	2010/07/24	1.4		%	50
		Spiked Blank	Anthracene	2010/07/24		88	%	60 - 130
		RPD	Anthracene	2010/07/24	1.4		%	50
		Spiked Blank	Benzo(a)anthracene	2010/07/24		90	%	60 - 130
		RPD	Benzo(a)anthracene	2010/07/24	2.3		%	50
		Spiked Blank	Benzo(a)pyrene	2010/07/24		82	%	60 - 130
		RPD	Benzo(a)pyrene	2010/07/24	0		%	50
		Spiked Blank	Benzo(b)fluoranthene	2010/07/24		83	%	60 - 130
		RPD	Benzo(b)fluoranthene	2010/07/24	1.8		%	50
		Spiked Blank	Benzo(g,h,i)perylene	2010/07/24		89	%	60 - 130
		RPD	Benzo(g,h,i)perylene	2010/07/24	2.3		%	50
Spiked Blank	Benzo(k)fluoranthene	2010/07/24		89	%	60 - 130		
RPD	Benzo(k)fluoranthene	2010/07/24	1.4		%	50		
Spiked Blank	Chrysene	2010/07/24		90	%	60 - 130		
RPD	Chrysene	2010/07/24	0.8		%	50		

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2202480 JIW	Spiked Blank	Dibenz(a,h)anthracene	2010/07/24		83	%	60 - 130
	RPD	Dibenz(a,h)anthracene	2010/07/24	1.8		%	50
	Spiked Blank	Fluoranthene	2010/07/24		99	%	60 - 130
	RPD	Fluoranthene	2010/07/24	0.3		%	50
	Spiked Blank	Fluorene	2010/07/24		90	%	60 - 130
	RPD	Fluorene	2010/07/24	2.5		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/07/24		83	%	60 - 130
	RPD	Indeno(1,2,3-cd)pyrene	2010/07/24	2.4		%	50
	Spiked Blank	Naphthalene	2010/07/24		84	%	60 - 130
	RPD	Naphthalene	2010/07/24	3.3		%	50
	Spiked Blank	Phenanthrene	2010/07/24		87	%	60 - 130
	RPD	Phenanthrene	2010/07/24	2.0		%	50
	Spiked Blank	Pyrene	2010/07/24		92	%	60 - 130
	RPD	Pyrene	2010/07/24	1.9		%	50
	Method Blank	D10-2-Methylnaphthalene	2010/07/24		76	%	50 - 150
		D10-Fluoranthene	2010/07/24		104	%	50 - 150
		D10-Phenanthrene	2010/07/24		88	%	50 - 150
		D12-Benzo(a)anthracene	2010/07/24		124	%	50 - 150
		D12-Benzo(a)pyrene	2010/07/24		100	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/07/24		100	%	50 - 150
		D12-Benzo(ghi)perylene	2010/07/24		102	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/07/24		92	%	50 - 150
		D12-Chrysene	2010/07/24		92	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/07/24		100	%	50 - 150
		D12-Perylene	2010/07/24		100	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/07/24		90	%	50 - 150
		D8-Acenaphthylene	2010/07/24		92	%	50 - 150
		D8-Naphthalene	2010/07/24		84	%	50 - 150
		1-Methylnaphthalene	2010/07/24	<0.10		ug	
		1-Methylphenanthrene	2010/07/24	<0.10		ug	
		2-Chloronaphthalene	2010/07/24	<0.10		ug	
		2-Methylantracene	2010/07/24	<0.10		ug	
		2-Methylnaphthalene	2010/07/24	<0.10		ug	
		3-Methylcholanthrene	2010/07/24	<2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/07/24	<0.10		ug	
		9,10-Dimethylantracene	2010/07/24	<0.40		ug	
		Acenaphthene	2010/07/24	<0.050		ug	
		Acenaphthylene	2010/07/24	<0.050		ug	
		Anthracene	2010/07/24	<0.050		ug	
		Benzo(a)anthracene	2010/07/24	<0.050		ug	
		Benzo(a)fluorene	2010/07/24	<0.10		ug	
		Benzo(a)pyrene	2010/07/24	<0.050		ug	
		Benzo(b)fluoranthene	2010/07/24	<0.050		ug	
		Benzo(b)fluorene	2010/07/24	<0.10		ug	
		Benzo(e)pyrene	2010/07/24	<0.10		ug	
		Benzo(g,h,i)perylene	2010/07/24	<0.050		ug	
		Benzo(k)fluoranthene	2010/07/24	<0.050		ug	
		Biphenyl	2010/07/24	<0.10		ug	
		Chrysene	2010/07/24	<0.050		ug	
		Coronene	2010/07/24	<0.10		ug	
		Dibenz(a,h)anthracene	2010/07/24	<0.050		ug	
		Dibenzo(a,e)pyrene	2010/07/24	<0.20		ug	
		Fluoranthene	2010/07/24	<0.050		ug	
		Fluorene	2010/07/24	<0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/07/24	<0.050		ug	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2202480 JIW	Method Blank	m-Terphenyl	2010/07/24	<0.10		ug	
		Naphthalene	2010/07/24	<0.072		ug	
		o-Terphenyl	2010/07/24	<0.10		ug	
		Perylene	2010/07/24	<0.10		ug	
		Phenanthrene	2010/07/24	<0.050		ug	
		p-Terphenyl	2010/07/24	<0.10		ug	
		Pyrene	2010/07/24	<0.050		ug	
		Quinoline	2010/07/24	<0.40		ug	
		Tetralin	2010/07/24	<0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.