CENTER FOR TOXICOLOGY
AND ENVIRONMENTAL HEALTH, LLC

# CTEH® Project #40442
# West Fertilizer Plant Explosion
# Summary of Air Monitoring Results
# April 26, 2013 10:00

This data report discusses real-time air monitoring data collected between 4/25/2013 16:00 and 4/26/2013 07:00 in support of remediation operations conducted near the West Fertilizer Plant Explosion in West, TX.

Real-time air monitoring was conducted for volatile organic compounds (VOCs), ammonia ($NH_3$), nitrogen dioxide ($NO_2$), percent of the lower explosive limit (LEL) and oxygen ($O_2$) using remote-telemetering RAESystems® AreaRAEs and hand-held instruments such as the RAESystems® MultiRAE.

Tables 1 and 2 (below) display data summaries for hand-held and AreaRAE instruments, respectively. Site maps and charts are available as attachments.

**Table 1: Hand-held Real-time Air Monitoring Summary[1]**
**April 25, 2013 16:00 – April 26, 2013 07:00**

| Analyte | Instrument | Number of Readings | Number of Detections | Average of Detections | Range of Detections |
|---|---|---|---|---|---|
| **Community** | | | | | |
| VOC | MultiRAE | 1 | 0 | NA | < 0.1 ppm |

[1]*Please note: The data displayed here has not undergone complete QA/QC analysis and is presented in a preliminary format.*
*PPM = Parts Per Million*

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## Table 2
## Stationary AreaRAE Monitoring Stations Data Logged
## 4/25/2013 16:00 to 4/26/2013 07:00

| Unit | Analyte | Count of Readings | Count of Detections | Average of Detections | Max Detection |
|---|---|---|---|---|---|
| AR13 | LEL | 3524 | 0 | NA | < 1 % |
| | NH3 | 3524 | 0 | NA | < 1 ppm |
| | NO2 | 3524 | 0 | NA | < 0.1 ppm |
| | O2 | 3524 | 3524 | 20.9 % | 20.9 % |
| | VOC | 3524 | 17 | 0.1 ppm | 0.1 ppm |
| AR14 | LEL | 3460 | 0 | NA | < 1 % |
| | NH3 | 3460 | 51 | 1 ppm | 1 ppm |
| | NO2 | 3460 | 5 | NA | 0.1 ppm |
| | O2 | 3460 | 3460 | 20.9 % | 21.2 % |
| | VOC | 3460 | 193 | 0.2 ppm | 0.4 ppm |
| AR16 Mobile Down Wind Unit | LEL | 3536 | 0 | NA | < 1 % |
| | NH3 | 3536 | 0 | NA | < 1 ppm |
| | NO2 | 3536 | 0 | NA | < 0.1 ppm |
| | O2 | 3536 | 3536 | 20.9 % | 20.9 % |
| | VOC | 3536 | 0 | NA | < 0.1 ppm |
| AR17 | LEL | 3527 | 0 | NA | < 1 % |
| | NH3 | 3527 | 0 | NA | < 1 ppm |
| | NO2 | 3527 | 4 | 0.1 ppm | 0.1 ppm |
| | O2 | 3527 | 3527 | 20.9 % | 20.9 % |
| | VOC | 3527 | 0 | NA | < 0.1 ppm |
| AR18 | LEL | 3537 | 0 | NA | < 1 % |
| | NH3 | 3537 | 0 | NA | < 1 ppm |
| | NO2 | 3537 | 0 | NA | < 0.1 ppm |
| | O2 | 3537 | 3537 | 21.0 % | 21.4 % |
| | VOC | 3537 | 0 | NA | < 0.1 ppm |

[1] *The data in this table may include electronic drift. Drift is defined as any interference in the electrochemical sensor's ability to accurately report the concentration of a chemical in the atmosphere. Humidity and temperature changes throughout the monitoring period are typical sources of drift. Additionally, the data has not undergone complete QAQC as of this time.*

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# Appendix

# Air Monitoring Zone Classifications[1]
# April 26, 2013

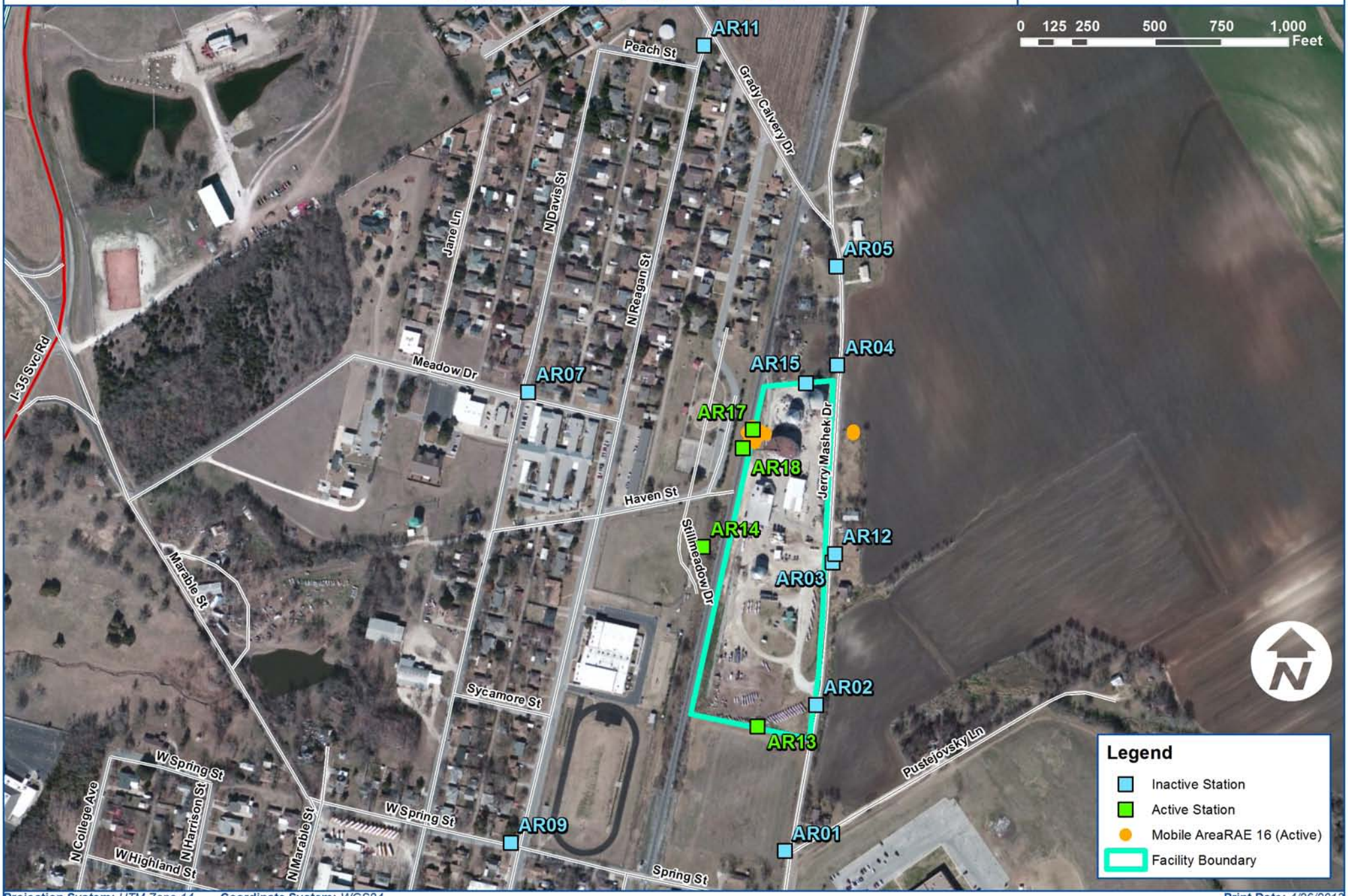
**Project: 40442**
**Client: OMI**
**City: West, TX**
**County: McLennan**

[1] All monitoring performed outside of the Work Area boundary and the Rail Road right of way is considered Community Monitoring.

**Projection System:** *UTM Zone 14* **Coordinate System:** *WGS84* **Print Date:** *4/26/2013*

# AreaRAE Monitoring Station Locations
# 4/18/2013 to 4/26/2013

**Project: 40442**
**Client: OMI**
**City: West, TX**
**County: McLennan**




**Projection System:** *UTM Zone 14* **Coordinate System:** *WGS84* **Print Date:** *4/26/2013*

# Manually Logged VOC Real-Time Readings
## 4/25/2013 16:00 to 4/26/2013 07:00

**Project: 40442**
**Client: OMI**
**City: West, TX**
**County: McLennan**

Projection System: *UTM Zone 14* Coordinate System: *WGS84*

Print Date: *4/26/2013*

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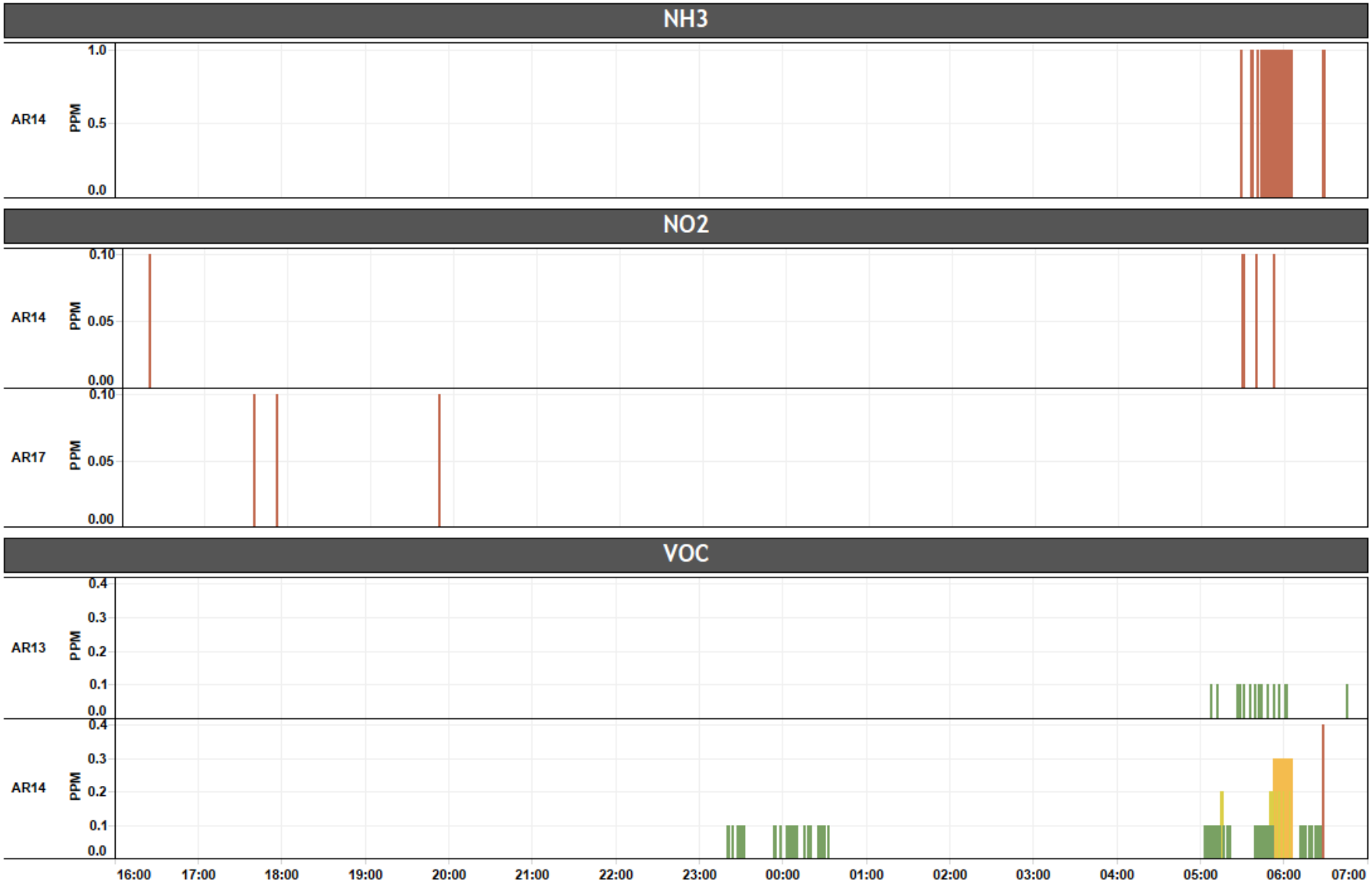
# AreaRAE Detections
## 4/25/2013 16:00 to 4/26/2013 07:00

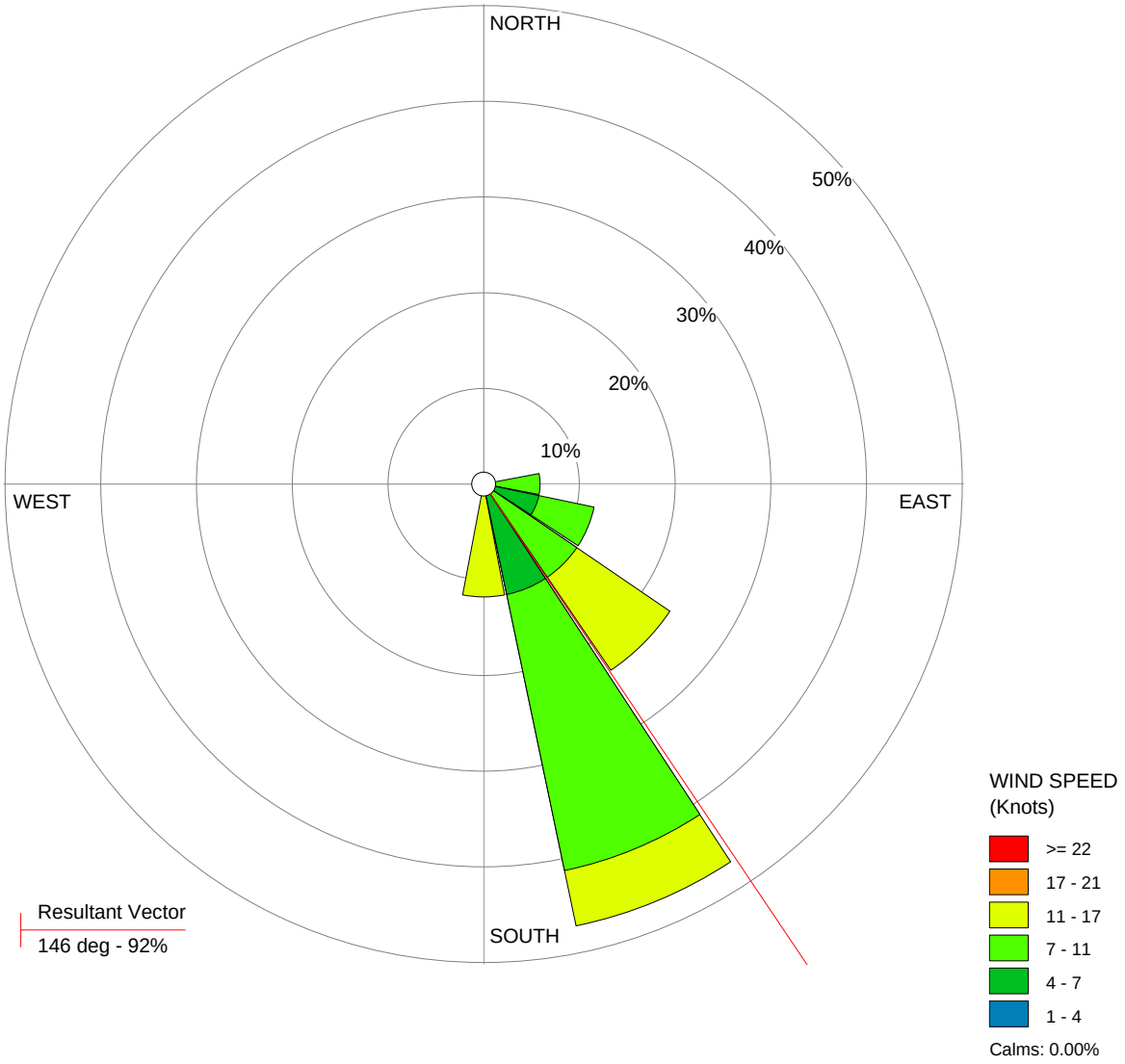


WIND ROSE PLOT:

**Wind Speed and Direction 4/25/2013 16:00 to 4/26/2013 7:00**
**West, Tx**

DISPLAY:

**Wind Speed**
**Direction (blowing from)**




COMMENTS:

Met Station: KACT Waco, TX

COMPANY NAME:

**CTEH**

MODELER:

**Jason Callahan**

CALM WINDS:

**0.00%**

AVG. WIND SPEED:

**9.65 Knots**

PROJECT NO.:

**40442 - OMI**

WRPLOT View - Lakes Environmental Software