

AIR QUALITY DATA FOR 2009

BRECKON HILL AURN MONITORING STATION

POLLUTANT	Health Standard (Source - Air Quality Regulations 2000)	Results Year 2009	Number of exceedances of the Health Standard	Comments
SULPHUR DIOXIDE	15 minute mean - 100 ppb not to be exceeded more than 35 times a year (99.9th %ile)	Max 15 min mean - 72ppb Date – April 2009 99.9th %ile - 32 ppb (31 in 2008)	No exceedance	Health Standard met
	1 hour mean - 132 ppb not to be exceeded more than 24 times a year (99.7th %ile)	Max 1 hour mean - 58 ppb Date – April 2009 99.7th %ile – 22 ppb (22 in 2008)	No exceedances	Health Standard met
	24 hour mean - 47 ppb not to be exceeded more than 3 times a year (99.0th %ile)	Max 24 hour mean - 10 ppb Date – December 2009 99.0th %ile - 9 ppb (9 in 2008)	No exceedances	Health Standard met

OVERALL CONCLUSION: - Health standards met for Sulphur Dioxide. One exceedance at the 15 minute mean. Wind direction from North East in line with industrial and combustion sources.

POLLUTANT	Health Standard (Source - Air Quality Regulations 2000)	Results Year 2009	Number of exceedances of the Health Standard	Comments
NITROGEN DIOXIDE	1 hour mean - 105 ppb not to be exceeded more than 18 times a year (99.8th %ile)	Max 1 hour mean - 53ppb Date – December 2009 99.8th %ile - 44ppb (47 in 2008)	No exceedances	Health Standard met
	Annual mean - 21 ppb no exceedances permitted	Annual mean - 10 ppb (11 in 2008)	No exceedances	Health Standard met

OVERALL CONCLUSION: - Health standards met for Nitrogen Dioxide. 0 exceedances at the 1 hour level.

POLLUTANT	Health Standard (Source - Air Quality Regulations 2000)	Results Year 2009	Number of exceedances of the Health Standard	Comments
PARTICULATE PM10	24 hour mean - 50 µg/m ³ (g) not to be exceeded more than 35 times a year (90.0th %ile)	Max 24 hour mean – 61 µg/m ³ (g) Date – March 2009 90.0th %ile - 33 µg/m ³ (g) (36 in 2008)	3 exceedances (gravimetric) (2008 - 13, 2007 - 11)	Health Standard met
	Annual mean - 40 µg/m ³ (g) No exceedances permitted	21 µg/m ³ (g) (21 in 2008)	No exceedances	Health Standard met

OVERALL CONCLUSION: - Health standards met for Particulate PM10.

POLLUTANT	Health Standard	Results Year 2009	Number of exceedances of the Health Standard	Comments
PARTICULATE PM2.5 Target only	Annual Mean 25µg/m ³ (target to be achieved by 2020)	Annual average 10.5 µg/m ³ gravimetric	Not exceeded	Target met

OVERALL CONCLUSION: - Health target met for Particulate PM2.5.

POLLUTANT	Health Standard (Source - Air Quality Regulations 2000)	Results Year 2009	Number of exceedances of the Health Standard	Comments
CARBON MONOXIDE	8 hour running mean - 10 ppm no exceedances permitted	Max 8 hour RA – 0.7ppm Date – June 2009 (2008 – 1.3 ppm)	No exceedances	Health Standard met
BENZENE Based upon ratified data from 1/1/08 to 7/10/08 and provisional data from 7/10/08 to 18/11/08. (To be updated when all data available)	Annual mean - 5 ppb no exceedances permitted	Annual mean – 0.3 ppb (annual mean 2008 - 0.35 ppb)	No exceedances	Health Standard met
1,3-BUTADIENE 1 Jan 2007 to 19 Sept 2007 (Site closed September 2007)	Annual mean - 1 ppb no exceedances permitted	Annual mean – No data for 08/09 (annual mean 2007 - 0.06 ppb)	No exceedances	Health Standard met
OZONE Target only	8 hour running mean - 50 ppb maximum of 10 exceedances	Max 8 hour RA - 52 ppb Date – May 2000 (2008 – 61 ppb)	1 exceedances exceedances for 2008 - 11	No exceedance of target

OVERALL CONCLUSION: - Health standards met for Carbon Monoxide, Benzene, and 1,3-Butadiene.

Polycyclic Aromatic Hydrocarbons (PAH)	Not included as part of regulations at present Proposed standard 0.25 ng/m ³ B _(a) P annual	Annual average for 2009 0.39 ng/m ³ (annual mean in 2008 was 1.08)	Not applicable	Proposed target exceeded
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mean

OVERALL CONCLUSION: - Proposed target exceeded

ELM STREET AIR MONITORING STATION 2009

NITROGEN DIOXIDE

HEALTH STANDARD FOR **NITROGEN DIOXIDE**

1 HOUR MEAN OF 105PPB NOT TO BE EXCEEDED MORE THAN 18 TIMES A YEAR. AND ANNUAL MEAN 21PPB

NO₂ HIGHEST 1 HOUR AVERAGE 51 PPB DURING April 2009

AVERAGE MEAN FOR 2009 14 PPB (average for 2008 = 14 PPB, average for 2007 = 12 PPB)

NO BREACHES OF THE HEALTH STANDARD

PARTICULATE MATTER

HEALTH STANDARD FOR **PARTICULATE MATTER**

24-HOUR MEAN 50 MICROGRAMS PER METRE³ (G) NOT TO BE EXCEEDED MORE THAN 35 TIMES A YEAR. ANNUAL MEAN 40 MICROGRAMS PER METRE³ (G)

MAX 24 HOUR AVERAGE 48 MICROGRAMS PER METRE³ (G) DURING MAY 2008 (MAX 2008 – 72)

0 EXCEEDENCES ON GRAVIMETRIC SCALE (16 EXCEEDANCES IN 2008)

ANNUAL MEAN 2009 - 20 MICROGRAMS PER METRE³ (G) (2008 MEAN – 22)

NO BREACHES OF THE HEALTH STANDARD

MACMILLAN COLLEGE AIR MONITORING STATION 2009

NITROGEN DIOXIDE

HEALTH STANDARD FOR **NITROGEN DIOXIDE**

1 HOUR MEAN OF 105PPB NOT TO BE EXCEEDED MORE THAN 18 TIMES A YEAR. AND ANNUAL MEAN 21PPB

NO₂ HIGHEST 1 HOUR AVERAGE 56 PPB DURING JANUARY 2009

AVERAGE FOR 2009 13 PPB (average for 2008 = 13 PPB average for 2007 = 13 PPB)

NO BREACHES OF THE HEALTH STANDARD

PARTICULATE MATTER

HEALTH STANDARD FOR **PARTICULATE MATTER**

24-HOUR MEAN 50 MICROGRAMS PER METRE³ (G) NOT TO BE EXCEEDED MORE THAN 35 TIMES A YEAR. ANNUAL MEAN 40 MICROGRAMS PER METRE³ (G)

MAX 24 HOUR AVERAGE 55 MICROGRAMS PER METRE³ (G) DURING APRIL 2009 (MAX 2008 – 128)

1 EXCEEDENCES ON GRAVIMETRIC SCALE (13 EXCEEDANCES IN 2008)

ANNUAL MEAN 2009 - 19 MICROGRAMS PER METRE³ (G) (2008 MEAN – 21)

NO BREACHES OF THE HEALTH STANDARD