

London Borough of Richmond

Mean B[a]P concentration (ng m³) =

1.65

PARTICULATE PHASE	(ng)	April		(ng)	May		(ng)	June		(ng)	July		(ng)	August (2)		(ng)	September	
	ON:	OFF:	ON:	OFF:	ON:	OFF:	ON:	OFF:	ON:	OFF:	ON:	OFF:	ON: 24/08/01	OFF: 30/08/01	ON: 13/09/01	OFF: 21/09/01		
Sample Volume (m ³)	Sample 1	NO SAMPLE	Sample 2	NO SAMPLE	Sample 3	NO SAMPLE	Sample 4	NO SAMPLE	Sample 5	Sample 6	Sample 7	NO SAMPLE	Sample 8	Sample 9	Sample 10	Sample 11	Sample 12	Sample 13
Naphthalene		0.00		0.00		0.00		0.00	18		0.13		88		0.46		0.34	
Acenaphthylene		0.00		0.00		0.00		0.00	<5		N.D		66		0.39		0.81	
Acenaphthene		0.00		0.00		0.00		0.00	<5		N.D		75		6.08		1.56	
Fluorene		0.00		0.00		0.00		0.00	25		0.17		155		6.93		8.11	
Phenanthrene		0.00		0.00		0.00		0.00	520		3.63		1167		4.59		7.06	
Anthracene		0.00		0.00		0.00		0.00	130		0.91		299		6.89		7.61	
Fluoranthene		0.00		0.00		0.00		0.00	629		4.40		1330		2.35		3.03	
Pyrene		0.00		0.00		0.00		0.00	680		4.75		1556		0.29		2.86	
Benz(a)anthracene		0.00		0.00		0.00		0.00	450		3.15		880		59.3			
Chrysene		0.00		0.00		0.00		0.00	645		4.51		1354					
Benzo(b)fluoranthene		0.00		0.00		0.00		0.00	588		4.11		1322					
Benzo(k)fluoranthene		0.00		0.00		0.00		0.00	624		4.36		1460					
Benzo(a)pyrene		0.00		0.00		0.00		0.00	200		1.40		450					
Indeno(1,2,3-cd)pyrene		0.00		0.00		0.00		0.00	78		0.55		582					
Dibenz(a,h)anthracene		0.00		0.00		0.00		0.00	<5		N.D		55					
Benzo(g,h,i)perylene		0.00		0.00		0.00		0.00	80		0.56		548					
Total PAH (ng m ³)		0.0		0.0		0.0		0.0			32.6							

PARTICULATE PHASE	(ng)	October		(ng)	November		(ng)	December		(ng)	January		(ng)	February		(ng)	March	
	ON:10/10/01	OFF:17/10/01	ON: 09/11/01	OFF: 20/11/01	ON:11/12/01	OFF: 18/12/01	ON: 11/01/02	OFF: 18/01/02	ON: 12/02/02	OFF: 19/02/02	ON: 12/03/02	OFF: 19/03/02						
Sample Volume (m ³)	Sample 7	166.13	Sample 8	267.1	Sample 9	167.56	Sample 10	168.61	Sample 11	168.13	Sample 12	167.6						
Naphthalene	100	0.60	57	0.21	<5	N.D	<30	N.D	<30	N.D	62	0.37						
Acenaphthylene	55	0.33	42	0.16	<5	N.D	5	0.03	7	0.04	8	0.05						
Acenaphthene	32	0.19	38	0.14	<5	N.D	<2	N.D	<2	N.D	<2	N.D						
Fluorene	188	1.13	97	0.36	40	0.24	4	0.02	5	0.03	7	0.04						
Phenanthrene	1154	6.95	1013	3.79	950	5.67	30	0.18	35	0.21	25	0.15						
Anthracene	360	2.17	253	0.95	257	1.53	7	0.04	8	0.05	5	0.03						
Fluoranthene	1299	7.82	1138	4.26	1185	7.07	50	0.30	44	0.26	22	0.13						
Pyrene	1347	8.11	1205	4.51	1276	7.62	62	0.37	45	0.27	24	0.14						
Benz(a)anthracene	780	4.70	689	2.58	750	4.48	51	0.30	45	0.27	17	0.10						
Chrysene	1100	6.62	1360	5.09	1196	7.14	103	0.61	98	0.58	37	0.22						
Benzo(b)fluoranthene	950	5.72	1048	3.92	1107	6.61	120	0.71	106	0.63	46	0.27						
Benzo(k)fluoranthene	1057	6.36	1123	4.20	1100	6.56	93	0.55	83	0.49	27	0.16						
Benzo(a)pyrene	505	3.04	595	2.23	620	3.70	41	0.24	34	0.20	12	0.07						
Indeno(1,2,3-cd)pyrene	309	1.86	288	1.08	280	1.67	106	0.63	94	0.56	38	0.23						
Dibenz(a,h)anthracene	25	0.15	30	0.11	15	0.09	10	0.06	8	0.05	5	0.03						
Benzo(g,h,i)perylene	299	1.80	346	1.30	320	1.91	140	0.83	111	0.66	42	0.25						
Total PAH (ng m ³)		57.5		34.9		54.3		4.9		4.3		2.2						

Analysis

Determination of US-EPA 16 PAH by HPLC (GC-MS Jan 02-March 2002)

All results expressed as ng m⁻³

HPLC detection limit 5ng