

AIR QUALITY

IN HONG KONG 2019

Statistical Summary

Air Science Group

Environmental Protection Department

**The Government of the Hong Kong
Special Administrative Region**

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Table C1: 2019 Exceedance of Short-Term Limit Values of Air Quality Objectives

Pollutant: Sulphur Dioxide

(10-minute limit value = 500 µg/m³ ; allowable no. of exceedance of limit value = 3)

Station	No. of exceedance of limit value	1st High	2nd High	3rd High	4th High
Central/Western	0	105	76	64	62
Eastern	0	59	44	43	41
Kwun Tong	0	50	44	43	41
Sham Shui Po	0	44	44	43	41
Kwai Chung	0	75	57	56	53
Tsuen Wan	0	48	48	46	45
Tseung Kwan O	0	30	26	26	25
Yuen Long	0	53	50	44	42
Tuen Mun	0	61	57	48	45
Tung Chung	0	86	72	67	57
Tai Po	0	22	20	20	20
Sha Tin	0	35	34	27	27
Tap Mun	0	20	20	20	19
Causeway Bay	0	67	63	55	51
Central	0	55	49	46	42
Mong Kok	0	45	40	40	39

Pollutant: Carbon Monoxide

(1-hour limit value = 30,000 µg/m³ ; allowable no. of exceedance of limit value = 0)

Station	No. of exceedance of limit value	1st High
Tsuen Wan	0	1970
Tseung Kwan O	0	2170
Yuen Long	0	2150
Tuen Mun	0	2050
Tung Chung	0	2260
Tap Mun	0	1360
Causeway Bay	0	2620
Central	0	2440
Mong Kok	0	2280

Pollutant: Sulphur Dioxide

(24-hour limit value = 125 µg/m³ ; allowable no. of exceedance of limit value = 3)

Station	No. of exceedance of limit value	1st High	2nd High	3rd High	4th High
Central/Western	0	14	13	13	12
Eastern	0	10	8	7	7
Kwun Tong	0	14	13	12	11
Sham Shui Po	0	16	15	15	14
Kwai Chung	0	22	21	21	18
Tsuen Wan	0	18	14	14	13
Tseung Kwan O	0	14	14	13	12
Yuen Long	0	12	12	12	11
Tuen Mun	0	13	13	13	12
Tung Chung	0	21	19	19	18
Tai Po	0	12	12	10	10
Sha Tin	0	15	14	13	12
Tap Mun	0	13	13	12	12
Causeway Bay	0	17	14	12	11
Central	0	19	18	16	15
Mong Kok	0	19	15	13	10

Pollutant: Carbon Monoxide

(8-hour limit value = 10,000 µg/m³ ; allowable no. of exceedance of limit value = 0)

Station	No. of exceedance of limit value	1st High
Tsuen Wan	0	1835
Tseung Kwan O	0	1935
Yuen Long	0	1903
Tuen Mun	0	1758
Tung Chung	0	1874
Tap Mun	0	1350
Causeway Bay	0	2309
Central	0	2205
Mong Kok	0	2103

Pollutant: Nitrogen Dioxide (1-hour limit value = 200 µg/m³ ; allowable no. of exceedance of limit value = 18)

Station	No. of exceedance of limit value	1st High	2nd High	3rd High	4th High	5th High	6th High	7th High	8th High	9th High	10th High	11th High	12th High	13th High	14th High	15th High	16th High	17th High	18th High	19th High
Central/Western	3	217	203	202	198	195	194	189	186	184	184	179	174	170	168	166	165	164	161	153
Eastern	4	211	207	205	205	193	184	179	169	157	153	152	150	150	146	145	143	139	136	136
Kwun Tong	10	272	216	213	210	206	205	205	204	203	202	192	192	191	190	190	189	187	187	184
Sham Shui Po	6	227	226	217	212	207	207	199	196	195	189	189	188	183	182	182	179	178	178	176
Kwai Chung	12	221	219	215	213	210	210	209	206	205	204	203	202	196	187	187	186	185	185	184
Tsuen Wan	2	207	203	197	193	192	191	190	190	189	185	183	183	182	182	180	179	179	178	177
Tseung Kwan O	3	218	215	213	198	191	189	183	178	175	169	168	167	164	161	160	160	156	156	155
Yuen Long	0	193	186	183	183	182	181	179	179	177	172	169	166	166	165	164	163	163	162	161
Tuen Mun	2	222	201	196	196	188	186	181	180	179	176	175	174	172	170	167	167	167	166	166
Tung Chung	0	178	176	166	165	165	163	163	160	159	159	159	154	154	152	152	150	149	149	149
Tai Po	0	189	182	180	169	164	161	158	156	156	156	154	150	150	148	147	144	142	142	142
Sha Tin	0	185	181	180	170	169	165	164	162	161	161	160	159	159	159	156	154	153	151	150
Tap Mun	0	132	90	77	76	76	69	67	64	64	60	59	58	58	57	57	56	56	56	56
Causeway Bay	121	366	362	356	354	349	348	345	329	329	327	325	323	317	316	313	311	295	291	287
Central	116	323	308	298	295	290	287	285	283	279	276	274	270	265	261	260	260	259	254	252
Mong Kok	88	317	303	294	291	288	281	278	275	273	272	272	266	266	261	258	252	251	250	248

Table C1 (Cont.): 2019 Exceedance of Short-Term Limit Values of Air Quality Objectives**Pollutant: Ozone (Daily maximum 8-hour limit value = 160 µg/m³ ; allowable no. of exceedance of limit value = 9)**

Station	No. of exceedance of limit value	1st High	2nd High	3rd High	4th High	5th High	6th High	7th High	8th High	9th High	10th High
Central/Western	23	306	304	302	278	229	214	206	205	197	191
Eastern	17	304	270	266	265	219	185	184	180	175	169
Kwun Tong	5	240	228	214	190	172	154	150	150	150	150
Sham Shui Po	11	279	274	231	213	206	186	179	171	168	164
Kwai Chung	6	275	269	239	206	169	165	158	146	146	143
Tsuen Wan	14	296	288	246	238	196	192	190	179	174	171
Tseung Kwan O	33	299	297	253	249	214	205	201	192	186	185
Yuen Long	25	310	286	262	248	242	223	222	220	205	200
Tuen Mun	24	337	302	293	277	252	240	222	210	206	203
Tung Chung	28	325	296	260	256	255	238	236	235	234	208
Tai Po	27	297	269	256	251	227	224	218	216	209	197
Sha Tin	33	289	288	247	237	217	210	207	206	201	199
Tap Mun	51	260	255	254	251	251	231	218	216	215	212
Causeway Bay	3	235	213	168	135	118	117	116	111	109	108
Central	4	233	216	195	168	152	148	145	134	133	133
Mong Kok	1	177	157	137	135	134	133	129	127	126	125

Pollutant: Respirable Suspended Particulates (PM₁₀) (24-hour limit value = 100 µg/m³ ; allowable no. of exceedance of limit value = 9)

Station	No. of exceedance of limit value	1st High	2nd High	3rd High	4th High	5th High	6th High	7th High	8th High	9th High	10th High
Central/Western	2	139	118	98	75	74	73	73	73	70	69
Eastern	0	96	85	74	71	69	69	67	67	66	66
Kwun Tong	0	99	92	78	76	75	74	73	73	73	73
Sham Shui Po	1	120	99	85	73	72	70	69	68	66	65
Kwai Chung	0	97	96	71	69	63	62	60	60	60	59
Tsuen Wan	2	123	111	85	78	76	75	71	71	69	65
Tseung Kwan O	0	79	77	66	65	65	63	63	61	60	60
Yuen Long	2	125	114	94	92	89	88	85	85	85	83
Tuen Mun	4	146	139	106	102	99	98	94	94	92	89
Tung Chung	2	123	120	91	89	85	83	80	77	76	75
Tai Po	2	141	126	85	82	74	70	68	66	66	65
Sha Tin	0	97	93	73	69	67	66	64	63	61	60
Tap Mun	0	74	74	73	68	66	66	66	65	64	64
Causeway Bay	3	151	127	114	94	87	83	83	82	82	80
Central	3	154	128	105	86	84	83	78	76	76	74
Mong Kok	3	130	111	103	80	77	76	75	75	74	74

Pollutant: Fine Suspended Particulates (PM_{2.5}) (24-hour limit value = 75 µg/m³ ; allowable no. of exceedance of limit value = 9)

Station	No. of exceedance of limit value	1st High	2nd High	3rd High	4th High	5th High	6th High	7th High	8th High	9th High	10th High
Central/Western	2	101	82	75	57	56	56	53	52	51	49
Eastern	0	64	60	48	45	45	45	43	40	40	40
Kwun Tong	0	69	63	55	55	52	48	45	45	45	44
Sham Shui Po	2	80	77	50	44	44	43	39	38	36	36
Kwai Chung	0	57	57	55	46	44	44	44	40	39	39
Tsuen Wan	1	86	74	63	57	56	56	53	50	48	47
Tseung Kwan O	0	59	53	48	48	42	41	40	39	39	38
Yuen Long	1	81	70	59	54	51	47	46	46	46	45
Tuen Mun	2	92	80	69	69	62	60	56	55	55	53
Tung Chung	1	82	74	64	63	59	55	54	53	52	52
Tai Po	1	98	69	66	63	54	52	51	48	47	47
Sha Tin	0	64	57	54	51	49	46	42	42	40	39
Tap Mun	0	53	51	44	39	38	38	37	36	35	35
Causeway Bay	3	108	86	81	64	63	60	59	58	54	54
Central	3	105	82	80	64	61	56	55	54	53	53
Mong Kok	3	94	78	77	59	58	58	56	56	56	55

Notes:

1. All concentration units are in microgram per cubic metre (µg/m³).
2. Shaded no. of exceedance of limit value represents exceedance of the respective air quality objective.
3. Shaded concentration is higher than the limit value of the respective air quality objective.

Table C2: 2019 Monthly and Annual Averages of Air Pollutants

Pollutant: Sulphur Dioxide

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Central/Western	3	2	5	6	4	3	4	4	4	5	5	4	4
Eastern	2	1	1	1	1	1	2	3	3	3	3	3	2
Kwun Tong	5	5	3	5	6	7	7	7	6	6	7	8	6
Sham Shui Po	4	4	4	5	5	5	6	6	7	7	9	7	6
Kwai Chung	8	7	9	12	12	6	6	6	8	8	10	7	8
Tsuen Wan	9	7	7	7	8	8	7	8	8	8	3	4	7
Tseung Kwan O	6	5	6	3	3	3	4	4	5	4	5	4	4
Yuen Long	7	3	3	3	3	5	6	7	5	5	7	7	5
Tuen Mun	5	2	4	8	8	3	3	4	4	4	6	8	5
Tung Chung	13	10	3	3	6	7	9	4	5	4	5	6	6
Tai Po	3	2	2	2	3	4	5	4	7	6	6	6	4
Sha Tin	5	4	3	2	2	5	5	4	5	6	8	8	5
Tap Mun	3	7	5	6	6	5	2	3	5	6	8	8	5
Causeway Bay	6	4	4	4	4	6	6	4	5	5	5	8	5
Central	10	5	6	5	4	6	5	6	5	4	7	9	6
Mong Kok	5	3	3	3	3	4	3	3	3	4	4	6	4

Pollutant: Nitrogen Oxides

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Central/Western	96	55	55	38	44	40	32	41	42	33	42	56	48
Kwun Tong	92	54	68	85	64	102	85	68	57	61	58	72	72
Sham Shui Po	111	79	70	63	60	58	54	67	60	58	68	84	69
Kwai Chung	123	77	87	95	83	110	101	89	80	73	83	97	92
Tsuen Wan	118	73	72	64	60	59	53	54	45	45	68	88	67
Tseung Kwan O	54	33	39	46	34	54	47	46	36	41	38	43	43
Yuen Long	111	61	66	55	46	47	45	55	57	54	68	91	63
Tuen Mun	121	72	74	58	62	55	49	57	58	54	72	96	69
Tung Chung	107	49	49	32	35	31	25	32	39	38	49	69	46
Tai Po	72	43	48	46	37	47	41	42	48	51	48	58	49
Sha Tin	62	34	37	39	32	43	37	39	39	41	43	52	42
Tap Mun	22	12	13	15	11	11	8	11	7	8	12	16	12
Causeway Bay	277	200	209	209	189	253	230	225	227	205	176	245	221
Central	239	161	174	149	156	186	171	172	172	148	143	187	172
Mong Kok	203	149	154	165	152	172	165	160	145	139	101	145	154

Pollutant: Nitrogen Dioxide (Annual limit value = 40 µg/m³)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Central/Western	60	41	42	32	34	28	24	31	37	30	38	48	37
Eastern	53	38	43	36	37	28	26	33	35	39	38	46	38
Kwun Tong	54	35	42	49	39	50	47	44	43	48	43	50	45
Sham Shui Po	67	49	48	44	42	37	35	43	46	47	54	61	48
Kwai Chung	67	46	52	54	47	51	51	51	55	54	61	62	54
Tsuen Wan	71	50	51	44	41	35	32	37	34	36	58	64	46
Tseung Kwan O	36	21	27	31	22	31	29	31	28	33	29	30	29
Yuen Long	67	40	45	40	33	28	28	38	46	46	54	63	44
Tuen Mun	68	46	48	40	41	34	32	38	46	44	58	69	47
Tung Chung	64	33	32	24	25	20	16	23	32	33	42	51	33
Tai Po	50	30	34	34	28	31	28	31	39	42	39	44	36
Sha Tin	45	24	29	31	24	30	28	30	33	36	37	40	32
Tap Mun	18	10	12	12	9	9	6	9	6	8	11	14	10
Causeway Bay	91	68	77	76	71	68	66	77	98	96	87	93	81
Central	95	69	78	71	71	65	64	74	96	91	89	94	80
Mong Kok	94	70	77	79	77	69	69	77	87	85	71	81	78

Pollutant: Carbon Monoxide

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Tsuen Wan	1030	873	815	688	579	422	396	441	423	513	729	849	645
Tseung Kwan O	911	655	749	399	328	314	371	451	462	564	593	651	538
Yuen Long	1054	745	576	429	397	481	607	514	529	676	704	836	629
Tuen Mun	975	802	807	702	561	600	522	580	679	786	669	646	693
Tung Chung	992	491	537	508	540	455	346	419	490	671	657	616	561
Tap Mun	680	602	569	414	410	205	285	402	479	630	634	704	501
Causeway Bay	1005	810	691	648	709	779	779	774	772	937	750	906	797
Central	1092	1042	799	312	849	888	780	934	836	907	816	865	845
Mong Kok	1030	899	897	724	905	852	700	739	810	741	730	725	813

Table C2 (Cont.): 2019 Monthly and Annual Averages of Air Pollutants

Pollutant: Ozone

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Central/Western	48	44	57	60	65	43	45	56	93	105	96	62	65
Eastern	53	46	58	60	68	44	43	54	90	101	93	63	65
Kwun Tong	49	48	58	51	64	28	26	42	81	90	89	59	57
Sham Shui Po	40	36	46	46	53	31	29	40	78	84	79	52	51
Kwai Chung	40	39	47	41	49	20	17	32	65	79	75	49	46
Tsuen Wan	39	38	47	44	51	27	28	43	76	83	65	42	49
Tseung Kwan O	69	64	73	64	78	38	38	56	94	104	103	79	72
Yuen Long	37	41	49	53	57	38	39	53	75	81	73	44	53
Tuen Mun	24	33	43	49	48	34	36	49	84	90	78	44	51
Tung Chung	35	42	55	61	63	46	48	60	81	93	83	48	60
Tai Po	51	51	60	58	63	37	39	55	82	89	86	60	61
Sha Tin	56	55	65	60	69	38	38	54	85	93	91	63	64
Tap Mun	71	65	75	73	84	51	50	67	105	119	113	82	80
Causeway Bay	22	22	30	27	33	16	17	21	35	47	49	26	29
Central	25	26	33	31	41	21	20	28	47	62	62	35	36
Mong Kok	24	22	29	25	31	15	13	21	49	55	63	33	32

Pollutant: Respirable Suspended Particulates (PM₁₀) (Annual limit value = 50 µg/m³)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Central/Western	51	31	29	23	25	13	19	21	31	38	43	39	30
Eastern	45	31	30	26	27	15	22	22	31	39	48	40	31
Kwun Tong	51	32	33	30	30	22	31	29	38	53	57	49	38
Sham Shui Po	48	31	30	26	27	18	24	25	34	40	48	43	33
Kwai Chung	41	26	27	23	23	16	21	21	29	36	42	37	29
Tsuen Wan	47	24	26	23	22	15	22	23	31	38	45	38	30
Tseung Kwan O	40	28	27	25	25	16	22	22	29	38	43	36	29
Yuen Long	52	28	33	25	26	15	23	26	39	53	65	58	37
Tuen Mun	67	35	37	29	29	18	26	29	44	50	64	60	41
Tung Chung	61	27	29	24	21	13	21	23	28	33	41	42	30
Tai Po	51	29	28	25	23	14	20	22	32	39	45	40	31
Sha Tin	44	26	27	24	23	16	22	20	26	32	38	37	28
Tap Mun	38	26	27	25	27	17	24	26	34	44	49	39	31
Causeway Bay	63	47	39	39	37	27	32	31	46	52	53	55	43
Central	58	36	34	30	29	21	26	26	37	44	51	45	37
Mong Kok	53	36	35	30	30	18	24	26	36	44	48	45	35

Pollutant: Fine Suspended Particulates (PM_{2.5}) (Annual limit value = 35 µg/m³)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Central/Western	36	21	20	17	16	8	12	15	21	26	26	26	20
Eastern	27	18	17	16	15	8	11	14	18	25	24	23	18
Kwun Tong	29	19	19	19	17	12	15	16	20	30	25	24	21
Sham Shui Po	31	18	18	16	15	9	12	14	19	23	24	22	18
Kwai Chung	26	16	18	16	14	10	13	14	19	25	24	22	18
Tsuen Wan	34	18	18	16	14	9	13	15	20	25	27	26	20
Tseung Kwan O	25	16	16	15	13	7	11	13	17	24	23	20	17
Yuen Long	31	13	17	16	15	10	14	16	23	28	28	25	20
Tuen Mun	41	23	24	19	17	10	14	17	26	32	35	34	24
Tung Chung	39	15	19	16	12	8	12	15	21	23	25	26	19
Tai Po	32	19	19	18	15	9	12	15	22	28	28	27	20
Sha Tin	27	15	15	16	13	10	12	12	17	21	21	22	17
Tap Mun	22	15	16	16	15	9	12	15	18	25	24	22	17
Causeway Bay	42	29	25	26	24	17	20	21	28	33	30	34	27
Central	38	22	22	21	19	14	16	18	24	30	30	29	24
Mong Kok	37	24	24	22	20	12	16	18	24	29	28	30	24

Notes:

1. All concentration units are in microgram per cubic metre (µg/m³).
2. Shaded annual average represents exceedance of the respective air quality objective.

Table C3: 2019 Hourly Statistics of Air Pollutants

Pollutant: Sulphur Dioxide

Station	No. of hourly data	Data capture rate (%)	Percentiles									Arithmetic mean	Highest 1-hour
			10	25	50	75	90	95	97.5	99	99.8		
Central/Western	8544	97.5	2	2	4	5	7	9	11	14	21	4	43
Eastern	8616	98.4	0	1	2	3	4	6	7	9	14	2	31
Kwun Tong	8672	99.0	3	5	6	7	9	10	11	13	19	6	36
Sham Shui Po	8569	97.8	3	4	5	7	9	12	14	16	20	6	34
Kwai Chung	8656	98.8	5	6	8	10	13	15	18	21	26	8	51
Tsuen Wan	8412	96.0	3	6	7	8	9	11	12	15	22	7	41
Tseung Kwan O	8549	97.6	2	3	4	5	7	8	9	13	16	4	21
Yuen Long	8459	96.6	2	3	5	6	8	10	12	14	18	5	42
Tuen Mun	8632	98.5	2	3	4	7	9	10	12	15	21	5	37
Tung Chung	8388	95.8	2	3	6	9	10	12	15	19	25	6	37
Tai Po	8685	99.1	2	2	4	6	7	9	10	11	15	4	19
Sha Tin	8644	98.7	2	3	5	6	8	10	12	14	17	5	28
Tap Mun	8407	96.0	2	4	5	6	8	10	11	13	16	5	19
Causeway Bay	8528	97.4	2	3	4	7	9	11	13	16	23	5	43
Central	8695	99.3	3	4	5	7	10	12	14	18	25	6	38
Mong Kok	8597	98.1	1	2	3	5	7	8	10	14	23	4	31

Pollutant: Nitrogen Oxides

Station	No. of hourly data	Data capture rate (%)	Percentiles									Arithmetic mean	Highest 1-hour
			10	25	50	75	90	95	97.5	99	99.8		
Central/Western	8639	98.6	13	20	36	59	92	127	169	234	391	48	535
Kwun Tong	8670	99.0	18	31	54	96	147	185	221	279	421	72	576
Sham Shui Po	8580	97.9	23	36	59	87	119	152	194	266	458	69	615
Kwai Chung	8650	98.7	29	50	80	118	164	199	244	320	436	92	602
Tsuen Wan	8340	95.2	19	35	56	81	116	156	218	307	400	67	509
Tseung Kwan O	8624	98.4	15	20	28	50	90	121	154	197	347	43	599
Yuen Long	8373	95.6	24	36	52	76	111	146	190	254	341	63	507
Tuen Mun	8638	98.6	25	38	57	86	126	159	205	260	324	69	463
Tung Chung	8408	96.0	11	18	32	59	97	127	165	230	313	46	389
Tai Po	8624	98.4	19	28	42	60	85	104	125	162	243	49	412
Sha Tin	8496	97.0	13	19	31	52	83	109	135	171	263	42	395
Tap Mun	8373	95.6	4	7	10	15	22	29	33	41	76	12	154
Causeway Bay	8629	98.5	60	108	190	298	421	503	584	682	877	221	1163
Central	8688	99.2	49	86	148	229	324	385	457	573	732	172	872
Mong Kok	8516	97.2	47	84	145	202	266	311	362	454	697	154	864

Pollutant: Nitrogen Dioxide (1-hour limit value = 200 µg/m³; allowable no. of exceedance of limit value = 18.

Annual limit value = 40 µg/m³)

Station	No. of hourly data	Data capture rate (%)	Percentiles									Arithmetic mean	Highest 1-hour	No. of exceedance of limit value
			10	25	50	75	90	95	97.5	99	99.8			
Central/Western	8639	98.6	12	18	32	50	69	84	101	120	159	37	217	3
Eastern	8619	98.4	13	22	36	50	63	72	83	99	136	38	211	4
Kwun Tong	8670	99.0	15	25	40	60	79	95	116	144	186	45	272	10
Sham Shui Po	8580	97.9	19	28	44	62	81	94	110	131	178	48	227	6
Kwai Chung	8650	98.7	22	35	50	67	90	111	129	150	185	54	221	12
Tsuen Wan	8340	95.2	16	27	42	59	81	101	118	141	178	46	207	2
Tseung Kwan O	8624	98.4	10	15	21	36	60	77	95	120	156	29	218	3
Yuen Long	8373	95.6	18	27	39	55	75	91	109	129	162	44	193	0
Tuen Mun	8638	98.6	18	27	42	61	83	100	115	132	166	47	222	2
Tung Chung	8408	96.0	8	14	26	45	67	82	99	117	149	33	178	0
Tai Po	8624	98.4	15	22	32	46	61	72	85	104	142	36	189	0
Sha Tin	8496	97.0	11	16	27	42	61	77	94	114	151	32	185	0
Tap Mun	8373	95.6	3	6	9	13	19	24	28	35	56	10	132	0
Causeway Bay	8629	98.5	35	52	76	101	128	153	181	213	290	81	366	121
Central	8688	99.2	32	51	74	102	132	154	178	214	253	80	323	116
Mong Kok	8516	97.2	34	52	75	97	123	141	164	202	250	78	317	88

Pollutant: Carbon Monoxide (1-hour limit value = 30,000 µg/m³; allowable no. of exceedance of limit value = 0)

Station	No. of hourly data	Data capture rate (%)	Percentiles									Arithmetic mean	Highest 1-hour	No. of exceedance of limit value
			10	25	50	75	90	95	97.5	99	99.8			
Tsuen Wan	8409	96.0	340	430	610	810	982	1120	1230	1380	1720	645	1970	0
Tseung Kwan O	8605	98.2	270	360	490	670	870	980	1099	1270	1544	538	2170	0
Yuen Long	8460	96.6	340	430	590	770	1000	1140	1250	1404	1690	629	2150	0
Tuen Mun	8669	99.0	458	540	660	810	980	1100	1190	1310	1587	693	2050	0
Tung Chung	8411	96.0	310	370	500	680	900	1050	1300	1520	1770	561	2260	0
Tap Mun	8401	95.9	260	350	480	620	770	900	980	1080	1282	501	1360	0
Causeway Bay	8607	98.3	530	630	750	920	1110	1260	1390	1610	2030	797	2620	0
Central	8667	98.9	540	700	840	1000	1170	1290	1420	1570	1900	845	2440	0
Mong Kok	8598	98.2	550	660	800	950	1090	1180	1260	1400	1758	813	2280	0

Table C3 (Cont.): 2019 Hourly Statistics of Air Pollutants

Pollutant: Ozone

Station	No. of hourly data	Data capture rate (%)	-----Percentiles-----									Arithmetic mean	Highest 1-hour
			10	25	50	75	90	95	97.5	99	99.8		
Central/Western	8628	98.5	16	34	56	89	121	140	158	195	307	65	391
Eastern	8623	98.4	22	36	55	89	119	135	149	178	269	65	380
Kwun Tong	8614	98.3	10	23	52	85	112	126	137	154	210	57	317
Sham Shui Po	8485	96.9	10	22	43	73	101	118	133	170	253	51	361
Kwai Chung	8604	98.2	3	13	38	71	100	115	129	147	239	46	348
Tsuen Wan	8403	95.9	7	19	40	71	98	116	134	179	259	49	414
Tseung Kwan O	8603	98.2	17	34	66	104	133	152	166	188	266	72	387
Yuen Long	8430	96.2	10	22	44	74	105	129	157	209	281	53	415
Tuen Mun	8557	97.7	7	18	40	71	107	130	162	217	315	51	422
Tung Chung	8398	95.9	10	29	52	82	113	135	165	218	310	60	412
Tai Po	8686	99.2	10	27	53	88	118	140	164	201	274	61	374
Sha Tin	8569	97.8	11	27	55	94	125	146	168	199	263	64	349
Tap Mun	8398	95.9	26	44	73	109	141	161	176	203	264	80	319
Causeway Bay	8613	98.3	5	10	21	41	65	81	95	108	148	29	288
Central	8709	99.4	5	12	27	53	80	95	110	129	194	36	293
Mong Kok	8515	97.2	3	9	23	47	75	89	104	119	158	32	237

Pollutant: Respirable Suspended Particulates (PM₁₀)

Station	No. of hourly data	Data capture rate (%)	-----Percentiles-----									Arithmetic mean	Highest 1-hour
			10	25	50	75	90	95	97.5	99	99.8		
Central/Western	8592	98.1	10	15	26	40	54	66	77	103	153	30	200
Eastern	8491	96.9	12	17	27	42	56	66	73	86	115	31	179
Kwun Tong	8333	95.1	13	22	35	51	65	74	81	90	139	38	171
Sham Shui Po	8452	96.5	14	19	29	42	57	67	75	92	139	33	187
Kwai Chung	8528	97.4	11	17	25	37	49	60	69	86	115	29	136
Tsuen Wan	8565	97.8	11	16	25	38	55	66	79	106	144	30	166
Tseung Kwan O	8579	97.9	12	17	26	38	52	59	68	77	112	29	185
Yuen Long	8558	97.7	12	19	31	50	71	85	97	112	142	37	186
Tuen Mun	8572	97.9	15	22	34	54	75	90	105	128	164	41	204
Tung Chung	8588	98.0	10	16	25	38	57	71	88	119	147	30	203
Tai Po	8650	98.7	10	16	26	40	55	66	78	94	172	31	241
Sha Tin	8123	92.7	11	17	25	36	50	59	68	79	137	28	173
Tap Mun	8503	97.1	13	19	27	41	55	62	69	77	89	31	126
Causeway Bay	8419	96.1	19	28	40	55	70	81	91	110	173	43	233
Central	8478	96.8	15	22	32	46	62	74	85	112	168	37	235
Mong Kok	8685	99.1	14	20	31	45	62	72	84	108	155	35	202

Pollutant: Fine Suspended Particulates (PM_{2.5})

Station	No. of hourly data	Data capture rate (%)	-----Percentiles-----									Arithmetic mean	Highest 1-hour
			10	25	50	75	90	95	97.5	99	99.8		
Central/Western	8592	98.1	7	10	18	26	35	45	54	75	110	20	145
Eastern	8510	97.1	5	10	16	24	32	39	45	55	76	18	117
Kwun Tong	8553	97.6	7	12	19	27	35	42	49	61	80	21	102
Sham Shui Po	8306	94.8	7	10	16	23	31	37	44	57	96	18	129
Kwai Chung	8518	97.2	7	11	16	23	31	37	44	57	71	18	90
Tsuen Wan	8565	97.8	6	10	17	25	36	45	55	72	103	20	126
Tseung Kwan O	8574	97.9	5	9	15	22	30	38	44	52	72	17	118
Yuen Long	8577	97.9	7	11	17	25	36	43	52	63	88	20	115
Tuen Mun	8573	97.9	9	13	22	32	44	52	64	76	101	24	124
Tung Chung	8588	98.0	6	9	15	25	36	47	60	78	101	19	124
Tai Po	8650	98.7	7	11	18	26	37	44	54	68	102	20	164
Sha Tin	8156	93.1	5	9	15	22	30	36	45	56	87	17	129
Tap Mun	8557	97.7	7	10	16	23	30	36	41	47	57	17	68
Causeway Bay	8419	96.1	12	18	25	34	44	53	61	76	120	27	167
Central	8478	96.8	9	14	21	30	39	49	59	79	115	24	152
Mong Kok	8685	99.1	10	14	21	30	40	48	58	78	109	24	143

Notes:

1. All concentration units are in microgram per cubic metre ($\mu\text{g}/\text{m}^3$).
2. Shaded arithmetic mean represents exceedance of the respective air quality objective.
3. Shaded no. of exceedance of limit value represents exceedance of the respective air quality objective.

Table C4: 2019 Diurnal Variations of Air Pollutants

Pollutant: Sulphur Dioxide

Station	Hr01	Hr02	Hr03	Hr04	Hr05	Hr06	Hr07	Hr08	Hr09	Hr10	Hr11	Hr12	Hr13	Hr14	Hr15	Hr16	Hr17	Hr18	Hr19	Hr20	Hr21	Hr22	Hr23	Hr24
Central/Western	4	4	4	4	4	4	4	4	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
Eastern	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Kwun Tong	6	6	6	7	6	6	6	6	6	7	7	6	6	7	7	6	6	6	6	6	6	6	6	6
Sham Shui Po	5	5	5	7	6	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5
Kwai Chung	8	7	7	7	7	7	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	8	8	8
Tsuen Wan	7	7	7	6	6	6	6	7	7	7	7	7	8	8	8	8	7	7	7	7	7	7	7	7
Tseung Kwan O	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4
Yuen Long	5	5	5	5	4	5	5	5	5	5	6	6	5	5	5	5	5	6	5	5	5	5	5	5
Tuen Mun	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Tung Chung	6	5	6	5	5	5	5	6	6	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6
Tai Po	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
Sha Tin	5	4	4	6	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Tap Mun	5	6	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
Causeway Bay	4	3	3	3	3	3	4	5	6	7	6	6	6	7	6	6	6	6	6	6	6	5	5	5
Central	5	5	4	4	4	4	5	6	7	7	7	7	6	6	6	6	7	7	7	7	6	6	5	5
Mong Kok	3	2	2	2	2	2	3	4	4	4	4	4	4	4	5	5	5	5	5	4	4	4	4	3

Pollutant: Nitrogen Oxides

Station	Hr01	Hr02	Hr03	Hr04	Hr05	Hr06	Hr07	Hr08	Hr09	Hr10	Hr11	Hr12	Hr13	Hr14	Hr15	Hr16	Hr17	Hr18	Hr19	Hr20	Hr21	Hr22	Hr23	Hr24
Central/Western	38	33	28	25	24	26	34	51	64	68	63	59	54	51	51	56	54	56	57	58	56	52	48	43
Kwun Tong	50	35	30	26	26	37	67	94	101	99	90	83	78	78	84	89	93	99	103	94	79	69	67	61
Sham Shui Po	53	42	36	34	35	39	56	77	89	89	79	77	75	78	80	85	90	93	94	86	76	70	66	61
Kwai Chung	71	53	47	42	41	49	77	113	130	123	107	100	96	99	106	110	117	122	127	113	99	89	85	80
Tsuen Wan	51	36	28	26	27	31	53	73	86	84	80	77	73	76	78	81	84	88	92	88	78	69	67	64
Tseung Kwan O	49	41	32	30	35	43	67	67	45	36	33	33	32	33	33	35	39	45	49	50	52	47	50	49
Yuen Long	56	49	41	37	38	45	73	96	81	65	58	53	50	53	55	61	68	73	79	83	79	75	73	67
Tuen Mun	61	52	46	41	40	51	68	90	91	82	75	70	64	64	66	68	73	83	89	87	83	77	72	65
Tung Chung	42	34	30	27	27	32	41	53	56	57	57	55	51	52	53	52	52	51	54	50	48	47	46	43
Tai Po	42	35	30	27	29	33	54	83	76	58	49	45	41	42	44	46	51	56	59	59	56	52	50	47
Sha Tin	42	36	30	27	26	29	46	62	60	47	38	33	30	29	31	36	41	45	50	54	54	52	51	48
Tap Mun	11	11	11	11	11	12	13	15	16	15	13	12	11	11	11	12	12	13	13	12	12	12	12	11
Causeway Bay	151	103	89	80	79	82	144	243	288	287	276	291	294	305	293	279	281	286	290	276	232	234	233	190
Central	114	93	81	73	70	74	111	174	258	249	241	230	205	187	205	212	209	233	262	220	177	159	147	139
Mong Kok	109	73	62	59	59	63	105	148	184	187	189	190	190	201	201	209	218	220	221	193	163	162	159	143

Pollutant: Nitrogen Dioxide

Station	Hr01	Hr02	Hr03	Hr04	Hr05	Hr06	Hr07	Hr08	Hr09	Hr10	Hr11	Hr12	Hr13	Hr14	Hr15	Hr16	Hr17	Hr18	Hr19	Hr20	Hr21	Hr22	Hr23	Hr24
Central/Western	31	27	23	21	20	21	27	39	44	45	43	41	39	38	40	44	45	47	49	49	46	42	39	35
Eastern	31	25	21	19	19	21	32	44	48	46	43	41	38	40	43	46	50	51	49	46	43	40	37	35
Kwun Tong	36	26	22	20	20	25	40	52	53	52	50	48	47	49	53	57	60	63	66	61	53	47	46	42
Sham Shui Po	39	31	27	25	25	28	39	49	53	52	49	49	49	52	55	59	64	67	69	64	57	51	48	45
Kwai Chung	44	34	30	27	27	31	43	55	61	61	57	57	58	61	67	70	75	77	77	70	61	56	53	50
Tsuen Wan	37	26	21	19	20	23	38	47	50	49	48	48	49	52	55	58	62	66	68	65	57	51	49	46
Tseung Kwan O	34	29	23	22	24	27	36	36	28	23	22	21	21	23	23	25	28	34	37	38	38	36	36	36
Yuen Long	41	37	32	29	29	33	42	49	46	41	38	37	36	39	41	46	52	57	61	61	57	53	51	48
Tuen Mun	42	37	33	30	30	35	43	50	50	48	46	45	43	44	46	49	54	63	67	64	60	55	50	46
Tung Chung	30	25	22	20	20	23	27	32	34	35	35	35	35	37	39	39	40	40	42	40	38	36	34	32
Tai Po	34	28	24	22	23	26	36	46	45	37	33	31	30	31	33	35	40	45	49	49	45	42	40	37
Sha Tin	34	29	24	22	22	24	33	39	38	32	27	25	23	23	25	29	34	38	43	46	45	42	41	38
Tap Mun	10	10	9	10	10	10	10	10	11	12	12	11	10	9	9	10	10	11	12	11	11	11	10	10
Causeway Bay	64	50	45	41	41	42	58	79	85	88	91	98	102	106	107	106	103	103	102	97	90	87	84	73
Central	59	51	46	42	40	42	55	75	95	95	95	96	93	92	98	102	102	106	112	102	88	80	74	70
Mong Kok	62	46	41	39	38	40	57	71	81	83	85	88	92	98	100	105	107	108	107	98	87	84	80	75

Pollutant: Carbon Monoxide

Station	Hr01	Hr02	Hr03	Hr04	Hr05	Hr06	Hr07	Hr08	Hr09	Hr10	Hr11	Hr12	Hr13	Hr14	Hr15	Hr16	Hr17	Hr18	Hr19	Hr20	Hr21	Hr22	Hr23	Hr24
Tsuen Wan	609	572	548	539	548	563	627	685	704	683	668	647	638	646	645	648	652	675	705	722	713	697	685	653
Tseung Kwan O	560	533	520	497	505	510	560	572	550	527	520	509	505	503	501	501	509	533	557	579	586	588	596	587
Yuen Long	639	622	600	585	578	584	637	676	651	617	602	590	586	584	587	600	625	670	701	712	700	688	670	670
Tuen Mun	683	665	656	638	667	681	686	738	719	701	697	683	678	678	674	675	681	696	725	736	743	733	712	695
Tung Chung	547	540	528	529	529	540	559	567	566	564	570	569	569	575	578	563	562	561	575	574	577	575	574	564
Tap Mun	482	491	491	495	498	503	517	526	530	524	518	516	506	503	496	494	495	492	490	491	492	492	492	490
Causeway Bay	762	746	718	691	689	663	688	758	788	843	864	840	839	835	823	837	821	829	866	901	904	864	798	762
Central	779	757	731	727	714	729	755	810	856	900	905	880	882	896	884	884	877	912	950	957	960	905	831	808
Mong Kok	799	786	767	730	762	737	734	778	814	823	819	802	800	802	815	820	831	861	901	910	891	863	832	828

Table C4 (Cont.): 2019 Diurnal Variations of Air Pollutants

Pollutant: Ozone

Station	Hr01	Hr02	Hr03	Hr04	Hr05	Hr06	Hr07	Hr08	Hr09	Hr10	Hr11	Hr12	Hr13	Hr14	Hr15	Hr16	Hr17	Hr18	Hr19	Hr20	Hr21	Hr22	Hr23	Hr24
Central/Western	63	65	67	67	66	63	56	47	44	48	55	64	74	80	82	80	77	72	67	64	63	63	62	62
Eastern	64	66	68	68	66	62	52	43	44	49	57	67	76	78	79	78	74	70	69	67	65	64	63	62
Kwun Tong	57	63	63	63	62	56	45	39	40	45	51	59	66	70	69	68	65	60	55	54	56	57	55	55
Sham Shui Po	52	56	58	57	56	51	41	34	34	40	47	55	61	64	64	63	57	49	45	45	48	50	49	49
Kwai Chung	45	51	52	52	51	46	37	29	30	35	44	51	58	60	59	57	51	45	41	41	43	44	43	43
Tsuen Wan	45	50	53	53	51	46	36	31	34	41	49	56	62	66	68	67	61	53	44	39	41	41	40	41
Tseung Kwan O	59	62	63	62	59	55	48	51	59	68	76	85	91	96	99	98	95	88	81	74	69	67	62	60
Yuen Long	43	42	44	44	41	37	29	27	36	48	60	71	82	88	90	85	77	66	55	47	44	43	41	40
Tuen Mun	46	46	47	47	45	39	32	28	33	41	50	60	71	79	83	81	73	60	49	44	43	43	44	45
Tung Chung	51	52	53	53	52	47	42	39	44	50	57	65	76	83	88	89	83	75	63	57	55	54	53	53
Tai Po	51	51	52	50	47	43	35	31	40	54	66	78	88	92	93	91	85	76	66	60	57	55	53	52
Sha Tin	52	53	56	55	53	50	41	39	47	59	71	81	89	95	97	93	86	79	69	61	56	53	52	50
Tap Mun	68	65	62	60	58	57	56	58	63	70	81	92	101	108	110	109	107	101	95	89	82	77	73	71
Causeway Bay	32	39	42	44	42	40	30	19	17	20	22	25	25	27	27	30	28	27	27	27	27	27	27	30
Central	41	45	48	49	49	46	36	26	20	22	25	29	36	41	40	38	37	33	28	30	33	36	37	37
Mong Kok	35	43	46	46	44	42	29	21	19	22	25	30	33	34	35	33	30	27	25	26	30	30	29	29

Pollutant: Respirable Suspended Particulates (PM₁₀)

Station	Hr01	Hr02	Hr03	Hr04	Hr05	Hr06	Hr07	Hr08	Hr09	Hr10	Hr11	Hr12	Hr13	Hr14	Hr15	Hr16	Hr17	Hr18	Hr19	Hr20	Hr21	Hr22	Hr23	Hr24
Central/Western	28	27	27	27	27	26	26	27	29	30	32	33	32	32	33	34	34	33	32	32	33	32	31	30
Eastern	32	31	30	30	29	28	28	28	29	30	31	32	33	32	33	34	34	33	33	33	34	33	32	32
Kwun Tong	34	32	33	32	32	31	33	35	39	42	43	43	39	42	44	43	43	41	40	40	39	38	37	37
Sham Shui Po	32	30	29	28	27	27	27	28	29	31	32	33	33	33	35	37	39	39	38	38	38	37	35	33
Kwai Chung	27	26	25	24	24	24	24	25	26	28	29	29	29	30	31	33	34	33	33	31	30	30	28	28
Tsuen Wan	28	26	25	24	24	24	24	25	26	28	30	31	31	33	35	35	35	34	34	34	32	30	29	29
Tseung Kwan O	29	28	27	27	26	25	25	26	27	28	29	29	29	29	31	32	33	33	33	32	31	30	30	30
Yuen Long	35	33	33	32	31	31	31	33	35	37	39	41	41	42	41	42	41	42	41	41	39	37	36	36
Tuen Mun	39	38	36	35	35	34	34	36	38	41	42	43	43	43	45	46	46	46	45	45	44	44	42	40
Tung Chung	28	27	26	26	25	25	25	26	27	29	31	33	34	35	37	38	37	35	33	32	31	31	30	29
Tai Po	30	29	28	27	27	27	27	28	30	31	31	31	31	31	31	32	32	32	33	33	33	32	32	32
Sha Tin	29	27	27	26	25	25	25	26	26	27	28	29	28	28	28	29	30	31	32	31	31	31	31	30
Tap Mun	29	28	28	28	28	29	30	30	31	31	33	33	33	34	34	34	34	34	34	33	32	31	30	29
Causeway Bay	39	35	30	29	29	28	31	37	41	45	48	48	47	49	51	50	50	51	51	53	53	49	47	44
Central	35	31	31	30	29	29	30	33	35	38	39	40	40	39	41	41	41	40	39	40	40	38	37	37
Mong Kok	33	30	28	27	27	27	28	31	33	35	37	37	38	39	41	41	40	39	40	42	42	40	37	34

Pollutant: Fine Suspended Particulates (PM_{2.5})

Station	Hr01	Hr02	Hr03	Hr04	Hr05	Hr06	Hr07	Hr08	Hr09	Hr10	Hr11	Hr12	Hr13	Hr14	Hr15	Hr16	Hr17	Hr18	Hr19	Hr20	Hr21	Hr22	Hr23	Hr24
Central/Western	19	18	18	18	18	18	18	18	19	20	21	21	21	22	22	22	22	21	21	22	22	22	21	20
Eastern	18	17	17	17	17	17	16	17	17	17	18	18	18	18	18	19	19	18	18	19	20	19	18	18
Kwun Tong	19	18	17	18	17	17	17	18	19	21	22	22	22	21	22	23	23	23	22	23	23	23	21	20
Sham Shui Po	18	17	16	16	15	15	16	17	17	17	18	18	18	19	20	20	21	21	20	20	21	21	20	19
Kwai Chung	17	17	16	16	16	16	16	17	17	18	18	18	18	19	19	20	20	20	20	20	20	20	19	18
Tsuen Wan	19	17	17	16	16	16	17	17	18	19	19	20	20	22	23	23	23	22	22	23	23	22	21	20
Tseung Kwan O	17	17	16	16	16	15	15	15	16	16	17	17	17	17	17	17	18	18	18	18	18	18	17	17
Yuen Long	18	18	17	17	17	18	18	19	19	19	19	19	19	20	21	21	22	23	23	23	23	22	20	19
Tuen Mun	24	23	22	22	21	21	22	23	23	24	24	24	24	25	26	26	27	26	27	27	28	27	26	25
Tung Chung	18	18	17	16	16	16	17	17	18	18	19	20	21	22	23	23	23	22	21	21	20	20	19	19
Tai Po	20	19	19	18	18	18	18	19	20	21	20	20	20	21	21	21	21	21	22	22	22	22	21	21
Sha Tin	17	17	16	16	15	15	15	16	17	17	17	17	17	17	17	17	17	18	18	18	19	19	18	18
Tap Mun	16	16	16	16	16	17	18	17	17	17	18	18	18	18	18	18	19	19	19	19	18	18	17	16
Causeway Bay	25	22	19	19	18	18	19	24	26	28	29	29	29	32	32	31	31	32	33	35	36	33	31	29
Central	22	20	20	20	19	19	20	21	22	24	25	25	25	26	26	26	26	25	25	26	27	26	25	24
Mong Kok	22	20	19	18	18	19	19	21	22	24	24	24	25	27	27	27	26	26	27	29	30	28	25	23

Note:

1. All concentration units are in microgram per cubic metre ($\mu\text{g}/\text{m}^3$).