***UCC Air Quality Monitoring Report***

* Monitoring Period: 01/03/2016 – 31/03/2016
* Monitoring Location: Mobile Monitoring Station, Kane Building Car Park
* Pollutants Monitored: PM2.5, NOx (NO2 & NO), Ozone

***Results***

PM2.5 mass concentration did not breach limits set by the World Health Organization. The levels are typical for those observed in Cork and other towns/cities around the country.



The concentrations of nitrogen oxides (NO and NO2) are also below the WHO limit guidelines and are typical for those observed in Cork and other towns/cities.



Ozone levels are also low.



The results above are daily average values. But concentration varies throughout the day. It is interesting to look at any spikes in concentration and see if they coincide with any particular time of day, weather pattern etc.

Here are the peak concentrations for NOx during each of the days. The only days where spikes were observed were 4th March, 5th March, 19th March, 21st March, 25th March. All but one of these days experienced winds from a northerly direction (highlighted).

There is some indication that northern winds bring higher levels of nitrogen oxides to the monitoring site. But not all the time.

***Table of Results highlighting peaks in NOx concentration and the weather at the time***

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Time of Spike** | **Max. Concentration NOx (ppb)** | **Notes** |
| 01/03/2016 | 09:00 | 34.1 | Mild, Light South Westerly winds |
| 01/03/2016 | 10:45 | 23.7 |
| 01/03/2016 | 17:15 | 19.9 |
| 02/03/2016 | 10:15 | 20.6 | Cold, North Westerly Wind |
| 02/03/2016 | 14:15 | 19.7 |
| 02/03/2016 | 15:30 | 20.1 |
| 02/03/2016 | 16:30 | 20.1 |
| 03/03/2016 | 08:15 | 37.6 | Cold, Light South Westerly winds |
| 03/03/2016 | 10:30 | 59.2 | Cold, Southerly winds |
| 03/03/2016 | 11:45 | 42.7 |
| 04/03/2016 | 09:15 | 42 | Cold, Northerly winds |
| 04/03/2016 | 12:45 | 130.3 |
| 04/03/2016 | 14:30 | 164 |
| 04/03/2016 | 16:30 | 229.3 | Stronger winds |
| 04/03/2016 | 18:00 | 201.6 |
| 05/03/2016 | 10:30 | 112 | Cold, Northerly winds |
| 05/03/2016 | 11:00 | 143.2 |
| 05/03/2016 | 12:15 | 193.5 |
| 05/03/2016 | 13:15 | 165.6 |
| 05/03/2016 | 15:30 | 120.4 |
| 05/03/2016 | 16:45 | 91.8 |
| 06/03/2016 | 10:45 | 35.3 | Cold, South Westerly winds |
| 06/03/2016 | 12:15 | 69.9 |
| 06/03/2016 | 13:45 | 55.7 | Cold, South Easterly winds |
| 06/03/2016 | 17:30 | 38.2 | Cold, Easterly winds |
| 06/03/2016 | 19:15 | 81.8 |
| 06/03/2016 | 22:30 | 42.3 |
| 07/03/2016 | 08:00 | 46.9 | Cold, Northerly winds |
| 07/03/2016 | 09:00 | 31.8 |
| 07/03/2016 | 12:00 | 67.9 |
| 07/03/2016 | 13:15 | 47.5 |
| 07/03/2016 | 16:15 | 54.3 |
| 07/03/2016 | 18:15 | 20.9 |
| 07/03/2016 | 20:45 | 25.4 | Cold, Westerly winds |
| 07/03/2016 | 23:30 | 33 |
| 08/03/2016 | 08:30 | 26.6 | Cold, Westerly winds |
| 08/03/2016 | 09:30 | 27.2 |
| 08/03/2016 | 11:00 | 19.3 |
| 08/03/2016 | 13:00 | 19.9 |
| 08/03/2016 | 14:30 | 24.6 |
| 08/03/2016 | 15:15 | 24.4 |
| 08/03/2016 | 16:45 | 22.1 |
| 08/03/2016 | 18:15 | 29.1 | Cold, South Westerly winds |
| 08/03/2016 | 19:00 | 28.4 |
| 08/03/2016 | 19:45 | 21.9 |
| 08/03/2016 | 21:15 | 25.2 |
| 08/03/2016 | 23:15 | 13.6 | Cold, Westerly winds |
| 09/03/2016 | 09:15 | 17.7 | Cold, Westerly Winds |
| 09/03/2016 | 13:15 | 17.4 |
| 09/03/2016 | 14:00 | 27.3 |
| 09/03/2016 | 14:30 | 51.8 |
| 09/03/2016 | 15:45 | 26.7 |
| 09/03/2016 | 17:00 | 45.7 |
| 09/03/2016 | 19:00 | 25.1 |
| 09/03/2016 | 22:00 | 16 |
| 09/03/2016 | 23:30 | 36.7 |
| 10/03/2016 | 08:45 | 54.8 | Cold, Westerly winds |
| 10/03/2016 | 10:00 | 41.8 |
| 10/03/2016 | 18:30 | 23.3 | Mild, Southerly winds |
| 10/03/2016 | 21:30 | 38.1 |
| 10/03/2016 | 23:15 | 34.9 |
| 11/03/2016 | 03:45 | 24 | Mild, Southerly winds |
| 11/03/2016 | 07:45 | 43.7 |
| 11/03/2016 | 08:45 | 42.9 |
| 11/03/2016 | 11:45 | 24.8 |
| 11/03/2016 | 12:45 | 26.5 |
| 11/03/2016 | 13:45 | 25.9 |
| 11/03/2016 | 15:03 | 38.1 |
| 11/03/2016 | 16:00 | 48 |
| 11/03/2016 | 16:45 | 30.9 |
| 11/03/2016 | 19:45 | 30.6 | Mild, South Westerly winds |
| 11/03/2016 | 22:15 | 21.3 |
| 12/03/2016 | 08:00 | 23.7 | Mild, South Westerly winds |
| 12/03/2016 | 09:15 | 28.3 | Mild, Southerly winds |
| 12/03/2016 | 13:30 | 30.7 |
| 12/03/2016 | 14:30 | 40.9 |
| 12/03/2016 | 16:00 | 24.4 |
| 12/03/2016 | 17:00 | 22.2 |
| 12/03/2016 | 19:30 | 25.8 |
| 12/03/2016 | 20:30 | 21.3 |
| 12/03/2016 | 21:45 | 19.9 |
| 12/03/2016 | 23:30 | 17.7 |
| 13/03/2016 | 08:45 | 23.4 | Mild, South Easterly winds |
| 13/03/2016 | 12:00 | 108.5 |
| 13/03/2016 | 13:45 | 58.9 |
| 13/03/2016 | 14:45 | 50.7 |
| 13/03/2016 | 15:45 | 54.2 |
| 13/03/2016 | 18:00 | 49.3 |
| 13/03/2016 | 19:00 | 35.9 |
| 13/03/2016 | 21:00 | 28.9 | Mild, Easterly winds |
| 13/03/2016 | 21:30 | 27.6 |
| 13/03/2016 | 22:15 | 30.1 |
| 13/03/2016 | 23:00 | 39.1 |
| 14/03/2016 | 09:45 | 63.8 | Mild, Easterly winds |
| 14/03/2016 | 12:15 | 95.1 |
| 14/03/2016 | 13:00 | 66.9 |
| 14/03/2016 | 15:30 | 65.9 |
| 14/03/2016 | 16:30 | 83.9 |
| 14/03/2016 | 17:00 | 67.9 |
| 14/03/2016 | 18:00 | 66.6 |
| 14/03/2016 | 19:15 | 49.2 |
| 14/03/2016 | 20:15 | 51.2 |
| 14/03/2016 | 21:00 | 51.6 |
| 14/03/2016 | 21:30 | 54.9 |
| 15/03/2016 | 09:45 | 60 | Mild, Easterly winds |
| 15/03/2016 | 11:00 | 62.6 |
| 15/03/2016 | 12:00 | 60.7 |
| 15/03/2016 | 12:30 | 80.8 |
| 15/03/2016 | 13:30 | 59.1 |
| 15/03/2016 | 14:15 | 73.2 |
| 15/03/2016 | 14:45 | 66.1 |
| 15/03/2016 | 15:15 | 64.3 |
| 15/03/2016 | 15:45 | 58.7 |
| 15/03/2016 | 16:45 | 76.3 |
| 15/03/2016 | 18:00 | 60.9 |
| 15/03/2016 | 22:00 | 86.5 | Mild, Northerly winds |
| 15/03/2016 | 22:30 | 89.1 |
| 16/03/2016 | 09:45 | 112.7 | Mild, North Easterly winds |
| 16/03/2016 | 10:45 | 71 |
| 16/03/2016 | 13:15 | 52.7 |
| 16/03/2016 | 14:45 | 63.7 |
| 16/03/2016 | 16:00 | 56 |
| 16/03/2016 | 18:45 | 47 |
| 16/03/2016 | 19:00 | 48.8 |
| 16/03/2016 | 21:15 | 31.6 |
| 17/03/2016 | 12:00 | 49.2 | Mild, South Easterly winds |
| 17/03/2016 | 13:15 | 35.7 |
| 17/03/2016 | 14:00 | 29.2 |
| 17/03/2016 | 16:15 | 41.7 |
| 17/03/2016 | 18:15 | 25.8 |
| 17/03/2016 | `19:30 | 26.5 |
| 17/03/2016 | 21:15 | 33.1 | Cold, Easterly winds |
| 17/03/2016 | 22:15 | 32.8 |
| 18/03/2016 | 01:15 | 67.9 | Cold, North Easterly winds |
| 18/03/2016 | 02:45 | 53.5 |
| 18/03/2016 | 04:30 | 31.5 |
| 18/03/2016 | 09:30 | 63.1 | Cold, Northerly winds |
| 18/03/2016 | 12:45 | 63.3 |
| 18/03/2016 | 14:15 | 57.9 | Mild, South Easterly winds  |
| 18/03/2016 | 15:15 | 54.4 |
| 18/03/2016 | 16:00 | 54.4 |
| 18/03/2016 | 19:00 | 27.2 |
| 18/03/2016 | 22:30 | 86.8 |
| 19/03/2016 | 00:00 | 99 | Cold, Easterly winds |
| 19/03/2016 | 02:45 | 42.6 |
| 19/03/2016 | 09:30 | 35 | Mild, North Easterly winds |
| 19/03/2016 | 11:30 | 97.8 |
| 19/03/2016 | 12:00 | 74.1 |
| 19/03/2016 | 13:00 | 100.5 |
| 19/03/2016 | 13:45 | 98.6 |
| 19/03/2016 | 14:15 | 99.2 |
| 19/03/2016 | 15:45 | 61.7 |
| 19/03/2016 | 16:30 | 55.8 |
| 19/03/2016 | 20:30 | 61.9 |
| 19/03/2016 | 22:30 | 78.3 |
| 20/03/2016 | 09:15 | 61.2 | Cold, North Easterly Winds |
| 20/03/2016 | 10:15 | 61 |
| 20/03/2016 | 11:00 | 69.1 | Mild, North Easterly winds |
| 20/03/2016 | 12:00 | 58.4 |
| 20/03/2016 | 13:45 | 53.3 |
| 20/03/2016 | 14:15 | 55.6 |
| 20/03/2016 | 15:00 | 74.7 | Mild, Northerly winds |
| 20/03/2016 | 15:45 | 59.2 |
| 20/03/2016 | 16:15 | 57.6 |
| 20/03/2016 | 17:15 | 47.5 |
| 20/03/2016 | 19:15 | 36.2 |
| 20/03/2016 | 21:15 | 54.2 |
| 20/03/2016 | 22:45 | 75.6 |
| 21/03/2016 | 09:15 | 19.3 | Cold, North Westerly winds |
| 21/03/2016 | 10:45 | 25.1  | Mild, North Westerly winds |
| 21/03/2016 | 13:15 | 42.8 |
| 21/03/2016 | 14:45 | 47.1 |
| 21/03/2016 | 16:30 | 43.2 |
| 21/03/2016 | 18:30 | 96 | Mild, Northerly winds |
| 21/03/2016 | 20:00 | 98 |
| 21/03/2016 | 21:15 | 104.7 |
| 22/03/2016 | 09:00 | 44 | Mild, Easterly winds |
| 22/03/2016 | 10:00 | 37.6 |
| 22/03/2016 | 12:45 | 35.3 |
| 22/03/2016 | 13:30 | 40.2 |
| 22/03/2016 | 14:30 | 42.4 |
| 22/03/2016 | 16:30 | 51.9 |
| 22/03/2016 | 17:30 | 52.2 |
| 22/03/2016 | 19:15 | 38.1 |
| 23/03/2016 | 06:00 | 19.1 | Mild, Westerly winds |
| 23/03/2016 | 09:45 | 42.5 | Mild, Southerly winds |
| 23/03/2016 | 12:30 | 45.3 |
| 23/03/2016 | 15:30 | 24.7 |
| 23/03/2016 | 18:30 | 24 | Mild, Westerly winds |
| 24/03/2016 | 09:30 | 29.9 | Mild, South Westerly winds |
| 24/03/2016 | 14:45 | 21.7 | Mild, North Westerly winds |
| 24/03/2016 | 16:45 | 23.7 |
| 24/03/2016 | 19:30 | 29.7 |
| 24/03/2016 | 21:45 | 17.6 |
| 24/03/2016 | 23:15 | 28.4 |
| 25/03/2016 | 09:30 | 107.1 | Mild, South Westerly winds |
| 25/03/2016 | 10:45 | 47.6 |
| 25/03/2016 | 12:00 | 56.2 |
| 25/03/2016 | 13:15 | 51.9 |
| 25/03/2016 | 15:00 | 94.7 |
| 25/03/2016 | 17:30 | 138.9 |
| 25/03/2016 | 18:30 | 119.3 |
| 25/03/2016 | 20:45 | 81.8 |
| 25/03/2016 | 23:00 | 77.3 |
| 26/03/2016 | 08:00 | 41.6 | Mild, Southerly winds |
| 26/03/2016 | 09:45 | 69.9 |
| 26/03/2016 | 10:45 | 67 |
| 26/03/2016 | 12:30 | 31.4 |
| 26/03/2016 | 13:00 | 35 |
| 26/03/2016 | 14:30 | 97.8 | Mild, South Westerly winds |
| 27/03/2016 | 08:00 | 17.6 | Cold, South Westerly winds |
| 27/03/2016 | 11:00 | 17.4 | Mild, South Westerly winds |
| 27/03/2016 | 15:00 | 16.1 |
| 27/03/2016 | 18:15 | 13.7 |
| 27/03/2016 | 19:30 | 25.5 |
| 27/03/2016 | 21:15 | 35.1 | Cold, Northerly winds |
| 27/03/2016 | 22:00 | 34.9 |
| 28/03/2016 | 08:15 | 23.9 | Mild, Westerly winds |
| 28/03/2016 | 09:45 | 14.1 |
| 28/03/2016 | 17:15 | 10.6 |
| 28/03/2016 | 18:15 | 12.5 |
| 28/03/2016 | 22:15 | 18.7 |
| 29/03/2016 | 08:30 | 49.5 | Cold, Southerly winds |
| 29/03/2016 | 09:15 | 48.6 |
| 29/03/2016 | 10:45 | 42.1 |
| 29/03/2016 | 11:15 | 51 |
| 29/03/2016 | 12:15 | 54.5 | Mild, South Westerly winds |
| 29/03/2016 | 13:00 | 39.4 |
| 29/03/2016 | 14:00 | 34.9 |
| 29/03/2016 | 14:45 | 25.3 |
| 29/03/2016 | 16:30 | 22.1 |
| 29/03/2016 | 17:30 | 26.1 |
| 29/03/2016 | 20:00 | 16.9 |
| 29/03/2016 | 23:00 | 31.4 |
| 30/03/2016 | 09:00 | 41.3 | Mild, Westerly winds |
| 30/03/2016 | 10:00 | 43.2 |
| 30/03/2016 | 15:00 | 123.2 | Mild, Southerly winds |
| 30/03/2016 | 15:45 | 63 |
| 30/03/2016 | 17:00 | 49.1 |
| 30/03/2016 | 17:45 | 48.5 |
| 30/03/2016 | 21:30 | 56.4 | Cold, North Westerly winds |
| 30/03/2016 | 23:00 | 70.6 |
| 31/03/2016 | 08:00 | 45.6 | Mild, North Westerly winds |
| 31/03/2016 | 08:45 | 43.4 |
| 31/03/2016 | 09:30 | 47 |
| 31/03/2016 | 12:00 | 22.5 | Mild, South Westerly winds |