

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: January 23, 2007
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Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: DECEMBER 2006

Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
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Program Operations/Data Collection Activities Summary:

- Periods of wind speed data (and associated computed parameters) are reported as missing ("N") on December 27 and 30. This missing data is the result of frozen wind speed cups due to a buildup of ice on each during periods of frozen precipitation.
- No other operational problems occurred at the Lakeshore/Willis Ave monitoring site in December and monthly data recovery rates for all parameters range from 97 to 100 percent.

Climatic Summary: DECEMBER 2006

General Predominance for winds from: due west

10-meter level

Primary Peak WD: W Max. Wind Speed: 21.8 mph
Secondary Peak WD: WSW Min. Wind Speed: 1.1 mph

2-meter level

Max. Temperature: 62.2 °F Max. Dew Point Temp. 58.4 °F Max. Relative Humidity 99%
Min. Temperature: 11.7 °F Min. Dew Point Temp. 8.7 °F Min. Relative Humidity 32.2%

Cumulative-to-date Data Recovery Rates

Period: December 1, 2006 through

December 31, 2006

10-Meter Level

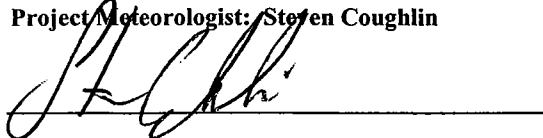
10-Meter Vector Wind Speed: 97.0 %
10-Meter Vector Wind Direction: 97.0 %
10-Meter Scalar Wind Speed: 97.0 %
10-Meter Scalar Wind Direction: 100.0 %
10-Meter Sigma Theta: 100.0 %

10-Meter Vertical Wind Speed: 100.0 %
Sigma W: 100.0 %
Sigma Phi: 97.0 %
10-Meter Temperature: 100.0 %

2-Meter Level

2-Meter Temperature: 100.0 %
Delta Temperature: 100.0 %
Relative Humidity: 100.0 %
Dew Point Temperature: 100.0 %
Solar Radiation: 100.0 %
Barometric Pressure: 100.0 %

Project Meteorologist: Steven Coughlin



Distribution:

T. Johnson - Parsons
G. Pacheco - Parsons
T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: DECEMBER 2006

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: DECEMBER 2006

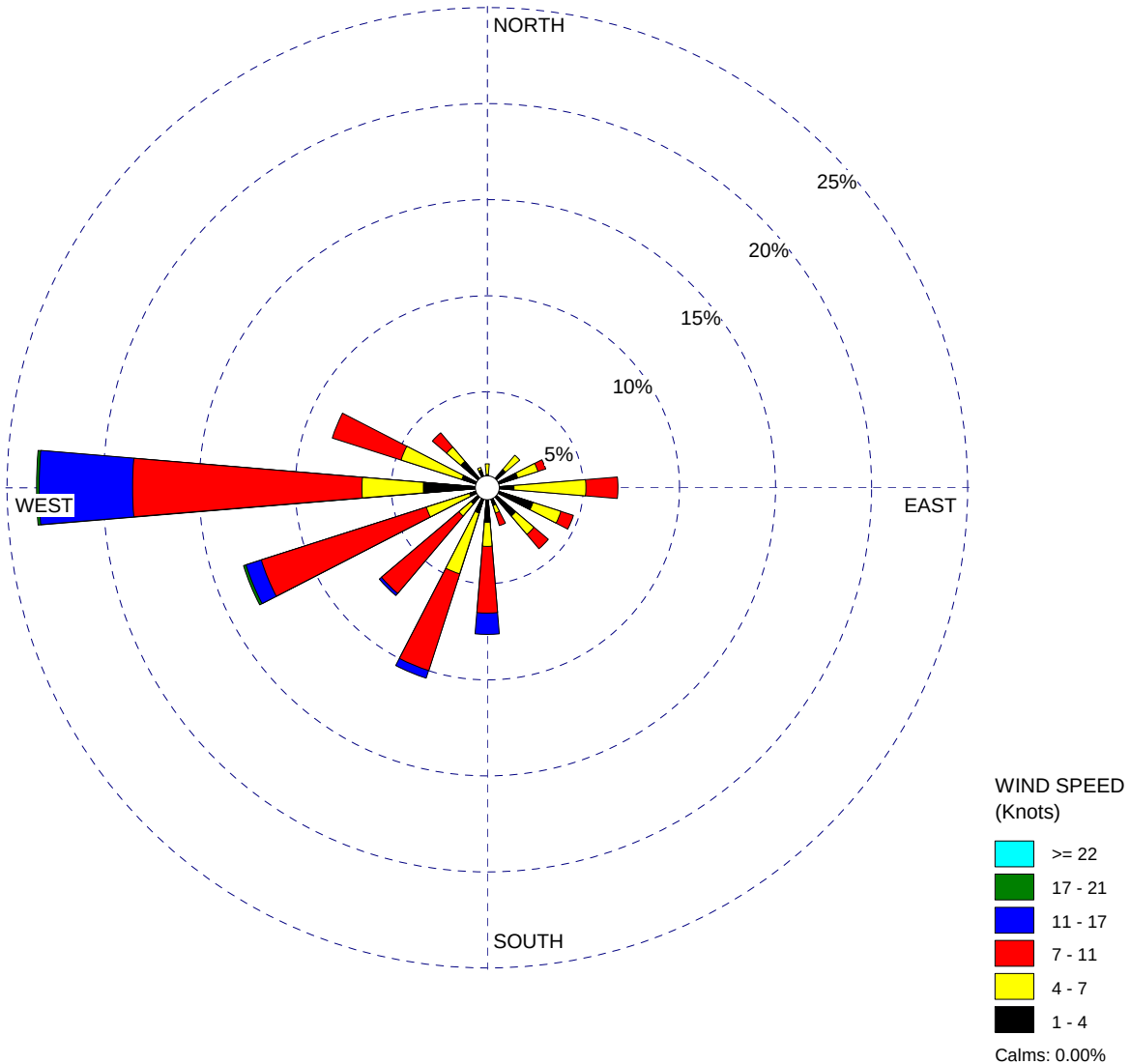
<u>SITE / PARAMETER</u>	<u>MONTHLY MINIMUM VALUE</u>	<u>MONTHLY MAXIMUM VALUE</u>	<u>MONTHLY MEAN VALUE</u>	<u>MONTHLY DATA RECOVERY RATES (%)</u>	
				<u>OPERATING SCHEDULE</u>	<u>TOTAL HOURS</u>
<u>LAKESHORE/WILLIS AVE 10-METER TOWER</u>					
<u>10-Meter Level</u>					
Vector Wind Speed (mph)	0.3	21.3	7.6	97.0	97.0
Vector Wind Direction (deg)	1	358	214	97.0	97.0
Scalar Wind Speed (mph)	1.1	21.8	7.9	97.0	97.0
Scalar Wind Direction (deg.)	2	360	217	100.0	100.0
Sigma Theta (deg.)	1.3	65.3	16.4	100.0	100.0
Vertical Wind Speed (mph)	-0.29	1.30	0.24	100.0	100.0
Sigma W (mph)	0.12	2.35	0.94	100.0	100.0
Sigma Phi (deg)	3.17	15.7	6.9	100.0	97.0
Temperature (deg-F)	11.7	62.5	38.5	100.0	100.0
<u>2-Meter Level</u>					
Temperature (deg-F)	11.7	62.2	38.2	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-1.49	4.71	0.25	100.0	100.0
Relative Humidity (percent)	32.2	99.0	73.4	100.0	100.0
Dew Point Temperature (deg-F)	8.7	58.4	29.8	100.0	100.0
Solar Radiation (W/m ²)	0.0	461.4	1193.3 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	28.92	30.41	29.82	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave Monitoring Site - 10-Meter Tower - December 2006

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2006
Jan 1 - Dec 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

722 hrs.

AVG. WIND SPEED:

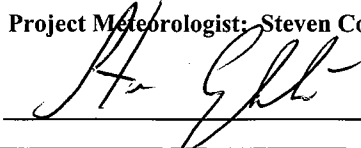
6.89 Knots

DATE:

1/22/2007

PROJECT NO.:

442636-02400

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: February 22, 2007
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: JANUARY 2007	
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
Program Operations/Data Collection Activities Summary: • Periods of wind speed data (and associated computed parameters) are reported as missing ("N") from 1100 EST on January 13 through 0900 EST on January 18. This missing data is the result of frozen wind speed cups due to a buildup of ice during periods of frozen precipitation. • No other operational problems occurred at the Lakeshore/Willis Ave monitoring site in January and monthly data recovery rates for all parameters range from 84.9 to 100 percent.	
Climatic Summary: JANUARY 2007 General Predominance for winds from: <u>due west</u> 10-meter level Primary Peak WD: <u>W</u> Max. Wind Speed: <u>21.2 mph</u> Secondary Peak WD: <u>SSW</u> Min. Wind Speed: <u>0.9 mph</u> 2-meter level Max. Temperature: <u>61.6 °F</u> Max. Dew Point Temp. <u>56.8 °F</u> Max. Relative Humidity <u>100%</u> Min. Temperature: <u>-1.9 °F</u> Min. Dew Point Temp. <u>-4.4 °F</u> Min. Relative Humidity <u>35.2%</u>	
Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through January 31, 2007	
10-Meter Level 10-Meter Vector Wind Speed: <u>91.0</u> % 10-Meter Vector Wind Direction: <u>91.0</u> % 10-Meter Scalar Wind Speed: <u>91.0</u> % 10-Meter Scalar Wind Direction: <u>100.0</u> % 10-Meter Sigma Theta: <u>100.0</u> % 10-Meter Vertical Wind Speed: <u>100.0</u> % Sigma W: <u>100.0</u> % Sigma Phi: <u>91.0</u> % 10-Meter Temperature: <u>100.0</u> %	2-Meter Level 2-Meter Temperature: <u>100.0</u> % Delta Temperature: <u>100.0</u> % Relative Humidity: <u>100.0</u> % Dew Point Temperature: <u>100.0</u> % Solar Radiation: <u>100.0</u> % Barometric Pressure: <u>100.0</u> %
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: JANUARY 2007

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR
RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: JANUARY 2007

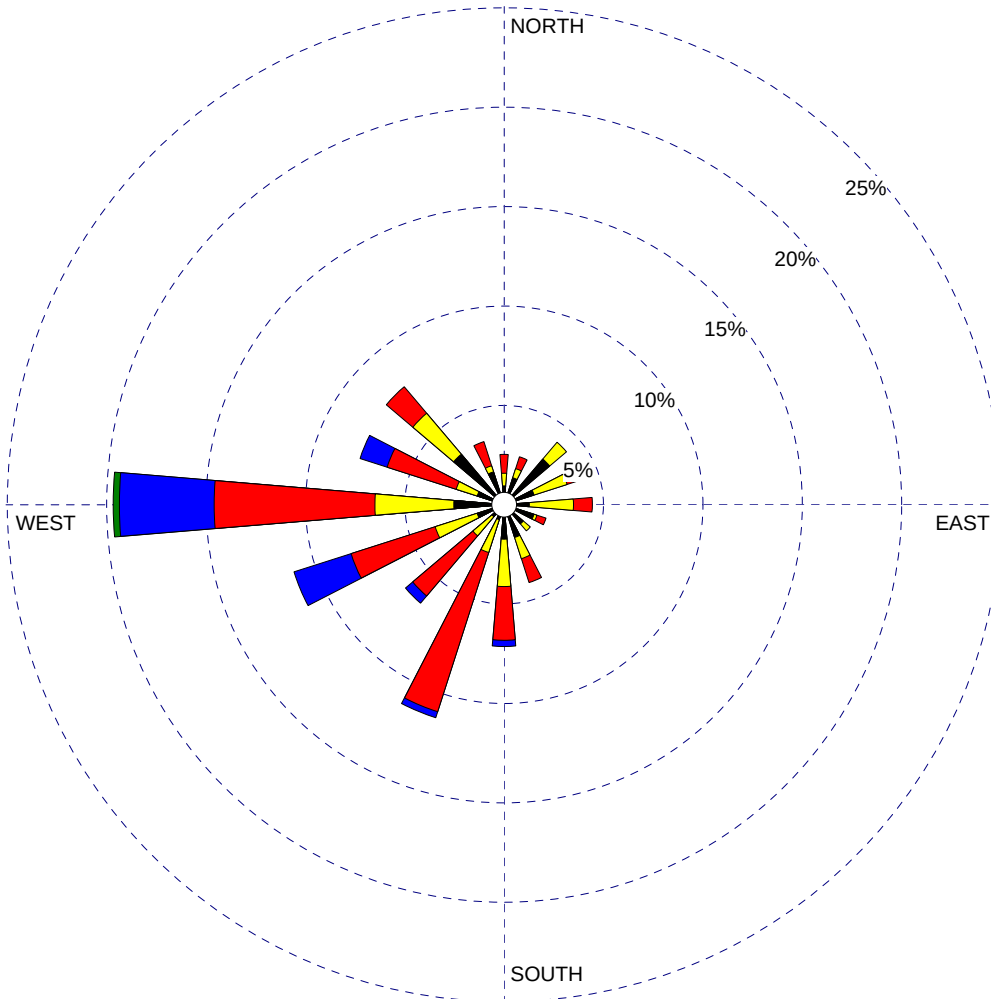
<u>SITE / PARAMETER</u>	<u>MONTHLY MINIMUM VALUE</u>	<u>MONTHLY MAXIMUM VALUE</u>	<u>MONTHLY MEAN VALUE</u>	<u>MONTHLY DATA RECOVERY RATES (%)</u> BASED ON	
				<u>OPERATING SCHEDULE</u>	<u>TOTAL HOURS</u>
<u>LAKESHORE/WILLIS AVE 10-METER TOWER</u>					
<u>10-Meter Level</u>					
Vector Wind Speed (mph)	0.2	20.5	7.6	84.9	84.9
Vector Wind Direction (deg)	4	360	215	84.9	84.9
Scalar Wind Speed (mph)	0.9	21.2	8.0	84.9	84.9
Scalar Wind Direction (deg.)	1	360	214	100.0	100.0
Sigma Theta (deg.)	3.1	65.5	17.5	100.0	100.0
Vertical Wind Speed (mph)	-0.30	1.10	0.21	100.0	100.0
Sigma W (mph)	0.12	2.37	0.94	100.0	100.0
Sigma Phi (deg)	3.10	15.0	7.3	100.0	84.9
Temperature (deg-F)	-1.2	61.9	29.3	100.0	100.0
<u>2-Meter Level</u>					
Temperature (deg-F)	-1.9	61.6	29.2	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-1.05	4.63	0.14	100.0	100.0
Relative Humidity (percent)	35.2	100.0	77.8	100.0	100.0
Dew Point Temperature (deg-F)	-4.4	56.8	22.5	100.0	100.0
Solar Radiation (W/m ²)	0.0	572.1	1472.9 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.15	30.44	29.72	100.0	100.0

WIND ROSE PLOT:

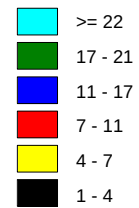
Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave Monitoring Site - 10-Meter Tower - January 2007

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)



Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Jan 1 - Jan 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

632 hrs.

AVG. WIND SPEED:

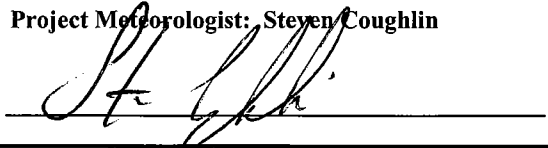
6.95 Knots

DATE:

2/22/2007

PROJECT NO.:

442636-02400

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: March 15, 2007
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: FEBRUARY 2007	
Data: _____ Preliminary ☒ Validated _____ Adjusted (list parameters)	Attached/Enclosed: _____ Preliminary Report _____ AIRS Diskette ☒ Final Report _____ Client Data Disk ☒ Data Summaries _____ Other (as noted)
Program Operations/Data Collection Activities Summary: • No operational problems occurred at the Lakeshore/Willis Ave monitoring site in February and monthly data recovery rates for all parameters are 100 percent.	
Climatic Summary: FEBRUARY 2007 General Predominance for winds from: <u>due west</u> 10-meter level Primary Peak WD: <u>W</u> Max. Wind Speed : <u>23.2 mph</u> Secondary Peak WD: <u>WSW</u> Min. Wind Speed : <u>1.2 mph</u> 2-meter level Max. Temperature: <u>45.4 °F</u> Max. Dew Point Temp. <u>34.7 °F</u> Max. Relative Humidity <u>98%</u> Min. Temperature: <u>-2.0 °F</u> Min. Dew Point Temp. <u>-11.7 °F</u> Min. Relative Humidity <u>32.2%</u>	
Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through February 28, 2007	
10-Meter Level 10-Meter Vector Wind Speed: <u>93.8</u> % 10-Meter Vector Wind Direction: <u>93.8</u> % 10-Meter Scalar Wind Speed: <u>93.8</u> % 10-Meter Scalar Wind Direction: <u>100.0</u> % 10-Meter Sigma Theta: <u>100.0</u> % 10-Meter Vertical Wind Speed: <u>100.0</u> % Sigma W: <u>100.0</u> % Sigma Phi: <u>93.8</u> % 10-Meter Temperature: <u>100.0</u> %	2-Meter Level 2-Meter Temperature: <u>100.0</u> % Delta Temperature: <u>100.0</u> % Relative Humidity: <u>100.0</u> % Dew Point Temperature: <u>100.0</u> % Solar Radiation: <u>100.0</u> % Barometric Pressure: <u>100.0</u> %
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: FEBRUARY 2007

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

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N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: FEBRUARY 2007

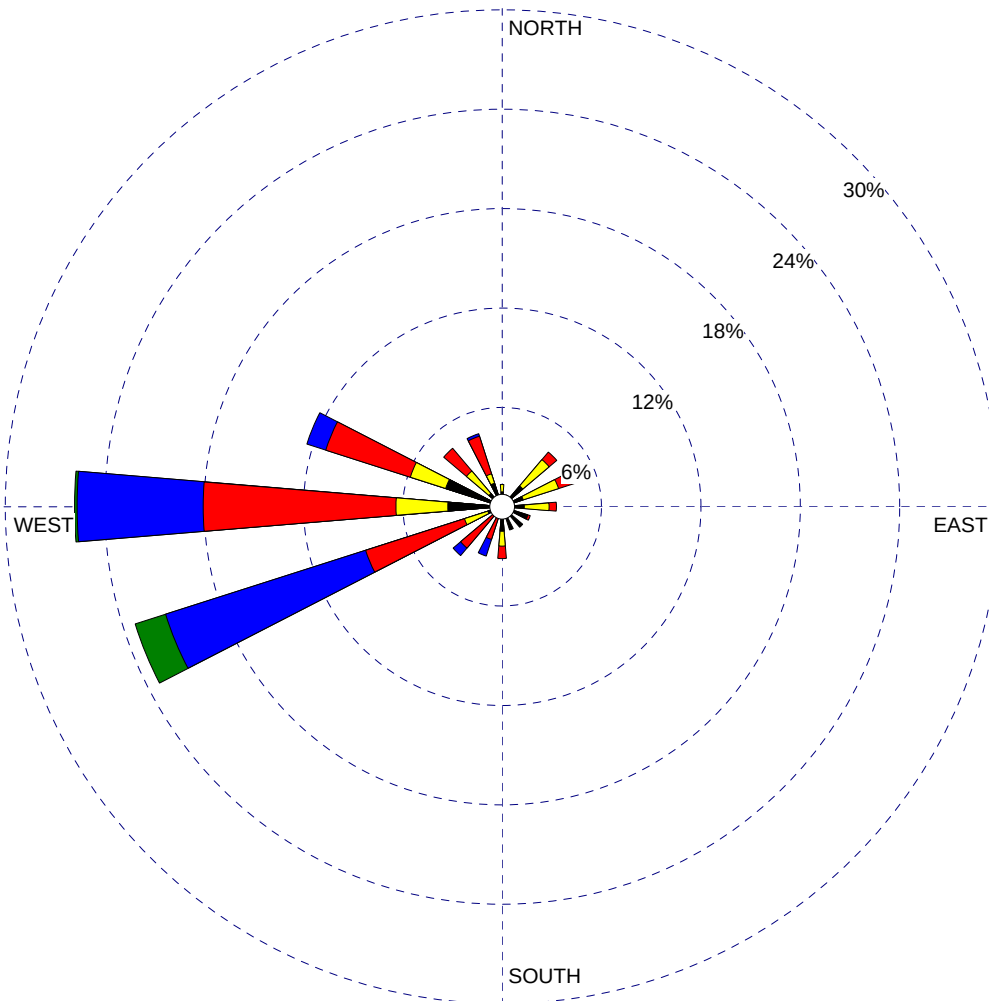
<u>SITE / PARAMETER</u>	<u>MONTHLY MINIMUM VALUE</u>	<u>MONTHLY MAXIMUM VALUE</u>	<u>MONTHLY MEAN VALUE</u>	<u>MONTHLY DATA RECOVERY RATES (%)</u> BASED ON	
				<u>OPERATING SCHEDULE</u>	<u>TOTAL HOURS</u>
<u>LAKESHORE/WILLIS AVE 10-METER TOWER</u>					
<u>10-Meter Level</u>					
Vector Wind Speed (mph)	0.2	22.7	9.4	100.0	100.0
Vector Wind Direction (deg)	2	360	231	100.0	100.0
Scalar Wind Speed (mph)	1.2	23.2	9.7	100.0	100.0
Scalar Wind Direction (deg.)	1	359	230	100.0	100.0
Sigma Theta (deg.)	5.6	57.9	15.5	100.0	100.0
Vertical Wind Speed (mph)	-6.02	0.89	0.05	100.0	100.0
Sigma W (mph)	0.12	2.57	1.16	100.0	100.0
Sigma Phi (deg)	2.85	21.4	7.0	100.0	100.0
Temperature (deg-F)	-0.6	45.3	20.2	100.0	100.0
<u>2-Meter Level</u>					
Temperature (deg-F)	-2.0	45.4	20.0	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-1.37	5.13	0.14	100.0	100.0
Relative Humidity (percent)	32.2	97.9	73.5	100.0	100.0
Dew Point Temperature (deg-F)	-11.7	34.7	12.4	100.0	100.0
Solar Radiation (W/m ²)	0.0	730.9	2731.0 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.19	30.25	29.65	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave Monitoring Site - 10-Meter Tower - February 2007

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
Feb 1 - Feb 28
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

672 hrs.

AVG. WIND SPEED:

8.45 Knots

DATE:

3/16/2007

PROJECT NO.:

442636-02400

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: May 29, 2007
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: MARCH 2007	
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
Program Operations/Data Collection Activities Summary: • A period of wind speed data (and associated calculated parameters) is reported as missing due to a non-scheduled outage ("N") from 2300 EST on March 1 through 0600 EST on March 2. This missing data results from a buildup of frozen precipitation on the anemometer cups during this time period. • Periods of temperature, delta-temperature, and dew-point temperature data are reported as a non-scheduled outage ("N") during the month. This missing data is the result of intermittent electronic interference with the data logger's temperature signal that in turn, resulted in erroneously high temperature readings.	
Climatic Summary: MARCH 2007 General Predominance for winds from: <u>due west through west-northwest</u> 10-meter level Primary Peak WD: <u>W</u> Max. Wind Speed : <u>22.3 mph</u> Secondary Peak WD: <u>WNW</u> Min. Wind Speed : <u>0.8 mph</u> 2-meter level Max. Temperature: <u>64.3 °F</u> Max. Dew Point Temp. <u>53.4 °F</u> Max. Relative Humidity <u>100%</u> Min. Temperature: <u>-1.2 °F</u> Min. Dew Point Temp. <u>-10.3 °F</u> Min. Relative Humidity <u>18.8%</u>	
Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through March 31, 2007	
10-Meter Level 10-Meter Vector Wind Speed: <u>95.1</u> % 10-Meter Vector Wind Direction: <u>95.1</u> % 10-Meter Scalar Wind Speed: <u>95.1</u> % 10-Meter Scalar Wind Direction: <u>100.0</u> % 10-Meter Sigma Theta: <u>100.0</u> % 10-Meter Vertical Wind Speed: <u>100.0</u> % Sigma W: <u>100.0</u> % Sigma Phi: <u>95.1</u> % 10-Meter Temperature: <u>97.7</u> %	2-Meter Level 2-Meter Temperature: <u>97.7</u> % Delta Temperature: <u>97.7</u> % Relative Humidity: <u>100.0</u> % Dew Point Temperature: <u>97.5</u> % Solar Radiation: <u>100.0</u> % Barometric Pressure: <u>100.0</u> %
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: MARCH 2007

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: MARCH 2007

SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%) BASED ON	
				OPERATING SCHEDULE	TOTAL HOURS

LAKESHORE/WILLIS AVE 10-METER TOWER

10-Meter Level

Vector Wind Speed (mph)	0.2	21.8	7.3	98.9	98.9
Vector Wind Direction (deg)	2	360	213	98.9	98.9
Scalar Wind Speed (mph)	0.8	22.3	7.7	98.9	98.9
Scalar Wind Direction (deg.)	1	358	210	100.0	100.0
Sigma Theta (deg.)	5.6	67.4	18.1	100.0	100.0
Vertical Wind Speed (mph)	-2.62	1.44	0.01	100.0	100.0
Sigma W (mph)	0.01	2.56	0.93	100.0	100.0
Sigma Phi (deg)	2.66	22.1	7.1	100.0	98.9
Temperature (deg-F)	-1.1	65.1	32.6	90.9	90.9

2-Meter Level

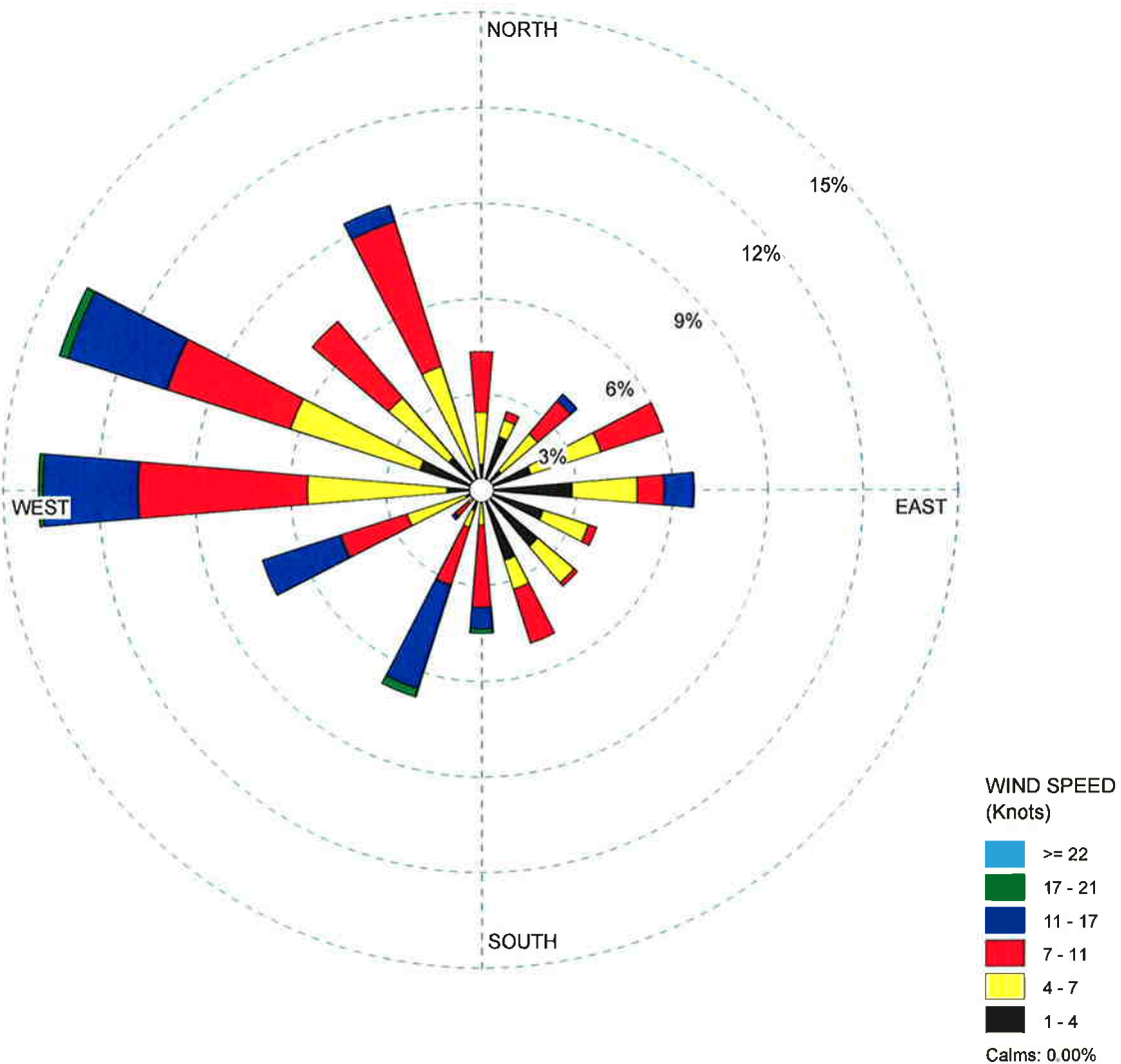
Temperature (deg-F)	-1.2	64.3	32.4	90.9	90.9
10-m - 2-m Delta Temp (F-deg)	-1.91	4.78	0.28	90.9	90.9
Relative Humidity (percent)	18.8	99.7	69.9	100.0	100.0
Dew Point Temperature (deg-F)	-10.3	53.4	22.8	90.3	90.3
Solar Radiation (W/m ²)	0.0	944.0	3755.5 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.01	30.47	29.84	100.0	100.0

WIND ROSE PLOT:

**Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave Monitoring Site - 10-meter Tower - March 2007**

DISPLAY:

**Wind Speed
Direction (blowing from)**



COMMENTS:

DATA PERIOD:

**2007
Mar 1 - Mar 31
00:00 - 23:00**

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

736 hrs.

AVG. WIND SPEED:

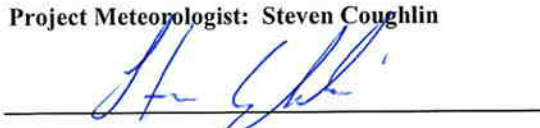
6.74 Knots

DATE:

5/24/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: May 29, 2007
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: APRIL 2007	
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
Program Operations/Data Collection Activities Summary: • Periods of temperature, delta-temperature, and dew-point temperature data are reported as a non-scheduled outage ("N") during the month. This missing data is the result of intermittent electronic interference with the data logger's temperature signal that in turn, resulted in erroneously high temperature readings. • No other operational problems occurred at the Lakeshore/Willis Ave monitoring site in April and monthly data recovery rates for all parameters range from 63.2 percent for the above-mentioned temperature parameters to 100 percent for all remaining parameters.	
Climatic Summary: APRIL 2007 General Predominance for winds from: <u>due west</u> <u>10-meter level</u> Primary Peak WD: <u>W</u> Max. Wind Speed : <u>17.7 mph</u> Secondary Peak WD: <u>WSW</u> Min. Wind Speed : <u>1.0 mph</u> <u>2-meter level</u> Max. Temperature: <u>84.9 °F</u> Max. Dew Point Temp. <u>59.5 °F</u> Max. Relative Humidity <u>100%</u> Min. Temperature: <u>22.7 °F</u> Min. Dew Point Temp. <u>12.7 °F</u> Min. Relative Humidity <u>14.9%</u>	
Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through April 30, 2007	
<u>10-Meter Level</u> 10-Meter Vector Wind Speed: <u>96.1</u> % 10-Meter Vector Wind Direction: <u>96.1</u> % 10-Meter Scalar Wind Speed: <u>96.1</u> % 10-Meter Scalar Wind Direction: <u>100.0</u> % 10-Meter Sigma Theta: <u>100.0</u> % 10-Meter Vertical Wind Speed: <u>100.0</u> % Sigma W: <u>100.0</u> % Sigma Phi: <u>96.1</u> % 10-Meter Temperature: <u>90.8</u> %	<u>2-Meter Level</u> 2-Meter Temperature: <u>90.8</u> % Delta Temperature: <u>90.8</u> % Relative Humidity: <u>100.0</u> % Dew Point Temperature: <u>90.7</u> % Solar Radiation: <u>100.0</u> % Barometric Pressure: <u>100.0</u> %
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons

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HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

=====

METEOROLOGICAL DATA SUMMARY FOR: APRIL 2007

□

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

PREPARED BY: **PARSONS**

BOSTON, MASS.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: APRIL 2007

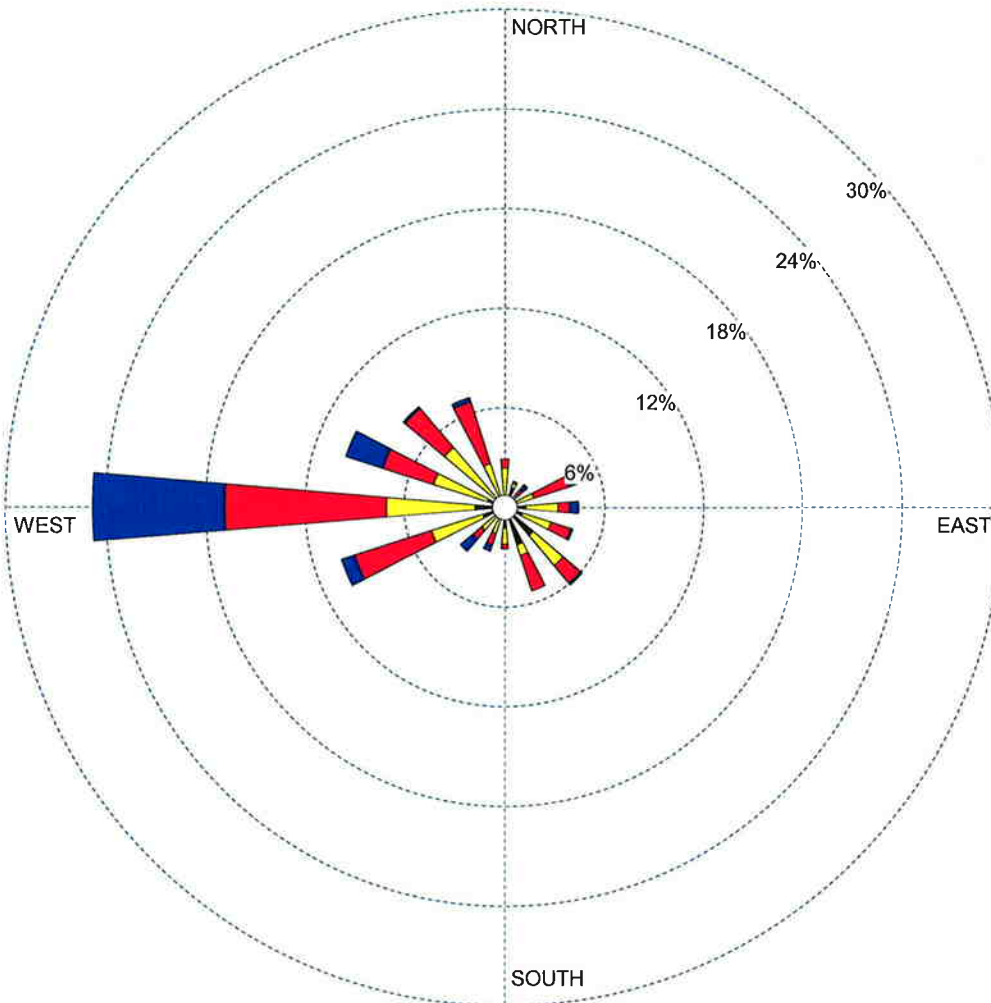
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
LAKESHORE/WILLIS AVE 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.2	17.0	7.4	100.0	100.0
Vector Wind Direction (deg)	2	359	222	100.0	100.0
Scalar Wind Speed (mph)	1.0	17.7	7.8	100.0	100.0
Scalar Wind Direction (deg.)	2	359	222	100.0	100.0
Sigma Theta (deg.)	6.0	68.5	18.5	100.0	100.0
Vertical Wind Speed (mph)	-0.32	0.97	0.15	100.0	100.0
Sigma W (mph)	0.12	2.37	0.96	100.0	100.0
Sigma Phi (deg)	2.68	18.5	7.2	100.0	100.0
Temperature (deg-F)	22.9	84.4	44.6	63.2	63.2
2-Meter Level					
Temperature (deg-F)	22.7	84.9	44.5	63.2	63.2
10-m - 2-m Delta Temp (F-deg)	-2.51	4.94	0.13	63.2	63.2
Relative Humidity (percent)	14.9	100.0	69.2	100.0	100.0
Dew Point Temperature (deg-F)	12.7	59.5	32.6	63.2	63.2
Solar Radiation (W/m ²)	0.0	1020.0	4189.2 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	28.79	29.93	29.59	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave Monitoring Site - 10-meter Tower - April 2007

DISPLAY:

Wind Speed
Direction (blowing from)

WIND SPEED
(Knots)

>= 22
17 - 21
11 - 17
7 - 11
4 - 7
1 - 4

Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Apr 1 - Apr 30
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

720 hrs.

AVG. WIND SPEED:

6.76 Knots

DATE:

5/29/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: June 29, 2007																														
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: MAY 2007																															
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)																														
Program Operations/Data Collection Activities Summary: - Brief periods of data (1 to 2 hours) are reported as scheduled down ("S") on May 1. This scheduled outage is the result of audit activities that occurred at the Willis Ave. site on this day. - Periods of temperature, delta-temperature, and dew-point temperature data are reported as a non-scheduled outage ("N") during the May 23 through May 31 period. This missing data is the result of intermittent electronic interference with the data logger's temperature signal that in turn, resulted in erroneously high temperature readings. - No other operational problems occurred at the Lakeshore/Willis Ave monitoring site in May and monthly data recovery rates for all parameters range from 84.7 percent for the above-mentioned temperature parameters to 100 percent for all remaining parameters.																															
Climatic Summary: MAY 2007 General Predominance for winds from: <u>north-northwest through due north</u> 10-meter level <table style="width: 100%;"> <tr> <td>Primary Peak WD:</td> <td><u>NNW</u></td> <td>Max. Wind Speed :</td> <td><u>19.2</u></td> </tr> <tr> <td>Secondary Peak WD:</td> <td><u>N</u></td> <td>Min. Wind Speed :</td> <td><u>0.9</u></td> </tr> </table> 2-meter level <table style="width: 100%;"> <tr> <td>Max. Temperature:</td> <td><u>89.5 °F</u></td> <td>Max. Dew Point Temp.</td> <td><u>61.5 °F</u></td> <td>Max. Relative Humidity</td> <td><u>99%</u></td> </tr> <tr> <td>Min. Temperature:</td> <td><u>35.1 °F</u></td> <td>Min. Dew Point Temp.</td> <td><u>16.9 °F</u></td> <td>Min. Relative Humidity</td> <td><u>14.4%</u></td> </tr> </table>		Primary Peak WD:	<u>NNW</u>	Max. Wind Speed :	<u>19.2</u>	Secondary Peak WD:	<u>N</u>	Min. Wind Speed :	<u>0.9</u>	Max. Temperature:	<u>89.5 °F</u>	Max. Dew Point Temp.	<u>61.5 °F</u>	Max. Relative Humidity	<u>99%</u>	Min. Temperature:	<u>35.1 °F</u>	Min. Dew Point Temp.	<u>16.9 °F</u>	Min. Relative Humidity	<u>14.4%</u>										
Primary Peak WD:	<u>NNW</u>	Max. Wind Speed :	<u>19.2</u>																												
Secondary Peak WD:	<u>N</u>	Min. Wind Speed :	<u>0.9</u>																												
Max. Temperature:	<u>89.5 °F</u>	Max. Dew Point Temp.	<u>61.5 °F</u>	Max. Relative Humidity	<u>99%</u>																										
Min. Temperature:	<u>35.1 °F</u>	Min. Dew Point Temp.	<u>16.9 °F</u>	Min. Relative Humidity	<u>14.4%</u>																										
Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through May 31, 2007																															
10-Meter Level <table style="width: 100%;"> <tr><td>10-Meter Vector Wind Speed:</td><td><u>96.7</u> %</td></tr> <tr><td>10-Meter Vector Wind Direction:</td><td><u>96.7</u> %</td></tr> <tr><td>10-Meter Scalar Wind Speed:</td><td><u>96.7</u> %</td></tr> <tr><td>10-Meter Scalar Wind Direction:</td><td><u>100.0</u> %</td></tr> <tr><td>10-Meter Sigma Theta:</td><td><u>99.9</u> %</td></tr> <tr><td>10-Meter Vertical Wind Speed:</td><td><u>99.9</u> %</td></tr> <tr><td>Sigma W:</td><td><u>99.9</u> %</td></tr> <tr><td>Sigma Phi:</td><td><u>96.7</u> %</td></tr> <tr><td>10-Meter Temperature:</td><td><u>89.8</u> %</td></tr> </table>	10-Meter Vector Wind Speed:	<u>96.7</u> %	10-Meter Vector Wind Direction:	<u>96.7</u> %	10-Meter Scalar Wind Speed:	<u>96.7</u> %	10-Meter Scalar Wind Direction:	<u>100.0</u> %	10-Meter Sigma Theta:	<u>99.9</u> %	10-Meter Vertical Wind Speed:	<u>99.9</u> %	Sigma W:	<u>99.9</u> %	Sigma Phi:	<u>96.7</u> %	10-Meter Temperature:	<u>89.8</u> %	2-Meter Level <table style="width: 100%;"> <tr><td>2-Meter Temperature:</td><td><u>89.8</u> %</td></tr> <tr><td>Delta Temperature:</td><td><u>89.8</u> %</td></tr> <tr><td>Relative Humidity:</td><td><u>100.0</u> %</td></tr> <tr><td>Dew Point Temperature:</td><td><u>89.7</u> %</td></tr> <tr><td>Solar Radiation:</td><td><u>100.0</u> %</td></tr> <tr><td>Barometric Pressure:</td><td><u>100.0</u> %</td></tr> </table>	2-Meter Temperature:	<u>89.8</u> %	Delta Temperature:	<u>89.8</u> %	Relative Humidity:	<u>100.0</u> %	Dew Point Temperature:	<u>89.7</u> %	Solar Radiation:	<u>100.0</u> %	Barometric Pressure:	<u>100.0</u> %
10-Meter Vector Wind Speed:	<u>96.7</u> %																														
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10-Meter Scalar Wind Speed:	<u>96.7</u> %																														
10-Meter Scalar Wind Direction:	<u>100.0</u> %																														
10-Meter Sigma Theta:	<u>99.9</u> %																														
10-Meter Vertical Wind Speed:	<u>99.9</u> %																														
Sigma W:	<u>99.9</u> %																														
Sigma Phi:	<u>96.7</u> %																														
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Barometric Pressure:	<u>100.0</u> %																														
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons																														

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: MAY 2007

□

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

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N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: MAY 2007

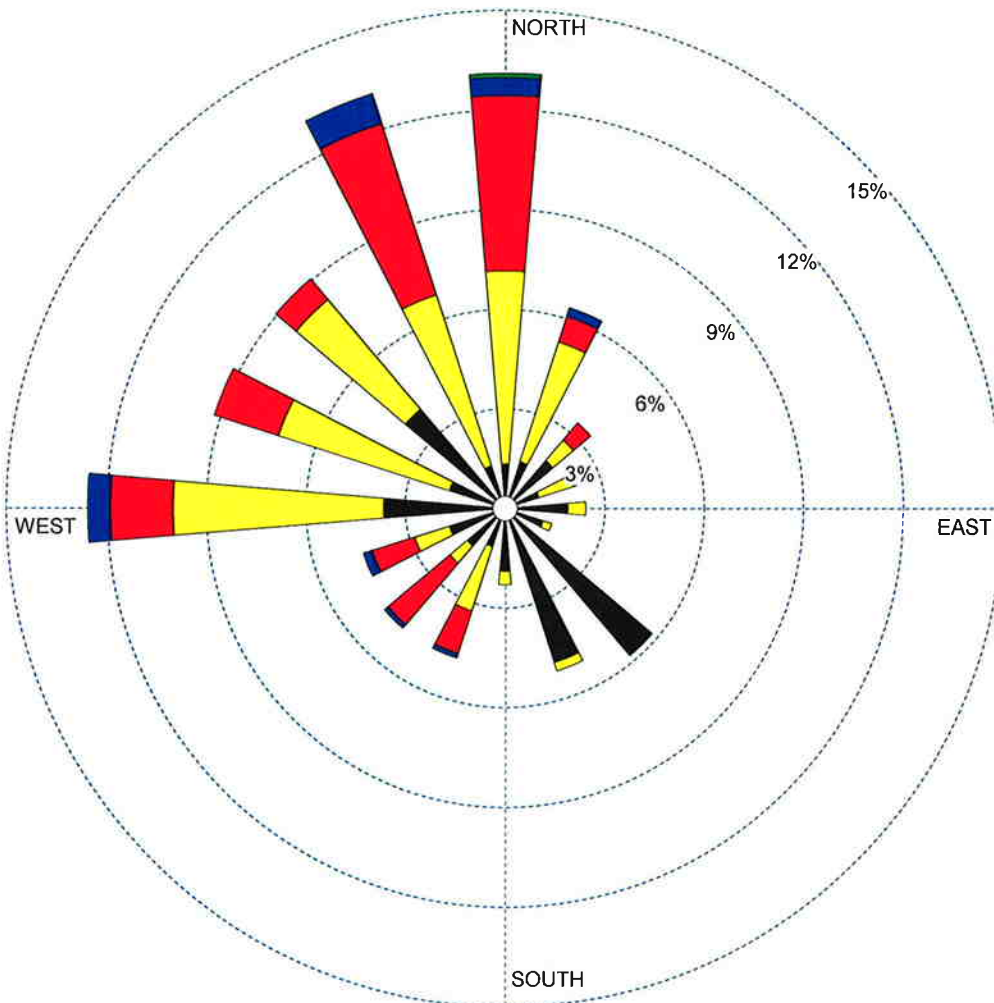
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
LAKESHORE/WILLIS AVE 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.1	18.6	5.0	100.0	99.7
Vector Wind Direction (deg)	1	360	216	100.0	99.7
Scalar Wind Speed (mph)	0.9	19.2	5.5	100.0	99.7
Scalar Wind Direction (deg.)	1	360	215	100.0	100.0
Sigma Theta (deg.)	5.1	75.7	23.5	100.0	99.7
Vertical Wind Speed (mph)	-0.25	0.98	0.09	100.0	99.7
Sigma W (mph)	0.13	2.12	0.78	100.0	99.7
Sigma Phi (deg)	2.97	17.6	8.3	100.0	99.7
Temperature (deg-F)	36.8	88.6	57.7	84.8	84.7
2-Meter Level					
Temperature (deg-F)	35.1	89.5	57.7	84.8	84.8
10-m - 2-m Delta Temp (F-deg)	-2.86	3.33	0.01	84.8	84.7
Relative Humidity (percent)	14.4	98.6	56.2	100.0	100.0
Dew Point Temperature (deg-F)	16.9	61.5	39.8	84.8	84.8
Solar Radiation (W/m ²)	0.0	1074.0	7130.0 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.30	30.23	29.84	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave. Monitoring Site - 10-meter Tower - May 2007

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)

- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
May 1 - May 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

742 hrs.

AVG. WIND SPEED:

4.81 Knots

DATE:

7/2/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: July 17, 2007
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Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for:	JUNE 2007
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Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☒ Final Report ☒ Data Summaries ☐ AIRS Diskette ☐ Client Data Disk ☐ Other (as noted)
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Program Operations/Data Collection Activities Summary:

- Periods of temperature, delta-temperature, and dew-point temperature data are reported as a non-scheduled outage ("N") from June 1 through June 19. This missing data is the result of intermittent electronic interference with the data logger's temperature signal that in turn, resulted in erroneously high temperature readings. Corrective action was taken during an on-site visit on June 19.
- No other operational problems occurred at the Lakeshore/Willis Ave monitoring site in June and monthly data recovery rates for all parameters range from 58.2 percent for the above-mentioned temperature parameters to 100 percent for all remaining parameters.

Climatic Summary: JUNE 2007

 General Predominance for winds from: due west through west-northwest
10-meter level

Primary Peak WD:	<u>W</u>	Max. Wind Speed :	<u>19.2</u>
Secondary Peak WD:	<u>WNW</u>	Min. Wind Speed :	<u>0.9</u>

2-meter level

Max. Temperature:	<u>93.3 °F</u>	Max. Dew Point Temp.	<u>71.6 °F</u>	Max. Relative Humidity	<u>98%</u>
Min. Temperature:	<u>42.7 °F</u>	Min. Dew Point Temp.	<u>30.8 °F</u>	Min. Relative Humidity	<u>28.5%</u>

Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through June 30, 2007
10-Meter Level

10-Meter Vector Wind Speed:	<u>97.2</u> %
10-Meter Vector Wind Direction:	<u>97.2</u> %
10-Meter Scalar Wind Speed:	<u>97.2</u> %
10-Meter Scalar Wind Direction:	<u>100.0</u> %
10-Meter Sigma Theta:	<u>99.9</u> %
10-Meter Vertical Wind Speed:	<u>99.9</u> %
Sigma W:	<u>99.9</u> %
Sigma Phi:	<u>97.2</u> %
10-Meter Temperature:	<u>85.3</u> %

2-Meter Level

2-Meter Temperature:	<u>85.3</u> %
Delta Temperature:	<u>85.3</u> %
Relative Humidity:	<u>100.0</u> %
Dew Point Temperature:	<u>85.2</u> %
Solar Radiation:	<u>100.0</u> %
Barometric Pressure:	<u>100.0</u> %

Project Meteorologist: Steven Coughlin

Distribution:

T. Johnson - Parsons
 G. Pacheco - Parsons
 T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: JUNE 2007

□

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

PREPARED BY: **PARSONS**

BOSTON, MASS.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: JUNE 2007

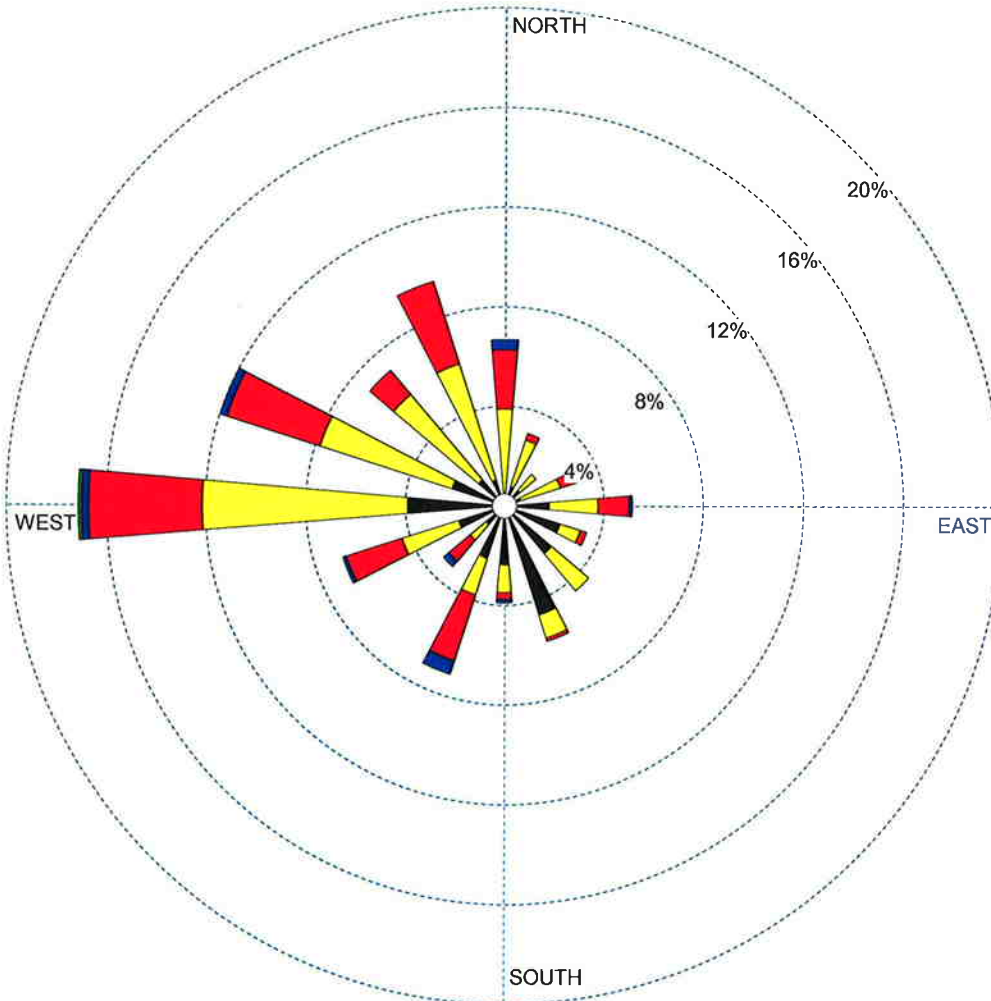
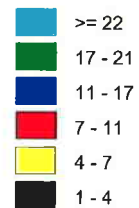
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
<u>LAKESHORE/WILLIS AVE 10-METER TOWER</u>					
<u>10-Meter Level</u>					
Vector Wind Speed (mph)	0.1	18.5	5.2	100.0	100.0
Vector Wind Direction (deg)	1	360	221	100.0	100.0
Scalar Wind Speed (mph)	0.9	19.2	5.8	100.0	100.0
Scalar Wind Direction (deg.)	1	360	222	100.0	100.0
Sigma Theta (deg.)	7.4	66.1	25.8	100.0	100.0
Vertical Wind Speed (mph)	-0.30	0.79	0.08	100.0	100.0
Sigma W (mph)	0.12	2.75	0.90	100.0	100.0
Sigma Phi (deg)	3.32	16.9	9.1	100.0	100.0
Temperature (deg-F)	43.4	92.7	69.7	58.2	58.2
<u>2-Meter Level</u>					
Temperature (deg-F)	42.7	93.3	69.7	58.2	58.2
10-m - 2-m Delta Temp (F-deg)	-3.07	3.63	-0.01	58.2	58.2
Relative Humidity (percent)	28.5	97.7	63.0	100.0	100.0
Dew Point Temperature (deg-F)	30.8	71.6	53.8	58.2	58.2
Solar Radiation (W/m ²)	0.0	1099.0	7398.2 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.08	29.94	29.67	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave. Monitoring Site - 10-meter Tower - June 2007

DISPLAY:

Wind Speed
Direction (blowing from)

WIND SPEED
(Knots)

Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Jun 1 - Jun 30
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

720 hrs.

AVG. WIND SPEED:

5.00 Knots

DATE:

7/17/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: August 30, 2007
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: JULY 2007	
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
Program Operations/Data Collection Activities Summary: • No operational problems occurred at the Lakeshore/Willis Ave monitoring site in July and monthly data recovery rates for all parameters are 100 percent.	
Climatic Summary: JULY 2007 General Predominance for winds from: <u>west-southwest through due west</u> 10-meter level Primary Peak WD: <u>W</u> Max. Wind Speed : <u>13.7 mph</u> Secondary Peak WD: <u>WSW</u> Min. Wind Speed : <u>1.0 mph</u> 2-meter level Max. Temperature: <u>91.4 °F</u> Max. Dew Point Temp. <u>70.8 °F</u> Max. Relative Humidity <u>98.1%</u> Min. Temperature: <u>51.1 °F</u> Min. Dew Point Temp. <u>39.6 °F</u> Min. Relative Humidity <u>25.9%</u>	
Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through July 31, 2007	
10-Meter Level 10-Meter Vector Wind Speed: <u>97.5</u> % 10-Meter Vector Wind Direction: <u>97.5</u> % 10-Meter Scalar Wind Speed: <u>97.5</u> % 10-Meter Scalar Wind Direction: <u>100.0</u> % 10-Meter Sigma Theta: <u>99.9</u> % 10-Meter Vertical Wind Speed: <u>99.9</u> % Sigma W: <u>99.9</u> % Sigma Phi: <u>97.5</u> % 10-Meter Temperature: <u>87.2</u> %	2-Meter Level 2-Meter Temperature: <u>87.2</u> % Delta Temperature: <u>87.2</u> % Relative Humidity: <u>100.0</u> % Dew Point Temperature: <u>87.1</u> % Solar Radiation: <u>100.0</u> % Barometric Pressure: <u>100.0</u> %
Project Meteorologist: Steven Coughlin 	Distribution: P. Petrone - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: JULY 2007

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: JULY 2007

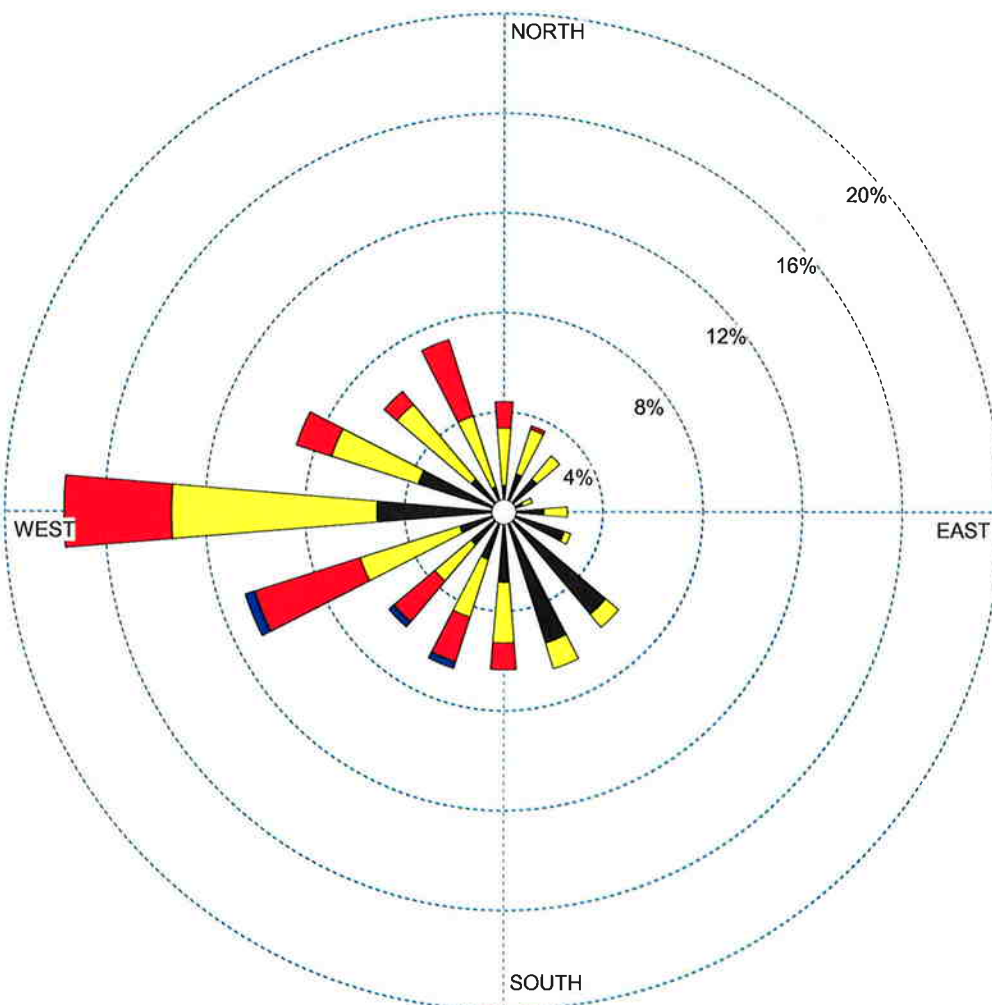
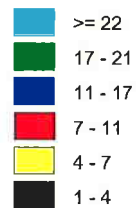
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
LAKESHORE/WILLIS AVE 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.3	13.1	4.7	100.0	100.0
Vector Wind Direction (deg)	1	360	220	100.0	100.0
Scalar Wind Speed (mph)	1.0	13.7	5.2	100.0	100.0
Scalar Wind Direction (deg.)	1	360	219	100.0	100.0
Sigma Theta (deg.)	5.6	69.2	25.7	100.0	100.0
Vertical Wind Speed (mph)	-0.24	0.66	0.09	100.0	100.0
Sigma W (mph)	0.14	2.30	0.81	100.0	100.0
Sigma Phi (deg)	2.97	18.7	9.2	100.0	100.0
Temperature (deg-F)	53.2	91.4	70.0	100.0	100.0
2-Meter Level					
Temperature (deg-F)	51.1	91.4	69.8	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-3.06	3.53	0.23	100.0	100.0
Relative Humidity (percent)	25.9	98.1	70.2	100.0	100.0
Dew Point Temperature (deg-F)	39.6	70.8	58.4	100.0	100.0
Solar Radiation (W/m ²)	0.0	1100.0	6140.5 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.34	29.99	29.67	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave. Monitoring Site - 10-meter Tower - July 2007

DISPLAY:

Wind Speed
Direction (blowing from)

WIND SPEED
(Knots)

Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Jul 1 - Jul 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

744 hrs.

AVG. WIND SPEED:

4.55 Knots

DATE:

8/3/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: September 21, 2007																									
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: AUGUST 2007																										
Data: _____ Preliminary ☒ Validated _____ Adjusted (list parameters)	Attached/Enclosed: _____ Preliminary Report ☒ Final Report ☒ Data Summaries _____ AIRS Diskette _____ Client Data Disk _____ Other (as noted)																									
Program Operations/Data Collection Activities Summary: - A performance audit was conducted at the Lakeshore/Willis Avenue monitoring site on August 16. A minor period of data is reported as scheduled down ("S") on this day to reflect audit activities. - No operational problems occurred at the Lakeshore/Willis Ave monitoring site in August and monthly data recovery rates for all parameters range from 99.6 to 100 percent.																										
Climatic Summary: AUGUST 2007 General Predominance for winds from: <u>due west</u> 10-meter level <table style="width: 100%;"> <tr> <td>Primary Peak WD:</td> <td><u>W</u></td> <td>Max. Wind Speed :</td> <td><u>13.5 mph</u></td> </tr> <tr> <td>Secondary Peak WD:</td> <td><u>SE</u></td> <td>Min. Wind Speed :</td> <td><u>1.1 mph</u></td> </tr> </table> 2-meter level <table style="width: 100%;"> <tr> <td>Max. Temperature:</td> <td><u>93.8 °F</u></td> <td>Max. Dew Point Temp.</td> <td><u>74.6 °F</u></td> <td>Max. Relative Humidity</td> <td><u>98.3%</u></td> </tr> <tr> <td>Min. Temperature:</td> <td><u>49.6 °F</u></td> <td>Min. Dew Point Temp.</td> <td><u>37.6 °F</u></td> <td>Min. Relative Humidity</td> <td><u>24.7%</u></td> </tr> </table>		Primary Peak WD:	<u>W</u>	Max. Wind Speed :	<u>13.5 mph</u>	Secondary Peak WD:	<u>SE</u>	Min. Wind Speed :	<u>1.1 mph</u>	Max. Temperature:	<u>93.8 °F</u>	Max. Dew Point Temp.	<u>74.6 °F</u>	Max. Relative Humidity	<u>98.3%</u>	Min. Temperature:	<u>49.6 °F</u>	Min. Dew Point Temp.	<u>37.6 °F</u>	Min. Relative Humidity	<u>24.7%</u>					
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<table style="width: 100%;"> <tr> <td style="text-align: center;">Cumulative-to-date Data Recovery Rates</td> <td style="text-align: center;">Period: December 1, 2006 through</td> <td style="text-align: center;">August 31, 2007</td> </tr> </table> <table style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>10-Meter Level</u></th> <th style="text-align: left;"><u>2-Meter Level</u></th> </tr> </thead> <tbody> <tr> <td>10-Meter Vector Wind Speed: <u>97.8</u> %</td> <td>2-Meter Temperature: <u>88.6</u> %</td> </tr> <tr> <td>10-Meter Vector Wind Direction: <u>97.8</u> %</td> <td>Delta Temperature: <u>88.6</u> %</td> </tr> <tr> <td>10-Meter Scalar Wind Speed: <u>97.8</u> %</td> <td>Relative Humidity: <u>100.0</u> %</td> </tr> <tr> <td>10-Meter Scalar Wind Direction: <u>100.0</u> %</td> <td>Dew Point Temperature: <u>88.6</u> %</td> </tr> <tr> <td>10-Meter Sigma Theta: <u>99.9</u> %</td> <td>Solar Radiation: <u>100.0</u> %</td> </tr> <tr> <td></td> <td>Barometric Pressure: <u>100.0</u> %</td> </tr> <tr> <td>10-Meter Vertical Wind Speed: <u>99.9</u> %</td> <td></td> </tr> <tr> <td>Sigma W: <u>99.9</u> %</td> <td></td> </tr> <tr> <td>Sigma Phi: <u>97.8</u> %</td> <td></td> </tr> <tr> <td>10-Meter Temperature: <u>88.6</u> %</td> <td></td> </tr> </tbody> </table>		Cumulative-to-date Data Recovery Rates	Period: December 1, 2006 through	August 31, 2007	<u>10-Meter Level</u>	<u>2-Meter Level</u>	10-Meter Vector Wind Speed: <u>97.8</u> %	2-Meter Temperature: <u>88.6</u> %	10-Meter Vector Wind Direction: <u>97.8</u> %	Delta Temperature: <u>88.6</u> %	10-Meter Scalar Wind Speed: <u>97.8</u> %	Relative Humidity: <u>100.0</u> %	10-Meter Scalar Wind Direction: <u>100.0</u> %	Dew Point Temperature: <u>88.6</u> %	10-Meter Sigma Theta: <u>99.9</u> %	Solar Radiation: <u>100.0</u> %		Barometric Pressure: <u>100.0</u> %	10-Meter Vertical Wind Speed: <u>99.9</u> %		Sigma W: <u>99.9</u> %		Sigma Phi: <u>97.8</u> %		10-Meter Temperature: <u>88.6</u> %	
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Project Meteorologist: Steven Coughlin 	Distribution: P. Petrone - Parsons G. Pacheco - Parsons T. Fritts - Parsons																									

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: AUGUST 2007

□

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

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HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: AUGUST 2007

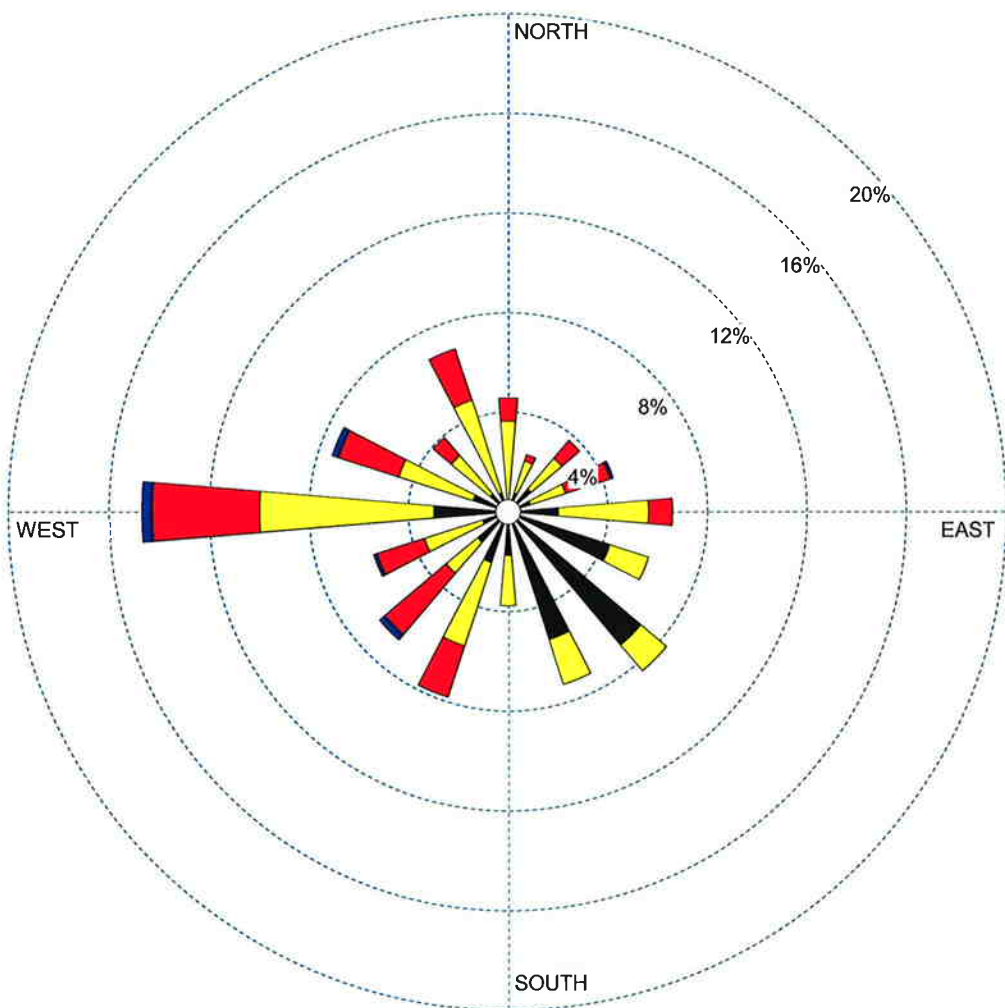
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
LAKESHORE/WILLIS AVE 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.2	13.3	5.0	100.0	100.0
Vector Wind Direction (deg)	2	359	197	100.0	100.0
Scalar Wind Speed (mph)	1.1	13.5	5.5	100.0	100.0
Scalar Wind Direction (deg.)	1	359	197	100.0	100.0
Sigma Theta (deg.)	6.3	66.2	24.7	100.0	100.0
Vertical Wind Speed (mph)	-0.25	0.71	0.09	100.0	100.0
Sigma W (mph)	0.15	2.50	0.83	100.0	100.0
Sigma Phi (deg)	3.11	17.6	9.0	100.0	100.0
Temperature (deg-F)	50.5	93.0	71.4	100.0	99.6
2-Meter Level					
Temperature (deg-F)	49.6	93.8	71.5	100.0	99.9
10-m - 2-m Delta Temp (F-deg)	-5.01	3.76	-0.05	100.0	99.6
Relative Humidity (percent)	24.7	98.3	68.3	100.0	100.0
Dew Point Temperature (deg-F)	37.6	74.6	59.4	100.0	99.9
Solar Radiation (W/m ²)	0.0	1020.0	5686.3 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.35	29.94	29.70	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave. Monitoring Site - 10-Meter Tower - August 2007

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
Aug 1 - Aug 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

744 hrs.

AVG. WIND SPEED:

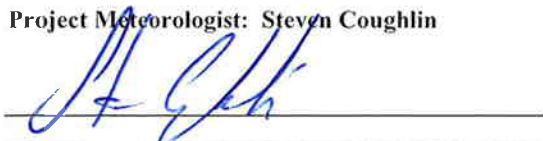
4.78 Knots

DATE:

9/20/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: October 17, 2007																						
Subject: Submittal of Lakeshore/Willis Ave Meteorological Data for: SEPTEMBER 2007																							
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)																						
Program Operations/Data Collection Activities Summary: • No operational problems occurred at the Lakeshore/Willis Ave monitoring site in September and monthly data recovery rates for all parameters range are 100 percent.																							
Climatic Summary: SEPTEMBER 2007 General Predominance for winds from: <u>due west</u> 10-meter level Primary Peak WD: <u>W</u> Max. Wind Speed : <u>17.0 mph</u> Secondary Peak WD: <u>SSW</u> Min. Wind Speed : <u>1.2 mph</u> 2-meter level Max. Temperature: <u>94.5 °F</u> Max. Dew Point Temp. <u>70.8 °F</u> Max. Relative Humidity <u>98.3%</u> Min. Temperature: <u>41.9 °F</u> Min. Dew Point Temp. <u>37.1 °F</u> Min. Relative Humidity <u>24.9%</u>																							
Cumulative-to-date Data Recovery Rates Period: December 1, 2006 through September 30, 2007 <table style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>10-Meter Level</u></th> <th style="text-align: left;"><u>2-Meter Level</u></th> </tr> </thead> <tbody> <tr> <td>10-Meter Vector Wind Speed: <u>98.0</u> %</td> <td>2-Meter Temperature: <u>89.7</u> %</td> </tr> <tr> <td>10-Meter Vector Wind Direction: <u>98.0</u> %</td> <td>Delta Temperature: <u>89.7</u> %</td> </tr> <tr> <td>10-Meter Scalar Wind Speed: <u>98.0</u> %</td> <td>Relative Humidity: <u>100.0</u> %</td> </tr> <tr> <td>10-Meter Scalar Wind Direction: <u>100.0</u> %</td> <td>Dew Point Temperature: <u>89.7</u> %</td> </tr> <tr> <td>10-Meter Sigma Theta: <u>99.9</u> %</td> <td>Solar Radiation: <u>100.0</u> %</td> </tr> <tr> <td></td> <td>Barometric Pressure: <u>100.0</u> %</td> </tr> <tr> <td>10-Meter Vertical Wind Speed: <u>99.9</u> %</td> <td></td> </tr> <tr> <td>Sigma W: <u>99.9</u> %</td> <td></td> </tr> <tr> <td>Sigma Phi: <u>98.0</u> %</td> <td></td> </tr> <tr> <td>10-Meter Temperature: <u>89.7</u> %</td> <td></td> </tr> </tbody> </table>		<u>10-Meter Level</u>	<u>2-Meter Level</u>	10-Meter Vector Wind Speed: <u>98.0</u> %	2-Meter Temperature: <u>89.7</u> %	10-Meter Vector Wind Direction: <u>98.0</u> %	Delta Temperature: <u>89.7</u> %	10-Meter Scalar Wind Speed: <u>98.0</u> %	Relative Humidity: <u>100.0</u> %	10-Meter Scalar Wind Direction: <u>100.0</u> %	Dew Point Temperature: <u>89.7</u> %	10-Meter Sigma Theta: <u>99.9</u> %	Solar Radiation: <u>100.0</u> %		Barometric Pressure: <u>100.0</u> %	10-Meter Vertical Wind Speed: <u>99.9</u> %		Sigma W: <u>99.9</u> %		Sigma Phi: <u>98.0</u> %		10-Meter Temperature: <u>89.7</u> %	
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10-Meter Temperature: <u>89.7</u> %																							
Project Meteorologist: Steven Coughlin 	Distribution: P. Petrone - Parsons G. Pacheco - Parsons T. Fritts - Parsons																						

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: SEPTEMBER 2007

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M SOLAR RADIATION	SOLAR RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR
RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
LAKESHORE/WILLIS AVE MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: SEPTEMBER 2007

<u>SITE / PARAMETER</u>	<u>MONTHLY MINIMUM VALUE</u>	<u>MONTHLY MAXIMUM VALUE</u>	<u>MONTHLY MEAN VALUE</u>	<u>MONTHLY DATA RECOVERY RATES (%)</u>	
				<u>OPERATING SCHEDULE</u>	<u>TOTAL HOURS</u>

LAKESHORE/WILLIS AVE 10-METER TOWER

10-Meter Level

Vector Wind Speed (mph)	0.2	16.4	5.1	100.0	100.0
Vector Wind Direction (deg)	1	359	204	100.0	100.0
Scalar Wind Speed (mph)	1.2	17.0	5.6	100.0	100.0
Scalar Wind Direction (deg.)	1	359	205	100.0	100.0
Sigma Theta (deg.)	5.9	77.1	23.6	100.0	100.0
Vertical Wind Speed (mph)	-0.25	0.76	0.12	100.0	100.0
Sigma W (mph)	0.12	2.17	0.81	100.0	100.0
Sigma Phi (deg)	3.57	20.0	8.6	100.0	100.0
Temperature (deg-F)	42.6	93.7	66.0	100.0	100.0

2-Meter Level

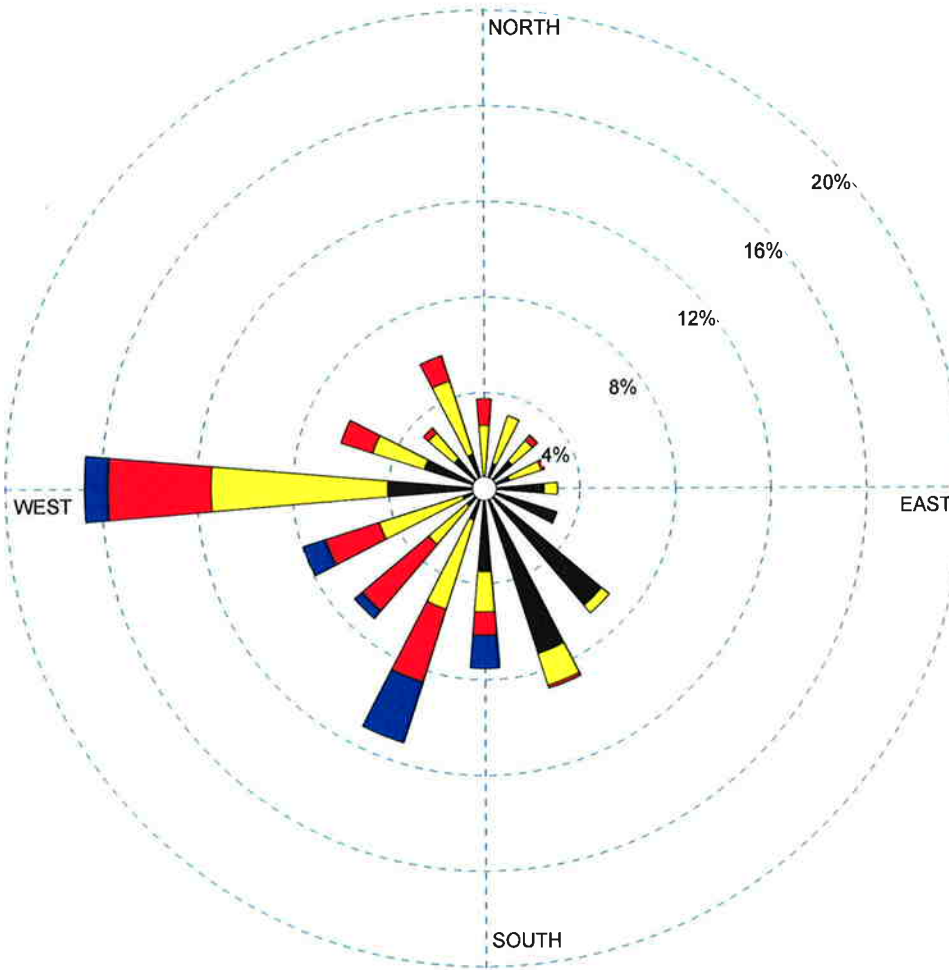
Temperature (deg-F)	41.9	94.5	65.8	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-3.22	6.47	0.14	100.0	100.0
Relative Humidity (percent)	24.9	98.3	70.8	100.0	100.0
Dew Point Temperature (deg-F)	37.1	70.8	54.8	100.0	100.0
Solar Radiation (W/m ²)	0.0	937.0	4815.5 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.25	30.21	29.82	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Lakeshore/Willis Ave Monitoring Site - 10-meter Tower - September 2007

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
Sep 1 - Sep 30
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

720 hrs.

AVG. WIND SPEED:

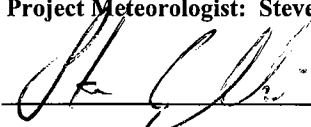
4.87 Knots

DATE:

10/17/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: January 15, 2007
Subject: Submittal of Wastebed 13 Meteorological Data for: DECEMBER 2006	
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
Program Operations/Data Collection Activities Summary: • Periods of wind speed and direction data (and associated computed parameters) are reported as missing ("N") on December 27, 30, and 31. This missing data is the result of frozen wind speed cups and wind vane due to a buildup of ice on each during periods of frozen precipitation. • No other operational problems occurred at the Wastebed 13 monitoring site in December and monthly data recovery rates for all parameters range from 95.2 percent (for wind speed) to 100 percent • Precipitation bucket is non-heated, so recorded precipitation amounts generally reflect rain events only.	
Climatic Summary: DECEMBER 2006 General Predominance for winds from: <u>southwest through due west</u> 10-meter level Primary Peak WD: <u>W</u> Max. Wind Speed : <u>23.4 mph</u> Secondary Peak WD: <u>WSW</u> Min. Wind Speed : <u>0.4 mph</u> 2-meter level Max. Temperature: <u>60.8 °F</u> Max. Dew Point Temp. <u>58.0 °F</u> Max. Relative Humidity <u>100%</u> Min. Temperature: <u>11.4 °F</u> Min. Dew Point Temp. <u>8.9 °F</u> Min. Relative Humidity <u>36.0%</u>	
Cumulative-to-date Data Recovery Rates Period: December 1, 2005 through December 31, 2006	
10-Meter Level 10-Meter Vector Wind Speed: <u>98.0</u> % 10-Meter Vector Wind Direction: <u>98.0</u> % 10-Meter Scalar Wind Speed: <u>98.0</u> % 10-Meter Scalar Wind Direction: <u>98.6</u> % 10-Meter Sigma Theta: <u>98.6</u> % 10-Meter Vertical Wind Speed: <u>96.2</u> % Sigma W: <u>96.2</u> % Sigma Phi: <u>95.5</u> % 10-Meter Temperature: <u>96.1</u> %	2-Meter Level 2-Meter Temperature: <u>98.7</u> % Delta Temperature: <u>96.1</u> % Relative Humidity: <u>98.7</u> % Dew Point Temperature: <u>98.7</u> % Net Radiation: <u>97.6</u> % Barometric Pressure: <u>98.8</u> % Surface Precipitation (Rain): <u>96.8</u> %
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: DECEMBER 2006

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: DECEMBER 2006

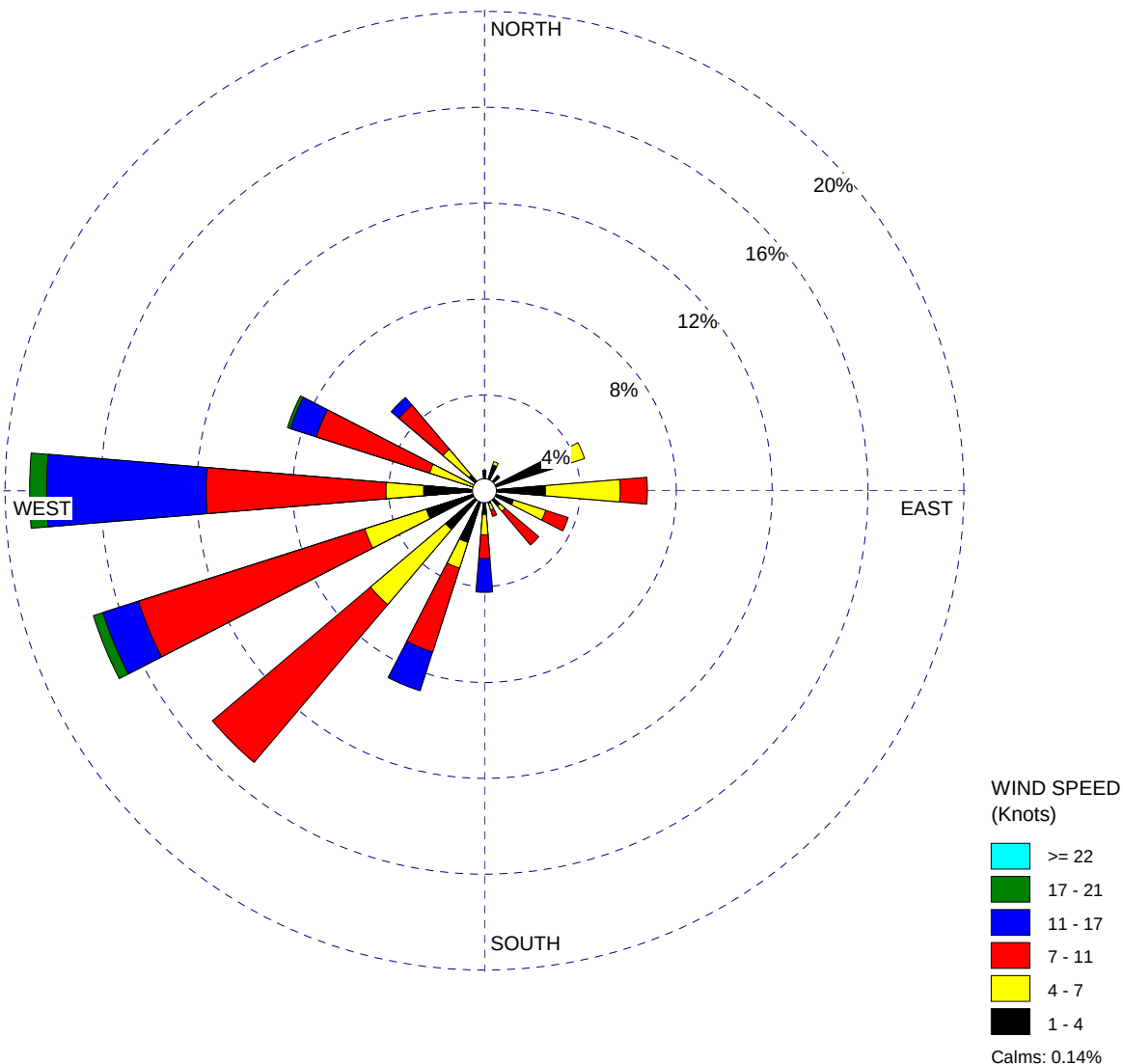
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%) BASED ON	
				OPERATING SCHEDULE	TOTAL HOURS
WASTEBED 13 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.2	22.9	8.2	95.2	95.2
Vector Wind Direction (deg)	3	354	216	95.2	95.2
Scalar Wind Speed (mph)	0.4	23.4	8.5	95.2	95.2
Scalar Wind Direction (deg.)	3	358	219	99.6	99.6
Sigma Theta (deg.)	4.7	77.7	14.4	99.6	99.6
Vertical Wind Speed (mph)	-0.51	1.24	-0.06	100.0	100.0
Sigma W (mph)	0.02	2.46	0.89	100.0	100.0
Sigma Phi (deg)	0.87	18.8	6.0	95.2	95.2
Temperature (deg-F)	11.3	60.8	37.8	100.0	100.0
2-Meter Level					
Temperature (deg-F)	11.4	60.8	37.6	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-1.40	4.76	0.22	100.0	100.0
Relative Humidity (percent)	36.0	100.0	75.7	100.0	100.0
Dew Point Temperature (deg-F)	8.9	58.0	29.9	100.0	100.0
Net Radiation (W/m ²)	-80.5	192.5	-160.9 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	28.83	30.29	29.70	100.0	100.0
Surface Level					
Precipitation (Rain in inches)	0.00	0.46	3.46 (Total)	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-Meter Tower - December 2006

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2006
Jan 1 - Dec 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.14%

TOTAL COUNT:

708 hrs.

AVG. WIND SPEED:

7.42 Knots

DATE:

1/13/2007

PROJECT NO.:

442202-03660

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: February 22, 2007
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Subject: Submittal of Wastebed 13 Meteorological Data for:	JANUARY 2007
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Data: _____ Preliminary ☒ Validated _____ Adjusted (list parameters)	Attached/Enclosed: _____ Preliminary Report ☒ Final Report ☒ Data Summaries	_____ AIRS Diskette _____ Client Data Disk _____ Other (as noted)
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Program Operations/Data Collection Activities Summary:

- Periods of wind speed and direction data (and associated computed parameters) are reported as missing ("N") from January 13 through January 18. This missing data is the result of frozen wind speed cups and wind vane due to a buildup of ice on each during periods of frozen precipitation.
- A performance audit was conducted at the Wastebed 13 monitoring site on January 18. As a result, periods of data are reported as scheduled down ("S") on this day to reflect these audit activities.
- No other operational problems occurred at the Wastebed 13 monitoring site in January and monthly data recovery rates for all parameters range from 85.2 percent to 100 percent
- Precipitation bucket is non-heated, so recorded precipitation amounts generally reflect rain events only.

Climatic Summary: JANUARY 2007

General Predominance for winds from: southwest through due west

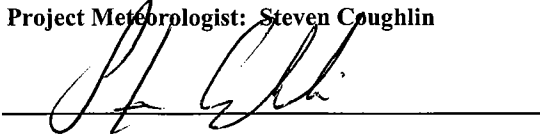
10-meter level

Primary Peak WD:	<u>SW</u>	Max. Wind Speed :	<u>24.5 mph</u>
Secondary Peak WD:	<u>W</u>	Min. Wind Speed :	<u>1.1 mph</u>

2-meter level

Max. Temperature:	<u>61.7 °F</u>	Max. Dew Point Temp.	<u>57.0 °F</u>	Max. Relative Humidity	<u>100%</u>
Min. Temperature:	<u>-7.5 °F</u>	Min. Dew Point Temp.	<u>-10.2 °F</u>	Min. Relative Humidity	<u>37.4%</u>

Cumulative-to-date Data Recovery Rates	Period: January 1, 2007 through	January 31, 2007
10-Meter Level	2-Meter Level	
10-Meter Vector Wind Speed: <u>85.2</u> % 10-Meter Vector Wind Direction: <u>85.2</u> % 10-Meter Scalar Wind Speed: <u>89.8</u> % 10-Meter Scalar Wind Direction: <u>89.5</u> % 10-Meter Sigma Theta: <u>89.5</u> % 10-Meter Vertical Wind Speed: <u>99.5</u> % Sigma W: <u>99.5</u> % Sigma Phi: <u>89.8</u> % 10-Meter Temperature: <u>99.5</u> %	2-Meter Temperature: <u>99.5</u> % Delta Temperature: <u>99.5</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.5</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> %	

Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons
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HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: JANUARY 2007

□

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M - 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR
RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: JANUARY 2007

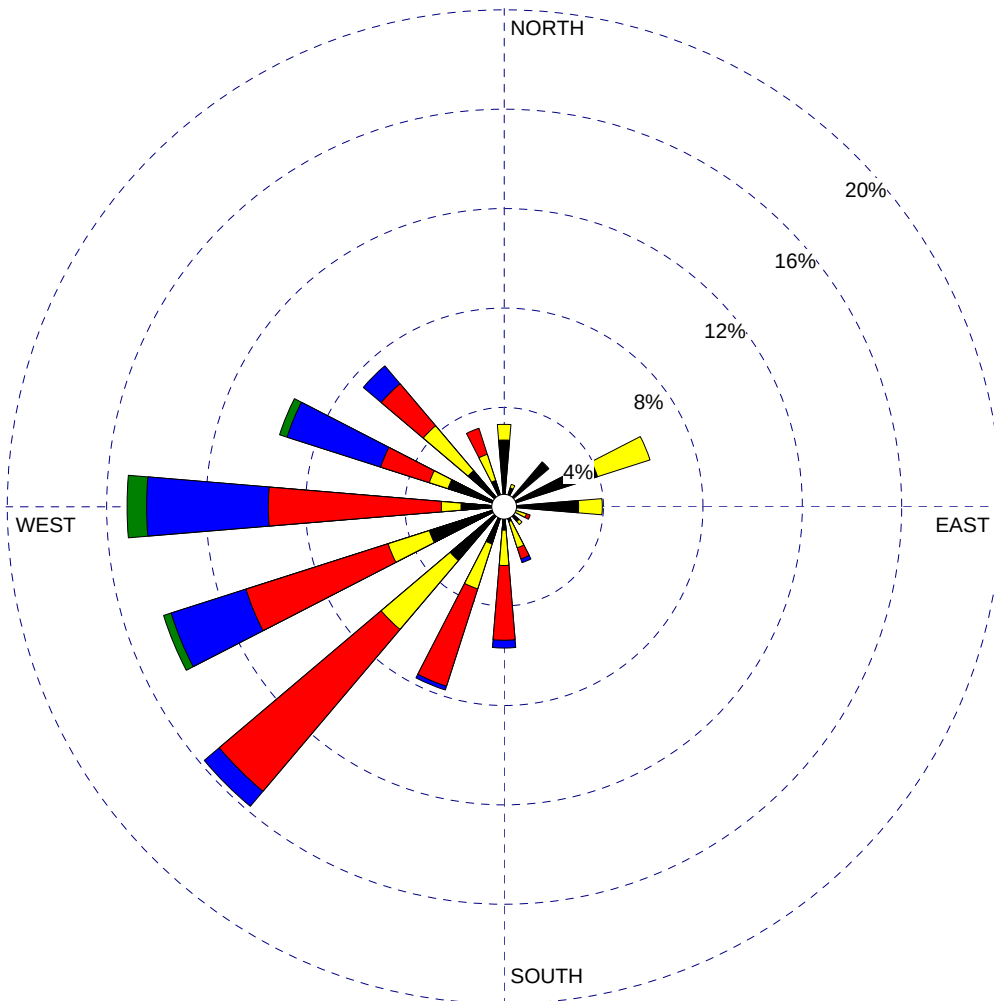
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%) BASED ON	
				OPERATING SCHEDULE	TOTAL HOURS
<u>WASTEBED 13 10-METER TOWER</u>					
<u>10-Meter Level</u>					
Vector Wind Speed (mph)	0.4	23.6	8.0	85.8	85.2
Vector Wind Direction (deg)	2	360	221	85.8	85.2
Scalar Wind Speed (mph)	1.1	24.5	8.1	90.3	89.8
Scalar Wind Direction (deg.)	2	356	222	89.9	89.5
Sigma Theta (deg.)	4.2	63.1	15.6	89.9	89.5
Vertical Wind Speed (mph)	-0.51	1.18	0.10	100.0	99.5
Sigma W (mph)	0.07	2.47	0.84	100.0	99.5
Sigma Phi (deg)	1.75	23.2	6.4	90.3	89.8
Temperature (deg-F)	-4.6	61.3	28.5	100.0	99.5
<u>2-Meter Level</u>					
Temperature (deg-F)	-7.5	61.7	28.5	100.0	99.5
10-m - 2-m Delta Temp (F-deg)	-1.49	4.59	0.05	100.0	99.5
Relative Humidity (percent)	37.4	100.0	79.8	100.0	99.9
Dew Point Temperature (deg-F)	-10.2	57.0	22.5	100.0	99.5
Net Radiation (W/m ²)	-96.3	240.0	-211.3 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.05	30.30	29.59	100.0	100.0
<u>Surface Level</u>					
Precipitation (Rain in inches)	0.00	0.26	2.32 (Total)	100.0	100.0

WIND ROSE PLOT:

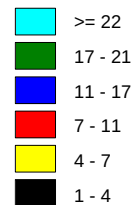
Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-Meter Tower - January 2007

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)



Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Jan 1 - Jan 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

634 hrs.

AVG. WIND SPEED:

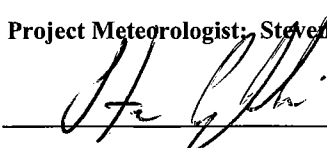
7.27 Knots

DATE:

2/22/2007

PROJECT NO.:

442202-03660

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: March 15, 2007						
Subject: Submittal of Wastebed 13 Meteorological Data for: FEBRUARY 2007							
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)						
Program Operations/Data Collection Activities Summary: - No operational problems occurred at the Wastebed 13 monitoring site in February and monthly data recovery rates for all parameters are 100 percent. - Precipitation bucket is non-heated, so recorded precipitation amounts generally reflect rain events only.							
Climatic Summary: FEBRUARY 2007 General Predominance for winds from: <u>west-southwest</u> 10-meter level Primary Peak WD: <u>WSW</u> Max. Wind Speed : <u>24.6 mph</u> Secondary Peak WD: <u>W</u> Min. Wind Speed : <u>0.3 mph</u> 2-meter level Max. Temperature: <u>44.4 °F</u> Max. Dew Point Temp. <u>34.9 °F</u> Max. Relative Humidity <u>100%</u> Min. Temperature: <u>-4.4 °F</u> Min. Dew Point Temp. <u>-13.1 °F</u> Min. Relative Humidity <u>29.8%</u>							
<table style="width: 100%;"> <tr> <th style="text-align: left;">Cumulative-to-date Data Recovery Rates</th> <th style="text-align: left;">Period: January 1, 2007 through</th> <th style="text-align: left;">February 28, 2007</th> </tr> <tr> <td style="vertical-align: top;"> 10-Meter Level 10-Meter Vector Wind Speed: <u>92.2</u> % 10-Meter Vector Wind Direction: <u>92.2</u> % 10-Meter Scalar Wind Speed: <u>94.6</u> % 10-Meter Scalar Wind Direction: <u>94.5</u> % 10-Meter Sigma Theta: <u>94.5</u> % 10-Meter Vertical Wind Speed: <u>99.7</u> % Sigma W: <u>99.7</u> % Sigma Phi: <u>94.6</u> % 10-Meter Temperature: <u>99.7</u> % </td> <td style="vertical-align: top;"> 2-Meter Level 2-Meter Temperature: <u>99.7</u> % Delta Temperature: <u>99.7</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.7</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> % </td> <td></td> </tr> </table>		Cumulative-to-date Data Recovery Rates	Period: January 1, 2007 through	February 28, 2007	10-Meter Level 10-Meter Vector Wind Speed: <u>92.2</u> % 10-Meter Vector Wind Direction: <u>92.2</u> % 10-Meter Scalar Wind Speed: <u>94.6</u> % 10-Meter Scalar Wind Direction: <u>94.5</u> % 10-Meter Sigma Theta: <u>94.5</u> % 10-Meter Vertical Wind Speed: <u>99.7</u> % Sigma W: <u>99.7</u> % Sigma Phi: <u>94.6</u> % 10-Meter Temperature: <u>99.7</u> %	2-Meter Level 2-Meter Temperature: <u>99.7</u> % Delta Temperature: <u>99.7</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.7</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> %	
Cumulative-to-date Data Recovery Rates	Period: January 1, 2007 through	February 28, 2007					
10-Meter Level 10-Meter Vector Wind Speed: <u>92.2</u> % 10-Meter Vector Wind Direction: <u>92.2</u> % 10-Meter Scalar Wind Speed: <u>94.6</u> % 10-Meter Scalar Wind Direction: <u>94.5</u> % 10-Meter Sigma Theta: <u>94.5</u> % 10-Meter Vertical Wind Speed: <u>99.7</u> % Sigma W: <u>99.7</u> % Sigma Phi: <u>94.6</u> % 10-Meter Temperature: <u>99.7</u> %	2-Meter Level 2-Meter Temperature: <u>99.7</u> % Delta Temperature: <u>99.7</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.7</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> %						
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons						

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: FEBRUARY 2007

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M - 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: FEBRUARY 2007

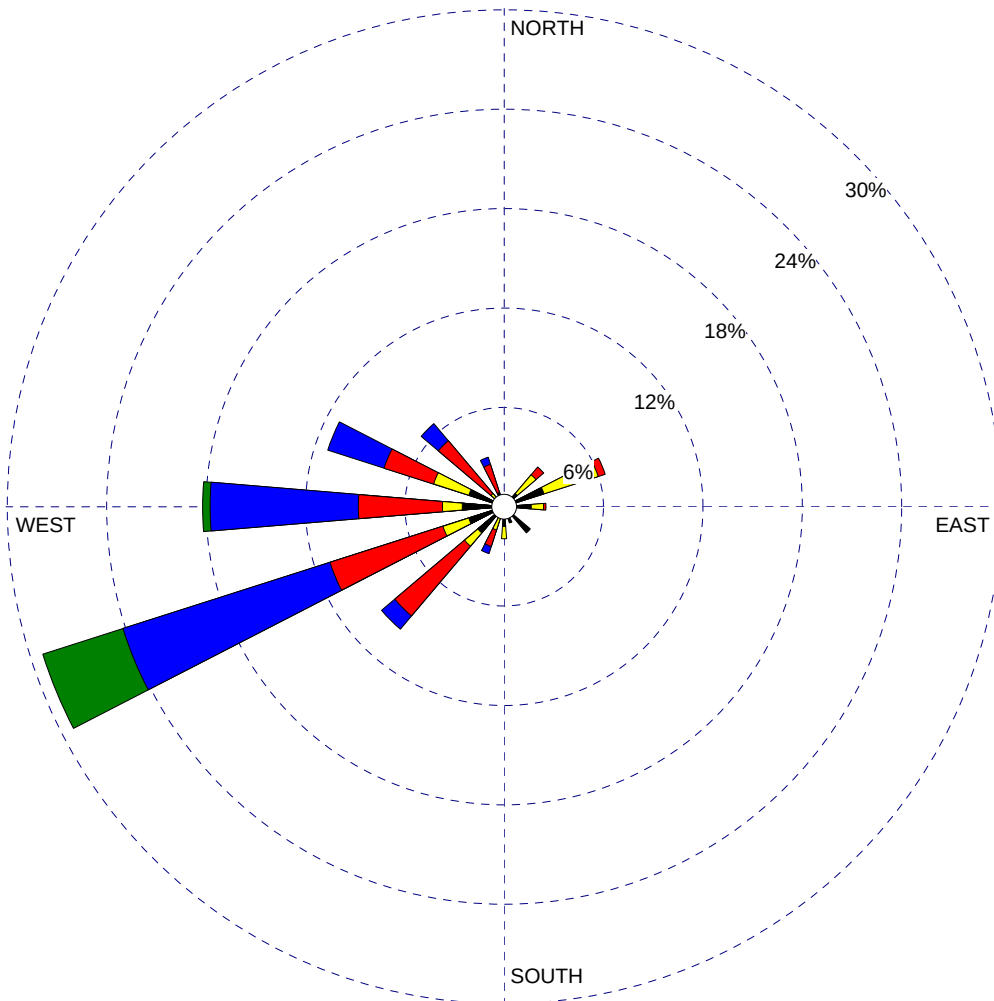
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%) BASED ON	
				OPERATING SCHEDULE	TOTAL HOURS
<u>WASTEBED 13 10-METER TOWER</u>					
<u>10-Meter Level</u>					
Vector Wind Speed (mph)	0.1	24.2	10.4	100.0	100.0
Vector Wind Direction (deg)	6	349	232	100.0	100.0
Scalar Wind Speed (mph)	0.3	24.6	10.6	100.0	100.0
Scalar Wind Direction (deg.)	6	359	232	100.0	100.0
Sigma Theta (deg.)	3.6	57.6	12.7	100.0	100.0
Vertical Wind Speed (mph)	-0.20	1.22	0.32	100.0	100.0
Sigma W (mph)	0.10	2.45	1.06	100.0	100.0
Sigma Phi (deg)	1.87	31.3	5.9	100.0	100.0
Temperature (deg-F)	-1.7	45.4	19.6	100.0	100.0
<u>2-Meter Level</u>					
Temperature (deg-F)	-4.4	44.4	19.4	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-0.66	4.43	0.26	100.0	100.0
Relative Humidity (percent)	29.8	100.0	74.7	100.0	100.0
Dew Point Temperature (deg-F)	-13.1	34.9	12.1	100.0	100.0
Net Radiation (W/m ²)	-116.3	89.2	-242.6 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.08	30.11	29.52	100.0	100.0
<u>Surface Level</u>					
Precipitation (Rain in inches)	0.00	0.11	0.80 (Total)	100.0	100.0

WIND ROSE PLOT:

**Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-Meter Tower - February 2007**

DISPLAY:

**Wind Speed
Direction (blowing from)**



COMMENTS:

DATA PERIOD:

**2007
Feb 1 - Feb 28
00:00 - 23:00**

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.15%

TOTAL COUNT:

672 hrs.

AVG. WIND SPEED:

9.25 Knots

DATE:

3/16/2007

PROJECT NO.:

442636-02400

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: April 25, 2007
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Subject: Submittal of Wastedbed 13 Meteorological Data for:	MARCH 2007
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Data: _____ Preliminary _____ ☒ Validated _____ Adjusted (list parameters)	Attached/Enclosed: _____ Preliminary Report _____ AIRS Diskette _____ ☒ Final Report _____ Client Data Disk _____ ☒ Data Summaries _____ Other (as noted)
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Program Operations/Data Collection Activities Summary:

- A period of wind speed data (and associated calculated parameters) is reported as missing due to a non-scheduled outage ("N") from 2300 EST on March 1 through 0700 EST on March 2. A period of vertical wind speed data is also reported as "N" from 0400 EST through 0600 EST on March 2. This missing data results from frozen wind speed cups and a frozen vertical wind speed propeller caused by a buildup of frozen precipitation on each.
- No other operational problems occurred at the Wastedbed 13 monitoring site in March and monthly data recovery rates for all parameters range from 98.8 to 100 percent.
- Precipitation bucket is non-heated, so recorded precipitation amounts generally reflect rain events only.

Climatic Summary: MARCH 2007

General Predominance for winds from: southwest through due west to northwest
10-meter level

Primary Peak WD: WNW Max. Wind Speed : 26.1 mph
Secondary Peak WD: SW Min. Wind Speed : 0.8 mph
2-meter level

Max. Temperature: 62.6 °F Max. Dew Point Temp. 52.8 °F Max. Relative Humidity 100%
Min. Temperature: -4.9 °F Min. Dew Point Temp. -7.9 °F Min. Relative Humidity 15.2%
Cumulative-to-date Data Recovery Rates
Period: January 1, 2007 through
March 31, 2007
10-Meter Level

10-Meter Vector Wind Speed: 94.5 %
10-Meter Vector Wind Direction: 94.5 %
10-Meter Scalar Wind Speed: 96.1 %
10-Meter Scalar Wind Direction: 96.4 %
10-Meter Sigma Theta: 96.4 %

10-Meter Vertical Wind Speed: 99.7 %
Sigma W: 99.7 %
Sigma Phi: 96.1 %
10-Meter Temperature: 99.8 %

2-Meter Level

2-Meter Temperature: 99.8 %
Delta Temperature: 99.8 %
Relative Humidity: 99.9 %
Dew Point Temperature: 99.8 %
Net Radiation: 100 %
Barometric Pressure: 100 %

Surface

Precipitation (Rain): 100 %

Project Meteorologist: Steven Coughlin

Distribution:

T. Johnson - Parsons
G. Pacheco - Parsons
T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: MARCH 2007

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: MARCH 2007

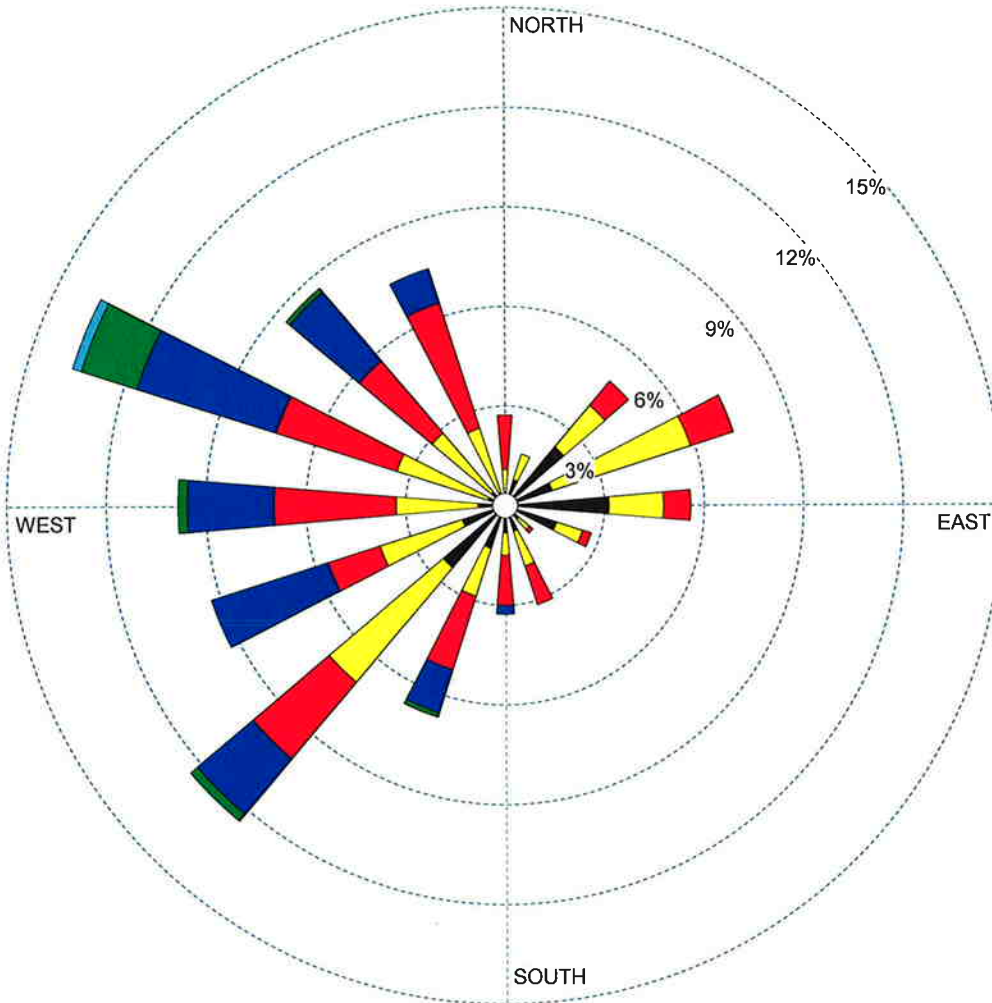
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
WASTEBED 13 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.1	25.6	7.9	98.8	98.8
Vector Wind Direction (deg)	2	360	218	98.8	98.8
Scalar Wind Speed (mph)	0.8	26.1	8.3	98.8	98.8
Scalar Wind Direction (deg.)	1	360	216	100.0	100.0
Sigma Theta (deg.)	3.0	63.3	16.6	100.0	100.0
Vertical Wind Speed (mph)	-0.30	1.47	0.30	99.6	99.6
Sigma W (mph)	0.06	2.45	0.90	99.6	99.6
Sigma Phi (deg)	1.81	20.8	6.2	98.8	98.8
Temperature (deg-F)	-2.1	63.8	33.0	100.0	100.0
2-Meter Level					
Temperature (deg-F)	-4.9	62.6	32.3	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-1.36	5.93	0.65	100.0	100.0
Relative Humidity (percent)	15.2	100.0	72.1	100.0	100.0
Dew Point Temperature (deg-F)	-7.9	52.8	22.9	100.0	100.0
Net Radiation (W/m ²)	-160.1	489.7	592.8 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	28.90	30.32	29.72	100.0	100.0
Surface Level					
Precipitation (Rain in inches)	0.00	0.44	2.47 (Total)	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-Meter Tower - March 2006

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)



Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Mar 1 - Mar 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

735 hrs.

AVG. WIND SPEED:

7.23 Knots

DATE:

4/23/2007

PROJECT NO.:

442202-03660

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: May 9, 2007
---	---

Subject: Submittal of Wastebed 13 Meteorological Data for:	APRIL 2007
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Data: _____ Preliminary _____ X Validated _____ Adjusted (list parameters)	Attached/Enclosed: _____ Preliminary Report _____ X Final Report _____ X Data Summaries _____ AIRS Diskette _____ Client Data Disk _____ Other (as noted)
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Program Operations/Data Collection Activities Summary:

- Minor periods of data are reported as scheduled down ("S") on April 30. This missing data results from tower audit activities that were conducted at the Wastebed 13 monitoring site on this day.
- No operational problems occurred at the Wastebed 13 monitoring site in April and monthly data recovery rates for all parameters range from 99.7 to 100 percent.

Climatic Summary: APRIL 2007

General Predominance for winds from: southwest through due west

10-meter level

Primary Peak WD:	<u>W</u>	Max. Wind Speed :	<u>21.2 mph</u>
Secondary Peak WD:	<u>WSW</u>	Min. Wind Speed :	<u>1.2 mph</u>

2-meter level

Max. Temperature:	<u>83.3 °F</u>	Max. Dew Point Temp.	<u>58.9 °F</u>	Max. Relative Humidity	<u>100%</u>
Min. Temperature:	<u>19.9 °F</u>	Min. Dew Point Temp.	<u>11.8 °F</u>	Min. Relative Humidity	<u>14.9%</u>

Cumulative-to-date Data Recovery Rates	Period: January 1, 2007 through	April 30, 2007
10-Meter Level	2-Meter Level	
10-Meter Vector Wind Speed: <u>95.8</u> % 10-Meter Vector Wind Direction: <u>95.8</u> % 10-Meter Scalar Wind Speed: <u>97.0</u> % 10-Meter Scalar Wind Direction: <u>97.3</u> % 10-Meter Sigma Theta: <u>97.3</u> % 10-Meter Vertical Wind Speed: <u>99.8</u> % Sigma W: <u>99.7</u> % Sigma Phi: <u>97.0</u> % 10-Meter Temperature: <u>99.8</u> %	2-Meter Temperature: <u>99.9</u> % Delta Temperature: <u>99.9</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.8</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> %	

Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons
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HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: APRIL 2007

□

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR
RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

PREPARED BY: **PARSONS**

BOSTON, MASS.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: APRIL 2007

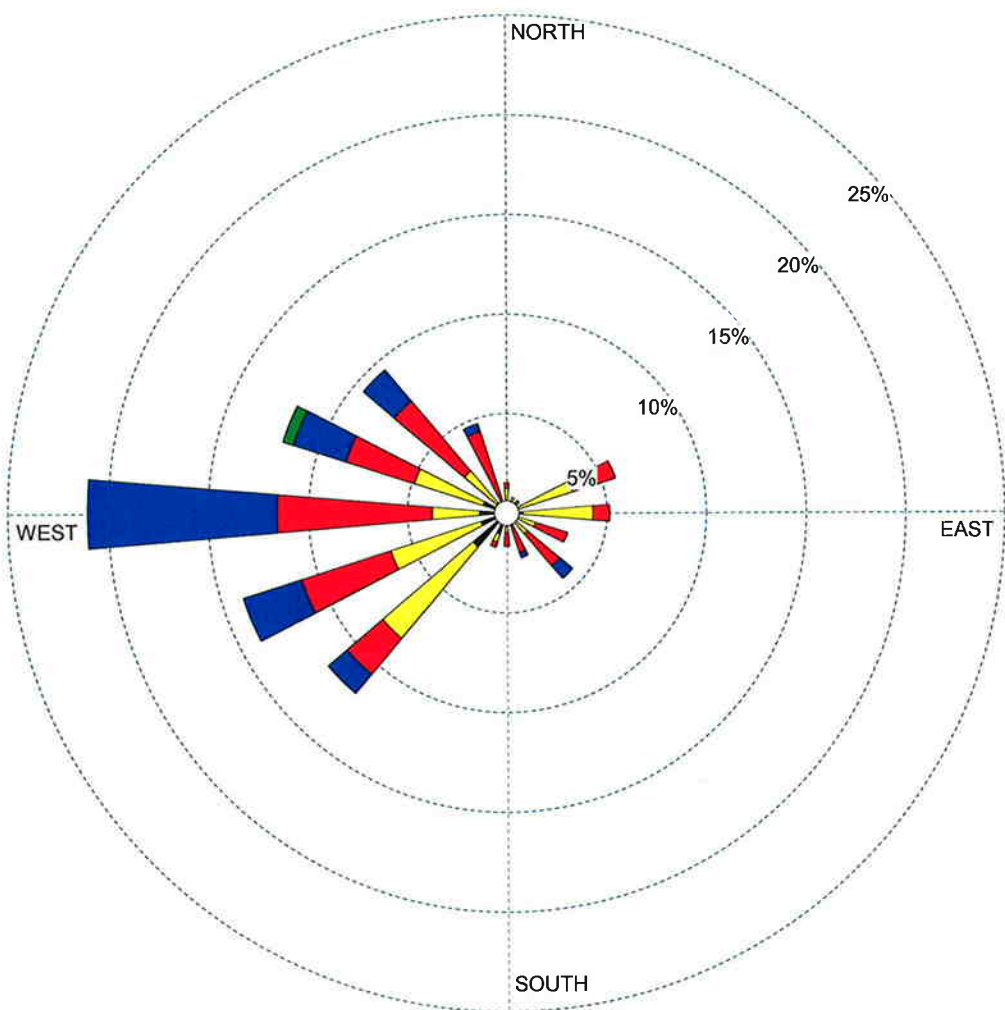
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%) BASED ON	
				OPERATING SCHEDULE	TOTAL HOURS
<u>WASTEBED 13 10-METER TOWER</u>					
<u>10-Meter Level</u>					
Vector Wind Speed (mph)	0.4	19.4	8.3	100.0	99.7
Vector Wind Direction (deg)	5	359	230	100.0	99.7
Scalar Wind Speed (mph)	1.2	21.2	8.7	100.0	100.0
Scalar Wind Direction (deg.)	4	360	231	100.0	100.0
Sigma Theta (deg.)	3.6	69.3	15.2	100.0	99.9
Vertical Wind Speed (mph)	-0.18	1.69	0.30	100.0	100.0
Sigma W (mph)	0.00	2.18	0.94	100.0	99.7
Sigma Phi (deg)	0.01	20.4	6.2	100.0	99.7
Temperature (deg-F)	21.4	81.7	43.8	100.0	99.7
<u>2-Meter Level</u>					
Temperature (deg-F)	19.9	83.3	43.5	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-2.22	5.86	0.28	100.0	99.7
Relative Humidity (percent)	14.9	100.0	71.2	100.0	100.0
Dew Point Temperature (deg-F)	11.8	58.9	33.1	100.0	99.9
Net Radiation (W/m ²)	-130.0	569.4	1461.9 (Avg, Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	28.68	29.83	29.48	100.0	100.0
<u>Surface Level</u>					
Precipitation (Rain in inches)	0.00	0.37	3.47 (Total)	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-Meter Tower - April 2007

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
Apr 1 - Apr 30
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

720 hrs.

AVG. WIND SPEED:

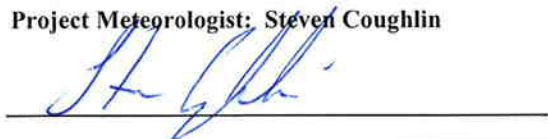
7.57 Knots

DATE:

5/8/2007

PROJECT NO.:

442636-02400

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 442202-03660 Date: June 15, 2007		
Subject: Submittal of Wastebed 13 Meteorological Data for: MAY 2007			
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)		
Program Operations/Data Collection Activities Summary: - A period of 2-meter temperature, delta-temperature, and dew-point temperature data is reported as a non-scheduled outage ("N") on May 31. This missing data results from a voltage loss to the 2-meter temperature signal that in turn, resulted in erroneously low temperature data recorded during the period. - No other operational problems occurred at the Wastebed 13 monitoring site in May and monthly data recovery rates for all parameters range from 98.4 to 100 percent.			
Climatic Summary: MAY 2007 General Predominance for winds from: <u>southwest</u> 10-meter level Primary Peak WD: <u>SW</u> Max. Wind Speed : <u>16.3 mph</u> Secondary Peak WD: <u>NW</u> Min. Wind Speed : <u>0.9 mph</u> 2-meter level Max. Temperature: <u>87.7 °F</u> Max. Dew Point Temp. <u>64.6 °F</u> Max. Relative Humidity <u>100%</u> Min. Temperature: <u>33.0 °F</u> Min. Dew Point Temp. <u>15.0 °F</u> Min. Relative Humidity <u>15.9%</u>			
Cumulative-to-date Data Recovery Rates Period: January 1, 2007 through May 31, 2007 <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> 10-Meter Level 10-Meter Vector Wind Speed: <u>96.7</u> % 10-Meter Vector Wind Direction: <u>96.7</u> % 10-Meter Scalar Wind Speed: <u>97.7</u> % 10-Meter Scalar Wind Direction: <u>97.8</u> % 10-Meter Sigma Theta: <u>97.8</u> % 10-Meter Vertical Wind Speed: <u>99.8</u> % Sigma W: <u>99.8</u> % Sigma Phi: <u>97.6</u> % 10-Meter Temperature: <u>99.8</u> % </td> <td style="width: 50%; vertical-align: top;"> 2-Meter Level 2-Meter Temperature: <u>99.6</u> % Delta Temperature: <u>99.5</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.5</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> % </td> </tr> </table>		10-Meter Level 10-Meter Vector Wind Speed: <u>96.7</u> % 10-Meter Vector Wind Direction: <u>96.7</u> % 10-Meter Scalar Wind Speed: <u>97.7</u> % 10-Meter Scalar Wind Direction: <u>97.8</u> % 10-Meter Sigma Theta: <u>97.8</u> % 10-Meter Vertical Wind Speed: <u>99.8</u> % Sigma W: <u>99.8</u> % Sigma Phi: <u>97.6</u> % 10-Meter Temperature: <u>99.8</u> %	2-Meter Level 2-Meter Temperature: <u>99.6</u> % Delta Temperature: <u>99.5</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.5</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> %
10-Meter Level 10-Meter Vector Wind Speed: <u>96.7</u> % 10-Meter Vector Wind Direction: <u>96.7</u> % 10-Meter Scalar Wind Speed: <u>97.7</u> % 10-Meter Scalar Wind Direction: <u>97.8</u> % 10-Meter Sigma Theta: <u>97.8</u> % 10-Meter Vertical Wind Speed: <u>99.8</u> % Sigma W: <u>99.8</u> % Sigma Phi: <u>97.6</u> % 10-Meter Temperature: <u>99.8</u> %	2-Meter Level 2-Meter Temperature: <u>99.6</u> % Delta Temperature: <u>99.5</u> % Relative Humidity: <u>99.9</u> % Dew Point Temperature: <u>99.5</u> % Net Radiation: <u>100</u> % Barometric Pressure: <u>100</u> % Surface Precipitation (Rain): <u>100</u> %		
Project Meteorologist: Steven Coughlin 	Distribution: T. Johnson - Parsons G. Pacheco - Parsons T. Fritts - Parsons		

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: MAY 2007

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: MAY 2007

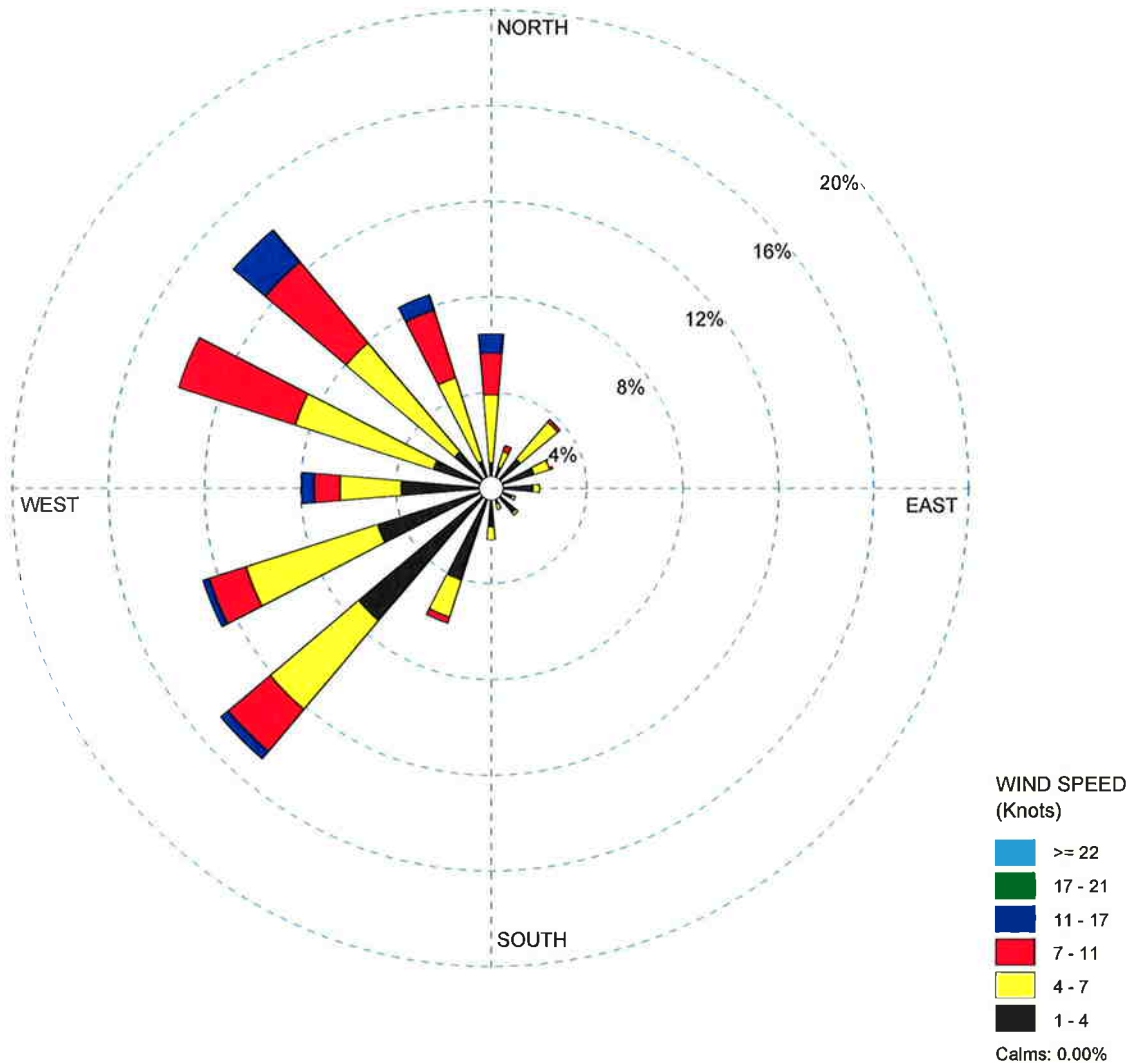
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				BASED ON OPERATING SCHEDULE	TOTAL HOURS
WASTEBED 13 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.1	15.7	5.1	100.0	100.0
Vector Wind Direction (deg)	1	360	243	100.0	100.0
Scalar Wind Speed (mph)	0.9	16.3	5.6	100.0	100.0
Scalar Wind Direction (deg.)	1	360	241	100.0	100.0
Sigma Theta (deg.)	5.4	77.2	22.1	100.0	100.0
Vertical Wind Speed (mph)	-0.15	1.14	0.21	100.0	100.0
Sigma W (mph)	0.07	1.79	0.75	100.0	100.0
Sigma Phi (deg)	1.95	24.7	7.7	100.0	100.0
Temperature (deg-F)	34.9	86.3	59.0	100.0	100.0
2-Meter Level					
Temperature (deg-F)	33.0	87.7	58.3	98.5	98.5
10-m - 2-m Delta Temp (F-deg)	-2.56	6.23	0.34	98.5	98.5
Relative Humidity (percent)	15.9	100.0	59.4	100.0	100.0
Dew Point Temperature (deg-F)	15.0	64.6	41.5	98.4	98.4
Net Radiation (W/m ²)	-132.2	614.4	3012.6 (Avg, Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.20	30.12	29.73	100.0	100.0
Surface Level					
Precipitation (Rain in inches)	0.00	0.11	0.53 (Total)	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-meter Tower - May 2007

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
May 1 - May 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

744 hrs.

AVG. WIND SPEED:

4.89 Knots

DATE:

6/13/2007

PROJECT NO.:

443665-02300

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: JUNE 2007

□

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

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N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

PREPARED BY: **PARSONS**

BOSTON, MASS.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: JUNE 2007

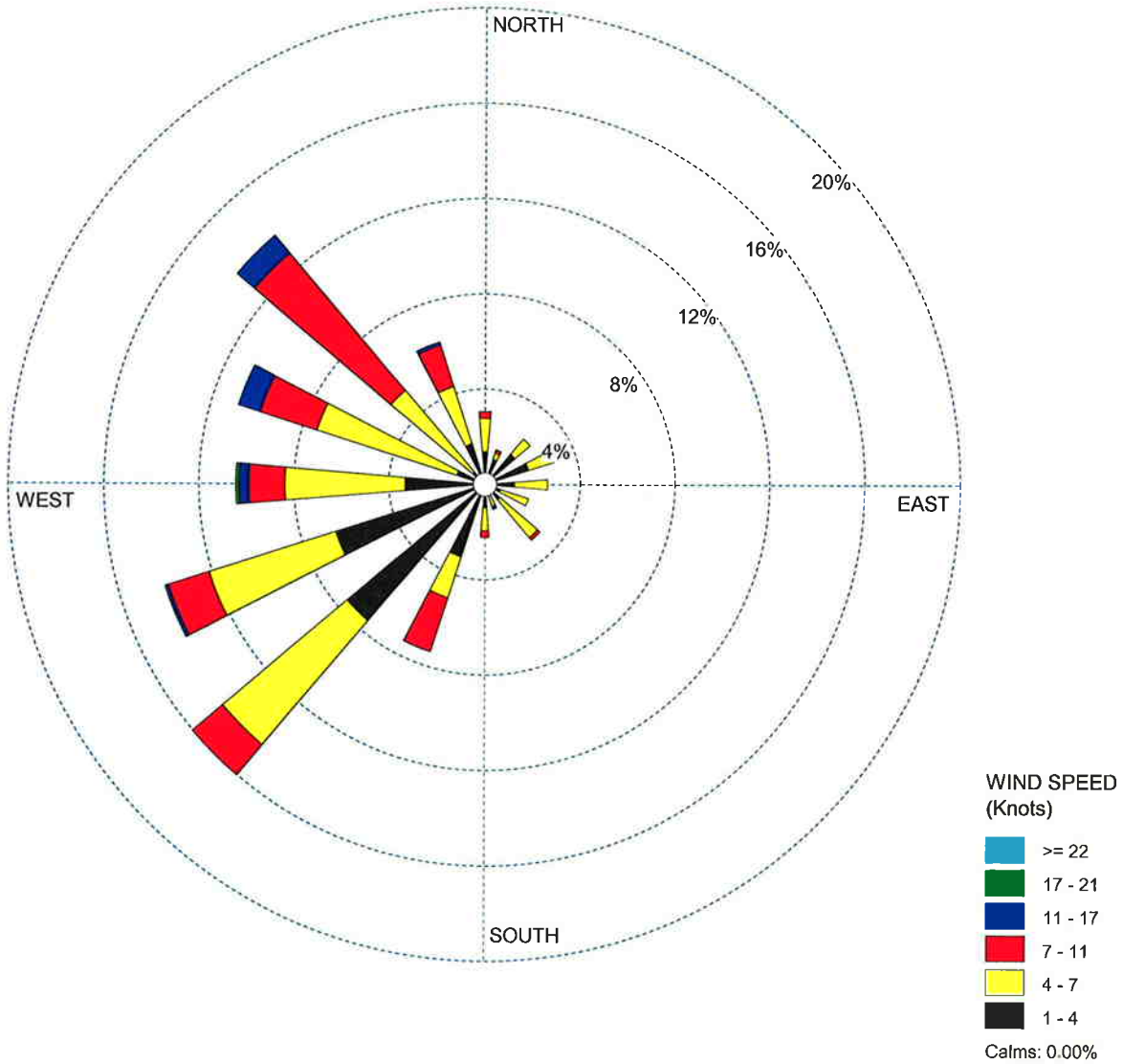
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
WASTEBED 13 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.1	18.4	5.2	100.0	100.0
Vector Wind Direction (deg)	1	359	235	100.0	100.0
Scalar Wind Speed (mph)	0.9	19.3	5.7	100.0	100.0
Scalar Wind Direction (deg.)	1	360	235	100.0	100.0
Sigma Theta (deg.)	6.4	70.0	21.3	100.0	100.0
Vertical Wind Speed (mph)	-0.27	0.93	0.16	100.0	100.0
Sigma W (mph)	0.06	2.31	0.80	100.0	100.0
Sigma Phi (deg)	2.66	27.4	8.0	100.0	100.0
Temperature (deg-F)	43.6	90.5	67.8	100.0	100.0
2-Meter Level					
Temperature (deg-F)	46.4	89.9	67.8	38.2	38.2
10-m - 2-m Delta Temp (F-deg)	-2.46	5.06	0.08	38.2	38.2
Relative Humidity (percent)	30.1	99.9	67.6	100.0	100.0
Dew Point Temperature (deg-F)	32.1	72.5	54.8	38.2	38.2
Net Radiation (W/m ²)	-96.5	641.0	3432.0 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	28.98	29.84	29.57	100.0	100.0
Surface Level					
Precipitation (Rain in inches)	0.00	0.87	3.24 (Total)	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-meter Tower - June 2007

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
Jun 1 - Jun 30
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

720 hrs.

AVG. WIND SPEED:

4.91 Knots

DATE:

7/16/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 443665-02300 Date: August 30, 2007
Subject: Submittal of Wastebed 13 Meteorological Data for: JULY 2007	
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
Program Operations/Data Collection Activities Summary: • No operational problems occurred at the Wastebed 13 monitoring site in July and monthly data recovery rates for all parameters are 100 percent.	
Climatic Summary: JULY 2007 General Predominance for winds from: <u> southwest through west-southwest </u> 10-meter level Primary Peak WD: <u> WSW </u> Max. Wind Speed : <u> 14.5 mph </u> Secondary Peak WD: <u> SW </u> Min. Wind Speed : <u> 0.9 mph </u> 2-meter level Max. Temperature: <u> 91.6 °F </u> Max. Dew Point Temp. <u> 71.6 °F </u> Max. Relative Humidity <u> 100% </u> Min. Temperature: <u> 46.4 °F </u> Min. Dew Point Temp. <u> 40.1 °F </u> Min. Relative Humidity <u> 26.0% </u>	
Cumulative-to-date Data Recovery Rates Period: January 1, 2007 through July 31, 2007	
10-Meter Level 10-Meter Vector Wind Speed: <u> 97.6 </u> % 10-Meter Vector Wind Direction: <u> 97.6 </u> % 10-Meter Scalar Wind Speed: <u> 98.3 </u> % 10-Meter Scalar Wind Direction: <u> 98.5 </u> % 10-Meter Sigma Theta: <u> 98.4 </u> % 10-Meter Vertical Wind Speed: <u> 99.9 </u> % Sigma W: <u> 99.8 </u> % Sigma Phi: <u> 98.3 </u> % 10-Meter Temperature: <u> 99.9 </u> %	2-Meter Level 2-Meter Temperature: <u> 91.0 </u> % Delta Temperature: <u> 90.9 </u> % Relative Humidity: <u> 99.9 </u> % Dew Point Temperature: <u> 90.9 </u> % Net Radiation: <u> 100 </u> % Barometric Pressure: <u> 100 </u> % Surface Precipitation (Rain): <u> 100 </u> %
Project Meteorologist: Steven Coughlin 	Distribution: P. Petrone - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: JULY 2007

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: JULY 2007

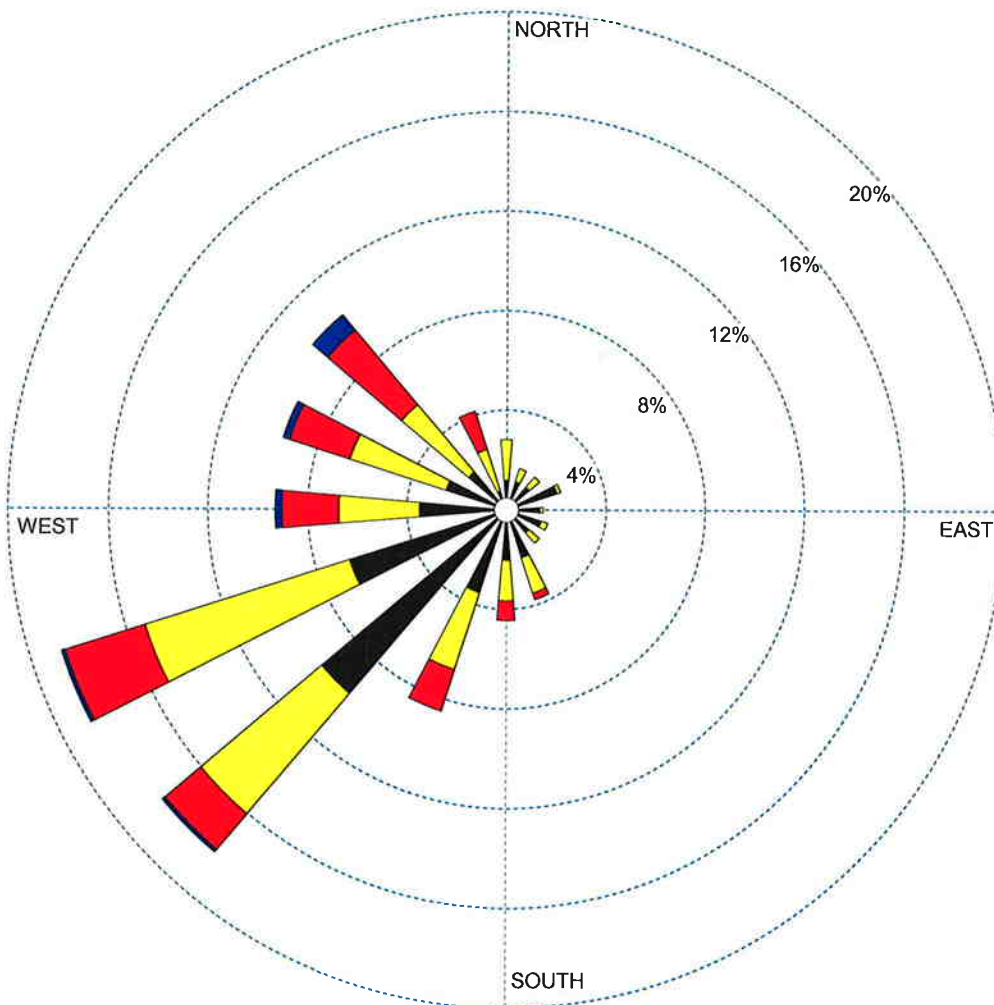
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
WASTEBED 13 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.1	13.7	4.7	100.0	100.0
Vector Wind Direction (deg)	1	360	233	100.0	100.0
Scalar Wind Speed (mph)	0.9	14.5	5.2	100.0	100.0
Scalar Wind Direction (deg.)	1	360	232	100.0	100.0
Sigma Theta (deg.)	6.2	74.8	22.3	100.0	100.0
Vertical Wind Speed (mph)	-0.16	0.92	0.13	100.0	100.0
Sigma W (mph)	0.04	1.85	0.71	100.0	100.0
Sigma Phi (deg)	2.64	23.2	7.8	100.0	100.0
Temperature (deg-F)	47.8	90.9	68.6	100.0	100.0
2-Meter Level					
Temperature (deg-F)	46.4	91.6	68.4	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-2.90	5.96	0.26	100.0	100.0
Relative Humidity (percent)	26.0	100.0	74.9	100.0	100.0
Dew Point Temperature (deg-F)	40.1	71.6	58.8	100.0	100.0
Net Radiation (W/m ²)	-76.6	653.9	2887.3 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.24	29.89	29.57	100.0	100.0
Surface Level					
Precipitation (Rain in inches)	0.00	0.41	3.55 (Total)	100.0	100.0

WIND ROSE PLOT:

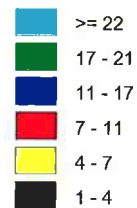
Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-meter Tower - July 2007

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)



Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Jul 1 - Jul 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

744 hrs.

AVG. WIND SPEED:

4.50 Knots

DATE:

8/2/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 443665-02300 Date: September 21, 2007
Subject: Submittal of Wastebed 13 Meteorological Data for: AUGUST 2007	
Data: ☐ Preliminary ☒ Validated ☐ Adjusted (list parameters)	Attached/Enclosed: ☐ Preliminary Report ☐ AIRS Diskette ☒ Final Report ☐ Client Data Disk ☒ Data Summaries ☐ Other (as noted)
Program Operations/Data Collection Activities Summary: - A performance audit was conducted at the Wastebed 13 monitoring site on August 15. A minor period of data is reported as scheduled down ("S") on this day to reflect audit activities. - No operational problems occurred at the Wastebed 13 monitoring site in August and monthly data recovery rates for all parameters range from 99.6 to 100 percent.	
Climatic Summary: AUGUST 2007	
General Predominance for winds from: <u> southwest through west-southwest </u>	
10-meter level	
Primary Peak WD: <u>SW</u>	Max. Wind Speed: <u>15.5 mph</u>
Secondary Peak WD: <u>WSW</u>	Min. Wind Speed: <u>0.6 mph</u>
2-meter level	
Max. Temperature: <u>93.7 °F</u>	Max. Dew Point Temp. <u>74.2 °F</u>
Min. Temperature: <u>46.4 °F</u>	Min. Dew Point Temp. <u>37.8 °F</u>
	Max. Relative Humidity <u>100%</u>
	Min. Relative Humidity <u>23.6%</u>
Cumulative-to-date Data Recovery Rates	
Period: January 1, 2007 through August 31, 2007	
10-Meter Level	2-Meter Level
10-Meter Vector Wind Speed: <u>97.9</u> %	2-Meter Temperature: <u>92.1</u> %
10-Meter Vector Wind Direction: <u>97.9</u> %	Delta Temperature: <u>92.0</u> %
10-Meter Scalar Wind Speed: <u>98.5</u> %	Relative Humidity: <u>99.9</u> %
10-Meter Scalar Wind Direction: <u>98.7</u> %	Dew Point Temperature: <u>92.1</u> %
10-Meter Sigma Theta: <u>98.6</u> %	Net Radiation: <u>100</u> %
10-Meter Vertical Wind Speed: <u>99.9</u> %	Barometric Pressure: <u>100</u> %
Sigma W: <u>99.8</u> %	Surface
Sigma Phi: <u>98.5</u> %	Precipitation (Rain): <u>100</u> %
10-Meter Temperature: <u>99.8</u> %	
Project Meteorologist: Steven Coughlin 	Distribution: P. Petrone - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: AUGUST 2007

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PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR
RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

PREPARED BY: **PARSONS**

BOSTON, MASS.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: AUGUST 2007

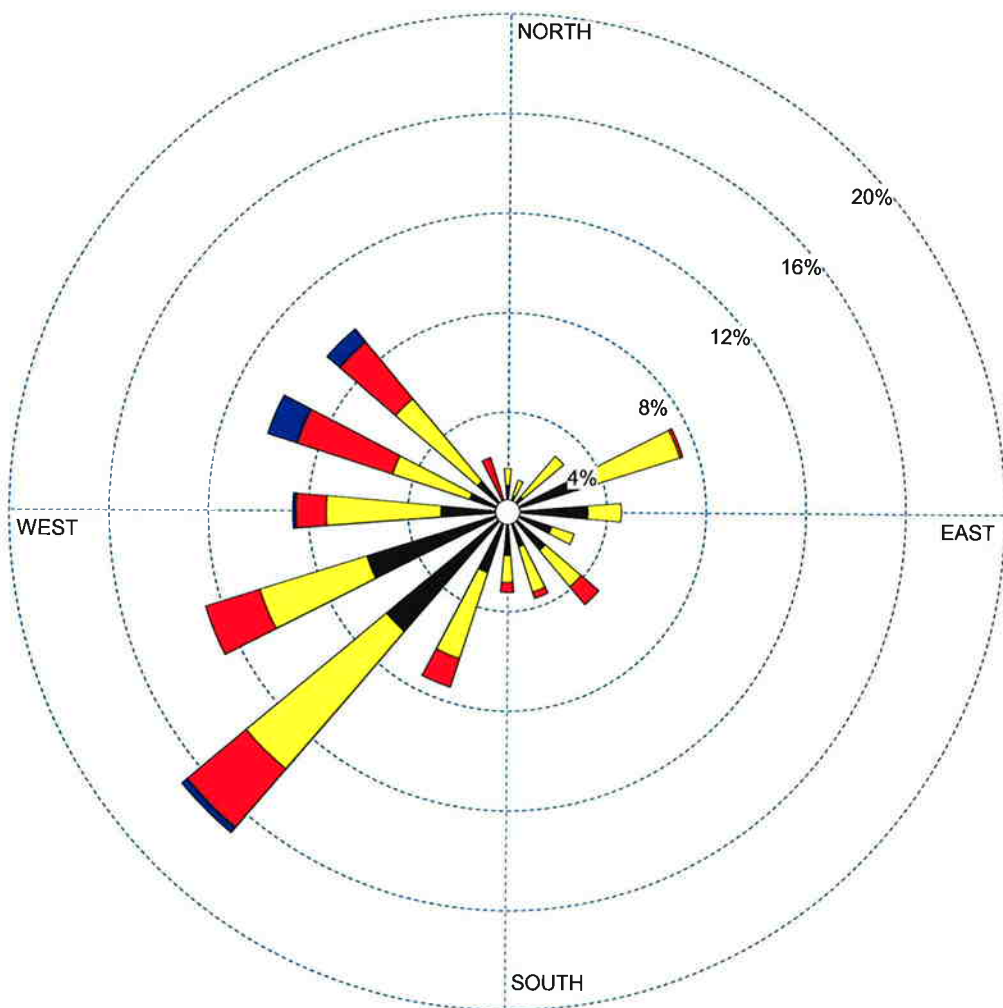
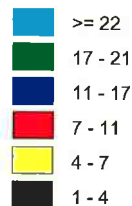
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				BASED ON OPERATING SCHEDULE	TOTAL HOURS
WASTEBED 13 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.1	15.0	4.8	100.0	100.0
Vector Wind Direction (deg)	2	359	211	100.0	100.0
Scalar Wind Speed (mph)	0.6	15.5	5.2	100.0	100.0
Scalar Wind Direction (deg.)	2	360	211	100.0	100.0
Sigma Theta (deg.)	6.4	73.0	22.5	100.0	100.0
Vertical Wind Speed (mph)	-0.19	0.77	0.12	100.0	100.0
Sigma W (mph)	0.06	2.12	0.76	100.0	100.0
Sigma Phi (deg)	2.71	22.7	8.3	100.0	100.0
Temperature (deg-F)	50.2	92.3	70.2	100.0	99.6
2-Meter Level					
Temperature (deg-F)	46.4	93.7	70.0	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-3.14	6.41	0.28	100.0	99.6
Relative Humidity (percent)	23.6	100.0	73.0	100.0	100.0
Dew Point Temperature (deg-F)	37.8	74.2	59.5	100.0	100.0
Net Radiation (W/m ²)	-82.1	617.3	2620.6 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.26	29.83	29.60	100.0	100.0
Surface Level					
Precipitation (Rain in inches)	0.00	0.25	1.26 (Total)	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-Meter Tower - August 2007

DISPLAY:

Wind Speed
Direction (blowing from)

WIND SPEED
(Knots)

Calms: 0.00%

COMMENTS:

DATA PERIOD:

2007
Aug 1 - Aug 31
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

744 hrs.

AVG. WIND SPEED:

4.57 Knots

DATE:

9/20/2007

PROJECT NO.:

443665-02300

To: Mr. Tom Drachenberg Parsons 290 Elwood Davis Road - Suite 312 Liverpool, NY 13088	Client: Honeywell Project: Onondaga Lake - Meteorological Monitoring Program Job No.: 443665-02300 Date: October 18, 2007
Subject: Submittal of Wastebed 13 Meteorological Data for: SEPTEMBER 2007	
Data: _____ Preliminary <u> X </u> Validated _____ Adjusted (list parameters)	Attached/Enclosed: _____ Preliminary Report _____ AIRS Diskette <u> X </u> Final Report _____ Client Data Disk <u> X </u> Data Summaries _____ Other (as noted)
Program Operations/Data Collection Activities Summary: • No operational problems occurred at the Wastebed 13 monitoring site in September and monthly data recovery rates for all parameters are 100 percent.	
Climatic Summary: SEPTEMBER 2007 General Predominance for winds from: <u> southwest through west-southwest </u> 10-meter level Primary Peak WD: <u> SW </u> Max. Wind Speed : <u> 17.0 mph </u> Secondary Peak WD: <u> WSW </u> Min. Wind Speed : <u> 0.9 mph </u> 2-meter level Max. Temperature: <u> 94.6 °F </u> Max. Dew Point Temp. <u> 70.6 °F </u> Max. Relative Humidity <u> 100% </u> Min. Temperature: <u> 36.4 °F </u> Min. Dew Point Temp. <u> 36.4 °F </u> Min. Relative Humidity <u> 25.4% </u>	
Cumulative-to-date Data Recovery Rates Period: January 1, 2007 through September 30, 2007	
10-Meter Level 10-Meter Vector Wind Speed: <u> 98.2 </u> % 10-Meter Vector Wind Direction: <u> 98.2 </u> % 10-Meter Scalar Wind Speed: <u> 98.7 </u> % 10-Meter Scalar Wind Direction: <u> 98.8 </u> % 10-Meter Sigma Theta: <u> 98.8 </u> % 10-Meter Vertical Wind Speed: <u> 99.9 </u> % Sigma W: <u> 99.9 </u> % Sigma Phi: <u> 98.7 </u> % 10-Meter Temperature: <u> 99.9 </u> %	2-Meter Level 2-Meter Temperature: <u> 93.0 </u> % Delta Temperature: <u> 92.9 </u> % Relative Humidity: <u> 99.9 </u> % Dew Point Temperature: <u> 92.9 </u> % Net Radiation: <u> 100 </u> % Barometric Pressure: <u> 100 </u> % Surface Precipitation (Rain): <u> 100 </u> %
Project Meteorologist: Steven Coughlin 	Distribution: P. Petrone - Parsons G. Pacheco - Parsons T. Fritts - Parsons

HONEYWELL - ONONDAGA LAKE – METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE – 10-METER TOWER

METEOROLOGICAL DATA SUMMARY FOR: SEPTEMBER 2007

PARAMETER IDENTIFICATION AND SITE DESCRIPTION

<u>PARAMETER</u>	<u>ABBREVIATION</u>	<u>UNITS OF MEASUREMENT</u>
10-M WIND SPEED (VECTOR AVERAGE)	VECTOR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (VECTOR AVERAGE)	VECTOR WIND DIR.	DEGREES FROM TRUE NORTH
10-M WIND SPEED (SCALAR AVERAGE)	SCALAR WIND SPEED	MILES PER HOUR
10-M WIND DIRECTION (SCALAR AVERAGE)	SCALAR WIND DIR.	DEGREES FROM TRUE NORTH
10-M STD. DEV. OF HORIZONTAL WIND DIRECTION	SIGMA THETA	DEGREES
10-M VERTICAL WIND SPEED	VERT WIND SPEED	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND SPEED	SIGMA W	MILES PER HOUR
10-M STD. DEV. OF VERTICAL WIND DIRECTION	SIGMA PHI	DEGREES
WIND PERSISTENCE FACTOR	WIND PERS.	---
10-METER TEMPERATURE	10-M TEMP.	DEGREES FAHRENHEIT
2-METER TEMPERATURE	2-M TEMP.	DEGREES FAHRENHEIT
DELTA TEMPERATURE	10-M – 2-M DELTA TEMP.	FAHRENHEIT DEGREES
2-M RELATIVE HUMIDITY	2M REL. HUM.	PERCENT
2-M DEW POINT TEMPERATURE	2-M DEW POINT TEMP.	DEGREES FAHRENHEIT
2-M NET RADIATION	NET RAD	WATTS PER SQUARE METER
2-M BAROMETRIC PRESSURE	BAR PRESS	INCHES OF MERCURY
SFC PRECIPITATION (RAIN)	RAIN	INCHES OF WATER

THE FOLLOWING DATA CODES ARE USED IN THIS REPORT:

S SIGNIFIES MISSING DATA AS A RESULT OF A SCHEDULED OUTAGE.

N SIGNIFIES MISSING DATA AS A RESULT OF A NON-SCHEDULED OUTAGE.

A DASH (-) INDICATES INSUFFICIENT DATA TO CALCULATE THE VALUE.

ALL TIMES ARE LOCAL STANDARD TIME (LST) AND INDICATE HOUR STARTING TIMES.

THE DAILY AVERAGE WIND SPEED AND DIRECTION ARE COMPUTED AS THE VECTOR, OR RESULTANT WIND FOR THE DAY BASED ON HOURLY VALUES.

PREPARED BY: **PARSONS**

BOSTON, MASS.

HONEYWELL - ONONDAGA LAKE - METEOROLOGICAL MONITORING PROGRAM
WASTEBED 13 MONITORING SITE - 10-METER TOWER

MONTHLY DATA COLLECTION SUMMARY

DATA COLLECTION SUMMARY FOR THE MONTH OF: SEPTEMBER 2007

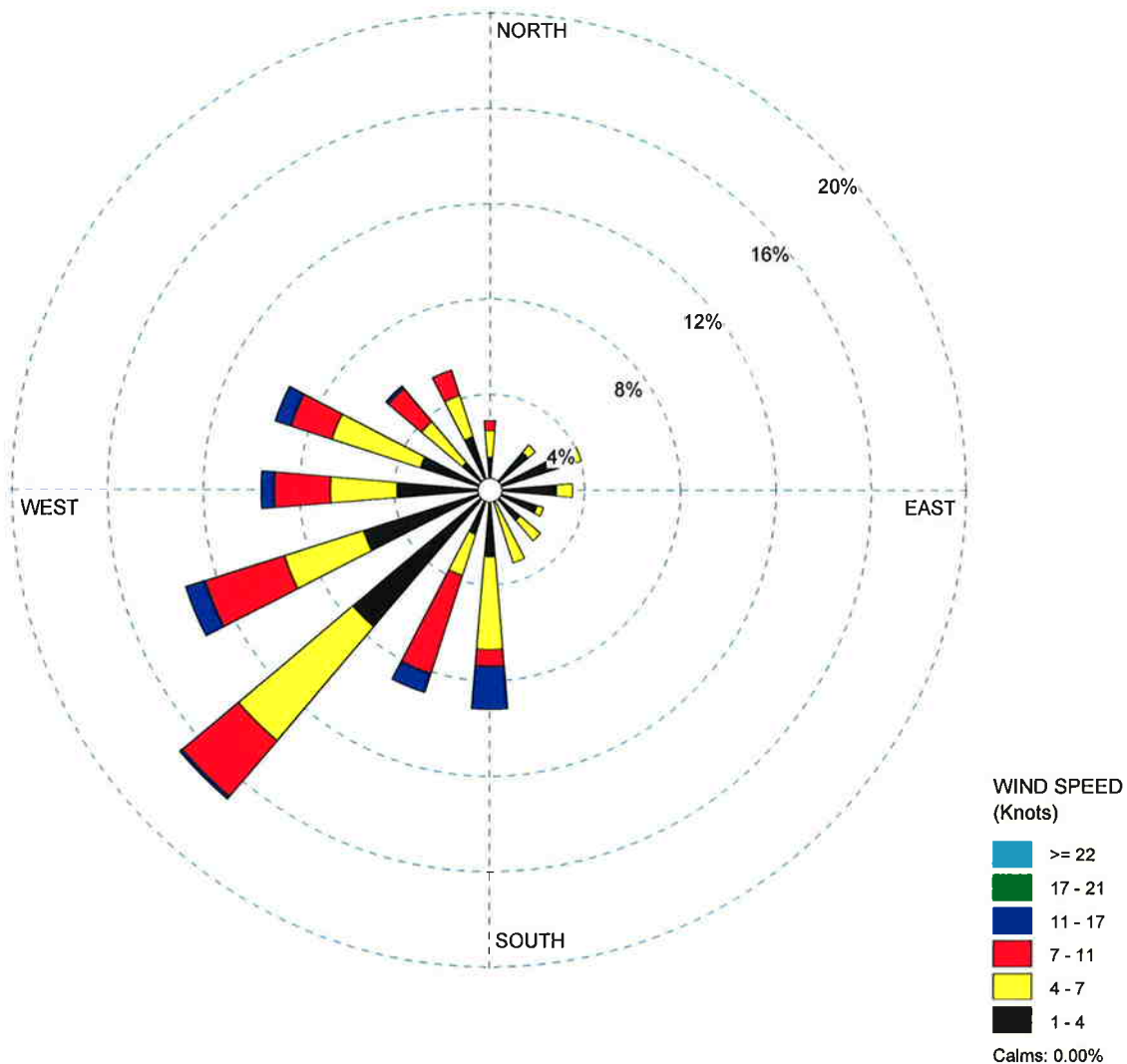
SITE / PARAMETER	MONTHLY MINIMUM VALUE	MONTHLY MAXIMUM VALUE	MONTHLY MEAN VALUE	MONTHLY DATA RECOVERY RATES (%)	
				OPERATING SCHEDULE	TOTAL HOURS
WASTEBED 13 10-METER TOWER					
10-Meter Level					
Vector Wind Speed (mph)	0.1	16.3	4.9	100.0	100.0
Vector Wind Direction (deg)	3	359	222	100.0	100.0
Scalar Wind Speed (mph)	0.9	17.0	5.4	100.0	100.0
Scalar Wind Direction (deg.)	3	360	221	100.0	100.0
Sigma Theta (deg.)	4.3	76.7	22.8	100.0	100.0
Vertical Wind Speed (mph)	-0.31	0.76	0.12	100.0	100.0
Sigma W (mph)	0.06	2.40	0.74	100.0	100.0
Sigma Phi (deg)	2.34	25.3	7.7	100.0	100.0
Temperature (deg-F)	39.1	93.6	64.7	100.0	100.0
2-Meter Level					
Temperature (deg-F)	36.4	94.6	64.1	100.0	100.0
10-m - 2-m Delta Temp (F-deg)	-2.71	8.94	0.64	100.0	100.0
Relative Humidity (percent)	25.4	100.0	75.6	100.0	100.0
Dew Point Temperature (deg-F)	36.4	70.6	54.7	100.0	100.0
Net Radiation (W/m²)	-110.4	561.7	1962.6 (Avg. Daily Total)	100.0	100.0
Barometric Pressure (in. Hg.)	29.15	30.10	29.71	100.0	100.0
Surface Level					
Precipitation (Rain in inches)	0.00	0.24	2.92 (Total)	100.0	100.0

WIND ROSE PLOT:

Honeywell - Onondaga Lake - Meteorological Monitoring Program
Wastebed 13 Monitoring Site - 10-meter Tower - September 2007

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
Sep 1 - Sep 30
00:00 - 23:00

COMPANY NAME:

PARSONS

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

720 hrs.

AVG. WIND SPEED:

4.68 Knots

DATE:

10/16/2007

PROJECT NO.:

443665-02300