

Port of Tauranga Methyl Bromide Fumigation Monitoring – Interim Report 11

Fumigation and venting details can be found in Table 1.

Table 1: Monitoring details

Date	12/06/2020
Fumigation Type	Log stacks
Fumigation amount (kg) – during 1hr sampling	349
Fumigation Location	A Block
Venting Time	11:37-13:45
*Sample time (1hour)	11:49-12:49
*Predominant wind direction over 1 hour sample	South Westerly
*Average wind speed over 1 hour period	0.5-3 m/s
Sample date (24 hour)	12/06/2020-13/06/2020
Sample time/s (24 hour)	09:58-09:58 (location 26)
Other venting in the 24 hour period	4 rows in A Block

*1 hour Sample times differ from the total venting time i.e. venting was shorter than 1 hour

*From observations at the time of sampling, measured met data is provided in a separate document.


Table 2: Fumigation and Venting Details 12/06/2020

Row (South to North)	Log Volume (JAS)	Covered Volume (m ³)	Methyl Bromide used (kg)	Pre-vent Concentration (ppm)	Methyl Bromide Released (kg)
A40	631	1104	133	9900	-1
A36	552	950.4	115	12550	-1
A34	481	836	101	14050	-1

⁻¹ Data not provided by Genera

Map 1: Fumigation and Sampling Locations 12/06/2020

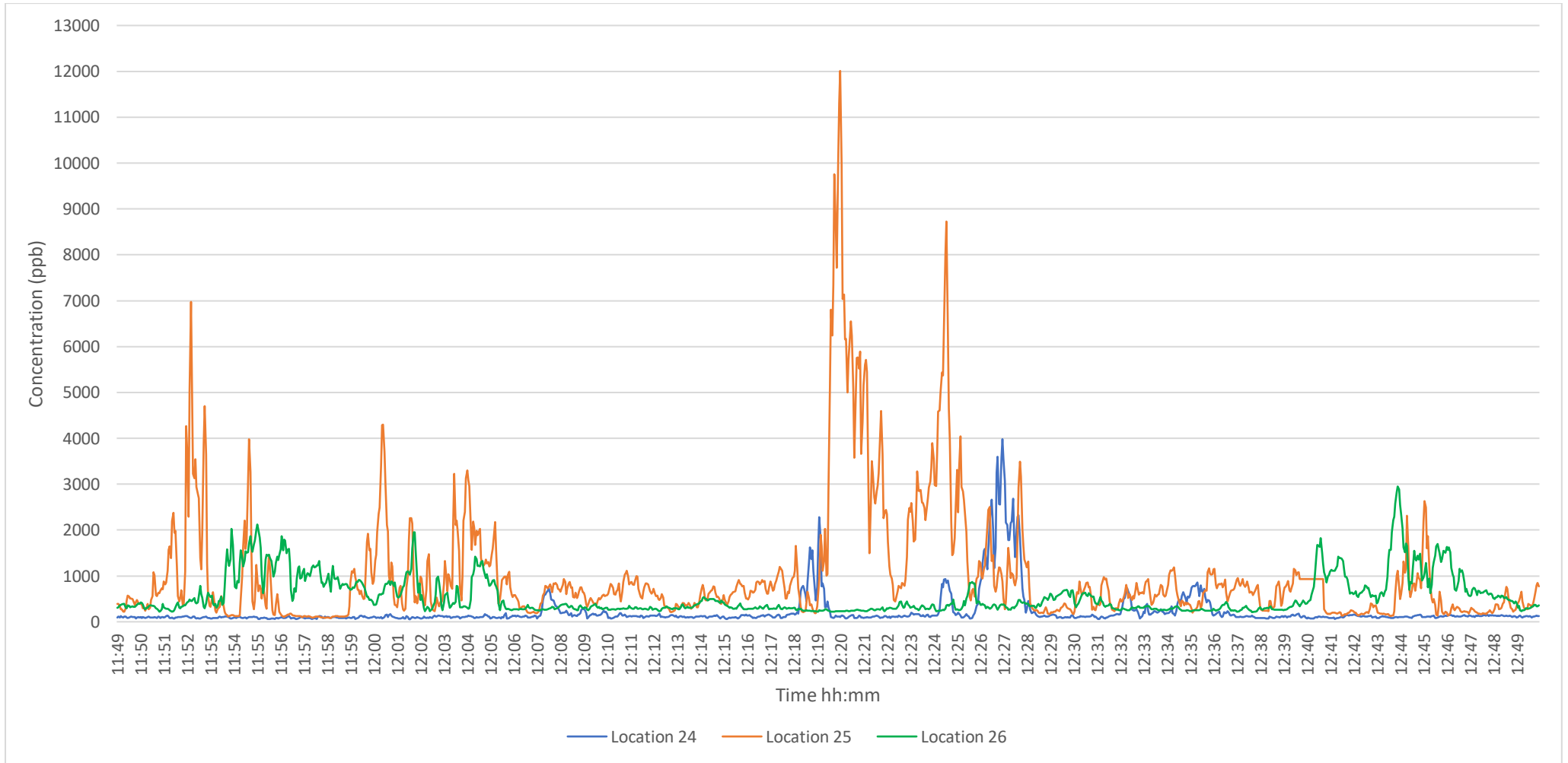


 1hr Log stack venting (please note locations are only)

 Sample locations

1-hour canister sampling and TVOC monitoring was undertaken at locations 24, 25 and 26 from 11:49-12:49. 24-hour canister sampling was also undertaken at location 26. The average and peak TVOC measurements for the sampling period are shown below in Table 3 and Graphs 1-4. Canister sampling results can be found in Table 4.

Graph 1: Real-time Total Volatile Organic Compound (TVOC) measurements at all 1-hour sampling locations on the 12/06/2020



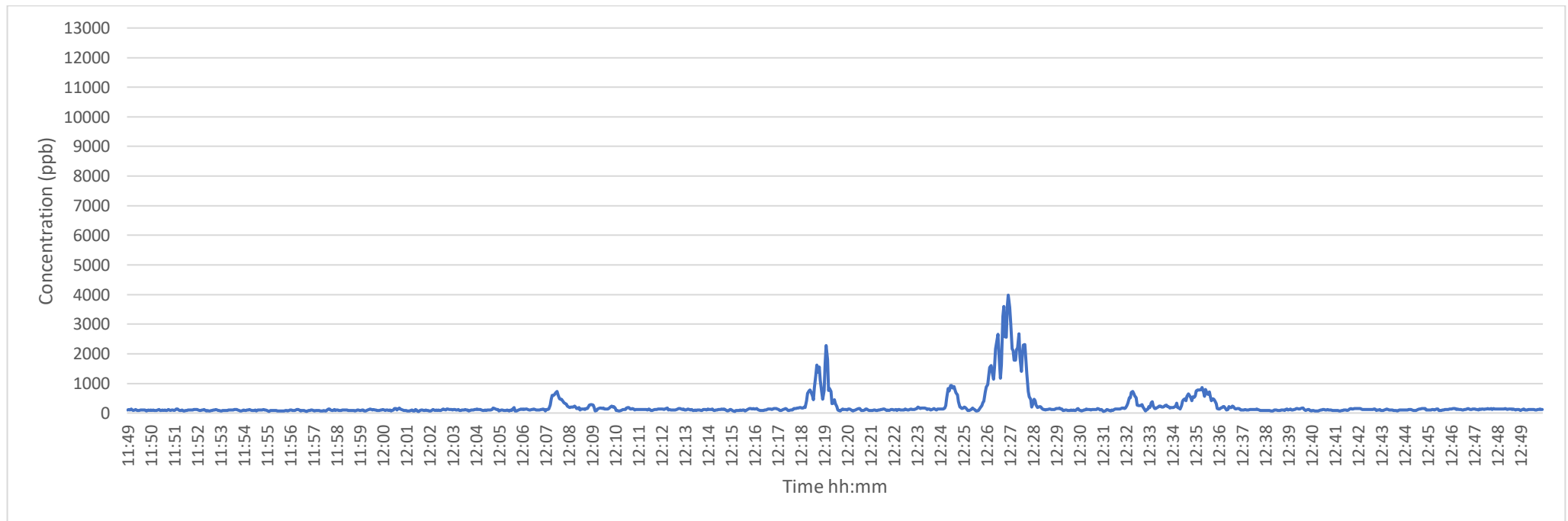
Notes: 11:49 start of canister sampling. Please note: concentrations have not been corrected for methyl bromide and measurements will account for all VOC's including methyl bromide

Table 3: Average and peak real-time TVOC measurements on the 12/06/2020

Location (as shown on Map 1)		Average TVOC measured over sampling period (ppb)*	Peak TVOC measured over sampling period (ppb)*
24	Quality Marshalling Port Boundary	221	3981
25	ISO Building Carpark	1024	12009
26	Isuzu Cal	547	2949

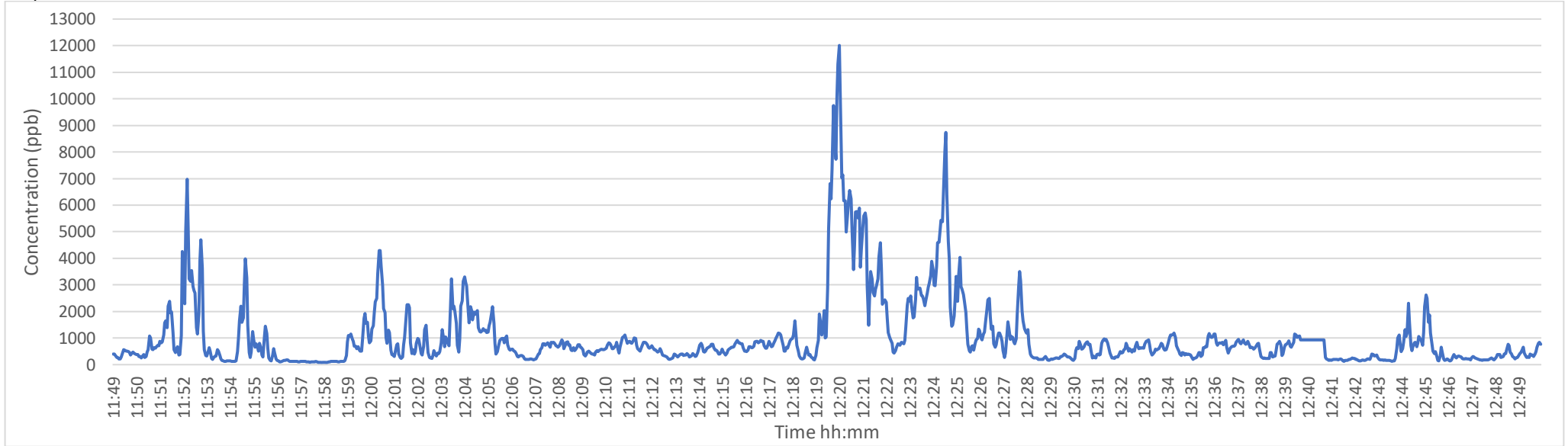
*Concentrations have not been corrected for methyl bromide

Graph 2: TVOC concentrations measured at Location 24 - 12/06/2020



Please note: concentrations have not been corrected for methyl bromide and measurements will account for any VOC's not only methyl bromide.

Graph 3: TVOC concentrations measured at Location 25 - 12/06/2020



Graph 4: TVOC concentrations measured at Location 26 - 12/06/2020

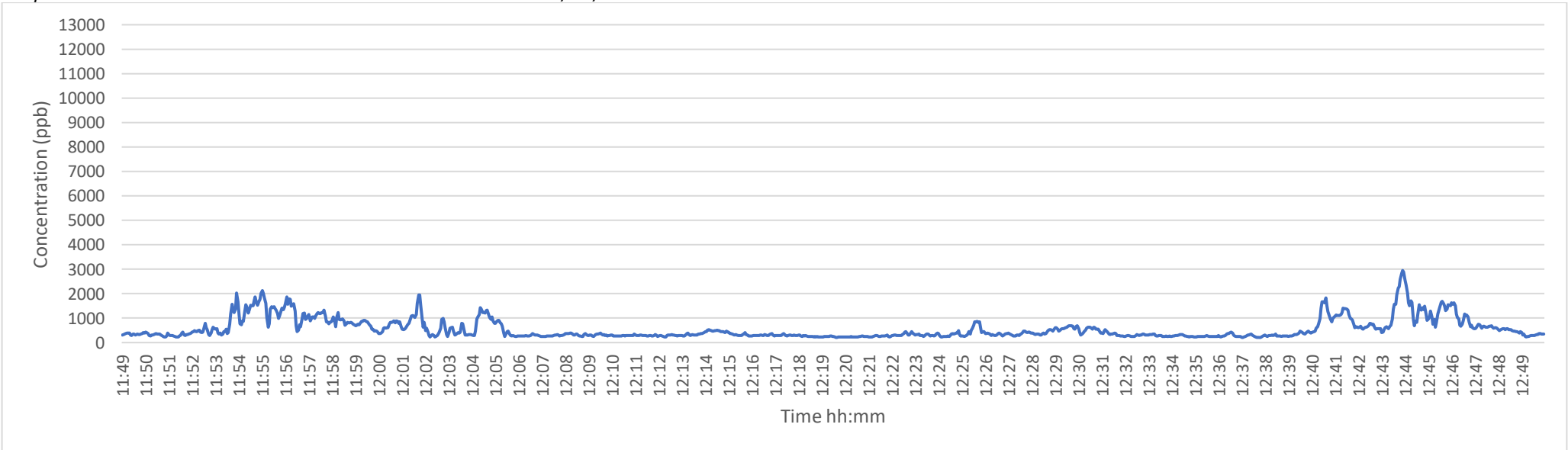


Table 4: 1-hour and 24-hour Canister Sampling Results 12-13/06/2020

Location (as shown on map above)		Sample Number	Sample length	Sample Time	Canister size	Methyl bromide Concentration (ppbv)
24	Quality Marshalling Port Boundary	19827-1206-24	1 hour	11:49 – 12:49	1.4L	155±24
25	ISO Building Carpark	19827-1206-25	1 hour	11:49 – 12:49*	1.4L	1320±210
26	Isuzu Cal	19827-1206-26	1 hour	11:49 – 12:49	1.4L	585±89
		19827-1206-26A	24 hour	09:58 – 09:58	6L	94±15

*There is increased uncertainty around this result. Post sampling the regulator was left on the canister with the nut screwed on therefore the canister may have continued sampling for a short period at a reduced flow rate.