

IEI Plastics Facility Fire  
Parkersburg, WV  
Preliminary Air Monitoring Summary  
October 24, 2017

Prepared by  
Center for Toxicology and Environmental Health, L.L.C. (CTEH)  
On Behalf of Wood County



## Introduction

On October 23, 2017 the Center for Toxicology and Environmental Health, LLC (CTEH) initiated air monitoring following a fire at the IEI Plastics facility in Parkersburg, WV. Real-time air monitoring consisted of roaming hand-held air monitoring. Analytical sampling locations were also established for the collection of air samples to be analyzed at an offsite laboratory. Appendix I contains incident site maps and closest available meteorological data.

## Real-time Air Monitoring<sup>1</sup>

Real-time air monitoring was conducted to document and quantify the potential release of hazardous compounds. All instrumentation was calibrated at least once per day or per manufacturer's recommendations. Target analytes were measured as total volatile organic compounds (VOCs), acrolein, carbon monoxide, formaldehyde, hydrogen chloride, hydrogen cyanide, nitrogen dioxide, nitrogen oxide, particulate matter (PM and Total Dust), and sulfur dioxide using handheld instruments, such as RAESystems® MultiRAE Plus/Pro instruments, TSI AM510 and DustTrak DRX aerosol/particle monitors, and Gastec colorimetric tubes.

Table 1, presented below, summarizes data for hand-held instruments.

*Table 1: Hand-held Real-time Air Monitoring Summary<sup>1</sup>  
October 23, 2017 18:43 to October 24, 2017 07:00*

Location Category	Analyte	Instrument	Number of Readings	Number of Detections	Range of Detections <sup>2</sup>
Community Exposure Monitoring	Acrolein	Gastec 93	1	0	< 2 ppm
	Carbon Monoxide	MultiRAE Plus	9	1	14 ppm
	Carbon Monoxide	MultiRAE Pro	39	0	< 1 ppm
	Formaldehyde	Gastec 91L	7	0	< 0.05 ppm
	Hydrogen Chloride	Gastec 14L	6	0	< 0.05 ppm
	Hydrogen Cyanide	Gastec 12L	3	0	< 0.1 ppm
	Nitrogen Dioxide	Gastec 9L	19	0	< 0.1 ppm
	Nitrogen Oxide	Gastec 10	16	0	< 1 ppm
	PM10	DustTrak DRX	21	21	0.001 - 0.384 mg/m3
	PM2.5	AM510	18	18	0.002 - 2.81 mg/m3
	PM2.5	DustTrak DRX	30	30	0.001 - 0.317 mg/m3
	Sulfur Dioxide <sup>3</sup>	Gastec 5Lb	18	5	0.2 - 0.5 ppm
	Total Dust	DustTrak DRX	1	1	0.284 mg/m3
	VOCs	MultiRAE Plus	9	1	0.5 ppm
	VOCs	MultiRAE Pro	42	0	< 0.1 ppm

<sup>1</sup>Please Note: The data displayed in the above table has not undergone complete QC analysis and is presented in preliminary format.

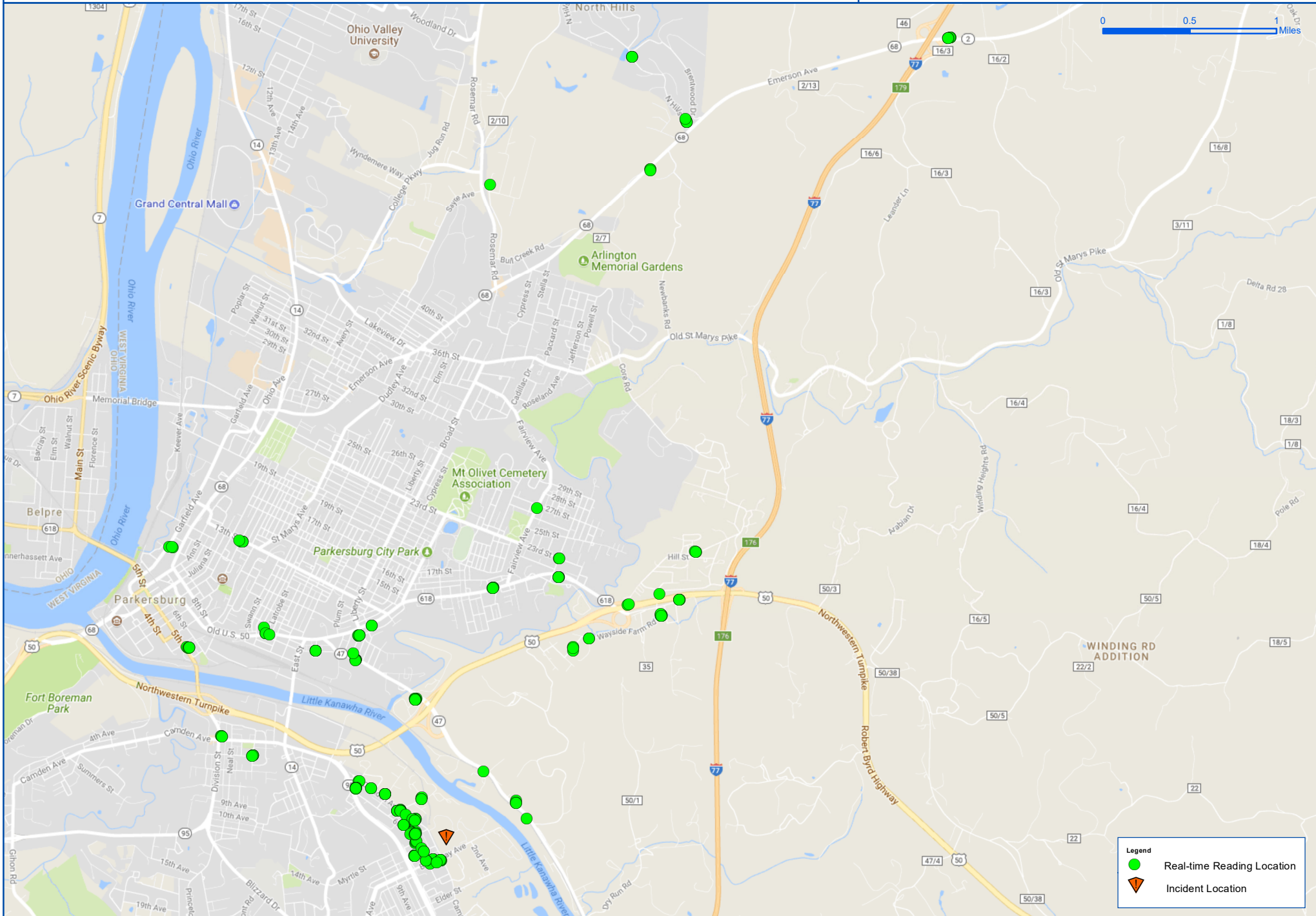
<sup>2</sup>Maximum detections preceded by the "<" symbol are considered non-detections at the limit of detection (LoD) value to the right.

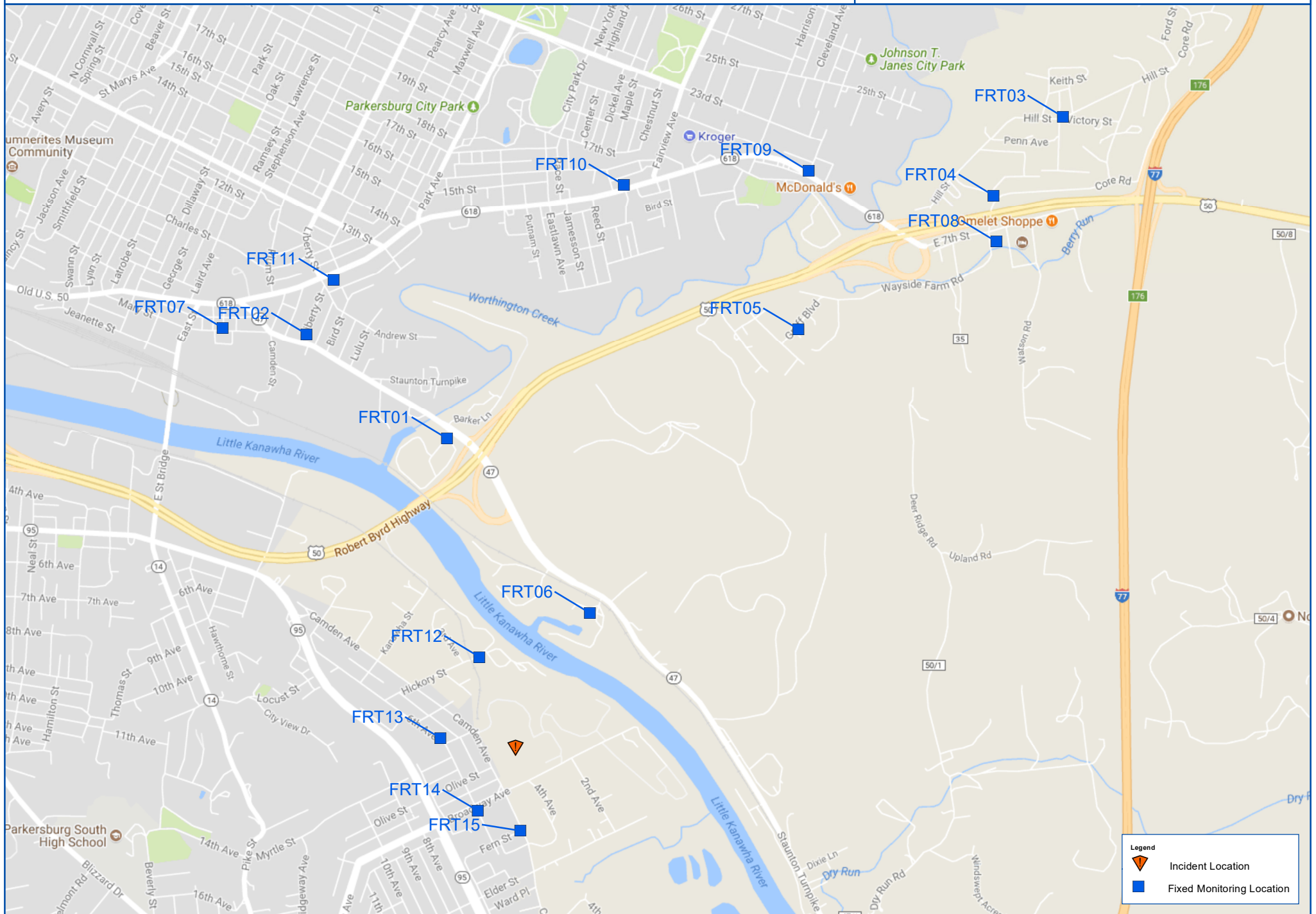
<sup>3</sup>Sulfur Dioxide readings have not had the correction factor applied, a correction factor of 0.25 should be applied, showing a range of detections from 0.05 – 0.125 ppm, respectively.

<sup>1</sup> Real-time air monitoring provides near instantaneous measurements for concentrations in air without the need for laboratory analysis.

# Appendix I:

## Incident Site Maps and Meteorological Data









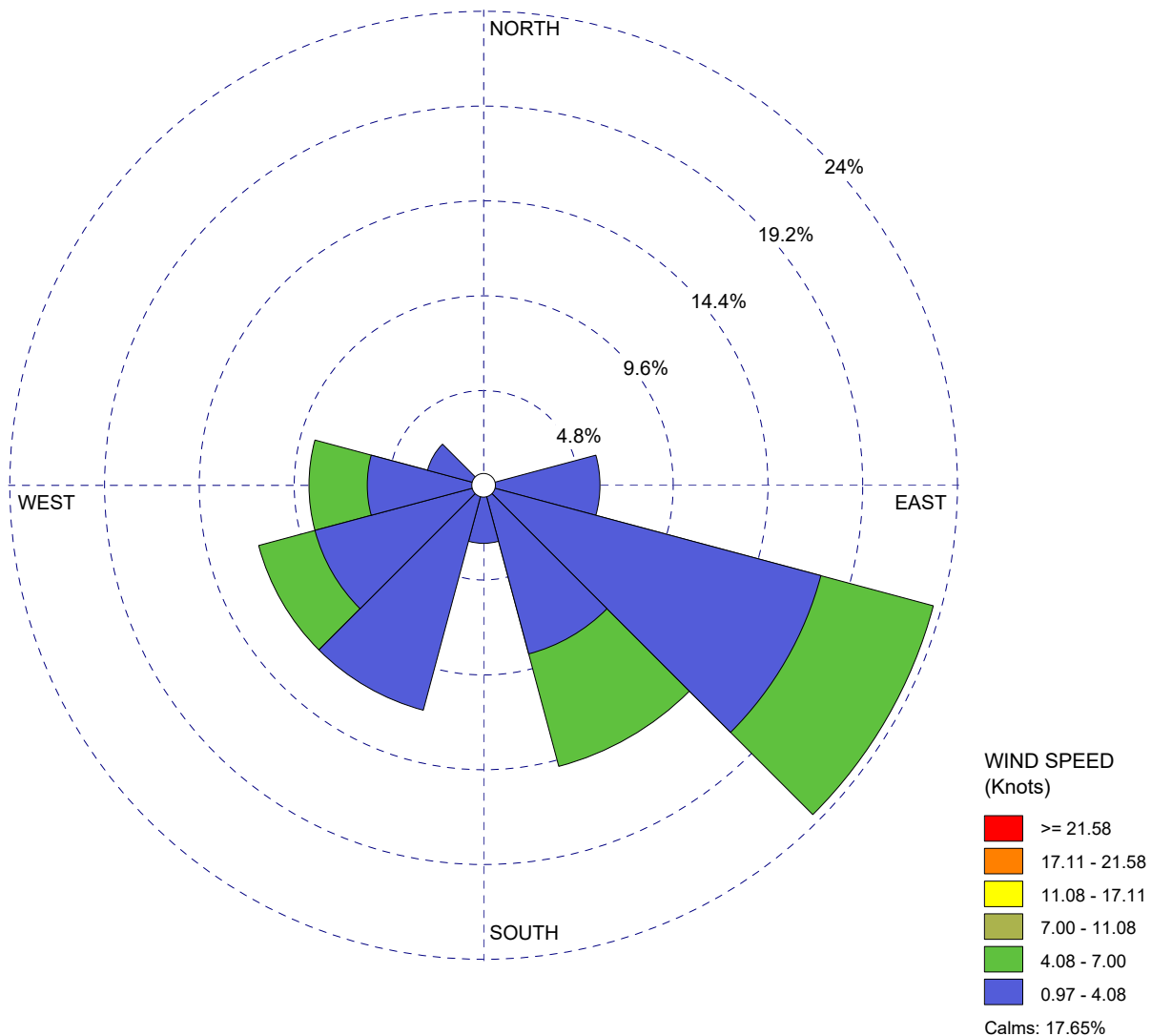
**Legend**

- Incident Location
- Analytical Sampling Station Location

WIND ROSE PLOT:

Station #kwvparke13

DISPLAY:

Wind Speed  
Direction (blowing from)

COMMENTS:

DATA PERIOD:

Start Date: 10/23/2017 - 00:00  
End Date: 10/24/2017 - 09:00

COMPANY NAME:

MODELER:

CALM WINDS:

17.65%

TOTAL COUNT:

34 hrs.

AVG. WIND SPEED:

2.62 Knots

DATE:

10/24/2017

PROJECT NO.:

109708

