

Port of Tauranga Methyl Bromide Fumigation Monitoring – Interim Report 18

Fumigation and venting details can be found in Table 1.

Table 1: Monitoring details

Date	18/01/21
Fumigation Type	Log stacks
Fumigation amount (kg) – during 1hr sampling	62.7 (part of second row - 28.8)
Fumigation Location	Fumopad
Venting Time	09:32 - 10:32
*Sample time (1hour)	09:32 – 10:32
*Predominant wind direction over 1 hour sample	SSW
*Average wind speed over 1 hour period	2
Sample date (24 hour)	28/12/2020
Sample time/s (24 hour)	08:39 – 08:39 & 08:33 – 08:33
Other venting in the 24 hour period	2 rows on Fumopad, 16 rows berth 11, 1 row on Reefa

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


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

Table 2: Fumigation and Venting Details 28/21/2020

Row	Log Volume (JAS)	Covered Volume (m ³)	Methyl Bromide used (kg)	Pre-vent Concentration (ppm)	Methyl Bromide Released (kg)
FP1	1051	1800	216	20933	62.7
FP2	500	874.8	105	19200	28.8

Map 1: Fumigation and Sampling Locations 28/12/2020

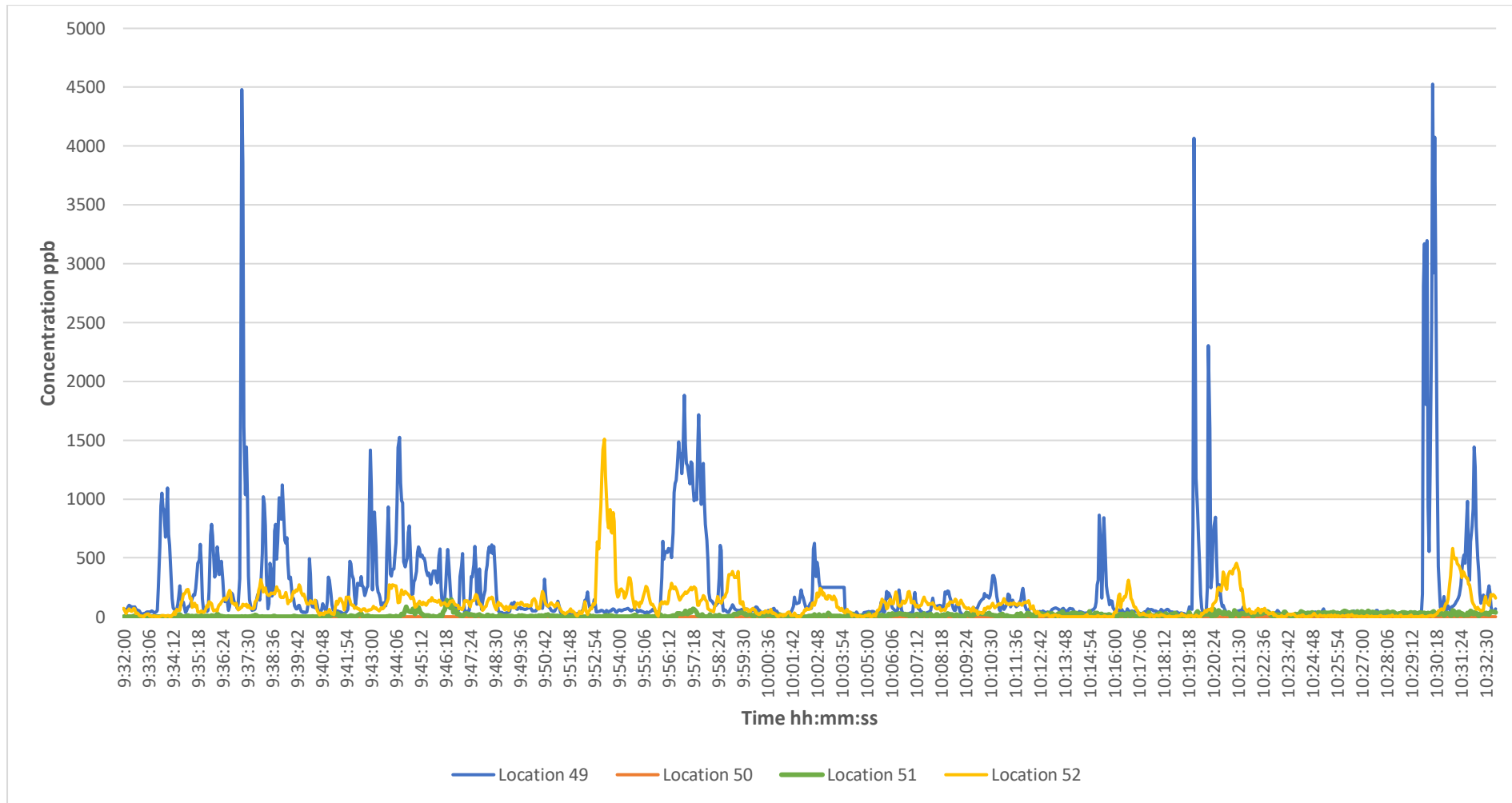


 Log stack venting (please note locations are only approximate)

 Sample locations

1-hour canister sampling and TVOC monitoring was undertaken at locations 49, 50, 51 and 52 from 09:32 through to 10:32. 24-hour canister sampling was also undertaken at location 51 and 52. The average and peak TVOC measurements for the sampling period are provided in Table 3 and in Graphs 1 through 5. Canister sampling results are presented in Table 4.

Graph 1: Real-time Total Volatile Organic Compound (TVOC) measurements at all 1-hour sampling locations on the 28/12/2020



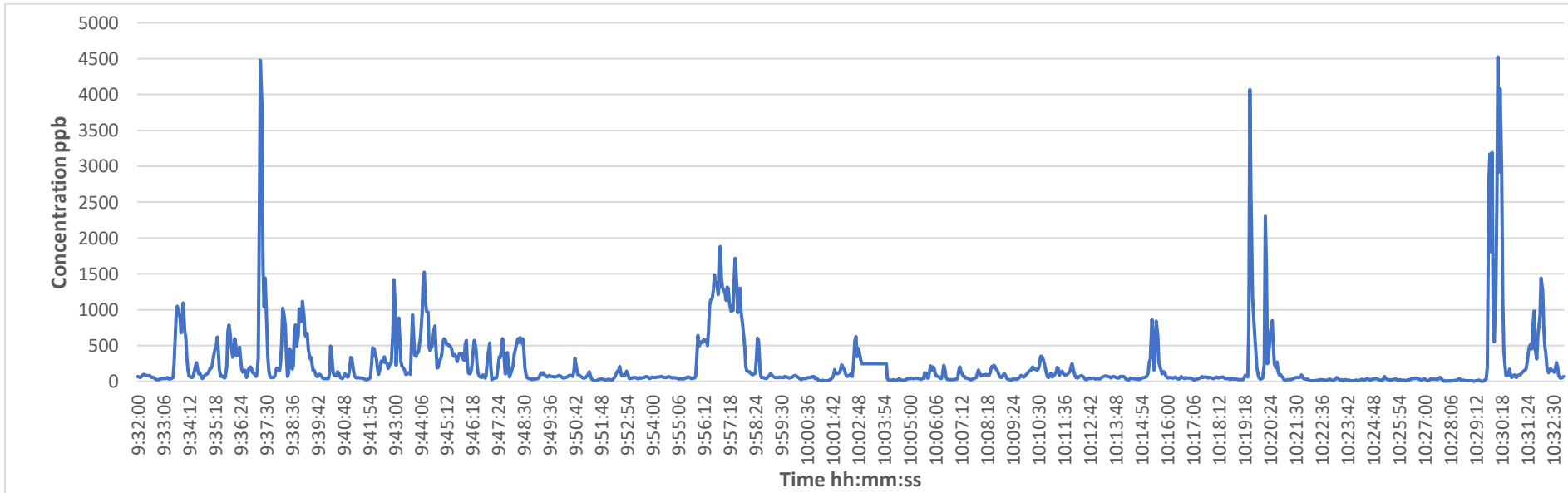
Notes: concentrations are not corrected for methyl bromide and measurements will account for all VOC's including methyl bromide

Table 3: Average and peak real-time TVOC measurements on the 28/12/2020

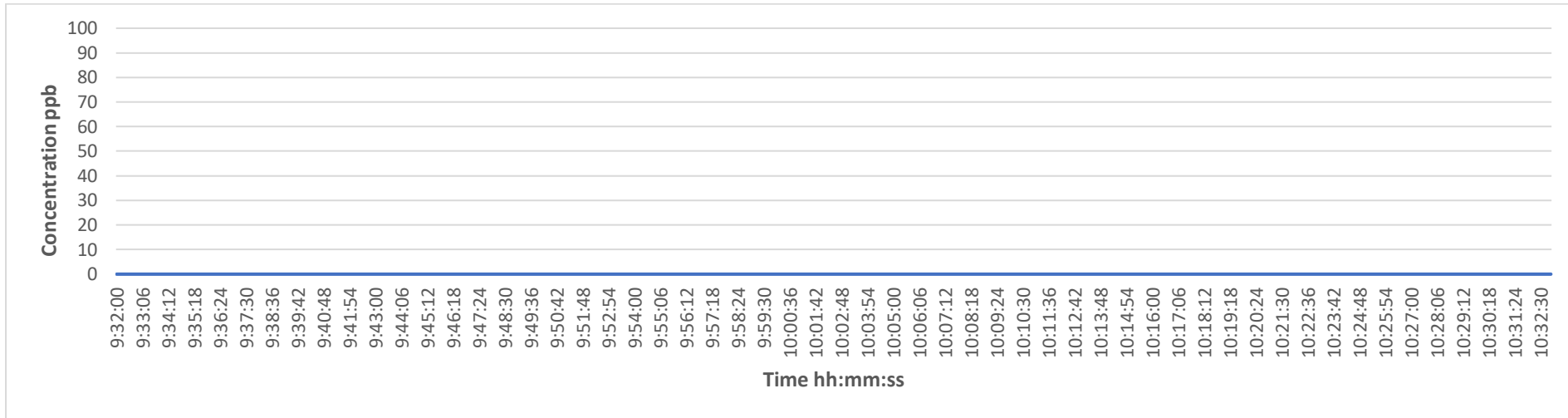
Location (as shown on Map 1)	Average TVOC measured over sampling period (ppb)*	Peak TVOC measured over sampling period (ppb)*
49 On port (Tasman Quay Opposite Reefa)	229	4,526
50 South Between Stacks	<100	<100
51 Southend of Shed 10	15	146
52 Independent Stevedores	103	1,509

*Concentrations are not corrected for methyl bromide

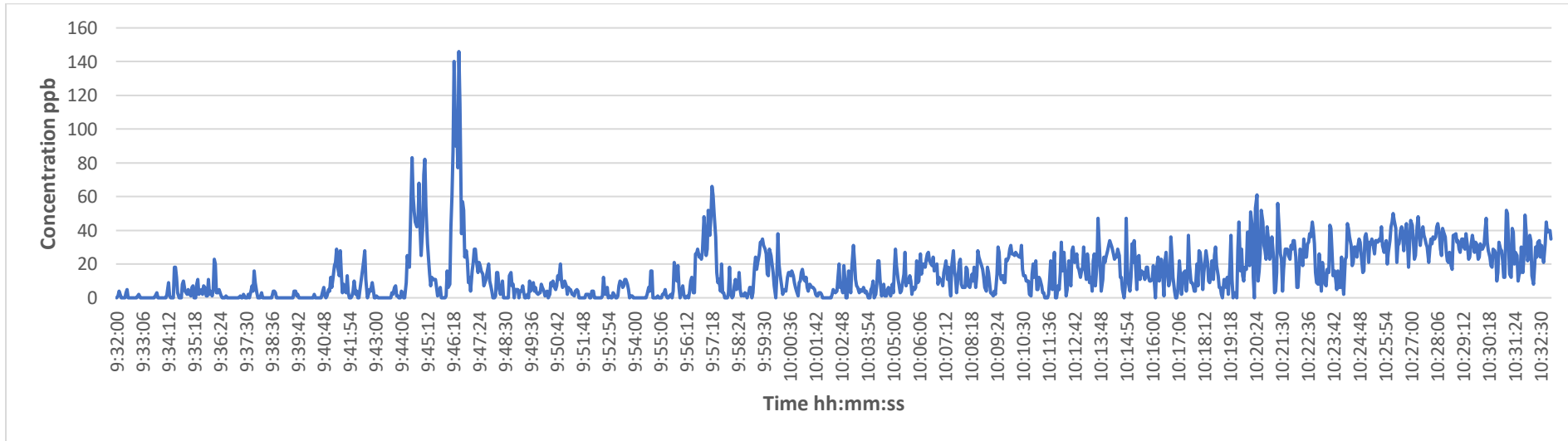
Graph 2: TVOC concentrations measured at Location 49 – 28/12/2020



Graph 3: TVOC concentrations measured at Location 50 – 28/12/2020



Graph 4: TVOC concentrations measured at Location 51 – 28/12/2020



Graph 5: TVOC concentrations measured at Location 52 – 28/12/2020

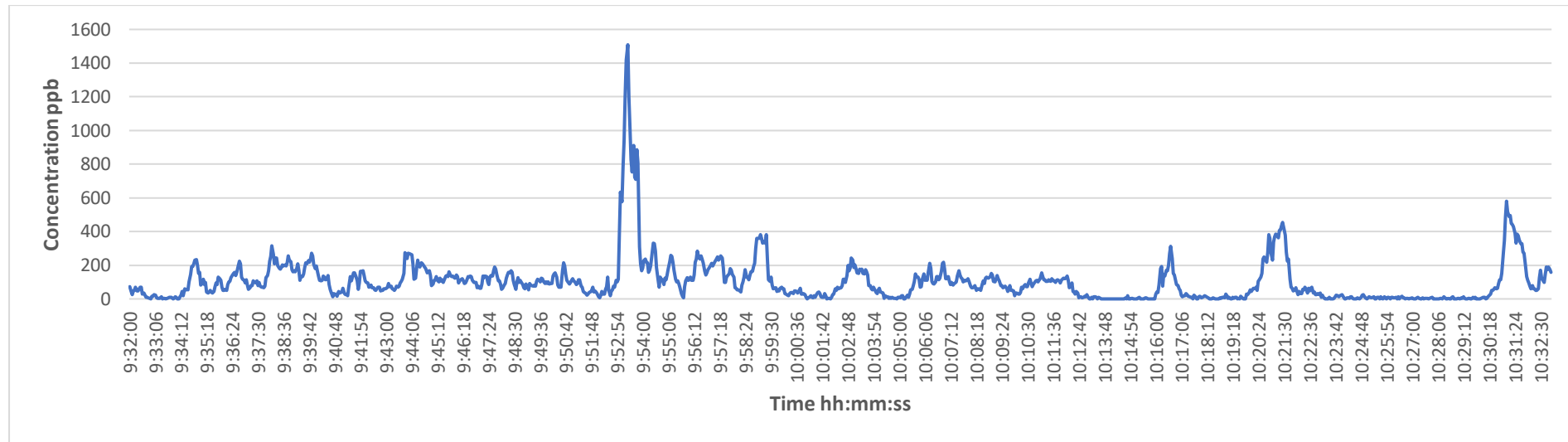


Table 4: 1-hour and 24-hour Canister Sampling Results 28/12/2020

Location (as shown on map above)		Sample Number	Sample length	Sample Time	Canister size	Methyl bromide Concentration (ppbv)
49	On port (Tasman Quay Opposite Reefa)	19827-28-12-49	1 hour	09:32 – 10:32	1.4L	260
50	South Between Stacks	19827-28-12-50	1 hour	09:32 – 10:32	1.4L	<5 ± 0.8
51	Southend of Shed 10	19827-28-12-51	1 hour	09:32 – 10:32	1.4L	9
51A	Southend of Shed 10	19827-28-12-51A	24 hours	08:39 – 08:39	6L	18
52	Independent Stevedores	19827-28-12-52	1 hour	09:32 – 10:32	1.4L	181
52A	Independent Stevedores	19827-28-12-52A	24 hours	08:33 – 08:33	6L	20