

## Hollicombe remediation air quality update

<b>Date</b>	From 1 January 2016 to 31 January 2016.
<b>Description of works</b>	Excavation of small residual area of soils from central areas of site under tent. Turning of biopiles. Building retaining wall. Validation sampling.
<b>Air quality summary</b>	Daily average concentrations of particulate matter (PM) fractions PM10 and PM2.5 were less than threshold concentrations at all locations with the exception of Saturday 23 January at A1( the school). Note that the elevated concentrations causing an exceedance were detected during the night and during a period of fine mist / fog and fine drizzle. Gas and vapour concentrations were less than concentration thresholds at all locations. Hatched cells in the table below indicate days when works were not performed.

Particulate concentrations (24 h mean $\mu\text{g m}^{-3}$ )						
Date	A1 School		A4 Site West		A8 Torbay Road	
	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
01/01/2016 Fri	39.13	14.13	36.29	16.73	35.89	19.3
02/01/2016 Sat	20.93	8.92	25.44	10.7	28.12	13.39
03/01/2016 Sun	22.62	9.84	27.61	10.2	28.33	12.05
04/01/2016 Mon	19.45	9.71	23.92	10.81	24.98	11.3
05/01/2016 Tue	13.34	4.18	17.87	5.45	16.18	5.34
06/01/2016 Wed	12.98	4.34	16.58	5.68	17.87	6.07
07/01/2016 Thu	13.36	5.41	14.57	5.46	14.15	6.12
08/01/2016 Fri	18.75	5.83	20.18	4.59	22.21	4.9
09/01/2016 Sat	20.51	7.19	22.25	7.28	24.55	8.31
10/01/2016 Sun	12.1	4.06	11.71	4.09	13.87	4.78
11/01/2016 Mon	8.69	1.66	11.2	2.96	8.95	2.43
12/01/2016 Tue	17.57	8.74	18.9	9.63	17.31	9.99
13/01/2016 Wed	10.68	3.62	13.85	3.91	14.21	4.13
14/01/2016 Thu	8.86	2.77	11.44	3.66	8.79	3.48
15/01/2016 Fri	11.39	4.35	13.09	4.97	12.18	5.11
16/01/2016 Sat	16.04	5.61	12.01	4.18	27.89	6.18
17/01/2016 Sun	7.65	2.85	8.25	3.01	12.14	4.31
18/01/2016 Mon	22.94	5.33	24.76	8.49	30.02	11.34
19/01/2016 Tue	15.96	4.44	14.48	5.1	23.77	6.55
20/01/2016 Wed	10.57	3.05	10.71	3.74	22.34	5.72
21/01/2016 Thu	22.08	7.66	28.25	8.98	35.07	12.21
22/01/2016 Fri	29.5	13.44	35.53	14.87	35.13	16.79
23/01/2016 Sat	68.13	15.47	39.21	12.81	48.95	15.07
24/01/2016 Sun	18.22	7.47	18.36	8.01	24.43	9.92
25/01/2016 Mon	28.16	11.94	34.23	13.02	41.44	15.71
26/01/2016 Tue	21.08	11.46	31.13	13.64	34.66	14.49
27/01/2016 Wed	12.94	5.03	15.76	6.56	15.97	6.86
28/01/2016 Thu	17.22	7.64	20.62	7.52	24.98	8.25
29/01/2016 Fri	9.68	6.2	15.46	8.29	16.3	8.64
30/01/2016 Sat	16.13	5.87	14.8	7.34	15.84	8.06
31/01/2016 Sun	12.97	6.19	11.49	6.06	13.16	6.75

All data are 24 h mean concentrations determined with laser nephelometer direct read particle samplers. Thresholds for PM10 and PM2.5 concentrations are 50 and 25  $\mu\text{g m}^{-3}$  respectively. PM10 = particulate matter of diameter less than or equal to 10 micrometres. PM2.5 = particulate matter of diameter less than or equal to 2.5 micrometres. As a guide, the particulate concentrations have been assigned coloured air quality index bands as used in the Daily Air Quality Index to provide detail about air pollution levels in a simple way. The colours are divided into four pollution bands: low, moderate, high and very high. For example, low levels of particulate pollution are shown in green colours and very high pollution shown in purple. See table at bottom of page for further information.

<b>Have any thresholds been exceeded during the period</b> <i>If yes, describe below</i>	<b>No</b>
The deposition gauge sample collected during January from A8 (Torbay Road) did not exceed the threshold for deposition rate but the collected material did contain detectable concentrations of polycyclic aromatic hydrocarbons (PAHs). There are currently no statutory Environmental Quality Standards in the UK for releases to land of PAH by deposition. However, the concentrations of benzo(a)pyrene and naphthalene in the collected material were less than the concentrations permitted within soil for use as clean cover at the site.	

### Key to banding of particulate concentrations

Pollution Band	Colour	Concentrations	
		PM10* $\mu\text{g m}^{-3}$	PM2.5* $\mu\text{g m}^{-3}$
Low		0 - 16	0 - 11
		17 - 33	12 to 23
		34 - 50	24 - 35
Moderate		51 - 58	36 - 41
		59 - 66	42 - 47
		67 - 75	48 - 53
High		76 - 83	54 - 58
		84 - 91	59 - 64
		92 - 100	65 - 70
V High		101>	71>

\*24 h mean EU ref equivalent