

## Comprehensive Laboratory Analytical GC/MS Analysis of Field Collected Samples, Field Collected PM<sub>2.5</sub>, and Field Collected Meteorological Results

### EPA Hazardous Air Pollutants (HAPs) Present During Sampling

| Compound             | CAS                   | Estimated VOC Level (ng/L) | Estimated VOC Level (ppb) | NIOSH Exposure Limit       | Description  |
|----------------------|-----------------------|----------------------------|---------------------------|----------------------------|--|
| Naphthalene          | 91-20-3               | 22                         | 4.1                       | 50,000 ng/L (10,000 ppb)   | Gasoline; diesel; Moth balls/crystals; insecticide   |
| Acrolein             | 107-02-8              | 7                          | 3                         |                            |  |
| Methylene Chloride   | 75-09-2               | 0.7                        | 0.2                       | Carcinogen                 | Automotive products; degreasing solvent; paint stripper; adhesive remover; aerosol propellant; insecticide   |
| Carbon Tetrachloride | 56-23-5               | 1.1                        | 0.2                       | Carcinogen                 | Solvent; metal degreasing; refrigerant; agricultural fumigant; fire retardant (former use)   |
| Benzene              | 71-43-2               | 110                        | 35                        | 320 ng/L (100 ppb)         | J*Gasoline. Less common sources include some discontinued solvents; printing and lithography; paints and coatings; rubber; dry cleaning; adhesives; detergents |
| Toluene              | 108-88-3              | 66                         | 17                        | 375,000 ng/L (100,000 ppb) | Gasoline; adhesives (building and arts/crafts); contact cement; solvent; heavy duty cleaner  |
| Tetrachloroethene    | 127-18-4              | 0.3                        | 0.04                      | Carcinogen                 | Dry cleaning; adhesives, automotive cleaners, polishes   |
| Ethylbenzene         | 100-41-4              | 9.9                        | 2.2                       | 435,000 ng/L (100,000 ppb) | Gasoline; paints and coatings; solvent; pesticide  |
| m,p-Xylene           | 108-38-3;<br>106-42-3 | 14                         | 3.2                       | 435,000 ng/L (100,000 ppb) | Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges  |
| o-Xylene             | 95-47-6               | 4.6                        | 1.0                       | 435,000 ng/L (100,000 ppb) | Gasoline; paints and coatings; adhesives and cements; solvent; print cartridges  |
| Styrene              | 100-42-5              | 18                         | 4.3                       | 215,000 ng/L (50,000 ppb)  | Polystyrene foam; synthetic rubber; flavoring agent  |
| Isopropylbenzene     | 98-82-8               | 0.8                        | 0.2                       |                            |  |
| o-Cresol             | 95-48-7               | 10                         | 2                         |                            |  |

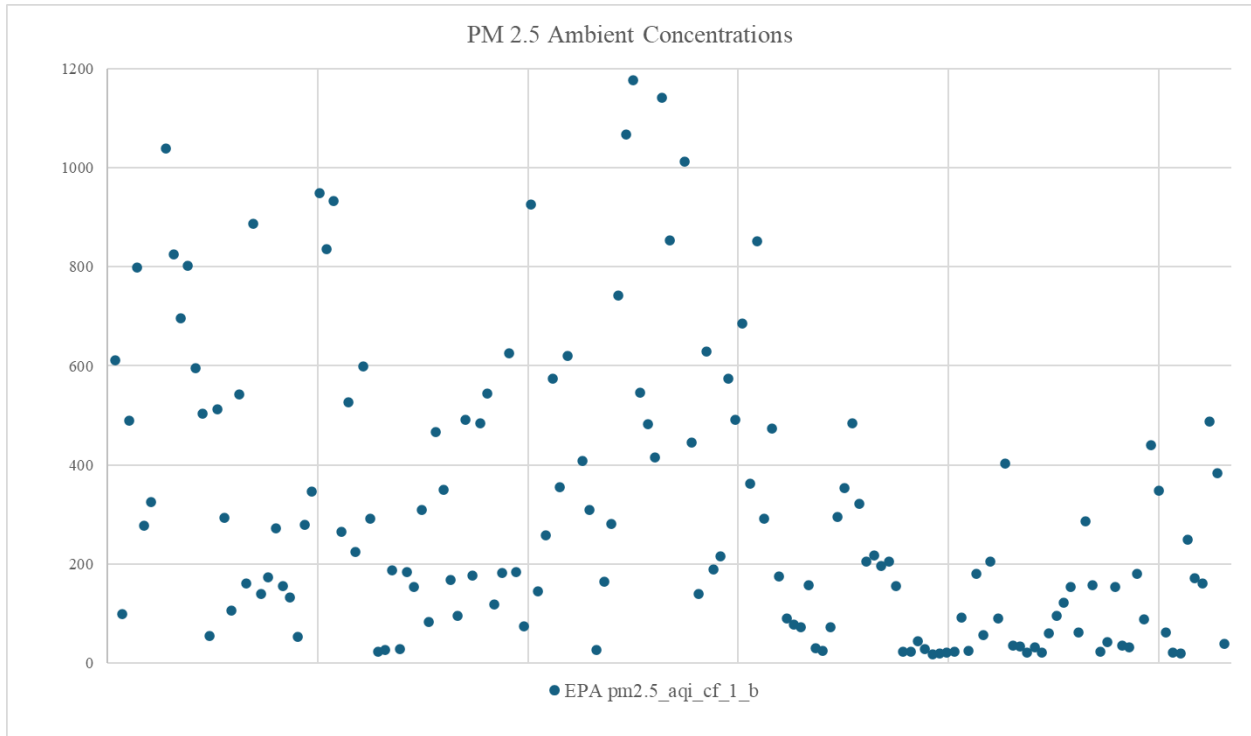
## Additional Quantitative Laboratory Air Sampling Results <sup>1</sup>

| Total VOCs                | Sample Concentration |      | Reporting Limit | Description   |
|---------------------------|----------------------|------|-----------------|---|
|                           | ng/L                 | ppb  | ng/L            |   |
| Total VOCs as Isobutylene | 3900                 | 1700 | 200             | Total volatile organic compounds calculated as isobutylene using internal standard ratio; does not include C1, C2, or methanol. |

| Compound                              | CAS                   | Sample Concentration |      | Reporting Limit | RI   | Additional Information |
|---------------------------------------|-----------------------|----------------------|------|-----------------|------|------------------------|
|                                       |                       | ng/L                 | ppb  | ng/L            |      |                        |
| 1,3-Butadiene                         | 106-99-0              | 45                   | 20   | 0.2             | 397  |                        |
| Acetone                               | 67-64-1               | 83                   | 34   | 44              | 514  |                        |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 76-13-1               | 1.2                  | 0.2  | 0.2             | 514  |                        |
| Acetonitrile                          | 75-05-8               | 4.0                  | 2.3  | 0.2             | 527  |                        |
| Methylene Chloride                    | 75-09-2               | 0.7                  | 0.2  | 0.2             | 538  |                        |
| Acrylonitrile                         | 107-13-1              | 1                    | 0.4  | 0.2             | 548  |                        |
| Hexane (C 6)                          | 110-54-3              | 2.2                  | 0.6  | 0.2             | 567  |                        |
| Propionitrile                         | 107-12-0              | 0.4                  | 0.2  | 0.2             | 597  |                        |
| Ethylacetate                          | 141-78-6              | 1.3                  | 0.4  | 0.2             | 599  |                        |
| Methylacrylate                        | 96-33-3               | 1.9                  | 0.5  | 0.2             | 601  |                        |
| Tetrahydrofuran                       | 109-99-9              | 8.1                  | 2.7  | 0.2             | 609  |                        |
| Carbon Tetrachloride                  | 56-23-5               | 1.1                  | 0.2  | 0.2             | 629  |                        |
| Benzene                               | 71-43-2               | 110                  | 35   | 0.2             | 637  | J*                     |
| Toluene                               | 108-88-3              | 66                   | 17   | 0.2             | 725  |                        |
| Tetrachloroethene                     | 127-18-4              | 0.3                  | 0.04 | 0.2             | 753  |                        |
| Ethylbenzene                          | 100-41-4              | 9.9                  | 2.2  | 0.2             | 802  |                        |
| m,p-Xylene                            | 108-38-3;<br>106-42-3 | 14                   | 3.2  | 0.4             | 809  |                        |
| o-Xylene                              | 95-47-6               | 4.6                  | 1.0  | 0.2             | 832  |                        |
| Styrene                               | 100-42-5              | 18                   | 4.3  | 0.2             | 833  |                        |
| Isopropylbenzene                      | 98-82-8               | 0.8                  | 0.2  | 0.2             | 854  |                        |
| n-Propylbenzene                       | 103-65-1              | 1.1                  | 0.2  | 0.2             | 878  |                        |
| 4-Ethyltoluene                        | 622-96-8              | 1.4                  | 0.3  | 0.2             | 885  |                        |
| 1,2,4-Trimethylbenzene                | 95-63-6               | 2.6                  | 0.5  | 0.2             | 912  |                        |
| p-Isopropyltoluene                    | 99-87-6               | 2.2                  | 0.4  | 0.2             | 933  |                        |
| n-Butylbenzene                        | 104-51-8              | 0.7                  | 0.1  | 0.2             | 957  |                        |
| Naphthalene                           | 91-20-3               | 22                   | 4.1  | 0.2             | 1049 |                        |
| 2-Methylnaphthalene                   | 91-57-6               | 4.5                  | 0.8  | 0.2             | 1103 |                        |

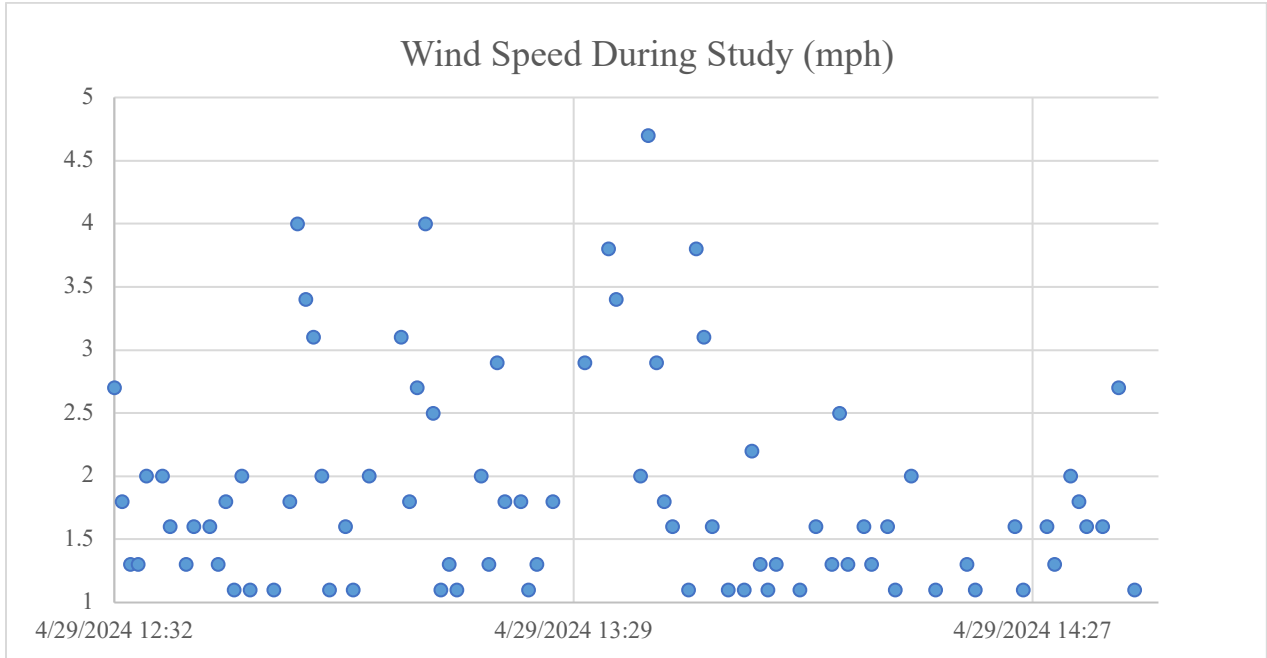
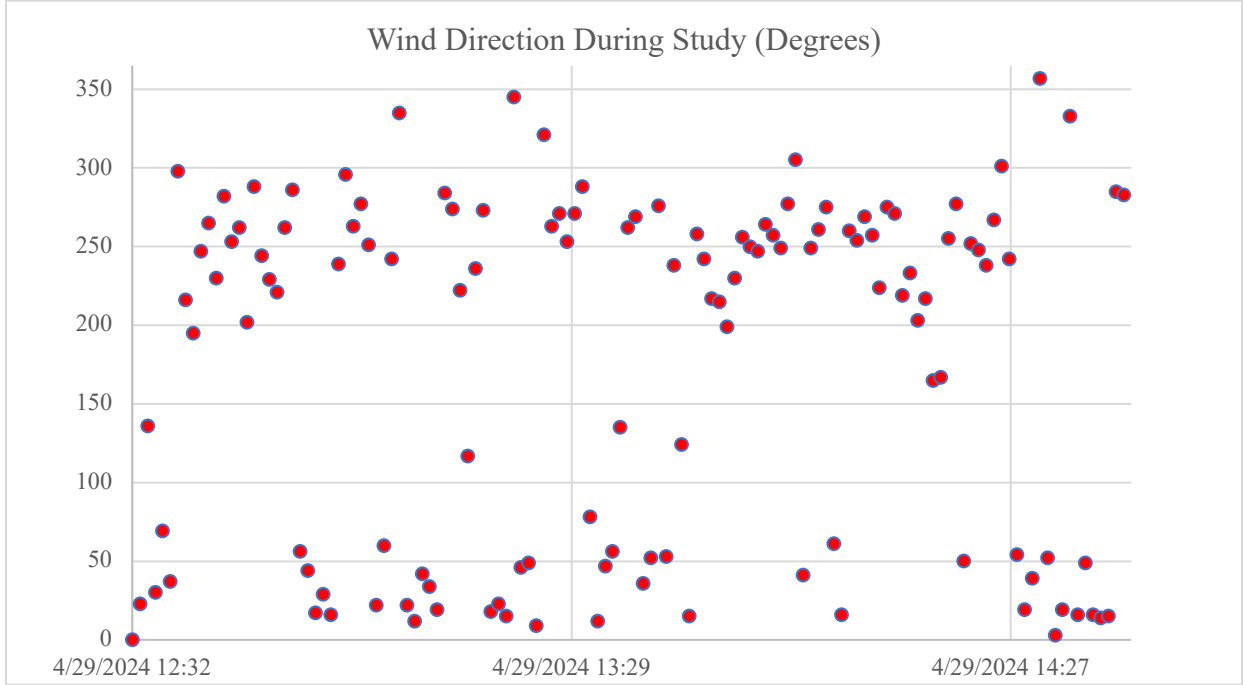
<sup>1</sup> Semi-quantitative compounds are available with less accuracy in terms of laboratory analysis (+/-10 %).

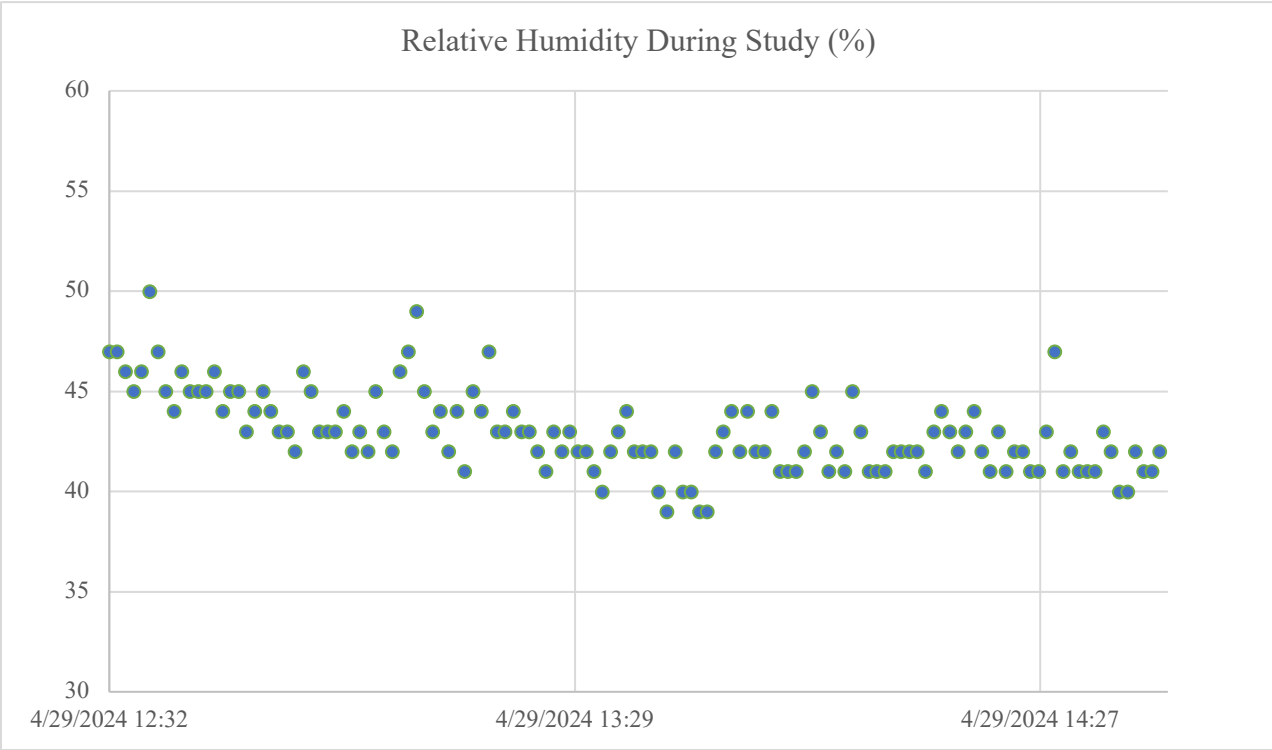
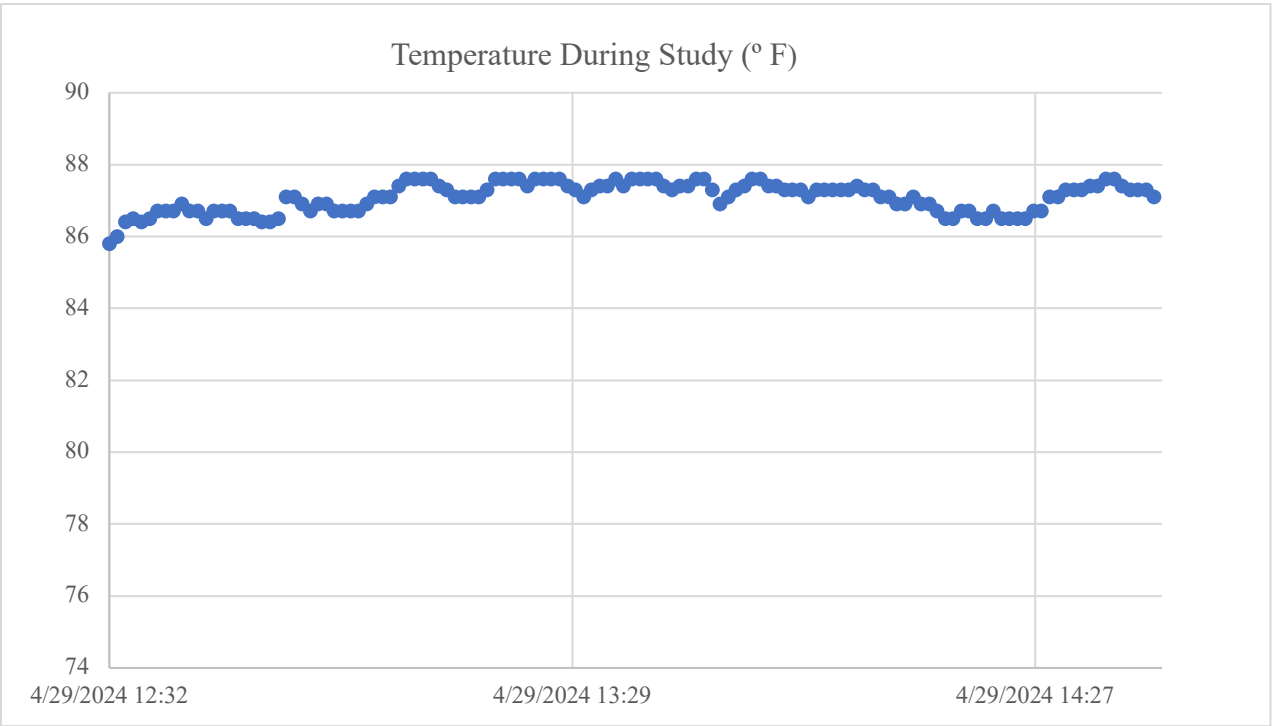
# PM<sub>2.5</sub> Results During Trial Study (µg/m<sup>3</sup>)



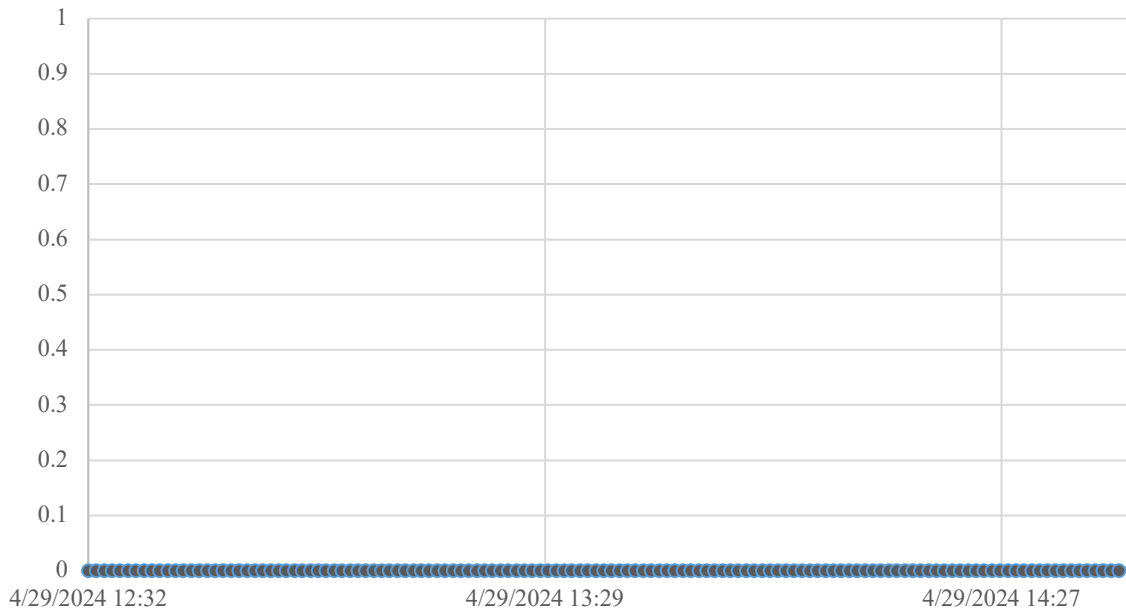
# Meteorological Parameters Collected During Trial Study

(Inputs for Dispersion Modeling)





### Rainfall During Study (Inches)



### Solar Radiation During Study (w/m<sup>2</sup>)

