

## Port of Tauranga Methyl Bromide Fumigation Monitoring – Interim Report 8

Fumigation and venting details can be found in Table 1.

Table 1: Monitoring details

Date	21/03/2020
Fumigation Type	Log stacks
Fumigation amount (kg) – during 1hr sampling	341
Fumigation Location	Fumo pad
Venting Time	09:12-10:03
*Sample time (1hour)	09:09-10:09
*Predominant wind direction over 1-hour sample	S/SSW
*Average wind speed over 1-hour period	1.1 m/s
Sample date (24 hour)	20/03/2020 – 21/03/2020
*Sample time/s (24 hour)	08:23-08:23 (location 2) 08:25-08:25 (location 18)
Other venting in the 24-hour period	1 row Berth 10, 3 rows on Reefa (20/03/20)

\*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.

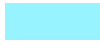
\*24-hour sampling was carried out on the 20-21/03/20 and was completed before the 1-hour sampling period commenced on the 21/03/20. This was due to a change in venting schedule from Genera. Because of this the 24hr and 1hr sample periods do not overlap.

Table 2: Fumigation and Venting Details 21/03/2020

Row	Log Volume (JAS)	Covered Volume (m <sup>3</sup> )	Methyl Bromide used (kg)	Pre-vent Concentration (ppm)	Methyl Bromide Released (kg)
FP-1BS	130	229.6	19	Not Recorded	Not Recorded
FP-02BS	631	1098	88	Not Recorded	Not Recorded
FP-03/FP3BS	961	1646.4	132	Not Recorded	Not Recorded
FP-05BS	741	1268.8	102	Not Recorded	Not Recorded

Map 1: Fumigation and Sampling Locations 21/03/2020

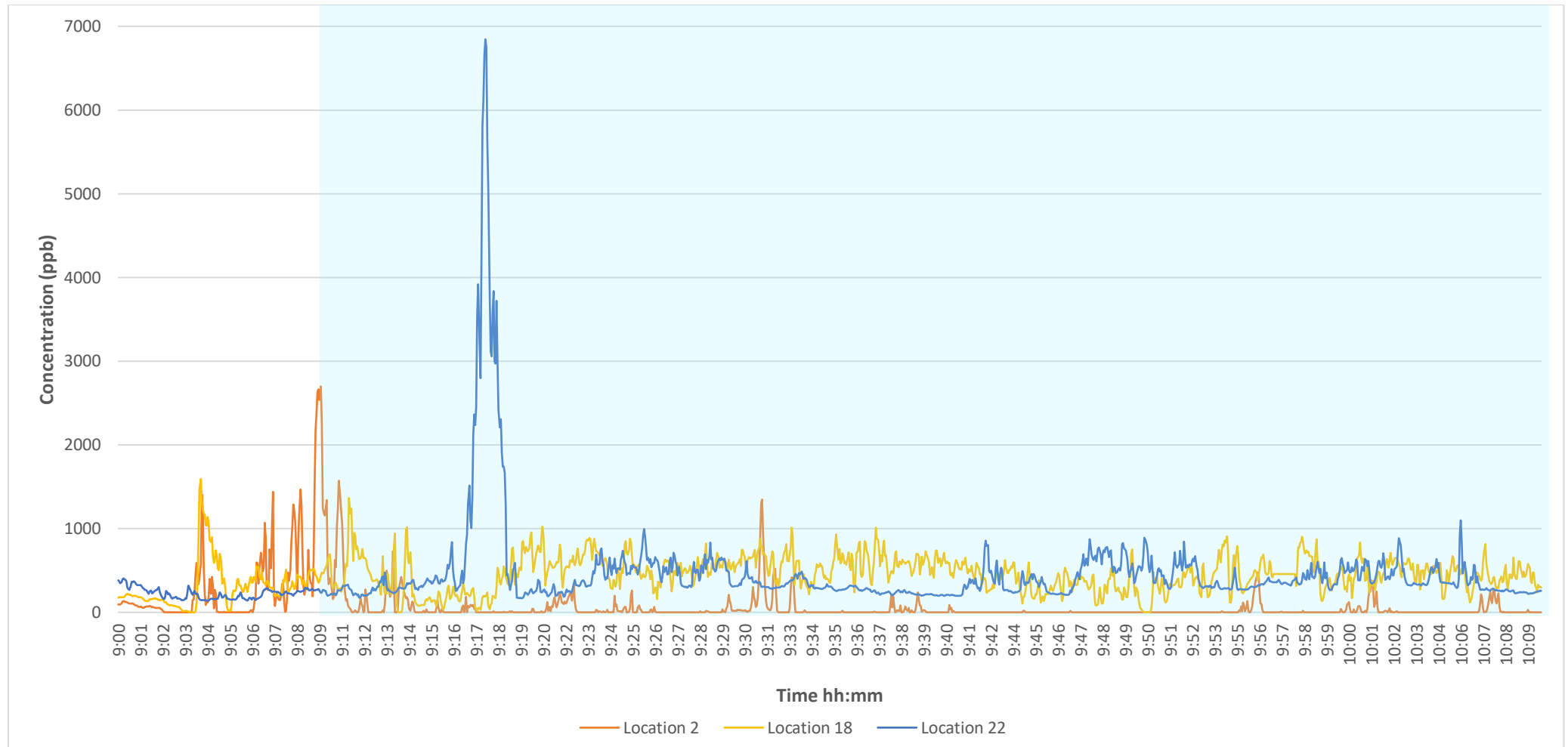


 Log stack venting (please note locations are only approximate)

 Sample locations

1-hour canister sampling and TVOC monitoring was undertaken at locations 1, 2, 18 and 22 from 09:09-10:09 on the 21/03/20. 24-hour canister sampling was also undertaken at locations 2 and 18 from 20-21/03/20 (and finished prior to the 1 hr samples commencing). 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. The PID at location 1 had an error with the logger and no data could be retrieved from the unit.

Graph 1: Real-time Total Volatile Organic Compound (TVOC) measurements at all 1-hour sampling locations on the 21/03/2020



Notes: 09:09 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.

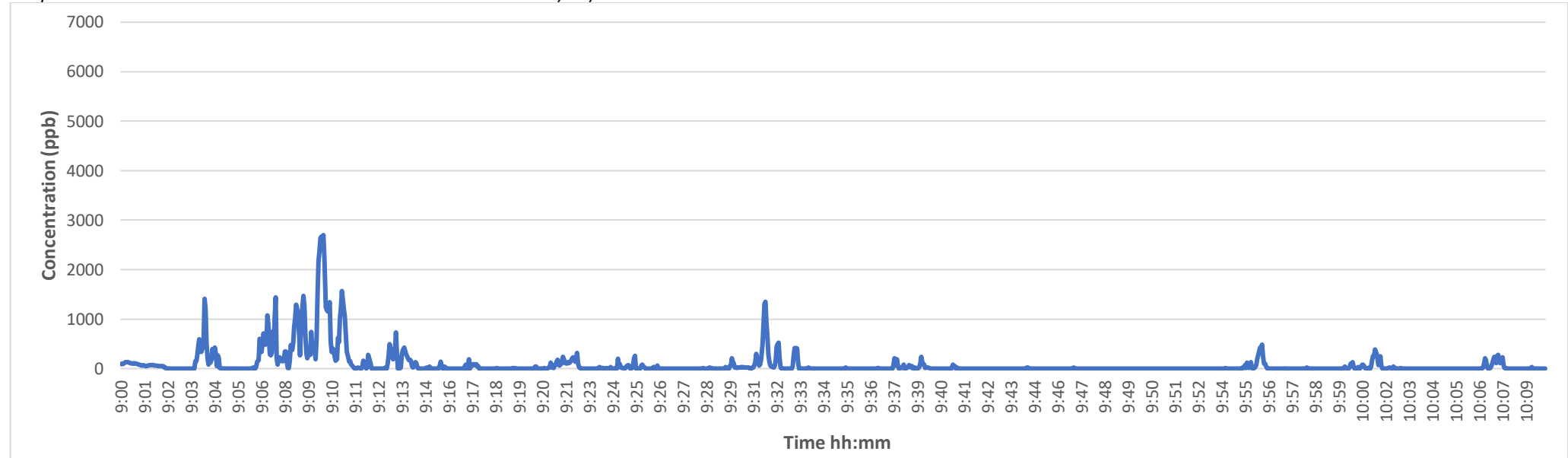
Canister sampling period during venting

Table 3: Average and peak real-time TVOC measurements on the 21/03/2020

Location (as shown on Map 1)	Average TVOC measured over sampling period (ppb)*	Peak TVOC measured over sampling period (ppb)*	
2	Next to coal shoot	67	2698
18	Next to shed 10	460	1432
22	Opposite fumo pad (on the Port)	468	6943

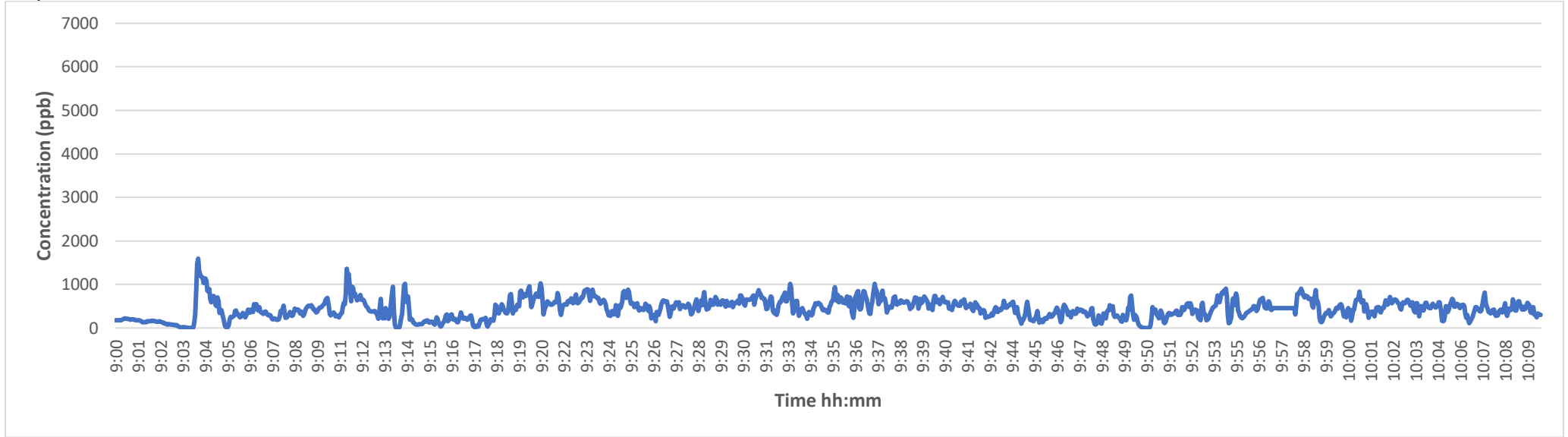
\*Concentrations have not been corrected for methyl bromide.

Graph 2: TVOC concentrations measured at Location 2 – 21/03/2020



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 18 -21/03/2020



Graph 4: TVOC concentrations measured at Location 22 - 21/03/2020

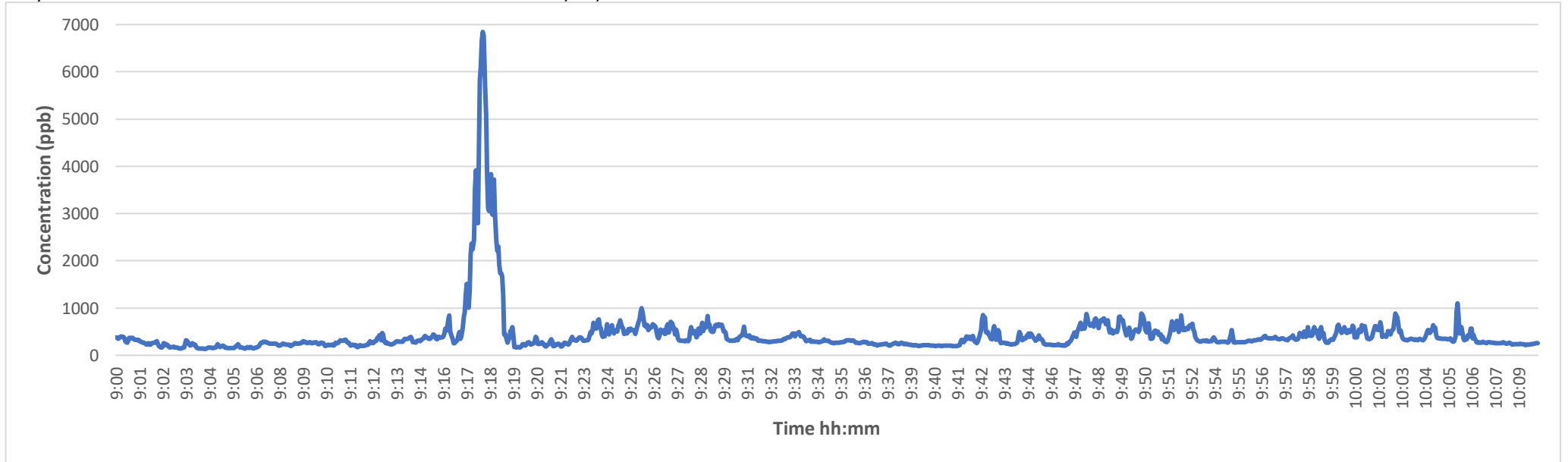


Table 4: 1-hour and 24-hour Canister Sampling Results 21/03/2020

Location (as shown on map above)		Sample Number	Sample Length	Sample Time	Canister Size	Methyl bromide Concentration (ppbv)
1	Between coal shoot and shed 10	19827-2103-1	1 hour	09:09-10:09	1.4L	<7±1.0
2	Next to coal shoot	19827-2103-2	1 hour	09:09-10:09	1.4L	<6±0.9
		19827-2103-2A	24 hours	08:23-08:23	6L	10.8±1.7
18	Next to shed 10	19827-2103-18	1 hour	09:09-10:09	1.4L	<7±1.0
		19827-2103-18A	24 hours	08:25-08:25	6L	19.9±3.1
22	Opposite fumo pad (on the Port)	19827-2103-22	1 hour	09:09-10:09	1.4L	203±31