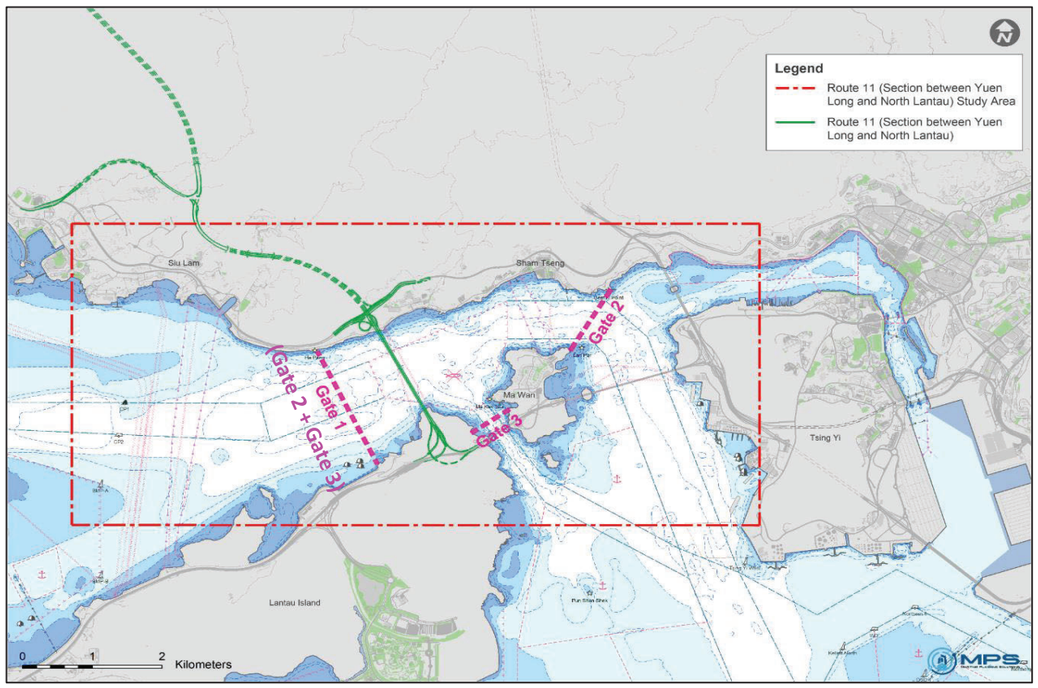
Appendix 3.10a

Emission Inventory and Source Locations for OGVs at Ha Pang Fairway in Year 2048

Annex I
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Oceangoing Vessels_Gate 2

Marine Traffic Information

Assessment Year 2048
Assessed Vessel Type Oceangoing Vessels
Gate 2



Marine Traffic Information from Marine Traffic Consultants

Location [1]	Monthly Vessel Count in Dec [2]	Travelling Speed (knots) [3]	Length of Sailing Route (m) [4]
Gate 2	1,683	12	2,400

Notes:

[1] According to the provided radar route data from Marine Traffic Consultant, there is no OGV passing by Gate 3. Emission of OGV at Gate 3 therefore is not calculated.

[2] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[3] Average speed of 12 knot is provided by Marine Traffic Consultant and assumed to be constant throughout the channel (i.e. Gate 1 to Gate 2).

[4] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [2]			Annual No. of Vessel Arrivals in Year 2019 [3]	Composite Emission Rate per Trip (g/s) [4]		
		NO_X	RSP	FSP		NOx	RSP	FSP
1	Cruise/Ferry	1.669	0.075	0.072	829	2.263	0.083	0.078
	Fully Cellular Container Vessel	2.309	0.083	0.078	15212			
	Semi-container Vessel	0.321	0.009	0.008	109			
2	Conventional Cargo Vessel	0.340	0.015	0.015	-	0.340	0.015	0.015
3	Dry Bulk Carrier	1.135	0.034	0.032	-	1.135	0.034	0.032
4	Chemical Carrier/Tanker	0.608	0.031	0.030	600	0.748	0.034	0.033
	Gas Carrier/Tanker	0.505	0.029	0.028	382			
	Oil Tanker	0.938	0.038	0.037	930			

Engine/Boiler in Operation

Engine/ Boiler	On (1) or Off (0) [2]
ME	1
AE	1
AB	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main engine, auxiliary engine and auxiliary boiler are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine/boiler in operation as indicated in the table "Engine/Boiler in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] Marine Traffic Consultant has provided the total number of OGVs but without breakdown into different vessel types. Hence, reference has been made to Marine Department's Vessels Arrivals by Ship Type and Ocean/River (https://www.mardep.gov.hk/en/fact/pdf/portstat_2_y_a2.pdf). Due to the pandemic situation, there was a significant change in marine traffic from Year 2020 to Year 2022. In view of this, the monthly profile of Year 2019 is considered the most appropriate and therefore adopted and assumed the same for future years.

[4] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine/Boiler Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Low Load Multiplier (when applicable) x (iv) Engine Power x (v) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 3-18, Table 3-21 and Table 3-24 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) Low Load Multiplier is made reference to Table 3-30 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iv) The average engine/boiler powers are made reference to Table 3-15, Table 3-16, Table 3-20, Table 3-21 and Table 3-23 of the Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(v) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 3-27, Table 3-28 and Table 3-30. International Maritime Organization's Tier II NOx control is applied, which assumed the average age of vessels is 37 years old in Year 2048 for conservative assessment. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_O1_001	POINT	823111	824057.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_002	POINT	823065.1	824035.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_003	POINT	823019.2	824014.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_004	POINT	822973.2	823992.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_005	POINT	822927.3	823971.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_006	POINT	822881.3	823950	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_007	POINT	822835.4	823928.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_008	POINT	822789.5	823907.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_009	POINT	822743.5	823885.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_010	POINT	822697.6	823864.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_011	POINT	822651.6	823842.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_012	POINT	822605.7	823821.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_013	POINT	822559.7	823799.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_014	POINT	822513.8	823778.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_015	POINT	822467.9	823757.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_016	POINT	822421.9	823735.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_017	POINT	822376	823714.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_018	POINT	822330	823692.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_019	POINT	822284.1	823671.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_020	POINT	822238.1	823649.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_021	POINT	822192.2	823628.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_022	POINT	822146.3	823607	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_023	POINT	822100.3	823585.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_024	POINT	822054.4	823564.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_025	POINT	822008.4	823542.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_026	POINT	821962.5	823521.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_027	POINT	821916.5	823499.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_028	POINT	821870.6	823478.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_029	POINT	821824.3	823457.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_030	POINT	821776.3	823442.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_031	POINT	821728.3	823427.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_032	POINT	821680.3	823411.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_033	POINT	821632.3	823396.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_034	POINT	821584.3	823381	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_035	POINT	821536.3	823365.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_036	POINT	821488.3	823350.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_037	POINT	821440.3	823334.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_038	POINT	821392.3	823319.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_039	POINT	821344.3	823304.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_040	POINT	821296.3	823288.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_041	POINT	821248.3	823273.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_042	POINT	821200.3	823258	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_043	POINT	821152.3	823242.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_044	POINT	821104.3	823227.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_O1_045	POINT	823109.7	824265.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_046	POINT	823062.1	824248.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_047	POINT	823014.6	824231.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_048	POINT	822967	824215	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_049	POINT	822919.4	824198.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_050	POINT	822871.9	824181.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_051	POINT	822824.3	824164.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_052	POINT	822776.8	824147.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_053	POINT	822729.2	824130.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_054	POINT	822681.6	824113.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_055	POINT	822634.1	824096.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_056	POINT	822586.5	824080	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_057	POINT	822539	824063.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_058	POINT	822491.4	824046.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_059	POINT	822443.8	824029.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_060	POINT	822396.3	824012.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_061	POINT	822348.7	823995.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_062	POINT	822301.2	823978.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_063	POINT	822253.6	823961.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_064	POINT	822206	823945	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_065	POINT	822158.5	823928.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_066	POINT	822110.9	823911.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_067	POINT	822063.3	823894.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_068	POINT	822015.8	823877.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_069	POINT	821968.2	823860.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_070	POINT	821920.7	823843.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_071	POINT	821873.1	823827	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_072	POINT	821825.5	823810.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_073	POINT	821777.8	823793.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_074	POINT	821728.9	823782.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_075	POINT	821680	823770.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_076	POINT	821631	823759.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_077	POINT	821582.1	823747.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_078	POINT	821533.2	823736.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_079	POINT	821484.2	823725	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_080	POINT	821435.3	823713.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_081	POINT	821386.4	823702.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_082	POINT	821337.4	823690.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_083	POINT	821288.5	823679.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_084	POINT	821239.5	823667.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_085	POINT	821190.6	823656.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_086	POINT	821141.7	823644.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_087	POINT	823100	823820.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_088	POINT	823056.1	823794.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_O1_089	POINT	823012.1	823768.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_090	POINT	822968.1	823742.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_091	POINT	822924.1	823717.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_092	POINT	822880.2	823691.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_093	POINT	822836.2	823665.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_094	POINT	822792.2	823639.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_095	POINT	822748.2	823614.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_096	POINT	822704.2	823588.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_097	POINT	822660.3	823562.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_098	POINT	822616.3	823536.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_099	POINT	822572.3	823511	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_100	POINT	822528.3	823485.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_101	POINT	822484.4	823459.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_102	POINT	822440.4	823433.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_103	POINT	822396.4	823407.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_104	POINT	822352.4	823382.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_105	POINT	822308.5	823356.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_106	POINT	822264.5	823330.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_107	POINT	822220.2	823305.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_108	POINT	822174.9	823282.4	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_109	POINT	822129.7	823259.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_110	POINT	822084.4	823236.3	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_111	POINT	822039.2	823213.2	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_112	POINT	821993.9	823190.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_113	POINT	821948.7	823167.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_114	POINT	821903.4	823144	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_115	POINT	821858.2	823120.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_116	POINT	821812.3	823099.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_117	POINT	821764.8	823082.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_118	POINT	821717.2	823065.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_119	POINT	821669.7	823048.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_120	POINT	821622.2	823031.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_121	POINT	821574.6	823014.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_122	POINT	821527.1	822997.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_123	POINT	821479.6	822980.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_124	POINT	821432	822963.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_125	POINT	821383.2	822952.5	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_126	POINT	821333.8	822943.6	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_127	POINT	821284.4	822934.7	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_128	POINT	821235	822925.8	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_129	POINT	821185.6	822916.9	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	1	G2_O1_130	POINT	821136.2	822908.1	0	34.2	537	24.6	1.9	1.74E-02	6.35E-04	5.96E-04
2	2	G2_O2_001	POINT	823111	824057.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_O2_002	POINT	823065.1	824035.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_003	POINT	823019.2	824014.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_004	POINT	822973.2	823992.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_005	POINT	822927.3	823971.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_006	POINT	822881.3	823950	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_007	POINT	822835.4	823928.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_008	POINT	822789.5	823907.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_009	POINT	822743.5	823885.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_010	POINT	822697.6	823864.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_011	POINT	822651.6	823842.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_012	POINT	822605.7	823821.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_013	POINT	822559.7	823799.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_014	POINT	822513.8	823778.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_015	POINT	822467.9	823757.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_016	POINT	822421.9	823735.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_017	POINT	822376	823714.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_018	POINT	822330	823692.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_019	POINT	822284.1	823671.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_020	POINT	822238.1	823649.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_021	POINT	822192.2	823628.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_022	POINT	822146.3	823607	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_023	POINT	822100.3	823585.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_024	POINT	822054.4	823564.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_025	POINT	822008.4	823542.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_026	POINT	821962.5	823521.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_027	POINT	821916.5	823499.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_028	POINT	821870.6	823478.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_029	POINT	821824.3	823457.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_030	POINT	821776.3	823442.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_031	POINT	821728.3	823427.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_032	POINT	821680.3	823411.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_033	POINT	821632.3	823396.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_034	POINT	821584.3	823381	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_035	POINT	821536.3	823365.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_036	POINT	821488.3	823350.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_037	POINT	821440.3	823334.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_038	POINT	821392.3	823319.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_039	POINT	821344.3	823304.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_040	POINT	821296.3	823288.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_041	POINT	821248.3	823273.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_042	POINT	821200.3	823258	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_043	POINT	821152.3	823242.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_044	POINT	821104.3	823227.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_045	POINT	823109.7	824265.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_O2_046	POINT	823062.1	824248.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_047	POINT	823014.6	824231.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_048	POINT	822967	824215	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_049	POINT	822919.4	824198.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_050	POINT	822871.9	824181.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_051	POINT	822824.3	824164.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_052	POINT	822776.8	824147.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_053	POINT	822729.2	824130.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_054	POINT	822681.6	824113.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_055	POINT	822634.1	824096.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_056	POINT	822586.5	824080	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_057	POINT	822539	824063.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_058	POINT	822491.4	824046.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_059	POINT	822443.8	824029.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_060	POINT	822396.3	824012.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_061	POINT	822348.7	823995.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_062	POINT	822301.2	823978.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_063	POINT	822253.6	823961.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_064	POINT	822206	823945	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_065	POINT	822158.5	823928.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_066	POINT	822110.9	823911.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_067	POINT	822063.3	823894.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_068	POINT	822015.8	823877.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_069	POINT	821968.2	823860.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_070	POINT	821920.7	823843.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_071	POINT	821873.1	823827	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_072	POINT	821825.5	823810.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_073	POINT	821777.8	823793.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_074	POINT	821728.9	823782.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_075	POINT	821680	823770.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_076	POINT	821631	823759.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_077	POINT	821582.1	823747.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_078	POINT	821533.2	823736.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_079	POINT	821484.2	823725	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_080	POINT	821435.3	823713.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_081	POINT	821386.4	823702.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_082	POINT	821337.4	823690.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_083	POINT	821288.5	823679.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_084	POINT	821239.5	823667.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_085	POINT	821190.6	823656.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_086	POINT	821141.7	823644.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_087	POINT	823100	823820.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_088	POINT	823056.1	823794.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_089	POINT	823012.1	823768.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_O2_090	POINT	822968.1	823742.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_091	POINT	822924.1	823717.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_092	POINT	822880.2	823691.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_093	POINT	822836.2	823665.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_094	POINT	822792.2	823639.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_095	POINT	822748.2	823614.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_096	POINT	822704.2	823588.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_097	POINT	822660.3	823562.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_098	POINT	822616.3	823536.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_099	POINT	822572.3	823511	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_100	POINT	822528.3	823485.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_101	POINT	822484.4	823459.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_102	POINT	822440.4	823433.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_103	POINT	822396.4	823407.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_104	POINT	822352.4	823382.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_105	POINT	822308.5	823356.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_106	POINT	822264.5	823330.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_107	POINT	822220.2	823305.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_108	POINT	822174.9	823282.4	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_109	POINT	822129.7	823259.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_110	POINT	822084.4	823236.3	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_111	POINT	822039.2	823213.2	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_112	POINT	821993.9	823190.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_113	POINT	821948.7	823167.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_114	POINT	821903.4	823144	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_115	POINT	821858.2	823120.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_116	POINT	821812.3	823099.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_117	POINT	821764.8	823082.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_118	POINT	821717.2	823065.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_119	POINT	821669.7	823048.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_120	POINT	821622.2	823031.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_121	POINT	821574.6	823014.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_122	POINT	821527.1	822997.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_123	POINT	821479.6	822980.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_124	POINT	821432	822963.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_125	POINT	821383.2	822952.5	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_126	POINT	821333.8	822943.6	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_127	POINT	821284.4	822934.7	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_128	POINT	821235	822925.8	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_129	POINT	821185.6	822916.9	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	2	G2_O2_130	POINT	821136.2	822908.1	0	11	555	25	0.8	2.61E-03	1.17E-04	1.12E-04
2	3	G2_O3_001	POINT	823111	824057.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_002	POINT	823065.1	824035.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	3	G2_O3_003	POINT	823019.2	824014.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_004	POINT	822973.2	823992.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_005	POINT	822927.3	823971.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_006	POINT	822881.3	823950	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_007	POINT	822835.4	823928.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_008	POINT	822789.5	823907.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_009	POINT	822743.5	823885.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_010	POINT	822697.6	823864.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_011	POINT	822651.6	823842.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_012	POINT	822605.7	823821.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_013	POINT	822559.7	823799.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_014	POINT	822513.8	823778.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_015	POINT	822467.9	823757.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_016	POINT	822421.9	823735.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_017	POINT	822376	823714.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_018	POINT	822330	823692.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_019	POINT	822284.1	823671.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_020	POINT	822238.1	823649.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_021	POINT	822192.2	823628.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_022	POINT	822146.3	823607	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_023	POINT	822100.3	823585.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_024	POINT	822054.4	823564.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_025	POINT	822008.4	823542.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_026	POINT	821962.5	823521.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_027	POINT	821916.5	823499.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_028	POINT	821870.6	823478.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_029	POINT	821824.3	823457.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_030	POINT	821776.3	823442.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_031	POINT	821728.3	823427.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_032	POINT	821680.3	823411.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_033	POINT	821632.3	823396.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_034	POINT	821584.3	823381	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_035	POINT	821536.3	823365.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_036	POINT	821488.3	823350.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_037	POINT	821440.3	823334.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_038	POINT	821392.3	823319.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_039	POINT	821344.3	823304.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_040	POINT	821296.3	823288.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_041	POINT	821248.3	823273.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_042	POINT	821200.3	823258	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_043	POINT	821152.3	823242.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_044	POINT	821104.3	823227.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_045	POINT	823109.7	824265.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_046	POINT	823062.1	824248.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	3	G2_O3_047	POINT	823014.6	824231.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_048	POINT	822967	824215	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_049	POINT	822919.4	824198.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_050	POINT	822871.9	824181.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_051	POINT	822824.3	824164.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_052	POINT	822776.8	824147.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_053	POINT	822729.2	824130.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_054	POINT	822681.6	824113.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_055	POINT	822634.1	824096.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_056	POINT	822586.5	824080	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_057	POINT	822539	824063.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_058	POINT	822491.4	824046.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_059	POINT	822443.8	824029.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_060	POINT	822396.3	824012.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_061	POINT	822348.7	823995.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_062	POINT	822301.2	823978.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_063	POINT	822253.6	823961.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_064	POINT	822206	823945	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_065	POINT	822158.5	823928.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_066	POINT	822110.9	823911.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_067	POINT	822063.3	823894.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_068	POINT	822015.8	823877.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_069	POINT	821968.2	823860.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_070	POINT	821920.7	823843.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_071	POINT	821873.1	823827	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_072	POINT	821825.5	823810.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_073	POINT	821777.8	823793.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_074	POINT	821728.9	823782.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_075	POINT	821680	823770.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_076	POINT	821631	823759.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_077	POINT	821582.1	823747.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_078	POINT	821533.2	823736.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_079	POINT	821484.2	823725	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_080	POINT	821435.3	823713.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_081	POINT	821386.4	823702.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_082	POINT	821337.4	823690.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_083	POINT	821288.5	823679.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_084	POINT	821239.5	823667.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_085	POINT	821190.6	823656.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_086	POINT	821141.7	823644.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_087	POINT	823100	823820.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_088	POINT	823056.1	823794.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_089	POINT	823012.1	823768.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_090	POINT	822968.1	823742.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	3	G2_O3_091	POINT	822924.1	823717.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_092	POINT	822880.2	823691.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_093	POINT	822836.2	823665.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_094	POINT	822792.2	823639.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_095	POINT	822748.2	823614.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_096	POINT	822704.2	823588.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_097	POINT	822660.3	823562.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_098	POINT	822616.3	823536.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_099	POINT	822572.3	823511	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_100	POINT	822528.3	823485.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_101	POINT	822484.4	823459.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_102	POINT	822440.4	823433.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_103	POINT	822396.4	823407.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_104	POINT	822352.4	823382.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_105	POINT	822308.5	823356.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_106	POINT	822264.5	823330.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_107	POINT	822220.2	823305.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_108	POINT	822174.9	823282.4	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_109	POINT	822129.7	823259.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_110	POINT	822084.4	823236.3	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_111	POINT	822039.2	823213.2	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_112	POINT	821993.9	823190.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_113	POINT	821948.7	823167.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_114	POINT	821903.4	823144	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_115	POINT	821858.2	823120.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_116	POINT	821812.3	823099.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_117	POINT	821764.8	823082.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_118	POINT	821717.2	823065.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_119	POINT	821669.7	823048.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_120	POINT	821622.2	823031.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_121	POINT	821574.6	823014.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_122	POINT	821527.1	822997.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_123	POINT	821479.6	822980.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_124	POINT	821432	822963.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_125	POINT	821383.2	822952.5	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_126	POINT	821333.8	822943.6	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_127	POINT	821284.4	822934.7	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_128	POINT	821235	822925.8	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_129	POINT	821185.6	822916.9	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	3	G2_O3_130	POINT	821136.2	822908.1	0	8	555	25	0.8	8.73E-03	2.63E-04	2.45E-04
2	4	G2_O4_001	POINT	823111	824057.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_002	POINT	823065.1	824035.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_003	POINT	823019.2	824014.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	4	G2_O4_004	POINT	822973.2	823992.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_005	POINT	822927.3	823971.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_006	POINT	822881.3	823950	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_007	POINT	822835.4	823928.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_008	POINT	822789.5	823907.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_009	POINT	822743.5	823885.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_010	POINT	822697.6	823864.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_011	POINT	822651.6	823842.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_012	POINT	822605.7	823821.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_013	POINT	822559.7	823799.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_014	POINT	822513.8	823778.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_015	POINT	822467.9	823757.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_016	POINT	822421.9	823735.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_017	POINT	822376	823714.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_018	POINT	822330	823692.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_019	POINT	822284.1	823671.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_020	POINT	822238.1	823649.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_021	POINT	822192.2	823628.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_022	POINT	822146.3	823607	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_023	POINT	822100.3	823585.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_024	POINT	822054.4	823564.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_025	POINT	822008.4	823542.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_026	POINT	821962.5	823521.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_027	POINT	821916.5	823499.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_028	POINT	821870.6	823478.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_029	POINT	821824.3	823457.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_030	POINT	821776.3	823442.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_031	POINT	821728.3	823427.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_032	POINT	821680.3	823411.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_033	POINT	821632.3	823396.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_034	POINT	821584.3	823381	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_035	POINT	821536.3	823365.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_036	POINT	821488.3	823350.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_037	POINT	821440.3	823334.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_038	POINT	821392.3	823319.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_039	POINT	821344.3	823304.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_040	POINT	821296.3	823288.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_041	POINT	821248.3	823273.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_042	POINT	821200.3	823258	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_043	POINT	821152.3	823242.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_044	POINT	821104.3	823227.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_045	POINT	823109.7	824265.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_046	POINT	823062.1	824248.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_047	POINT	823014.6	824231.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	4	G2_O4_048	POINT	822967	824215	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_049	POINT	822919.4	824198.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_050	POINT	822871.9	824181.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_051	POINT	822824.3	824164.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_052	POINT	822776.8	824147.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_053	POINT	822729.2	824130.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_054	POINT	822681.6	824113.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_055	POINT	822634.1	824096.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_056	POINT	822586.5	824080	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_057	POINT	822539	824063.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_058	POINT	822491.4	824046.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_059	POINT	822443.8	824029.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_060	POINT	822396.3	824012.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_061	POINT	822348.7	823995.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_062	POINT	822301.2	823978.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_063	POINT	822253.6	823961.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_064	POINT	822206	823945	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_065	POINT	822158.5	823928.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_066	POINT	822110.9	823911.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_067	POINT	822063.3	823894.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_068	POINT	822015.8	823877.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_069	POINT	821968.2	823860.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_070	POINT	821920.7	823843.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_071	POINT	821873.1	823827	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_072	POINT	821825.5	823810.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_073	POINT	821777.8	823793.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_074	POINT	821728.9	823782.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_075	POINT	821680	823770.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_076	POINT	821631	823759.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_077	POINT	821582.1	823747.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_078	POINT	821533.2	823736.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_079	POINT	821484.2	823725	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_080	POINT	821435.3	823713.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_081	POINT	821386.4	823702.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_082	POINT	821337.4	823690.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_083	POINT	821288.5	823679.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_084	POINT	821239.5	823667.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_085	POINT	821190.6	823656.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_086	POINT	821141.7	823644.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_087	POINT	823100	823820.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_088	POINT	823056.1	823794.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_089	POINT	823012.1	823768.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_090	POINT	822968.1	823742.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_091	POINT	822924.1	823717.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	4	G2_O4_092	POINT	822880.2	823691.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_093	POINT	822836.2	823665.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_094	POINT	822792.2	823639.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_095	POINT	822748.2	823614.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_096	POINT	822704.2	823588.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_097	POINT	822660.3	823562.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_098	POINT	822616.3	823536.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_099	POINT	822572.3	823511	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_100	POINT	822528.3	823485.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_101	POINT	822484.4	823459.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_102	POINT	822440.4	823433.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_103	POINT	822396.4	823407.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_104	POINT	822352.4	823382.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_105	POINT	822308.5	823356.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_106	POINT	822264.5	823330.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_107	POINT	822220.2	823305.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_108	POINT	822174.9	823282.4	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_109	POINT	822129.7	823259.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_110	POINT	822084.4	823236.3	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_111	POINT	822039.2	823213.2	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_112	POINT	821993.9	823190.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_113	POINT	821948.7	823167.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_114	POINT	821903.4	823144	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_115	POINT	821858.2	823120.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_116	POINT	821812.3	823099.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_117	POINT	821764.8	823082.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_118	POINT	821717.2	823065.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_119	POINT	821669.7	823048.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_120	POINT	821622.2	823031.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_121	POINT	821574.6	823014.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_122	POINT	821527.1	822997.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_123	POINT	821479.6	822980.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_124	POINT	821432	822963.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_125	POINT	821383.2	822952.5	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_126	POINT	821333.8	822943.6	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_127	POINT	821284.4	822934.7	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_128	POINT	821235	822925.8	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_129	POINT	821185.6	822916.9	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04
2	4	G2_O4_130	POINT	821136.2	822908.1	0	20	555	25	0.8	5.76E-03	2.64E-04	2.52E-04

Notes:

[1] Modelling parameters are referred to "Generating an Hour-By-Hour Model-Ready Marine Emission Inventory, RWDI Air Inc. and Environment Canada, US EPA 17th International Emission Inventory Conference, 2-5 June 2008, Portland, Oregon", approved EIA of Tuen Mun South Extension (AERIAR-236/2022), and approved EIA of Lei Yue Mun Waterfront Enhancement Project (AERIAR-219/2018).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	1,683

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Multiplying Factor dervied from Marine Traffic in Year 2019

Month	Total No. of Arrivals by OGVs [1]	Monthly Multiplying Factor
Jan-19	2,255	0.95
Feb-19	1,650	0.69
Mar-19	2,132	0.90
Apr-19	2,128	0.90
May-19	2,091	0.88
Jun-19	2,093	0.88
Jul-19	2,140	0.90
Aug-19	2,118	0.89
Sep-19	2,138	0.90
Oct-19	2,108	0.89
Nov-19	2,159	0.91
Dec-19	**2,376**	**1.00**

Notes:

[1] Since no monthly profile is available from Marine Traffic Consultant, the annual vessel count is calculated based on monthly profile in "Monthly Vessel Arrivals by Ocean/River and Cargo/Passenger Vessels" published by Marine Department (https://www.mardep.gov.hk/en/fact/pdf/portstat_2_m_a1.pdf). Due to the pandemic situation, there was a significant change in marine traffic from Year 2020 to Year 2022. In view of this, the monthly profile of Year 2019 is considered the most appropriate and therefore adopted and assumed the same for future years.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 2	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	77	4.6%
1	2	53	3.1%
2	3	41	2.4%
3	4	33	2.0%
4	5	48	2.9%
5	6	56	3.3%
6	7	77	4.6%
7	8	79	4.7%
8	9	89	5.3%
9	10	104	6.2%
10	11	100	5.9%
11	12	107	6.4%
12	13	75	4.5%
13	14	70	4.2%
14	15	48	2.9%
15	16	81	4.8%
16	17	67	4.0%
17	18	83	4.9%
18	19	60	3.6%
19	20	68	4.0%
20	21	68	4.0%
21	22	62	3.7%
22	23	63	3.7%
23	24	74	4.4%

Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 77 marine vessels for the first hour during the whole December.

Legend

- Gate 2 OGV Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

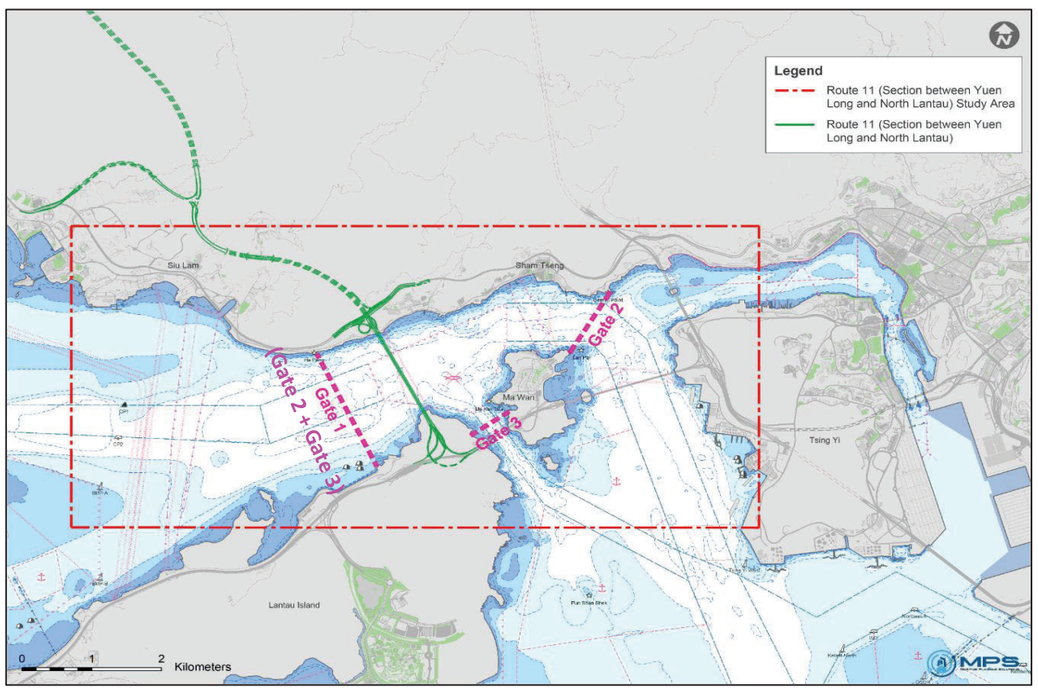
Appendix 3.10b

Emission Inventory and Source Locations for RTVs at Ha Pang Fairway in Year 2048

Annex I
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
River Trade Vessels_Gate 2

Marine Traffic Information

Assessment Year 2048
Assessed Vessel Type River Trade Vessels
Gate 2



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 2	10,689	6	3,100

Notes:

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 6 knot is provided by Marine Traffic Consultant and assumed to be constant throughout the channel (i.e. Gate 1 to Gate 2).

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [2]			Annual No. of Vessel Arrivals in Year 2019 [3]	Composite Emission Rate per Trip (g/s) [4]		
		NO_X	RSP	FSP		NOx	RSP	FSP
1	Fully Cellular Container Vessel	0.138	0.004	0.004	34718	0.136	0.004	0.004
	Semi-container Vessel	0.128	0.004	0.004	9943			
2	Conventional Cargo Vessel	0.127	0.004	0.004	-	0.127	0.015	0.014
3	Dry Bulk Carrier	0.134	0.004	0.004	-	0.134	0.004	0.004
4	Tug	0.427	0.023	0.022	-	0.427	0.023	0.022
5	Chemical Carrier	0.338	0.015	0.014	247	0.341	0.015	0.014
	Gas Carrier	0.343	0.015	0.015	134			
	Oil Tanker	0.343	0.015	0.015	419			
6	Mechanised Lighter/Barge/Cargo Junk	0.151	0.005	0.005	-	0.151	0.005	0.005

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] Marine Traffic Consultant has provided the total number of RTVs but without breakdown into different vessel types. Hence, reference has been made to Marine Department's Vessels Arrivals by Ship Type and Ocean/River (https://www.mardep.gov.hk/en/fact/pdf/portstat_2_y_a2.pdf). Due to the pandemic situation, there was a significant change in marine traffic from Year 2020 to Year 2022. In view of this, the monthly profile of Year 2019 is considered the most appropriate and therefore adopted and assumed the same for future years.

[4] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 4-7, Table 4-10 and Table 3-24 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The average engine powers are made reference to Table 4-5 and Table 4-6 of the Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-16. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_R1_001	POINT	822595.8	824407.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_002	POINT	822548.2	824390.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_003	POINT	822500.7	824373.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_004	POINT	822453.2	824356.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_005	POINT	822405.7	824339.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_006	POINT	822358.2	824322.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_007	POINT	822310.7	824305.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_008	POINT	822263.2	824288.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_009	POINT	822215.7	824271.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_010	POINT	822168.2	824254.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_011	POINT	822120.4	824238.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_012	POINT	822072.2	824223.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_013	POINT	822024	824208.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_014	POINT	821975.8	824194.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_015	POINT	821927.6	824179.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_016	POINT	821879.3	824165.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_017	POINT	821830.9	824151.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_018	POINT	821782.5	824137.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_019	POINT	821734.1	824124	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_020	POINT	821685.7	824110.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_021	POINT	821637.2	824096.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_022	POINT	821588.8	824082.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_023	POINT	821540.4	824069	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_024	POINT	821492	824055.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_025	POINT	821443.6	824041.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_026	POINT	821394.9	824029.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_027	POINT	821345.3	824021.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_028	POINT	821295.8	824013.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_029	POINT	821246.2	824005.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_030	POINT	821196.6	823998.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_031	POINT	821147.1	823990.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_032	POINT	821097.5	823982.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_033	POINT	821048	823974.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_034	POINT	820998.4	823966.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_035	POINT	823096.3	824077.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_036	POINT	823051	824054.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_037	POINT	823005.8	824031.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_038	POINT	822960.6	824008	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_039	POINT	822915.4	823984.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_040	POINT	822870.1	823961.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_041	POINT	822824.9	823938.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_042	POINT	822779.7	823915.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_043	POINT	822734.4	823892.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_044	POINT	822689.2	823869.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_045	POINT	822644	823846.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_R1_046	POINT	822598.8	823823	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_047	POINT	822553.5	823799.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_048	POINT	822508.3	823776.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_049	POINT	822463.1	823753.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_050	POINT	822417.8	823730.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_051	POINT	822372.6	823707.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_052	POINT	822327.4	823684.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_053	POINT	822282.2	823661.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_054	POINT	822236.9	823638	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_055	POINT	822191.7	823614.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_056	POINT	822146.5	823591.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_057	POINT	822100.5	823570.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_058	POINT	822054.5	823549	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_059	POINT	822008.5	823527.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_060	POINT	821962.5	823506.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_061	POINT	821916.5	823485.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_062	POINT	821870.6	823463.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_063	POINT	821824.6	823442.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_064	POINT	821778.6	823421.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_065	POINT	821732.6	823399.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_066	POINT	821686.6	823378.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_067	POINT	821640.6	823357.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_068	POINT	821594.6	823335.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_069	POINT	821548.6	823314.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_070	POINT	821502.6	823293.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_071	POINT	821456.6	823272	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_072	POINT	821410.6	823250.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_073	POINT	821364.6	823229.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_074	POINT	821318.6	823208	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_075	POINT	821272.6	823186.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_076	POINT	821226.6	823165.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_077	POINT	821180.6	823144.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_078	POINT	821134.6	823122.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_079	POINT	823119.7	823587.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_080	POINT	823075.8	823561.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_081	POINT	823031.9	823535.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_082	POINT	822988	823509.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_083	POINT	822944.2	823483.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_084	POINT	822900.3	823457.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_085	POINT	822856.4	823431.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_086	POINT	822812.5	823405.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_087	POINT	822768.7	823379.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_088	POINT	822724.8	823353.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_089	POINT	822680.9	823327.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_090	POINT	822637	823301.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_R1_091	POINT	822593.1	823275.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_092	POINT	822549.2	823249.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_093	POINT	822505.4	823223.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_094	POINT	822461.5	823197.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_095	POINT	822417.6	823171.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_096	POINT	822373.7	823145.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_097	POINT	822329.8	823119.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_098	POINT	822286	823093.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_099	POINT	822242.1	823067.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_100	POINT	822198.2	823042	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_101	POINT	822154.3	823016	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_102	POINT	822110.4	822990.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_103	POINT	822065.8	822965.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_104	POINT	822021.2	822941	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_105	POINT	821976.7	822916.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_106	POINT	821932.1	822891.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_107	POINT	821887.5	822867.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_108	POINT	821842.9	822842.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_109	POINT	821798.4	822818.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_110	POINT	821753.8	822793.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_111	POINT	821709.2	822769.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_112	POINT	821664.6	822744.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_113	POINT	821620	822720.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_114	POINT	821575.5	822695.6	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_115	POINT	821530.9	822671	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_116	POINT	821486.3	822646.5	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_117	POINT	821441.7	822621.9	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_118	POINT	821397.1	822597.4	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_119	POINT	821352.6	822572.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_120	POINT	821308	822548.3	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_121	POINT	821263.4	822523.8	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_122	POINT	821218.8	822499.2	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_123	POINT	821174.2	822474.7	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	1	G2_R1_124	POINT	821129.7	822450.1	0	34.2	537	24.6	1.9	1.10E-03	3.52E-05	3.41E-05
2	2	G2_R2_001	POINT	822595.8	824407.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_002	POINT	822548.2	824390.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_003	POINT	822500.7	824373.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_004	POINT	822453.2	824356.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_005	POINT	822405.7	824339.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_006	POINT	822358.2	824322.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_007	POINT	822310.7	824305.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_008	POINT	822263.2	824288.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_009	POINT	822215.7	824271.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_010	POINT	822168.2	824254.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_011	POINT	822120.4	824238.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_R2_012	POINT	822072.2	824223.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_013	POINT	822024	824208.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_014	POINT	821975.8	824194.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_015	POINT	821927.6	824179.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_016	POINT	821879.3	824165.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_017	POINT	821830.9	824151.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_018	POINT	821782.5	824137.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_019	POINT	821734.1	824124	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_020	POINT	821685.7	824110.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_021	POINT	821637.2	824096.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_022	POINT	821588.8	824082.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_023	POINT	821540.4	824069	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_024	POINT	821492	824055.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_025	POINT	821443.6	824041.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_026	POINT	821394.9	824029.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_027	POINT	821345.3	824021.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_028	POINT	821295.8	824013.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_029	POINT	821246.2	824005.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_030	POINT	821196.6	823998.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_031	POINT	821147.1	823990.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_032	POINT	821097.5	823982.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_033	POINT	821048	823974.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_034	POINT	820998.4	823966.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_035	POINT	823096.3	824077.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_036	POINT	823051	824054.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_037	POINT	823005.8	824031.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_038	POINT	822960.6	824008	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_039	POINT	822915.4	823984.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_040	POINT	822870.1	823961.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_041	POINT	822824.9	823938.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_042	POINT	822779.7	823915.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_043	POINT	822734.4	823892.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_044	POINT	822689.2	823869.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_045	POINT	822644	823846.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_046	POINT	822598.8	823823	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_047	POINT	822553.5	823799.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_048	POINT	822508.3	823776.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_049	POINT	822463.1	823753.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_050	POINT	822417.8	823730.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_051	POINT	822372.6	823707.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_052	POINT	822327.4	823684.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_053	POINT	822282.2	823661.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_054	POINT	822236.9	823638	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_055	POINT	822191.7	823614.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_056	POINT	822146.5	823591.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_R2_057	POINT	822100.5	823570.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_058	POINT	822054.5	823549	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_059	POINT	822008.5	823527.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_060	POINT	821962.5	823506.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_061	POINT	821916.5	823485.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_062	POINT	821870.6	823463.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_063	POINT	821824.6	823442.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_064	POINT	821778.6	823421.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_065	POINT	821732.6	823399.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_066	POINT	821686.6	823378.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_067	POINT	821640.6	823357.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_068	POINT	821594.6	823335.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_069	POINT	821548.6	823314.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_070	POINT	821502.6	823293.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_071	POINT	821456.6	823272	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_072	POINT	821410.6	823250.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_073	POINT	821364.6	823229.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_074	POINT	821318.6	823208	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_075	POINT	821272.6	823186.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_076	POINT	821226.6	823165.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_077	POINT	821180.6	823144.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_078	POINT	821134.6	823122.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_079	POINT	823119.7	823587.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_080	POINT	823075.8	823561.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_081	POINT	823031.9	823535.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_082	POINT	822988	823509.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_083	POINT	822944.2	823483.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_084	POINT	822900.3	823457.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_085	POINT	822856.4	823431.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_086	POINT	822812.5	823405.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_087	POINT	822768.7	823379.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_088	POINT	822724.8	823353.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_089	POINT	822680.9	823327.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_090	POINT	822637	823301.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_091	POINT	822593.1	823275.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_092	POINT	822549.2	823249.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_093	POINT	822505.4	823223.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_094	POINT	822461.5	823197.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_095	POINT	822417.6	823171.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_096	POINT	822373.7	823145.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_097	POINT	822329.8	823119.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_098	POINT	822286	823093.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_099	POINT	822242.1	823067.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_100	POINT	822198.2	823042	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_101	POINT	822154.3	823016	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_R2_102	POINT	822110.4	822990.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_103	POINT	822065.8	822965.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_104	POINT	822021.2	822941	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_105	POINT	821976.7	822916.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_106	POINT	821932.1	822891.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_107	POINT	821887.5	822867.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_108	POINT	821842.9	822842.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_109	POINT	821798.4	822818.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_110	POINT	821753.8	822793.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_111	POINT	821709.2	822769.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_112	POINT	821664.6	822744.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_113	POINT	821620	822720.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_114	POINT	821575.5	822695.6	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_115	POINT	821530.9	822671	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_116	POINT	821486.3	822646.5	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_117	POINT	821441.7	822621.9	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_118	POINT	821397.1	822597.4	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_119	POINT	821352.6	822572.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_120	POINT	821308	822548.3	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_121	POINT	821263.4	822523.8	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_122	POINT	821218.8	822499.2	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_123	POINT	821174.2	822474.7	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	2	G2_R2_124	POINT	821129.7	822450.1	0	11	555	25	0.8	1.03E-03	1.20E-04	1.17E-04
2	3	G2_R3_001	POINT	822595.8	824407.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_002	POINT	822548.2	824390.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_003	POINT	822500.7	824373.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_004	POINT	822453.2	824356.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_005	POINT	822405.7	824339.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_006	POINT	822358.2	824322.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_007	POINT	822310.7	824305.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_008	POINT	822263.2	824288.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_009	POINT	822215.7	824271.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_010	POINT	822168.2	824254.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_011	POINT	822120.4	824238.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_012	POINT	822072.2	824223.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_013	POINT	822024	824208.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_014	POINT	821975.8	824194.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_015	POINT	821927.6	824179.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_016	POINT	821879.3	824165.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_017	POINT	821830.9	824151.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_018	POINT	821782.5	824137.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_019	POINT	821734.1	824124	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_020	POINT	821685.7	824110.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_021	POINT	821637.2	824096.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_022	POINT	821588.8	824082.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	3	G2_R3_023	POINT	821540.4	824069	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_024	POINT	821492	824055.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_025	POINT	821443.6	824041.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_026	POINT	821394.9	824029.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_027	POINT	821345.3	824021.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_028	POINT	821295.8	824013.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_029	POINT	821246.2	824005.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_030	POINT	821196.6	823998.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_031	POINT	821147.1	823990.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_032	POINT	821097.5	823982.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_033	POINT	821048	823974.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_034	POINT	820998.4	823966.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_035	POINT	823096.3	824077.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_036	POINT	823051	824054.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_037	POINT	823005.8	824031.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_038	POINT	822960.6	824008	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_039	POINT	822915.4	823984.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_040	POINT	822870.1	823961.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_041	POINT	822824.9	823938.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_042	POINT	822779.7	823915.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_043	POINT	822734.4	823892.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_044	POINT	822689.2	823869.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_045	POINT	822644	823846.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_046	POINT	822598.8	823823	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_047	POINT	822553.5	823799.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_048	POINT	822508.3	823776.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_049	POINT	822463.1	823753.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_050	POINT	822417.8	823730.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_051	POINT	822372.6	823707.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_052	POINT	822327.4	823684.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_053	POINT	822282.2	823661.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_054	POINT	822236.9	823638	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_055	POINT	822191.7	823614.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_056	POINT	822146.5	823591.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_057	POINT	822100.5	823570.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_058	POINT	822054.5	823549	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_059	POINT	822008.5	823527.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_060	POINT	821962.5	823506.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_061	POINT	821916.5	823485.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_062	POINT	821870.6	823463.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_063	POINT	821824.6	823442.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_064	POINT	821778.6	823421.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_065	POINT	821732.6	823399.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_066	POINT	821686.6	823378.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_067	POINT	821640.6	823357.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	3	G2_R3_068	POINT	821594.6	823335.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_069	POINT	821548.6	823314.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_070	POINT	821502.6	823293.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_071	POINT	821456.6	823272	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_072	POINT	821410.6	823250.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_073	POINT	821364.6	823229.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_074	POINT	821318.6	823208	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_075	POINT	821272.6	823186.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_076	POINT	821226.6	823165.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_077	POINT	821180.6	823144.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_078	POINT	821134.6	823122.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_079	POINT	823119.7	823587.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_080	POINT	823075.8	823561.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_081	POINT	823031.9	823535.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_082	POINT	822988	823509.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_083	POINT	822944.2	823483.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_084	POINT	822900.3	823457.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_085	POINT	822856.4	823431.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_086	POINT	822812.5	823405.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_087	POINT	822768.7	823379.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_088	POINT	822724.8	823353.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_089	POINT	822680.9	823327.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_090	POINT	822637	823301.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_091	POINT	822593.1	823275.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_092	POINT	822549.2	823249.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_093	POINT	822505.4	823223.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_094	POINT	822461.5	823197.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_095	POINT	822417.6	823171.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_096	POINT	822373.7	823145.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_097	POINT	822329.8	823119.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_098	POINT	822286	823093.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_099	POINT	822242.1	823067.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_100	POINT	822198.2	823042	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_101	POINT	822154.3	823016	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_102	POINT	822110.4	822990.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_103	POINT	822065.8	822965.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_104	POINT	822021.2	822941	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_105	POINT	821976.7	822916.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_106	POINT	821932.1	822891.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_107	POINT	821887.5	822867.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_108	POINT	821842.9	822842.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_109	POINT	821798.4	822818.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_110	POINT	821753.8	822793.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_111	POINT	821709.2	822769.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_112	POINT	821664.6	822744.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	3	G2_R3_113	POINT	821620	822720.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_114	POINT	821575.5	822695.6	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_115	POINT	821530.9	822671	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_116	POINT	821486.3	822646.5	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_117	POINT	821441.7	822621.9	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_118	POINT	821397.1	822597.4	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_119	POINT	821352.6	822572.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_120	POINT	821308	822548.3	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_121	POINT	821263.4	822523.8	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_122	POINT	821218.8	822499.2	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_123	POINT	821174.2	822474.7	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	3	G2_R3_124	POINT	821129.7	822450.1	0	8	555	25	0.8	1.08E-03	3.46E-05	3.35E-05
2	4	G2_R4_001	POINTHOR	822595.8	824407.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_002	POINTHOR	822548.2	824390.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_003	POINTHOR	822500.7	824373.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_004	POINTHOR	822453.2	824356.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_005	POINTHOR	822405.7	824339.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_006	POINTHOR	822358.2	824322.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_007	POINTHOR	822310.7	824305.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_008	POINTHOR	822263.2	824288.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_009	POINTHOR	822215.7	824271.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_010	POINTHOR	822168.2	824254.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_011	POINTHOR	822120.4	824238.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_012	POINTHOR	822072.2	824223.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_013	POINTHOR	822024	824208.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_014	POINTHOR	821975.8	824194.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_015	POINTHOR	821927.6	824179.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_016	POINTHOR	821879.3	824165.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_017	POINTHOR	821830.9	824151.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_018	POINTHOR	821782.5	824137.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_019	POINTHOR	821734.1	824124	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_020	POINTHOR	821685.7	824110.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_021	POINTHOR	821637.2	824096.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_022	POINTHOR	821588.8	824082.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_023	POINTHOR	821540.4	824069	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_024	POINTHOR	821492	824055.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_025	POINTHOR	821443.6	824041.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_026	POINTHOR	821394.9	824029.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_027	POINTHOR	821345.3	824021.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_028	POINTHOR	821295.8	824013.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_029	POINTHOR	821246.2	824005.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_030	POINTHOR	821196.6	823998.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_031	POINTHOR	821147.1	823990.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_032	POINTHOR	821097.5	823982.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_033	POINTHOR	821048	823974.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	4	G2_R4_034	POINTHOR	820998.4	823966.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_035	POINTHOR	823096.3	824077.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_036	POINTHOR	823051	824054.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_037	POINTHOR	823005.8	824031.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_038	POINTHOR	822960.6	824008	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_039	POINTHOR	822915.4	823984.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_040	POINTHOR	822870.1	823961.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_041	POINTHOR	822824.9	823938.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_042	POINTHOR	822779.7	823915.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_043	POINTHOR	822734.4	823892.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_044	POINTHOR	822689.2	823869.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_045	POINTHOR	822644	823846.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_046	POINTHOR	822598.8	823823	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_047	POINTHOR	822553.5	823799.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_048	POINTHOR	822508.3	823776.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_049	POINTHOR	822463.1	823753.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_050	POINTHOR	822417.8	823730.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_051	POINTHOR	822372.6	823707.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_052	POINTHOR	822327.4	823684.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_053	POINTHOR	822282.2	823661.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_054	POINTHOR	822236.9	823638	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_055	POINTHOR	822191.7	823614.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_056	POINTHOR	822146.5	823591.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_057	POINTHOR	822100.5	823570.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_058	POINTHOR	822054.5	823549	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_059	POINTHOR	822008.5	823527.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_060	POINTHOR	821962.5	823506.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_061	POINTHOR	821916.5	823485.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_062	POINTHOR	821870.6	823463.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_063	POINTHOR	821824.6	823442.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_064	POINTHOR	821778.6	823421.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_065	POINTHOR	821732.6	823399.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_066	POINTHOR	821686.6	823378.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_067	POINTHOR	821640.6	823357.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_068	POINTHOR	821594.6	823335.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_069	POINTHOR	821548.6	823314.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_070	POINTHOR	821502.6	823293.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_071	POINTHOR	821456.6	823272	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_072	POINTHOR	821410.6	823250.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_073	POINTHOR	821364.6	823229.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_074	POINTHOR	821318.6	823208	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_075	POINTHOR	821272.6	823186.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_076	POINTHOR	821226.6	823165.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_077	POINTHOR	821180.6	823144.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_078	POINTHOR	821134.6	823122.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	4	G2_R4_079	POINTHOR	823119.7	823587.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_080	POINTHOR	823075.8	823561.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_081	POINTHOR	823031.9	823535.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_082	POINTHOR	822988	823509.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_083	POINTHOR	822944.2	823483.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_084	POINTHOR	822900.3	823457.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_085	POINTHOR	822856.4	823431.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_086	POINTHOR	822812.5	823405.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_087	POINTHOR	822768.7	823379.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_088	POINTHOR	822724.8	823353.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_089	POINTHOR	822680.9	823327.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_090	POINTHOR	822637	823301.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_091	POINTHOR	822593.1	823275.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_092	POINTHOR	822549.2	823249.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_093	POINTHOR	822505.4	823223.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_094	POINTHOR	822461.5	823197.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_095	POINTHOR	822417.6	823171.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_096	POINTHOR	822373.7	823145.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_097	POINTHOR	822329.8	823119.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_098	POINTHOR	822286	823093.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_099	POINTHOR	822242.1	823067.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_100	POINTHOR	822198.2	823042	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_101	POINTHOR	822154.3	823016	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_102	POINTHOR	822110.4	822990.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_103	POINTHOR	822065.8	822965.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_104	POINTHOR	822021.2	822941	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_105	POINTHOR	821976.7	822916.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_106	POINTHOR	821932.1	822891.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_107	POINTHOR	821887.5	822867.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_108	POINTHOR	821842.9	822842.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_109	POINTHOR	821798.4	822818.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_110	POINTHOR	821753.8	822793.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_111	POINTHOR	821709.2	822769.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_112	POINTHOR	821664.6	822744.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_113	POINTHOR	821620	822720.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_114	POINTHOR	821575.5	822695.6	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_115	POINTHOR	821530.9	822671	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_116	POINTHOR	821486.3	822646.5	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_117	POINTHOR	821441.7	822621.9	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_118	POINTHOR	821397.1	822597.4	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_119	POINTHOR	821352.6	822572.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_120	POINTHOR	821308	822548.3	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_121	POINTHOR	821263.4	822523.8	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_122	POINTHOR	821218.8	822499.2	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	4	G2_R4_123	POINTHOR	821174.2	822474.7	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	4	G2_R4_124	POINTHOR	821129.7	822450.1	0	4	694.7	8	0.3	3.44E-03	1.84E-04	1.79E-04
2	5	G2_R5_001	POINT	822595.8	824407.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_002	POINT	822548.2	824390.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_003	POINT	822500.7	824373.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_004	POINT	822453.2	824356.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_005	POINT	822405.7	824339.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_006	POINT	822358.2	824322.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_007	POINT	822310.7	824305.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_008	POINT	822263.2	824288.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_009	POINT	822215.7	824271.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_010	POINT	822168.2	824254.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_011	POINT	822120.4	824238.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_012	POINT	822072.2	824223.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_013	POINT	822024	824208.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_014	POINT	821975.8	824194.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_015	POINT	821927.6	824179.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_016	POINT	821879.3	824165.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_017	POINT	821830.9	824151.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_018	POINT	821782.5	824137.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_019	POINT	821734.1	824124	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_020	POINT	821685.7	824110.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_021	POINT	821637.2	824096.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_022	POINT	821588.8	824082.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_023	POINT	821540.4	824069	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_024	POINT	821492	824055.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_025	POINT	821443.6	824041.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_026	POINT	821394.9	824029.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_027	POINT	821345.3	824021.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_028	POINT	821295.8	824013.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_029	POINT	821246.2	824005.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_030	POINT	821196.6	823998.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_031	POINT	821147.1	823990.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_032	POINT	821097.5	823982.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_033	POINT	821048	823974.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_034	POINT	820998.4	823966.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_035	POINT	823096.3	824077.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_036	POINT	823051	824054.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_037	POINT	823005.8	824031.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_038	POINT	822960.6	824008	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_039	POINT	822915.4	823984.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_040	POINT	822870.1	823961.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_041	POINT	822824.9	823938.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_042	POINT	822779.7	823915.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_043	POINT	822734.4	823892.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_044	POINT	822689.2	823869.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	5	G2_R5_045	POINT	822644	823846.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_046	POINT	822598.8	823823	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_047	POINT	822553.5	823799.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_048	POINT	822508.3	823776.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_049	POINT	822463.1	823753.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_050	POINT	822417.8	823730.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_051	POINT	822372.6	823707.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_052	POINT	822327.4	823684.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_053	POINT	822282.2	823661.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_054	POINT	822236.9	823638	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_055	POINT	822191.7	823614.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_056	POINT	822146.5	823591.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_057	POINT	822100.5	823570.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_058	POINT	822054.5	823549	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_059	POINT	822008.5	823527.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_060	POINT	821962.5	823506.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_061	POINT	821916.5	823485.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_062	POINT	821870.6	823463.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_063	POINT	821824.6	823442.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_064	POINT	821778.6	823421.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_065	POINT	821732.6	823399.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_066	POINT	821686.6	823378.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_067	POINT	821640.6	823357.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_068	POINT	821594.6	823335.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_069	POINT	821548.6	823314.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_070	POINT	821502.6	823293.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_071	POINT	821456.6	823272	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_072	POINT	821410.6	823250.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_073	POINT	821364.6	823229.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_074	POINT	821318.6	823208	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_075	POINT	821272.6	823186.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_076	POINT	821226.6	823165.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_077	POINT	821180.6	823144.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_078	POINT	821134.6	823122.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_079	POINT	823119.7	823587.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_080	POINT	823075.8	823561.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_081	POINT	823031.9	823535.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_082	POINT	822988	823509.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_083	POINT	822944.2	823483.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_084	POINT	822900.3	823457.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_085	POINT	822856.4	823431.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_086	POINT	822812.5	823405.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_087	POINT	822768.7	823379.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_088	POINT	822724.8	823353.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_089	POINT	822680.9	823327.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	5	G2_R5_090	POINT	822637	823301.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_091	POINT	822593.1	823275.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_092	POINT	822549.2	823249.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_093	POINT	822505.4	823223.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_094	POINT	822461.5	823197.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_095	POINT	822417.6	823171.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_096	POINT	822373.7	823145.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_097	POINT	822329.8	823119.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_098	POINT	822286	823093.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_099	POINT	822242.1	823067.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_100	POINT	822198.2	823042	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_101	POINT	822154.3	823016	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_102	POINT	822110.4	822990.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_103	POINT	822065.8	822965.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_104	POINT	822021.2	822941	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_105	POINT	821976.7	822916.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_106	POINT	821932.1	822891.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_107	POINT	821887.5	822867.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_108	POINT	821842.9	822842.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_109	POINT	821798.4	822818.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_110	POINT	821753.8	822793.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_111	POINT	821709.2	822769.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_112	POINT	821664.6	822744.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_113	POINT	821620	822720.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_114	POINT	821575.5	822695.6	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_115	POINT	821530.9	822671	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_116	POINT	821486.3	822646.5	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_117	POINT	821441.7	822621.9	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_118	POINT	821397.1	822597.4	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_119	POINT	821352.6	822572.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_120	POINT	821308	822548.3	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_121	POINT	821263.4	822523.8	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_122	POINT	821218.8	822499.2	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_123	POINT	821174.2	822474.7	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	5	G2_R5_124	POINT	821129.7	822450.1	0	20	555	25	0.8	2.75E-03	1.20E-04	1.17E-04
2	6	G2_R6_001	POINT	822595.8	824407.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_002	POINT	822548.2	824390.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_003	POINT	822500.7	824373.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_004	POINT	822453.2	824356.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_005	POINT	822405.7	824339.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_006	POINT	822358.2	824322.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_007	POINT	822310.7	824305.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_008	POINT	822263.2	824288.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_009	POINT	822215.7	824271.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_010	POINT	822168.2	824254.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	6	G2_R6_011	POINT	822120.4	824238.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_012	POINT	822072.2	824223.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_013	POINT	822024	824208.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_014	POINT	821975.8	824194.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_015	POINT	821927.6	824179.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_016	POINT	821879.3	824165.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_017	POINT	821830.9	824151.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_018	POINT	821782.5	824137.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_019	POINT	821734.1	824124	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_020	POINT	821685.7	824110.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_021	POINT	821637.2	824096.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_022	POINT	821588.8	824082.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_023	POINT	821540.4	824069	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_024	POINT	821492	824055.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_025	POINT	821443.6	824041.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_026	POINT	821394.9	824029.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_027	POINT	821345.3	824021.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_028	POINT	821295.8	824013.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_029	POINT	821246.2	824005.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_030	POINT	821196.6	823998.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_031	POINT	821147.1	823990.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_032	POINT	821097.5	823982.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_033	POINT	821048	823974.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_034	POINT	820998.4	823966.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_035	POINT	823096.3	824077.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_036	POINT	823051	824054.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_037	POINT	823005.8	824031.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_038	POINT	822960.6	824008	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_039	POINT	822915.4	823984.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_040	POINT	822870.1	823961.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_041	POINT	822824.9	823938.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_042	POINT	822779.7	823915.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_043	POINT	822734.4	823892.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_044	POINT	822689.2	823869.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_045	POINT	822644	823846.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_046	POINT	822598.8	823823	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_047	POINT	822553.5	823799.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_048	POINT	822508.3	823776.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_049	POINT	822463.1	823753.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_050	POINT	822417.8	823730.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_051	POINT	822372.6	823707.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_052	POINT	822327.4	823684.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_053	POINT	822282.2	823661.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_054	POINT	822236.9	823638	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_055	POINT	822191.7	823614.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	6	G2_R6_056	POINT	822146.5	823591.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_057	POINT	822100.5	823570.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_058	POINT	822054.5	823549	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_059	POINT	822008.5	823527.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_060	POINT	821962.5	823506.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_061	POINT	821916.5	823485.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_062	POINT	821870.6	823463.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_063	POINT	821824.6	823442.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_064	POINT	821778.6	823421.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_065	POINT	821732.6	823399.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_066	POINT	821686.6	823378.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_067	POINT	821640.6	823357.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_068	POINT	821594.6	823335.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_069	POINT	821548.6	823314.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_070	POINT	821502.6	823293.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_071	POINT	821456.6	823272	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_072	POINT	821410.6	823250.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_073	POINT	821364.6	823229.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_074	POINT	821318.6	823208	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_075	POINT	821272.6	823186.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_076	POINT	821226.6	823165.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_077	POINT	821180.6	823144.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_078	POINT	821134.6	823122.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_079	POINT	823119.7	823587.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_080	POINT	823075.8	823561.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_081	POINT	823031.9	823535.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_082	POINT	822988	823509.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_083	POINT	822944.2	823483.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_084	POINT	822900.3	823457.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_085	POINT	822856.4	823431.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_086	POINT	822812.5	823405.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_087	POINT	822768.7	823379.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_088	POINT	822724.8	823353.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_089	POINT	822680.9	823327.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_090	POINT	822637	823301.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_091	POINT	822593.1	823275.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_092	POINT	822549.2	823249.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_093	POINT	822505.4	823223.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_094	POINT	822461.5	823197.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_095	POINT	822417.6	823171.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_096	POINT	822373.7	823145.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_097	POINT	822329.8	823119.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_098	POINT	822286	823093.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_099	POINT	822242.1	823067.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_100	POINT	822198.2	823042	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	6	G2_R6_101	POINT	822154.3	823016	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_102	POINT	822110.4	822990.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_103	POINT	822065.8	822965.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_104	POINT	822021.2	822941	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_105	POINT	821976.7	822916.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_106	POINT	821932.1	822891.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_107	POINT	821887.5	822867.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_108	POINT	821842.9	822842.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_109	POINT	821798.4	822818.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_110	POINT	821753.8	822793.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_111	POINT	821709.2	822769.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_112	POINT	821664.6	822744.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_113	POINT	821620	822720.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_114	POINT	821575.5	822695.6	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_115	POINT	821530.9	822671	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_116	POINT	821486.3	822646.5	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_117	POINT	821441.7	822621.9	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_118	POINT	821397.1	822597.4	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_119	POINT	821352.6	822572.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_120	POINT	821308	822548.3	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_121	POINT	821263.4	822523.8	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_122	POINT	821218.8	822499.2	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_123	POINT	821174.2	822474.7	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05
2	6	G2_R6_124	POINT	821129.7	822450.1	0	11	588	8	0.2	1.22E-03	3.97E-05	3.85E-05

Notes:

[1] Modelling parameters are referred to "Generating an Hour-By-Hour Model-Ready Marine Emission Inventory, RWDI Air Inc. and Environment Canada, US EPA 17th International Emission Inventory Conference, 2-5 June 2008, Portland, Oregon", approved EIA of Tuen Mun South Extension (AERIAR-236/2022), and approved EIA of Lei Yue Mun Waterfront Enhancement Project (AERIAR-219/2018).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	10,689

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Multiplying Factor dervied from Marine Traffic in Year 2019

Month	Total No. of Arrivals by RTVs [1]	Monthly Multiplying Factor
Jan-19	5,820	1.03
Feb-19	3,401	0.60
Mar-19	5,783	1.03
Apr-19	5,411	0.96
May-19	5,766	1.02
Jun-19	5,456	0.97
Jul-19	5,645	1.00
Aug-19	5,659	1.00
Sep-19	5,382	0.96
Oct-19	5,160	0.92
Nov-19	5,534	0.98
Dec-19	**5,632**	**1.00**

Notes:

[1] Since no monthly profile is available from Marine Traffic Consultant, the annual vessel count is calculated based on monthly profile in "Monthly Vessel Arrivals by Ocean/River and Cargo/Passenger Vessels" published by Marine Department (https://www.mardep.gov.hk/en/fact/pdf/portstat_2_m_a1.pdf). Due to the pandemic situation, there was a significant change in marine traffic from Year 2020 to Year 2022. In view of this, the monthly profile of Year 2019 is considered the most appropriate and therefore adopted and assumed the same for future years.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 2	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	324	3.0%
1	2	260	2.4%
2	3	235	2.2%
3	4	246	2.3%
4	5	211	2.0%
5	6	258	2.4%
6	7	329	3.1%
7	8	276	2.6%
8	9	291	2.7%
9	10	364	3.4%
10	11	510	4.8%
11	12	551	5.2%
12	13	547	5.1%
13	14	509	4.8%
14	15	451	4.2%
15	16	529	4.9%
16	17	776	7.3%
17	18	746	7.0%
18	19	722	6.8%
19	20	630	5.9%
20	21	545	5.1%
21	22	494	4.6%
22	23	504	4.7%
23	24	381	3.6%

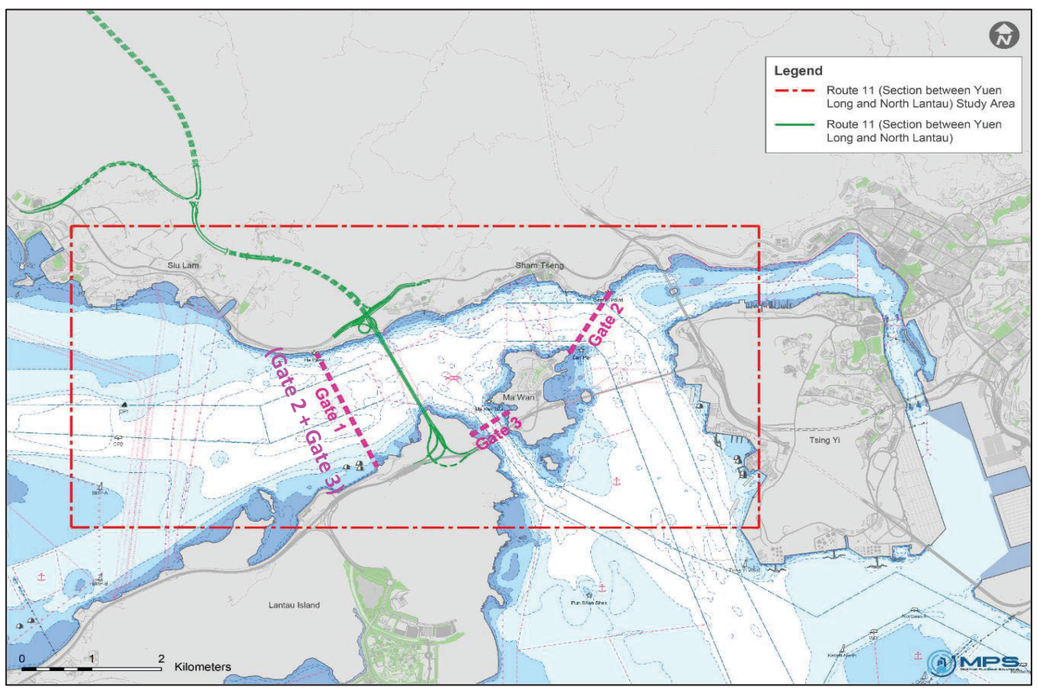
Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 324 marine vessels for the first hour during the whole December.

Annex II
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
River Trade Vessels_Gate 3

Marine Traffic Information

Assessment Year 2048
Assessed Vessel Type River Trade Vessels
Gate 3



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 3	5,578	6	4,500

Notes:

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 6 knot is provided by Marine Traffic Consultant and assumed to be constant throughout the channel (i.e. Gate 1 to Gate 3).

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [2]			Annual No. of Vessel Arrivals in Year 2019 [3]	Composite Emission Rate per Trip (g/s) [4]		
		NO_X	RSP	FSP		NOx	RSP	FSP
1	Fully Cellular Container Vessel	0.201	0.006	0.006	34718	0.198	0.006	0.006
	Semi-container Vessel	0.186	0.006	0.006	9943			
2	Conventional Cargo Vessel	0.185	0.006	0.006	4297	0.185	0.009	0.008
3	Dry Bulk Carrier	0.194	0.006	0.006	12405	0.194	0.006	0.006
4	Tug	0.619	0.033	0.032	1283	0.619	0.033	0.032
5	Chemical Carrier	0.491	0.022	0.021	247	0.496	0.022	0.021
	Gas Carrier	0.498	0.022	0.021	134			
	Oil Tanker	0.498	0.022	0.021	419			
6	Mechanised Lighter/Barge/Cargo Junk	0.219	0.007	0.007	918	0.219	0.007	0.007

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] Marine Traffic Consultant has provided the total number of RTVs but without breakdown into different vessel types. Hence, reference has been made to Marine Department's Vessels Arrivals by Ship Type and Ocean/River (https://www.mardep.gov.hk/en/fact/pdf/portstat_2_y_a2.pdf). Due to the pandemic situation, there was a significant change in marine traffic from Year 2020 to Year 2022. In view of this, the monthly profile of Year 2019 is considered the most appropriate and therefore adopted and assumed the same for future years.

[4] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 4-7, Table 4-10 and Table 3-24 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The average engine powers are made reference to Table 4-5 and Table 4-6 of the Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-16. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_R1_001	POINT	824150.4	822438.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_002	POINT	824118.8	822480.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_003	POINT	824087.2	822521.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_004	POINT	824055.7	822563.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_005	POINT	824024.1	822605.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_006	POINT	823992.5	822647.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_007	POINT	823961	822689.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_008	POINT	823929.4	822730.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_009	POINT	823897.8	822772.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_010	POINT	823866.3	822814.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_011	POINT	823834.7	822856.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_012	POINT	823803.1	822898.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_013	POINT	823771.6	822939.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_014	POINT	823740	822981.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_015	POINT	823708.4	823023.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_016	POINT	823676.9	823065.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_017	POINT	823645.9	823107.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_018	POINT	823615.2	823150.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_019	POINT	823584.6	823192.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_020	POINT	823554	823235.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_021	POINT	823523.3	823277.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_022	POINT	823492.7	823320.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_023	POINT	823462.1	823363.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_024	POINT	823431.4	823405.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_025	POINT	823393.6	823439.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_026	POINT	823350.8	823467.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_027	POINT	823307.9	823495.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_028	POINT	823265.1	823523.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_029	POINT	823222.3	823551.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_030	POINT	823179.5	823579.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_031	POINT	823134.6	823602.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_032	POINT	823088.2	823623	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_033	POINT	823041.8	823643.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_034	POINT	822995.4	823663.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_035	POINT	822949	823683.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_036	POINT	822902.6	823703.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_037	POINT	822856.1	823724	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_038	POINT	822809.7	823744.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_039	POINT	822763.3	823764.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_040	POINT	822716.9	823784.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_041	POINT	822670.5	823804.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_042	POINT	822624.1	823825.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_043	POINT	822577.7	823845.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_044	POINT	822531.2	823865.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_045	POINT	822482.6	823878.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_R1_046	POINT	822433.7	823889.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_047	POINT	822384.8	823901.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_048	POINT	822335.9	823912.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_049	POINT	822287	823924.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_050	POINT	822238.1	823935.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_051	POINT	822189.1	823947.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_052	POINT	822140.2	823958.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_053	POINT	822091.3	823970.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_054	POINT	822042.1	823977.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_055	POINT	821992.2	823973.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_056	POINT	821942.3	823969	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_057	POINT	821892.4	823964.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_058	POINT	821842.5	823960.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_059	POINT	821792.6	823955.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_060	POINT	821742.7	823951.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_061	POINT	821692.8	823946.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_062	POINT	821642.9	823942.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_063	POINT	821592.9	823937.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_064	POINT	821543	823933.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_065	POINT	821493	823931.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_066	POINT	821443	823928.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_067	POINT	821393	823925.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_068	POINT	821342.9	823922.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_069	POINT	821292.9	823920.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_070	POINT	821242.9	823917.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_071	POINT	821192.9	823914.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_072	POINT	821142.9	823912	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_073	POINT	821092.9	823909.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_074	POINT	824031.8	822428.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_075	POINT	823999.6	822469.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_076	POINT	823967.4	822510.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_077	POINT	823935.2	822552	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_078	POINT	823903	822593.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_079	POINT	823870.8	822634.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_080	POINT	823838.6	822675.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_081	POINT	823806.5	822716.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_082	POINT	823774.3	822758.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_083	POINT	823742.1	822799.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_084	POINT	823709.9	822840.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_085	POINT	823677.7	822881.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_086	POINT	823645.5	822923.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_087	POINT	823613.3	822964.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_088	POINT	823575.2	822998.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_089	POINT	823534.9	823030.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_090	POINT	823494.7	823063	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_R1_091	POINT	823454.5	823095.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_092	POINT	823414.3	823127.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_093	POINT	823374.1	823159.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_094	POINT	823333.9	823191.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_095	POINT	823293.7	823223.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_096	POINT	823253.4	823255.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_097	POINT	823213.2	823287.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_098	POINT	823173	823319.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_099	POINT	823128.7	823343.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_100	POINT	823081.2	823360.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_101	POINT	823033.6	823377.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_102	POINT	822986.1	823394	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_103	POINT	822938.5	823410.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_104	POINT	822891	823427.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_105	POINT	822843.1	823443.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_106	POINT	822794	823454.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_107	POINT	822745	823464.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_108	POINT	822695.9	823475.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_109	POINT	822646.8	823486.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_110	POINT	822597.7	823497	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_111	POINT	822547.9	823501.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_112	POINT	822498	823505.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_113	POINT	822448	823509.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_114	POINT	822398.1	823513.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_115	POINT	822348.1	823517.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_116	POINT	822298.2	823522	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_117	POINT	822248.3	823526	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_118	POINT	822198.5	823524.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_119	POINT	822148.8	823517.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_120	POINT	822099.1	823510.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_121	POINT	822049.5	823503.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_122	POINT	821999.8	823496.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_123	POINT	821950.2	823489.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_124	POINT	821900.5	823482.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_125	POINT	821850.8	823475.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_126	POINT	821801.5	823466.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_127	POINT	821752.4	823455.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_128	POINT	821703.3	823445.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_129	POINT	821654.2	823434.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_130	POINT	821605.1	823424.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_131	POINT	821556	823413.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_132	POINT	821506.9	823403	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_133	POINT	821457.7	823392.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_134	POINT	821408.6	823381.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_135	POINT	821359.5	823371.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_R1_136	POINT	821310.4	823360.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_137	POINT	821261.3	823350.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_138	POINT	821212.2	823339.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_139	POINT	821163	823329.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_140	POINT	821113.9	823318.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_141	POINT	823926.2	822425.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_142	POINT	823890	822462.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_143	POINT	823853.7	822499.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_144	POINT	823817.5	822537.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_145	POINT	823781.2	822574.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_146	POINT	823745	822611.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_147	POINT	823708.7	822648.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_148	POINT	823672.5	822685.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_149	POINT	823636.2	822722.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_150	POINT	823600	822759.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_151	POINT	823563.7	822797.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_152	POINT	823527.5	822834.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_153	POINT	823488.5	822867.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_154	POINT	823448.2	822899.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_155	POINT	823408	822931.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_156	POINT	823367.7	822963.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_157	POINT	823327.5	822996	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_158	POINT	823287.2	823028	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_159	POINT	823247	823060	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_160	POINT	823206.7	823092.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_161	POINT	823166.5	823124.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_162	POINT	823123	823149.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_163	POINT	823075.6	823166.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_164	POINT	823028.1	823184	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_165	POINT	822980.7	823201.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_166	POINT	822932.9	823217.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_167	POINT	822884.6	823231.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_168	POINT	822836.4	823246	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_169	POINT	822788.1	823260.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_170	POINT	822739.9	823274.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_171	POINT	822692.4	823265.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_172	POINT	822645.4	823247.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_173	POINT	822598.3	823229.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_174	POINT	822551.2	823210.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_175	POINT	822504.1	823192.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_176	POINT	822457.1	823174	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_177	POINT	822411.8	823150.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_178	POINT	822366.6	823127.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_179	POINT	822321.4	823104.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_180	POINT	822276.2	823081.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_R1_181	POINT	822231	823058.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_182	POINT	822185.7	823035.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_183	POINT	822140.5	823012	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_184	POINT	822095.3	822988.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_185	POINT	822050.1	822965.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_186	POINT	822004.9	822942.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_187	POINT	821959.6	822919.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_188	POINT	821914.4	822896.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_189	POINT	821869.2	822873.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_190	POINT	821824	822849.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_191	POINT	821778.8	822826.8	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_192	POINT	821733.5	822803.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_193	POINT	821688.3	822780.5	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_194	POINT	821643.1	822757.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_195	POINT	821597.9	822734.2	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_196	POINT	821552.6	822711	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_197	POINT	821507.4	822687.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_198	POINT	821462.2	822664.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_199	POINT	821417	822641.6	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_200	POINT	821371.8	822618.4	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_201	POINT	821326.5	822595.3	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_202	POINT	821281.3	822572.1	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_203	POINT	821236.1	822549	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_204	POINT	821190.9	822525.9	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	1	G3_R1_205	POINT	821145.6	822502.7	0	34.2	537	24.6	1.9	9.64E-04	3.09E-05	3.00E-05
3	2	G3_R2_001	POINT	824150.4	822438.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_002	POINT	824118.8	822480.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_003	POINT	824087.2	822521.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_004	POINT	824055.7	822563.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_005	POINT	824024.1	822605.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_006	POINT	823992.5	822647.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_007	POINT	823961	822689.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_008	POINT	823929.4	822730.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_009	POINT	823897.8	822772.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_010	POINT	823866.3	822814.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_011	POINT	823834.7	822856.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_012	POINT	823803.1	822898.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_013	POINT	823771.6	822939.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_014	POINT	823740	822981.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_015	POINT	823708.4	823023.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_016	POINT	823676.9	823065.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_017	POINT	823645.9	823107.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_018	POINT	823615.2	823150.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_019	POINT	823584.6	823192.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_020	POINT	823554	823235.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_R2_021	POINT	823523.3	823277.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_022	POINT	823492.7	823320.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_023	POINT	823462.1	823363.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_024	POINT	823431.4	823405.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_025	POINT	823393.6	823439.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_026	POINT	823350.8	823467.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_027	POINT	823307.9	823495.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_028	POINT	823265.1	823523.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_029	POINT	823222.3	823551.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_030	POINT	823179.5	823579.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_031	POINT	823134.6	823602.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_032	POINT	823088.2	823623	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_033	POINT	823041.8	823643.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_034	POINT	822995.4	823663.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_035	POINT	822949	823683.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_036	POINT	822902.6	823703.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_037	POINT	822856.1	823724	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_038	POINT	822809.7	823744.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_039	POINT	822763.3	823764.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_040	POINT	822716.9	823784.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_041	POINT	822670.5	823804.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_042	POINT	822624.1	823825.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_043	POINT	822577.7	823845.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_044	POINT	822531.2	823865.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_045	POINT	822482.6	823878.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_046	POINT	822433.7	823889.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_047	POINT	822384.8	823901.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_048	POINT	822335.9	823912.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_049	POINT	822287	823924.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_050	POINT	822238.1	823935.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_051	POINT	822189.1	823947.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_052	POINT	822140.2	823958.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_053	POINT	822091.3	823970.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_054	POINT	822042.1	823977.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_055	POINT	821992.2	823973.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_056	POINT	821942.3	823969	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_057	POINT	821892.4	823964.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_058	POINT	821842.5	823960.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_059	POINT	821792.6	823955.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_060	POINT	821742.7	823951.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_061	POINT	821692.8	823946.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_062	POINT	821642.9	823942.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_063	POINT	821592.9	823937.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_064	POINT	821543	823933.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_065	POINT	821493	823931.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_R2_066	POINT	821443	823928.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_067	POINT	821393	823925.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_068	POINT	821342.9	823922.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_069	POINT	821292.9	823920.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_070	POINT	821242.9	823917.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_071	POINT	821192.9	823914.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_072	POINT	821142.9	823912	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_073	POINT	821092.9	823909.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_074	POINT	824031.8	822428.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_075	POINT	823999.6	822469.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_076	POINT	823967.4	822510.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_077	POINT	823935.2	822552	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_078	POINT	823903	822593.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_079	POINT	823870.8	822634.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_080	POINT	823838.6	822675.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_081	POINT	823806.5	822716.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_082	POINT	823774.3	822758.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_083	POINT	823742.1	822799.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_084	POINT	823709.9	822840.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_085	POINT	823677.7	822881.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_086	POINT	823645.5	822923.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_087	POINT	823613.3	822964.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_088	POINT	823575.2	822998.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_089	POINT	823534.9	823030.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_090	POINT	823494.7	823063	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_091	POINT	823454.5	823095.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_092	POINT	823414.3	823127.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_093	POINT	823374.1	823159.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_094	POINT	823333.9	823191.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_095	POINT	823293.7	823223.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_096	POINT	823253.4	823255.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_097	POINT	823213.2	823287.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_098	POINT	823173	823319.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_099	POINT	823128.7	823343.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_100	POINT	823081.2	823360.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_101	POINT	823033.6	823377.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_102	POINT	822986.1	823394	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_103	POINT	822938.5	823410.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_104	POINT	822891	823427.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_105	POINT	822843.1	823443.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_106	POINT	822794	823454.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_107	POINT	822745	823464.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_108	POINT	822695.9	823475.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_109	POINT	822646.8	823486.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_110	POINT	822597.7	823497	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_R2_111	POINT	822547.9	823501.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_112	POINT	822498	823505.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_113	POINT	822448	823509.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_114	POINT	822398.1	823513.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_115	POINT	822348.1	823517.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_116	POINT	822298.2	823522	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_117	POINT	822248.3	823526	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_118	POINT	822198.5	823524.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_119	POINT	822148.8	823517.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_120	POINT	822099.1	823510.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_121	POINT	822049.5	823503.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_122	POINT	821999.8	823496.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_123	POINT	821950.2	823489.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_124	POINT	821900.5	823482.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_125	POINT	821850.8	823475.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_126	POINT	821801.5	823466.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_127	POINT	821752.4	823455.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_128	POINT	821703.3	823445.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_129	POINT	821654.2	823434.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_130	POINT	821605.1	823424.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_131	POINT	821556	823413.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_132	POINT	821506.9	823403	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_133	POINT	821457.7	823392.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_134	POINT	821408.6	823381.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_135	POINT	821359.5	823371.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_136	POINT	821310.4	823360.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_137	POINT	821261.3	823350.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_138	POINT	821212.2	823339.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_139	POINT	821163	823329.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_140	POINT	821113.9	823318.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_141	POINT	823926.2	822425.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_142	POINT	823890	822462.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_143	POINT	823853.7	822499.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_144	POINT	823817.5	822537.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_145	POINT	823781.2	822574.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_146	POINT	823745	822611.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_147	POINT	823708.7	822648.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_148	POINT	823672.5	822685.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_149	POINT	823636.2	822722.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_150	POINT	823600	822759.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_151	POINT	823563.7	822797.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_152	POINT	823527.5	822834.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_153	POINT	823488.5	822867.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_154	POINT	823448.2	822899.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_155	POINT	823408	822931.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_R2_156	POINT	823367.7	822963.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_157	POINT	823327.5	822996	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_158	POINT	823287.2	823028	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_159	POINT	823247	823060	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_160	POINT	823206.7	823092.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_161	POINT	823166.5	823124.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_162	POINT	823123	823149.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_163	POINT	823075.6	823166.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_164	POINT	823028.1	823184	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_165	POINT	822980.7	823201.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_166	POINT	822932.9	823217.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_167	POINT	822884.6	823231.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_168	POINT	822836.4	823246	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_169	POINT	822788.1	823260.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_170	POINT	822739.9	823274.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_171	POINT	822692.4	823265.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_172	POINT	822645.4	823247.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_173	POINT	822598.3	823229.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_174	POINT	822551.2	823210.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_175	POINT	822504.1	823192.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_176	POINT	822457.1	823174	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_177	POINT	822411.8	823150.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_178	POINT	822366.6	823127.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_179	POINT	822321.4	823104.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_180	POINT	822276.2	823081.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_181	POINT	822231	823058.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_182	POINT	822185.7	823035.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_183	POINT	822140.5	823012	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_184	POINT	822095.3	822988.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_185	POINT	822050.1	822965.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_186	POINT	822004.9	822942.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_187	POINT	821959.6	822919.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_188	POINT	821914.4	822896.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_189	POINT	821869.2	822873.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_190	POINT	821824	822849.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_191	POINT	821778.8	822826.8	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_192	POINT	821733.5	822803.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_193	POINT	821688.3	822780.5	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_194	POINT	821643.1	822757.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_195	POINT	821597.9	822734.2	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_196	POINT	821552.6	822711	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_197	POINT	821507.4	822687.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_198	POINT	821462.2	822664.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_199	POINT	821417	822641.6	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_200	POINT	821371.8	822618.4	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_R2_201	POINT	821326.5	822595.3	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_202	POINT	821281.3	822572.1	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_203	POINT	821236.1	822549	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_204	POINT	821190.9	822525.9	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	2	G3_R2_205	POINT	821145.6	822502.7	0	11	555	25	0.8	9.02E-04	4.19E-05	4.06E-05
3	3	G3_R3_001	POINT	824150.4	822438.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_002	POINT	824118.8	822480.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_003	POINT	824087.2	822521.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_004	POINT	824055.7	822563.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_005	POINT	824024.1	822605.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_006	POINT	823992.5	822647.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_007	POINT	823961	822689.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_008	POINT	823929.4	822730.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_009	POINT	823897.8	822772.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_010	POINT	823866.3	822814.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_011	POINT	823834.7	822856.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_012	POINT	823803.1	822898.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_013	POINT	823771.6	822939.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_014	POINT	823740	822981.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_015	POINT	823708.4	823023.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_016	POINT	823676.9	823065.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_017	POINT	823645.9	823107.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_018	POINT	823615.2	823150.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_019	POINT	823584.6	823192.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_020	POINT	823554	823235.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_021	POINT	823523.3	823277.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_022	POINT	823492.7	823320.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_023	POINT	823462.1	823363.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_024	POINT	823431.4	823405.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_025	POINT	823393.6	823439.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_026	POINT	823350.8	823467.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_027	POINT	823307.9	823495.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_028	POINT	823265.1	823523.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_029	POINT	823222.3	823551.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_030	POINT	823179.5	823579.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_031	POINT	823134.6	823602.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_032	POINT	823088.2	823623	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_033	POINT	823041.8	823643.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_034	POINT	822995.4	823663.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_035	POINT	822949	823683.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_036	POINT	822902.6	823703.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_037	POINT	822856.1	823724	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_038	POINT	822809.7	823744.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_039	POINT	822763.3	823764.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_040	POINT	822716.9	823784.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	3	G3_R3_041	POINT	822670.5	823804.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_042	POINT	822624.1	823825.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_043	POINT	822577.7	823845.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_044	POINT	822531.2	823865.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_045	POINT	822482.6	823878.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_046	POINT	822433.7	823889.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_047	POINT	822384.8	823901.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_048	POINT	822335.9	823912.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_049	POINT	822287	823924.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_050	POINT	822238.1	823935.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_051	POINT	822189.1	823947.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_052	POINT	822140.2	823958.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_053	POINT	822091.3	823970.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_054	POINT	822042.1	823977.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_055	POINT	821992.2	823973.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_056	POINT	821942.3	823969	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_057	POINT	821892.4	823964.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_058	POINT	821842.5	823960.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_059	POINT	821792.6	823955.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_060	POINT	821742.7	823951.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_061	POINT	821692.8	823946.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_062	POINT	821642.9	823942.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_063	POINT	821592.9	823937.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_064	POINT	821543	823933.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_065	POINT	821493	823931.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_066	POINT	821443	823928.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_067	POINT	821393	823925.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_068	POINT	821342.9	823922.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_069	POINT	821292.9	823920.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_070	POINT	821242.9	823917.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_071	POINT	821192.9	823914.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_072	POINT	821142.9	823912	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_073	POINT	821092.9	823909.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_074	POINT	824031.8	822428.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_075	POINT	823999.6	822469.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_076	POINT	823967.4	822510.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_077	POINT	823935.2	822552	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_078	POINT	823903	822593.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_079	POINT	823870.8	822634.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_080	POINT	823838.6	822675.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_081	POINT	823806.5	822716.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_082	POINT	823774.3	822758.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_083	POINT	823742.1	822799.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_084	POINT	823709.9	822840.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_085	POINT	823677.7	822881.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	3	G3_R3_086	POINT	823645.5	822923.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_087	POINT	823613.3	822964.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_088	POINT	823575.2	822998.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_089	POINT	823534.9	823030.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_090	POINT	823494.7	823063	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_091	POINT	823454.5	823095.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_092	POINT	823414.3	823127.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_093	POINT	823374.1	823159.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_094	POINT	823333.9	823191.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_095	POINT	823293.7	823223.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_096	POINT	823253.4	823255.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_097	POINT	823213.2	823287.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_098	POINT	823173	823319.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_099	POINT	823128.7	823343.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_100	POINT	823081.2	823360.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_101	POINT	823033.6	823377.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_102	POINT	822986.1	823394	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_103	POINT	822938.5	823410.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_104	POINT	822891	823427.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_105	POINT	822843.1	823443.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_106	POINT	822794	823454.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_107	POINT	822745	823464.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_108	POINT	822695.9	823475.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_109	POINT	822646.8	823486.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_110	POINT	822597.7	823497	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_111	POINT	822547.9	823501.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_112	POINT	822498	823505.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_113	POINT	822448	823509.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_114	POINT	822398.1	823513.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_115	POINT	822348.1	823517.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_116	POINT	822298.2	823522	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_117	POINT	822248.3	823526	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_118	POINT	822198.5	823524.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_119	POINT	822148.8	823517.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_120	POINT	822099.1	823510.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_121	POINT	822049.5	823503.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_122	POINT	821999.8	823496.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_123	POINT	821950.2	823489.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_124	POINT	821900.5	823482.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_125	POINT	821850.8	823475.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_126	POINT	821801.5	823466.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_127	POINT	821752.4	823455.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_128	POINT	821703.3	823445.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_129	POINT	821654.2	823434.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_130	POINT	821605.1	823424.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	3	G3_R3_131	POINT	821556	823413.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_132	POINT	821506.9	823403	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_133	POINT	821457.7	823392.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_134	POINT	821408.6	823381.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_135	POINT	821359.5	823371.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_136	POINT	821310.4	823360.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_137	POINT	821261.3	823350.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_138	POINT	821212.2	823339.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_139	POINT	821163	823329.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_140	POINT	821113.9	823318.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_141	POINT	823926.2	822425.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_142	POINT	823890	822462.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_143	POINT	823853.7	822499.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_144	POINT	823817.5	822537.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_145	POINT	823781.2	822574.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_146	POINT	823745	822611.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_147	POINT	823708.7	822648.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_148	POINT	823672.5	822685.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_149	POINT	823636.2	822722.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_150	POINT	823600	822759.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_151	POINT	823563.7	822797.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_152	POINT	823527.5	822834.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_153	POINT	823488.5	822867.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_154	POINT	823448.2	822899.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_155	POINT	823408	822931.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_156	POINT	823367.7	822963.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_157	POINT	823327.5	822996	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_158	POINT	823287.2	823028	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_159	POINT	823247	823060	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_160	POINT	823206.7	823092.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_161	POINT	823166.5	823124.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_162	POINT	823123	823149.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_163	POINT	823075.6	823166.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_164	POINT	823028.1	823184	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_165	POINT	822980.7	823201.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_166	POINT	822932.9	823217.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_167	POINT	822884.6	823231.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_168	POINT	822836.4	823246	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_169	POINT	822788.1	823260.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_170	POINT	822739.9	823274.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_171	POINT	822692.4	823265.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_172	POINT	822645.4	823247.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_173	POINT	822598.3	823229.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_174	POINT	822551.2	823210.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_175	POINT	822504.1	823192.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	3	G3_R3_176	POINT	822457.1	823174	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_177	POINT	822411.8	823150.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_178	POINT	822366.6	823127.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_179	POINT	822321.4	823104.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_180	POINT	822276.2	823081.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_181	POINT	822231	823058.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_182	POINT	822185.7	823035.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_183	POINT	822140.5	823012	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_184	POINT	822095.3	822988.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_185	POINT	822050.1	822965.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_186	POINT	822004.9	822942.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_187	POINT	821959.6	822919.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_188	POINT	821914.4	822896.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_189	POINT	821869.2	822873.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_190	POINT	821824	822849.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_191	POINT	821778.8	822826.8	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_192	POINT	821733.5	822803.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_193	POINT	821688.3	822780.5	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_194	POINT	821643.1	822757.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_195	POINT	821597.9	822734.2	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_196	POINT	821552.6	822711	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_197	POINT	821507.4	822687.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_198	POINT	821462.2	822664.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_199	POINT	821417	822641.6	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_200	POINT	821371.8	822618.4	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_201	POINT	821326.5	822595.3	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_202	POINT	821281.3	822572.1	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_203	POINT	821236.1	822549	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_204	POINT	821190.9	822525.9	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	3	G3_R3_205	POINT	821145.6	822502.7	0	8	555	25	0.8	9.46E-04	3.04E-05	2.94E-05
3	4	G3_R4_001	POINTHOR	824150.4	822438.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_002	POINTHOR	824118.8	822480.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_003	POINTHOR	824087.2	822521.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_004	POINTHOR	824055.7	822563.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_005	POINTHOR	824024.1	822605.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_006	POINTHOR	823992.5	822647.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_007	POINTHOR	823961	822689.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_008	POINTHOR	823929.4	822730.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_009	POINTHOR	823897.8	822772.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_010	POINTHOR	823866.3	822814.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_011	POINTHOR	823834.7	822856.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_012	POINTHOR	823803.1	822898.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_013	POINTHOR	823771.6	822939.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_014	POINTHOR	823740	822981.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_015	POINTHOR	823708.4	823023.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	4	G3_R4_016	POINTHOR	823676.9	823065.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_017	POINTHOR	823645.9	823107.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_018	POINTHOR	823615.2	823150.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_019	POINTHOR	823584.6	823192.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_020	POINTHOR	823554	823235.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_021	POINTHOR	823523.3	823277.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_022	POINTHOR	823492.7	823320.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_023	POINTHOR	823462.1	823363.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_024	POINTHOR	823431.4	823405.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_025	POINTHOR	823393.6	823439.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_026	POINTHOR	823350.8	823467.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_027	POINTHOR	823307.9	823495.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_028	POINTHOR	823265.1	823523.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_029	POINTHOR	823222.3	823551.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_030	POINTHOR	823179.5	823579.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_031	POINTHOR	823134.6	823602.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_032	POINTHOR	823088.2	823623	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_033	POINTHOR	823041.8	823643.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_034	POINTHOR	822995.4	823663.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_035	POINTHOR	822949	823683.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_036	POINTHOR	822902.6	823703.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_037	POINTHOR	822856.1	823724	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_038	POINTHOR	822809.7	823744.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_039	POINTHOR	822763.3	823764.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_040	POINTHOR	822716.9	823784.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_041	POINTHOR	822670.5	823804.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_042	POINTHOR	822624.1	823825.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_043	POINTHOR	822577.7	823845.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_044	POINTHOR	822531.2	823865.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_045	POINTHOR	822482.6	823878.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_046	POINTHOR	822433.7	823889.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_047	POINTHOR	822384.8	823901.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_048	POINTHOR	822335.9	823912.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_049	POINTHOR	822287	823924.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_050	POINTHOR	822238.1	823935.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_051	POINTHOR	822189.1	823947.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_052	POINTHOR	822140.2	823958.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_053	POINTHOR	822091.3	823970.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_054	POINTHOR	822042.1	823977.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_055	POINTHOR	821992.2	823973.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_056	POINTHOR	821942.3	823969	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_057	POINTHOR	821892.4	823964.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_058	POINTHOR	821842.5	823960.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_059	POINTHOR	821792.6	823955.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_060	POINTHOR	821742.7	823951.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	4	G3_R4_061	POINTHOR	821692.8	823946.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_062	POINTHOR	821642.9	823942.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_063	POINTHOR	821592.9	823937.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_064	POINTHOR	821543	823933.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_065	POINTHOR	821493	823931.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_066	POINTHOR	821443	823928.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_067	POINTHOR	821393	823925.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_068	POINTHOR	821342.9	823922.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_069	POINTHOR	821292.9	823920.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_070	POINTHOR	821242.9	823917.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_071	POINTHOR	821192.9	823914.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_072	POINTHOR	821142.9	823912	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_073	POINTHOR	821092.9	823909.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_074	POINTHOR	824031.8	822428.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_075	POINTHOR	823999.6	822469.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_076	POINTHOR	823967.4	822510.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_077	POINTHOR	823935.2	822552	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_078	POINTHOR	823903	822593.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_079	POINTHOR	823870.8	822634.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_080	POINTHOR	823838.6	822675.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_081	POINTHOR	823806.5	822716.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_082	POINTHOR	823774.3	822758.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_083	POINTHOR	823742.1	822799.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_084	POINTHOR	823709.9	822840.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_085	POINTHOR	823677.7	822881.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_086	POINTHOR	823645.5	822923.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_087	POINTHOR	823613.3	822964.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_088	POINTHOR	823575.2	822998.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_089	POINTHOR	823534.9	823030.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_090	POINTHOR	823494.7	823063	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_091	POINTHOR	823454.5	823095.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_092	POINTHOR	823414.3	823127.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_093	POINTHOR	823374.1	823159.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_094	POINTHOR	823333.9	823191.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_095	POINTHOR	823293.7	823223.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_096	POINTHOR	823253.4	823255.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_097	POINTHOR	823213.2	823287.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_098	POINTHOR	823173	823319.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_099	POINTHOR	823128.7	823343.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_100	POINTHOR	823081.2	823360.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_101	POINTHOR	823033.6	823377.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_102	POINTHOR	822986.1	823394	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_103	POINTHOR	822938.5	823410.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_104	POINTHOR	822891	823427.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_105	POINTHOR	822843.1	823443.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	4	G3_R4_106	POINTHOR	822794	823454.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_107	POINTHOR	822745	823464.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_108	POINTHOR	822695.9	823475.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_109	POINTHOR	822646.8	823486.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_110	POINTHOR	822597.7	823497	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_111	POINTHOR	822547.9	823501.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_112	POINTHOR	822498	823505.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_113	POINTHOR	822448	823509.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_114	POINTHOR	822398.1	823513.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_115	POINTHOR	822348.1	823517.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_116	POINTHOR	822298.2	823522	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_117	POINTHOR	822248.3	823526	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_118	POINTHOR	822198.5	823524.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_119	POINTHOR	822148.8	823517.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_120	POINTHOR	822099.1	823510.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_121	POINTHOR	822049.5	823503.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_122	POINTHOR	821999.8	823496.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_123	POINTHOR	821950.2	823489.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_124	POINTHOR	821900.5	823482.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_125	POINTHOR	821850.8	823475.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_126	POINTHOR	821801.5	823466.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_127	POINTHOR	821752.4	823455.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_128	POINTHOR	821703.3	823445.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_129	POINTHOR	821654.2	823434.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_130	POINTHOR	821605.1	823424.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_131	POINTHOR	821556	823413.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_132	POINTHOR	821506.9	823403	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_133	POINTHOR	821457.7	823392.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_134	POINTHOR	821408.6	823381.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_135	POINTHOR	821359.5	823371.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_136	POINTHOR	821310.4	823360.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_137	POINTHOR	821261.3	823350.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_138	POINTHOR	821212.2	823339.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_139	POINTHOR	821163	823329.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_140	POINTHOR	821113.9	823318.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_141	POINTHOR	823926.2	822425.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_142	POINTHOR	823890	822462.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_143	POINTHOR	823853.7	822499.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_144	POINTHOR	823817.5	822537.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_145	POINTHOR	823781.2	822574.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_146	POINTHOR	823745	822611.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_147	POINTHOR	823708.7	822648.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_148	POINTHOR	823672.5	822685.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_149	POINTHOR	823636.2	822722.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_150	POINTHOR	823600	822759.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	4	G3_R4_151	POINTHOR	823563.7	822797.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_152	POINTHOR	823527.5	822834.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_153	POINTHOR	823488.5	822867.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_154	POINTHOR	823448.2	822899.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_155	POINTHOR	823408	822931.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_156	POINTHOR	823367.7	822963.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_157	POINTHOR	823327.5	822996	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_158	POINTHOR	823287.2	823028	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_159	POINTHOR	823247	823060	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_160	POINTHOR	823206.7	823092.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_161	POINTHOR	823166.5	823124.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_162	POINTHOR	823123	823149.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_163	POINTHOR	823075.6	823166.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_164	POINTHOR	823028.1	823184	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_165	POINTHOR	822980.7	823201.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_166	POINTHOR	822932.9	823217.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_167	POINTHOR	822884.6	823231.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_168	POINTHOR	822836.4	823246	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_169	POINTHOR	822788.1	823260.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_170	POINTHOR	822739.9	823274.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_171	POINTHOR	822692.4	823265.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_172	POINTHOR	822645.4	823247.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_173	POINTHOR	822598.3	823229.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_174	POINTHOR	822551.2	823210.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_175	POINTHOR	822504.1	823192.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_176	POINTHOR	822457.1	823174	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_177	POINTHOR	822411.8	823150.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_178	POINTHOR	822366.6	823127.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_179	POINTHOR	822321.4	823104.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_180	POINTHOR	822276.2	823081.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_181	POINTHOR	822231	823058.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_182	POINTHOR	822185.7	823035.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_183	POINTHOR	822140.5	823012	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_184	POINTHOR	822095.3	822988.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_185	POINTHOR	822050.1	822965.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_186	POINTHOR	822004.9	822942.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_187	POINTHOR	821959.6	822919.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_188	POINTHOR	821914.4	822896.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_189	POINTHOR	821869.2	822873.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_190	POINTHOR	821824	822849.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_191	POINTHOR	821778.8	822826.8	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_192	POINTHOR	821733.5	822803.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_193	POINTHOR	821688.3	822780.5	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_194	POINTHOR	821643.1	822757.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_195	POINTHOR	821597.9	822734.2	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	4	G3_R4_196	POINTHOR	821552.6	822711	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_197	POINTHOR	821507.4	822687.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_198	POINTHOR	821462.2	822664.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_199	POINTHOR	821417	822641.6	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_200	POINTHOR	821371.8	822618.4	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_201	POINTHOR	821326.5	822595.3	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_202	POINTHOR	821281.3	822572.1	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_203	POINTHOR	821236.1	822549	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_204	POINTHOR	821190.9	822525.9	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	4	G3_R4_205	POINTHOR	821145.6	822502.7	0	4	694.7	8	0.3	3.02E-03	1.61E-04	1.57E-04
3	5	G3_R5_001	POINT	824150.4	822438.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_002	POINT	824118.8	822480.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_003	POINT	824087.2	822521.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_004	POINT	824055.7	822563.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_005	POINT	824024.1	822605.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_006	POINT	823992.5	822647.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_007	POINT	823961	822689.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_008	POINT	823929.4	822730.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_009	POINT	823897.8	822772.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_010	POINT	823866.3	822814.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_011	POINT	823834.7	822856.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_012	POINT	823803.1	822898.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_013	POINT	823771.6	822939.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_014	POINT	823740	822981.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_015	POINT	823708.4	823023.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_016	POINT	823676.9	823065.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_017	POINT	823645.9	823107.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_018	POINT	823615.2	823150.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_019	POINT	823584.6	823192.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_020	POINT	823554	823235.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_021	POINT	823523.3	823277.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_022	POINT	823492.7	823320.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_023	POINT	823462.1	823363.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_024	POINT	823431.4	823405.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_025	POINT	823393.6	823439.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_026	POINT	823350.8	823467.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_027	POINT	823307.9	823495.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_028	POINT	823265.1	823523.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_029	POINT	823222.3	823551.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_030	POINT	823179.5	823579.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_031	POINT	823134.6	823602.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_032	POINT	823088.2	823623	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_033	POINT	823041.8	823643.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_034	POINT	822995.4	823663.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_035	POINT	822949	823683.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	5	G3_R5_036	POINT	822902.6	823703.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_037	POINT	822856.1	823724	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_038	POINT	822809.7	823744.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_039	POINT	822763.3	823764.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_040	POINT	822716.9	823784.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_041	POINT	822670.5	823804.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_042	POINT	822624.1	823825.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_043	POINT	822577.7	823845.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_044	POINT	822531.2	823865.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_045	POINT	822482.6	823878.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_046	POINT	822433.7	823889.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_047	POINT	822384.8	823901.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_048	POINT	822335.9	823912.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_049	POINT	822287	823924.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_050	POINT	822238.1	823935.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_051	POINT	822189.1	823947.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_052	POINT	822140.2	823958.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_053	POINT	822091.3	823970.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_054	POINT	822042.1	823977.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_055	POINT	821992.2	823973.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_056	POINT	821942.3	823969	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_057	POINT	821892.4	823964.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_058	POINT	821842.5	823960.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_059	POINT	821792.6	823955.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_060	POINT	821742.7	823951.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_061	POINT	821692.8	823946.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_062	POINT	821642.9	823942.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_063	POINT	821592.9	823937.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_064	POINT	821543	823933.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_065	POINT	821493	823931.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_066	POINT	821443	823928.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_067	POINT	821393	823925.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_068	POINT	821342.9	823922.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_069	POINT	821292.9	823920.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_070	POINT	821242.9	823917.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_071	POINT	821192.9	823914.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_072	POINT	821142.9	823912	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_073	POINT	821092.9	823909.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_074	POINT	824031.8	822428.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_075	POINT	823999.6	822469.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_076	POINT	823967.4	822510.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_077	POINT	823935.2	822552	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_078	POINT	823903	822593.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_079	POINT	823870.8	822634.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_080	POINT	823838.6	822675.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	5	G3_R5_081	POINT	823806.5	822716.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_082	POINT	823774.3	822758.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_083	POINT	823742.1	822799.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_084	POINT	823709.9	822840.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_085	POINT	823677.7	822881.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_086	POINT	823645.5	822923.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_087	POINT	823613.3	822964.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_088	POINT	823575.2	822998.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_089	POINT	823534.9	823030.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_090	POINT	823494.7	823063	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_091	POINT	823454.5	823095.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_092	POINT	823414.3	823127.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_093	POINT	823374.1	823159.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_094	POINT	823333.9	823191.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_095	POINT	823293.7	823223.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_096	POINT	823253.4	823255.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_097	POINT	823213.2	823287.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_098	POINT	823173	823319.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_099	POINT	823128.7	823343.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_100	POINT	823081.2	823360.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_101	POINT	823033.6	823377.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_102	POINT	822986.1	823394	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_103	POINT	822938.5	823410.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_104	POINT	822891	823427.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_105	POINT	822843.1	823443.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_106	POINT	822794	823454.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_107	POINT	822745	823464.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_108	POINT	822695.9	823475.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_109	POINT	822646.8	823486.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_110	POINT	822597.7	823497	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_111	POINT	822547.9	823501.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_112	POINT	822498	823505.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_113	POINT	822448	823509.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_114	POINT	822398.1	823513.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_115	POINT	822348.1	823517.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_116	POINT	822298.2	823522	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_117	POINT	822248.3	823526	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_118	POINT	822198.5	823524.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_119	POINT	822148.8	823517.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_120	POINT	822099.1	823510.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_121	POINT	822049.5	823503.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_122	POINT	821999.8	823496.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_123	POINT	821950.2	823489.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_124	POINT	821900.5	823482.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_125	POINT	821850.8	823475.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	5	G3_R5_126	POINT	821801.5	823466.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_127	POINT	821752.4	823455.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_128	POINT	821703.3	823445.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_129	POINT	821654.2	823434.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_130	POINT	821605.1	823424.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_131	POINT	821556	823413.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_132	POINT	821506.9	823403	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_133	POINT	821457.7	823392.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_134	POINT	821408.6	823381.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_135	POINT	821359.5	823371.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_136	POINT	821310.4	823360.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_137	POINT	821261.3	823350.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_138	POINT	821212.2	823339.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_139	POINT	821163	823329.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_140	POINT	821113.9	823318.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_141	POINT	823926.2	822425.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_142	POINT	823890	822462.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_143	POINT	823853.7	822499.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_144	POINT	823817.5	822537.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_145	POINT	823781.2	822574.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_146	POINT	823745	822611.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_147	POINT	823708.7	822648.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_148	POINT	823672.5	822685.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_149	POINT	823636.2	822722.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_150	POINT	823600	822759.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_151	POINT	823563.7	822797.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_152	POINT	823527.5	822834.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_153	POINT	823488.5	822867.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_154	POINT	823448.2	822899.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_155	POINT	823408	822931.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_156	POINT	823367.7	822963.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_157	POINT	823327.5	822996	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_158	POINT	823287.2	823028	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_159	POINT	823247	823060	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_160	POINT	823206.7	823092.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_161	POINT	823166.5	823124.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_162	POINT	823123	823149.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_163	POINT	823075.6	823166.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_164	POINT	823028.1	823184	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_165	POINT	822980.7	823201.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_166	POINT	822932.9	823217.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_167	POINT	822884.6	823231.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_168	POINT	822836.4	823246	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_169	POINT	822788.1	823260.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_170	POINT	822739.9	823274.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	5	G3_R5_171	POINT	822692.4	823265.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_172	POINT	822645.4	823247.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_173	POINT	822598.3	823229.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_174	POINT	822551.2	823210.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_175	POINT	822504.1	823192.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_176	POINT	822457.1	823174	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_177	POINT	822411.8	823150.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_178	POINT	822366.6	823127.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_179	POINT	822321.4	823104.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_180	POINT	822276.2	823081.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_181	POINT	822231	823058.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_182	POINT	822185.7	823035.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_183	POINT	822140.5	823012	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_184	POINT	822095.3	822988.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_185	POINT	822050.1	822965.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_186	POINT	822004.9	822942.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_187	POINT	821959.6	822919.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_188	POINT	821914.4	822896.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_189	POINT	821869.2	822873.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_190	POINT	821824	822849.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_191	POINT	821778.8	822826.8	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_192	POINT	821733.5	822803.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_193	POINT	821688.3	822780.5	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_194	POINT	821643.1	822757.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_195	POINT	821597.9	822734.2	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_196	POINT	821552.6	822711	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_197	POINT	821507.4	822687.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_198	POINT	821462.2	822664.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_199	POINT	821417	822641.6	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_200	POINT	821371.8	822618.4	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_201	POINT	821326.5	822595.3	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_202	POINT	821281.3	822572.1	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_203	POINT	821236.1	822549	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_204	POINT	821190.9	822525.9	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	5	G3_R5_205	POINT	821145.6	822502.7	0	20	555	25	0.8	2.42E-03	1.06E-04	1.03E-04
3	6	G3_R6_001	POINT	824150.4	822438.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_002	POINT	824118.8	822480.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_003	POINT	824087.2	822521.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_004	POINT	824055.7	822563.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_005	POINT	824024.1	822605.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_006	POINT	823992.5	822647.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_007	POINT	823961	822689.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_008	POINT	823929.4	822730.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_009	POINT	823897.8	822772.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_010	POINT	823866.3	822814.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	6	G3_R6_011	POINT	823834.7	822856.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_012	POINT	823803.1	822898.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_013	POINT	823771.6	822939.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_014	POINT	823740	822981.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_015	POINT	823708.4	823023.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_016	POINT	823676.9	823065.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_017	POINT	823645.9	823107.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_018	POINT	823615.2	823150.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_019	POINT	823584.6	823192.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_020	POINT	823554	823235.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_021	POINT	823523.3	823277.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_022	POINT	823492.7	823320.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_023	POINT	823462.1	823363.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_024	POINT	823431.4	823405.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_025	POINT	823393.6	823439.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_026	POINT	823350.8	823467.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_027	POINT	823307.9	823495.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_028	POINT	823265.1	823523.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_029	POINT	823222.3	823551.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_030	POINT	823179.5	823579.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_031	POINT	823134.6	823602.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_032	POINT	823088.2	823623	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_033	POINT	823041.8	823643.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_034	POINT	822995.4	823663.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_035	POINT	822949	823683.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_036	POINT	822902.6	823703.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_037	POINT	822856.1	823724	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_038	POINT	822809.7	823744.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_039	POINT	822763.3	823764.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_040	POINT	822716.9	823784.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_041	POINT	822670.5	823804.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_042	POINT	822624.1	823825.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_043	POINT	822577.7	823845.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_044	POINT	822531.2	823865.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_045	POINT	822482.6	823878.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_046	POINT	822433.7	823889.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_047	POINT	822384.8	823901.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_048	POINT	822335.9	823912.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_049	POINT	822287	823924.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_050	POINT	822238.1	823935.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_051	POINT	822189.1	823947.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_052	POINT	822140.2	823958.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_053	POINT	822091.3	823970.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_054	POINT	822042.1	823977.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_055	POINT	821992.2	823973.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	6	G3_R6_056	POINT	821942.3	823969	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_057	POINT	821892.4	823964.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_058	POINT	821842.5	823960.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_059	POINT	821792.6	823955.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_060	POINT	821742.7	823951.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_061	POINT	821692.8	823946.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_062	POINT	821642.9	823942.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_063	POINT	821592.9	823937.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_064	POINT	821543	823933.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_065	POINT	821493	823931.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_066	POINT	821443	823928.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_067	POINT	821393	823925.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_068	POINT	821342.9	823922.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_069	POINT	821292.9	823920.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_070	POINT	821242.9	823917.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_071	POINT	821192.9	823914.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_072	POINT	821142.9	823912	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_073	POINT	821092.9	823909.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_074	POINT	824031.8	822428.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_075	POINT	823999.6	822469.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_076	POINT	823967.4	822510.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_077	POINT	823935.2	822552	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_078	POINT	823903	822593.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_079	POINT	823870.8	822634.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_080	POINT	823838.6	822675.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_081	POINT	823806.5	822716.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_082	POINT	823774.3	822758.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_083	POINT	823742.1	822799.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_084	POINT	823709.9	822840.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_085	POINT	823677.7	822881.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_086	POINT	823645.5	822923.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_087	POINT	823613.3	822964.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_088	POINT	823575.2	822998.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_089	POINT	823534.9	823030.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_090	POINT	823494.7	823063	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_091	POINT	823454.5	823095.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_092	POINT	823414.3	823127.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_093	POINT	823374.1	823159.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_094	POINT	823333.9	823191.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_095	POINT	823293.7	823223.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_096	POINT	823253.4	823255.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_097	POINT	823213.2	823287.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_098	POINT	823173	823319.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_099	POINT	823128.7	823343.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_100	POINT	823081.2	823360.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	6	G3_R6_101	POINT	823033.6	823377.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_102	POINT	822986.1	823394	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_103	POINT	822938.5	823410.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_104	POINT	822891	823427.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_105	POINT	822843.1	823443.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_106	POINT	822794	823454.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_107	POINT	822745	823464.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_108	POINT	822695.9	823475.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_109	POINT	822646.8	823486.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_110	POINT	822597.7	823497	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_111	POINT	822547.9	823501.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_112	POINT	822498	823505.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_113	POINT	822448	823509.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_114	POINT	822398.1	823513.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_115	POINT	822348.1	823517.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_116	POINT	822298.2	823522	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_117	POINT	822248.3	823526	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_118	POINT	822198.5	823524.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_119	POINT	822148.8	823517.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_120	POINT	822099.1	823510.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_121	POINT	822049.5	823503.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_122	POINT	821999.8	823496.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_123	POINT	821950.2	823489.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_124	POINT	821900.5	823482.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_125	POINT	821850.8	823475.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_126	POINT	821801.5	823466.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_127	POINT	821752.4	823455.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_128	POINT	821703.3	823445.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_129	POINT	821654.2	823434.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_130	POINT	821605.1	823424.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_131	POINT	821556	823413.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_132	POINT	821506.9	823403	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_133	POINT	821457.7	823392.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_134	POINT	821408.6	823381.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_135	POINT	821359.5	823371.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_136	POINT	821310.4	823360.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_137	POINT	821261.3	823350.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_138	POINT	821212.2	823339.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_139	POINT	821163	823329.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_140	POINT	821113.9	823318.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_141	POINT	823926.2	822425.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_142	POINT	823890	822462.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_143	POINT	823853.7	822499.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_144	POINT	823817.5	822537.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_145	POINT	823781.2	822574.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	6	G3_R6_146	POINT	823745	822611.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_147	POINT	823708.7	822648.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_148	POINT	823672.5	822685.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_149	POINT	823636.2	822722.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_150	POINT	823600	822759.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_151	POINT	823563.7	822797.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_152	POINT	823527.5	822834.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_153	POINT	823488.5	822867.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_154	POINT	823448.2	822899.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_155	POINT	823408	822931.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_156	POINT	823367.7	822963.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_157	POINT	823327.5	822996	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_158	POINT	823287.2	823028	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_159	POINT	823247	823060	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_160	POINT	823206.7	823092.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_161	POINT	823166.5	823124.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_162	POINT	823123	823149.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_163	POINT	823075.6	823166.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_164	POINT	823028.1	823184	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_165	POINT	822980.7	823201.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_166	POINT	822932.9	823217.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_167	POINT	822884.6	823231.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_168	POINT	822836.4	823246	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_169	POINT	822788.1	823260.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_170	POINT	822739.9	823274.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_171	POINT	822692.4	823265.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_172	POINT	822645.4	823247.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_173	POINT	822598.3	823229.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_174	POINT	822551.2	823210.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_175	POINT	822504.1	823192.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_176	POINT	822457.1	823174	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_177	POINT	822411.8	823150.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_178	POINT	822366.6	823127.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_179	POINT	822321.4	823104.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_180	POINT	822276.2	823081.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_181	POINT	822231	823058.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_182	POINT	822185.7	823035.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_183	POINT	822140.5	823012	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_184	POINT	822095.3	822988.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_185	POINT	822050.1	822965.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_186	POINT	822004.9	822942.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_187	POINT	821959.6	822919.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_188	POINT	821914.4	822896.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_189	POINT	821869.2	822873.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_190	POINT	821824	822849.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip [2]		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	6	G3_R6_191	POINT	821778.8	822826.8	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_192	POINT	821733.5	822803.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_193	POINT	821688.3	822780.5	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_194	POINT	821643.1	822757.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_195	POINT	821597.9	822734.2	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_196	POINT	821552.6	822711	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_197	POINT	821507.4	822687.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_198	POINT	821462.2	822664.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_199	POINT	821417	822641.6	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_200	POINT	821371.8	822618.4	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_201	POINT	821326.5	822595.3	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_202	POINT	821281.3	822572.1	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_203	POINT	821236.1	822549	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_204	POINT	821190.9	822525.9	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05
3	6	G3_R6_205	POINT	821145.6	822502.7	0	11	588	8	0.2	1.07E-03	3.49E-05	3.38E-05

Notes:

[1] Modelling parameters are referred to "Generating an Hour-By-Hour Model-Ready Marine Emission Inventory, RWDI Air Inc. and Environment Canada, US EPA 17th International Emission Inventory Conference, 2-5 June 2008, Portland, Oregon", approved EIA of Tuen Mun South Extension (AERIAR-236/2022), and approved EIA of Lei Yue Mun Waterfront Enhancement Project (AERIAR-219/2018).

[2] Emission Rate per Trip = Time-in-mode x Engine Load Factors x Low Load Multiplier x Engine Power x Emission Factor, which are made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) and Marine Traffic Consultant data.

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	10,689

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Multiplying Factor dervied from Marine Traffic in Year 2019

Month	Total No. of Arrivals by RTVs [1]	Monthly Multiplying Factor
Jan-19	5,820	1.03
Feb-19	3,401	0.60
Mar-19	5,783	1.03
Apr-19	5,411	0.96
May-19	5,766	1.02
Jun-19	5,456	0.97
Jul-19	5,645	1.00
Aug-19	5,659	1.00
Sep-19	5,382	0.96
Oct-19	5,160	0.92
Nov-19	5,534	0.98
Dec-19	**5,632**	**1.00**

Notes:

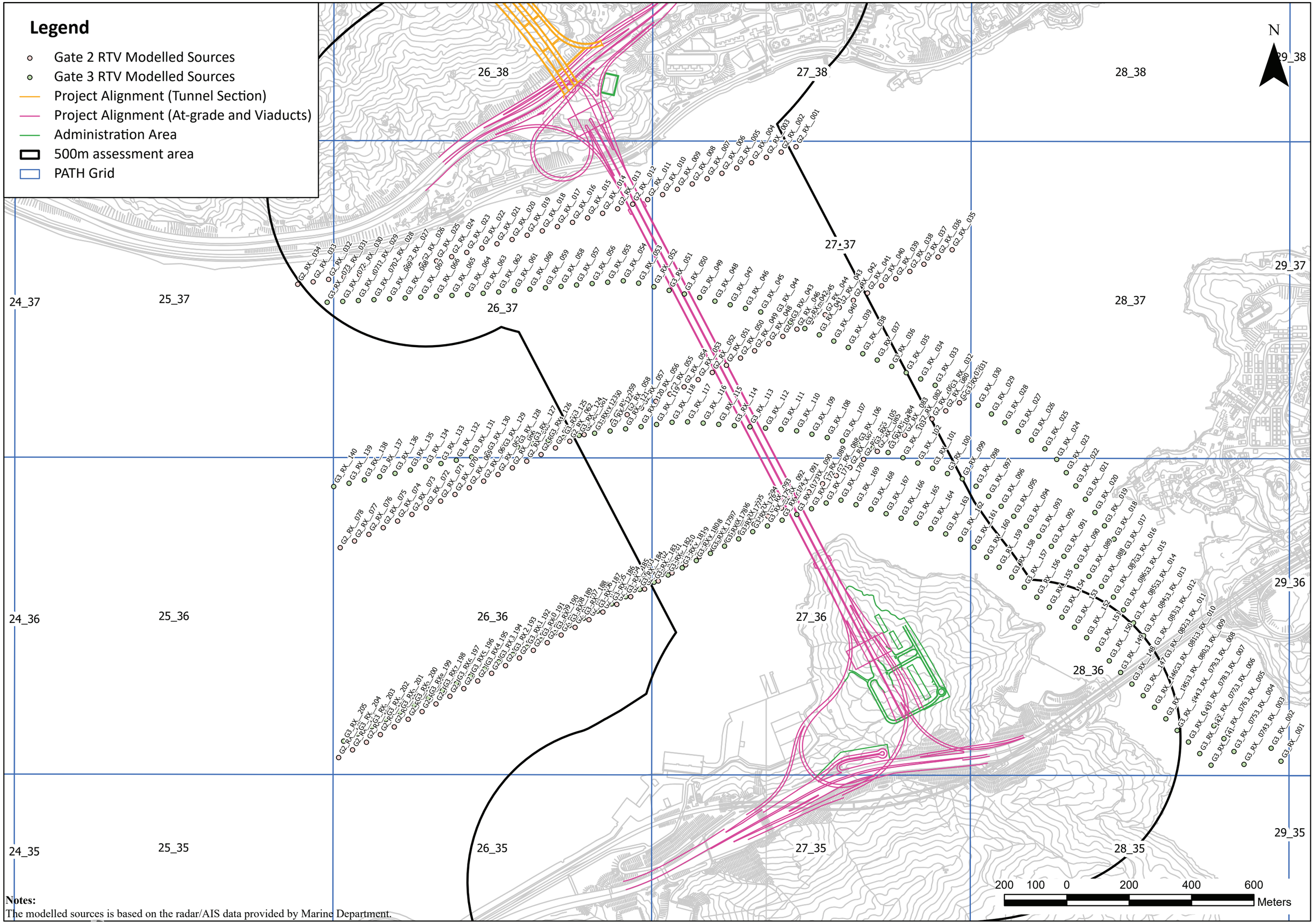
[1] Since no monthly profile is available from Marine Traffic Consultant, the annual vessel count is calculated based on monthly profile in "Monthly Vessel Arrivals by Ocean/River and Cargo/Passenger Vessels" published by Marine Department (https://www.mardep.gov.hk/en/fact/pdf/portstat_2_m_a1.pdf). Due to the pandemic situation, there was a significant change in marine traffic from Year 2020 to Year 2022. In view of this, the monthly profile of Year 2019 is considered the most appropriate and therefore adopted and assumed the same for future years.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

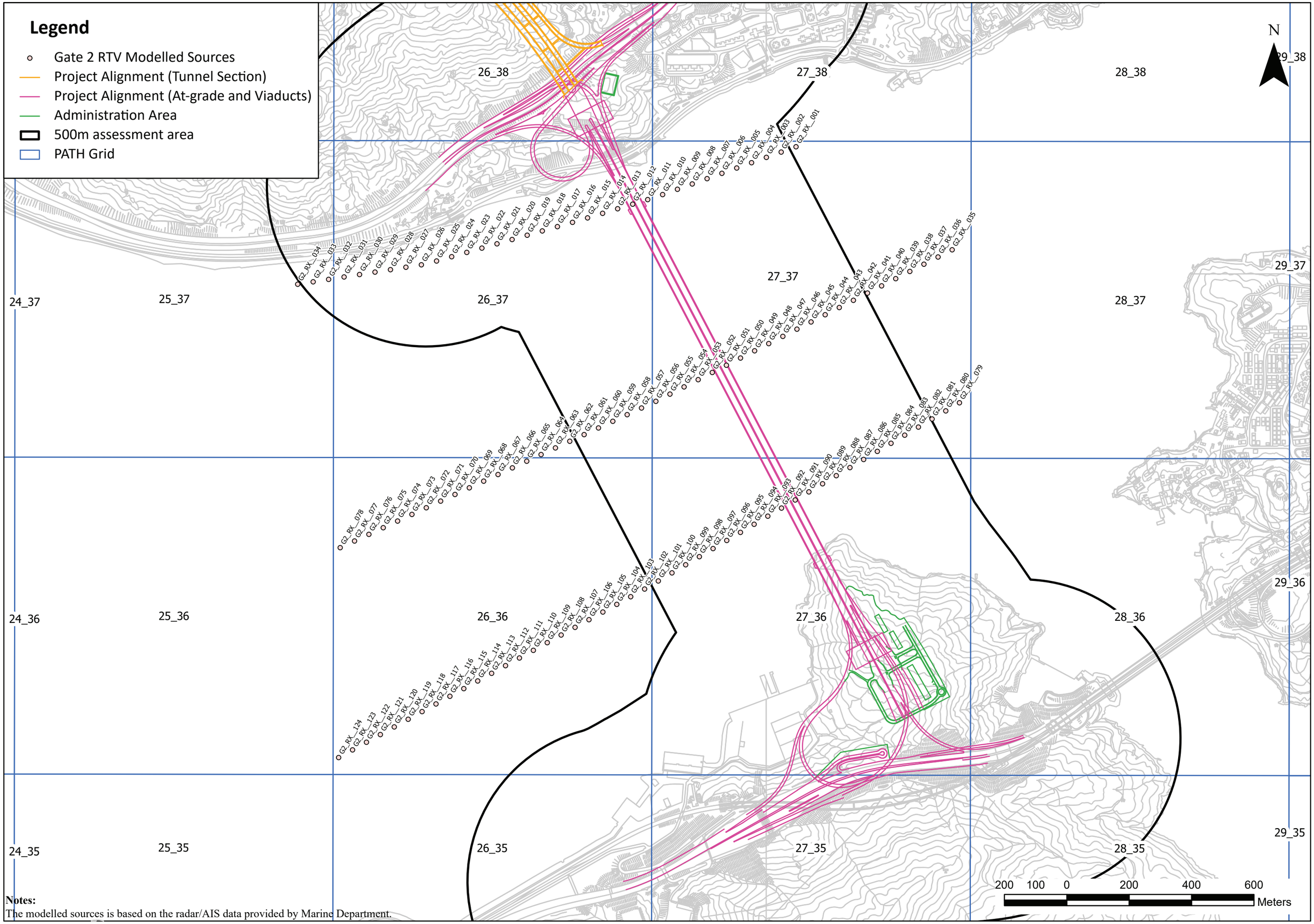
Hour		Gate 3	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	200	3.6%
1	2	195	3.5%
2	3	224	4.0%
3	4	201	3.6%
4	5	260	4.7%
5	6	257	4.6%
6	7	241	4.3%
7	8	216	3.9%
8	9	171	3.1%
9	10	198	3.5%
10	11	267	4.8%
11	12	312	5.6%
12	13	268	4.8%
13	14	298	5.3%
14	15	226	4.1%
15	16	217	3.9%
16	17	242	4.3%
17	18	265	4.8%
18	19	261	4.7%
19	20	245	4.4%
20	21	223	4.0%
21	22	198	3.5%
22	23	206	3.7%
23	24	187	3.4%

Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 200 marine vessels for the first hour during the whole December.



Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.



Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 3 RTV Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Appendix 3.10c

Emission Inventory and Source Locations for PRDs at Ha Pang Fairway in Year 2048

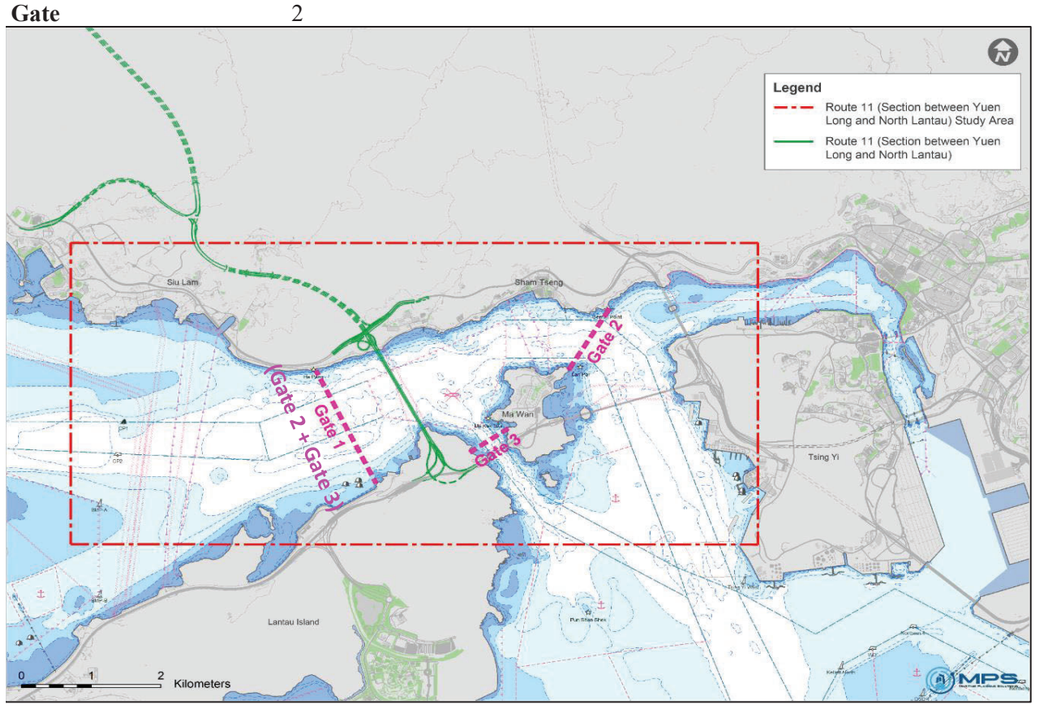
Annex I
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Cross Boundary Ferries_Gate 2

Marine Traffic Information

Assessment Year 2048

Assessed Vessel Type Cross Boundary Ferries

Gate 2



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 2	1,040	34	2,500

Notes

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 34 knot is provided by Marine Traffic Consultant and assumed to be constant throughout the channel (i.e. Gate 1 to Gate 2).

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [2]			Annual No. of Vessel Arrivals in Year 2019 [3]	Composite Emission Rate per Trip (g/s) [4]		
		NO_X	RSP	FSP		NOx	RSP	FSP
1	PRD Ferry - Shekou	0.361	0.009	0.008	20	0.467	0.011	0.010
	PRD Ferry - Zhuhai	0.569	0.013	0.013	28			
	PRD Ferry - Shunde	0.427	0.010	0.009	8			
	PRD Ferry - Zhongshan	0.472	0.011	0.010	14			
	PRD Ferry - Jiangmen	0.324	0.008	0.007	2			
	PRD Ferry - Nansha	0.459	0.011	0.010	12			
	PRD Ferry - Heshan	0.417	0.010	0.009	2			

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] Marine Traffic Consultant has provided the total number of CBFs but without breakdown into different vessel types. Hence, reference has been made to Operator's Schedule for the different vessel types. (http://barcaferry.com/timetable/route_hkchina_c.htm)

[4] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are calculated from actual speed provided by the Marine Traffic Consultant divded by the maximum speed based on desktop review, or made reference to Table 4-10 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The average engine powers are based on desktop review.

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-17. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_C1_001	POINTHOR	822960.9	824410.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_002	POINTHOR	822912.7	824395.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_003	POINTHOR	822864.5	824381.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_004	POINTHOR	822816.3	824366.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_005	POINTHOR	822768.1	824351.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_006	POINTHOR	822719.9	824337.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_007	POINTHOR	822671.7	824322.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_008	POINTHOR	822623.5	824308	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_009	POINTHOR	822575.3	824293.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_010	POINTHOR	822527.1	824278.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_011	POINTHOR	822478.9	824264.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_012	POINTHOR	822430.7	824249.6	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_013	POINTHOR	822382.5	824235	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_014	POINTHOR	822334.3	824220.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_015	POINTHOR	822286.1	824205.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_016	POINTHOR	822237.9	824191.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_017	POINTHOR	822189.7	824176.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_018	POINTHOR	822141.5	824161.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_019	POINTHOR	822093.3	824147.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_020	POINTHOR	822045.1	824133	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_021	POINTHOR	821996.1	824121.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_022	POINTHOR	821947.1	824110.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_023	POINTHOR	821898.2	824099.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_024	POINTHOR	821849.2	824087.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_025	POINTHOR	821800.2	824076.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_026	POINTHOR	821751.2	824065.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_027	POINTHOR	821702.3	824053.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_028	POINTHOR	821653.3	824042.6	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_029	POINTHOR	821604.3	824031.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_030	POINTHOR	821555.4	824020.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_031	POINTHOR	821506.4	824008.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_032	POINTHOR	821457.4	823997.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_033	POINTHOR	821408.5	823986.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_034	POINTHOR	821359.5	823974.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_035	POINTHOR	821310.5	823963.6	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_036	POINTHOR	821261.6	823952.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_037	POINTHOR	821212.6	823941	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_038	POINTHOR	821163.6	823929.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_039	POINTHOR	821114.7	823918.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_040	POINTHOR	821065.7	823907.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_041	POINTHOR	823109	824188.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_042	POINTHOR	823060.9	824173.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_043	POINTHOR	823012.8	824158.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_044	POINTHOR	822964.7	824143.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_C1_045	POINTHOR	822916.6	824128.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_046	POINTHOR	822868.5	824113.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_047	POINTHOR	822820.4	824098.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_048	POINTHOR	822772.3	824083.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_049	POINTHOR	822724.2	824068.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_050	POINTHOR	822676.1	824053.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_051	POINTHOR	822628	824038.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_052	POINTHOR	822579.9	824023.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_053	POINTHOR	822531.8	824008.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_054	POINTHOR	822483.7	823993.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_055	POINTHOR	822435.6	823978.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_056	POINTHOR	822387.5	823963.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_057	POINTHOR	822339.4	823948.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_058	POINTHOR	822291.3	823933.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_059	POINTHOR	822243.2	823918.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_060	POINTHOR	822195.1	823903.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_061	POINTHOR	822147	823888.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_062	POINTHOR	822098.9	823873.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_063	POINTHOR	822050.8	823858.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_064	POINTHOR	822002.7	823843.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_065	POINTHOR	821954.6	823828.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_066	POINTHOR	821906.5	823813.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_067	POINTHOR	821858.4	823799	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_068	POINTHOR	821810.3	823784	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_069	POINTHOR	821762.2	823769	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_070	POINTHOR	821714.1	823754	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_071	POINTHOR	821666	823739	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_072	POINTHOR	821617.9	823724	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_073	POINTHOR	821569.8	823709	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_074	POINTHOR	821521.7	823694	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_075	POINTHOR	821473.6	823679.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_076	POINTHOR	821425.5	823664.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_077	POINTHOR	821377.3	823649.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_078	POINTHOR	821329.2	823634.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_079	POINTHOR	821281.1	823619.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_080	POINTHOR	821233	823604.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_081	POINTHOR	821184.9	823589.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_082	POINTHOR	821136.8	823574.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_083	POINTHOR	823130.7	823910.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_084	POINTHOR	823082.7	823894.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_085	POINTHOR	823034.7	823879.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_086	POINTHOR	822986.7	823864.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_087	POINTHOR	822938.7	823848.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_088	POINTHOR	822890.7	823833.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_C1_089	POINTHOR	822842.7	823818.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_090	POINTHOR	822794.7	823802.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_091	POINTHOR	822746.7	823787.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_092	POINTHOR	822698.7	823772	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_093	POINTHOR	822650.7	823756.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_094	POINTHOR	822602.7	823741.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_095	POINTHOR	822554.7	823725.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_096	POINTHOR	822506.7	823710.6	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_097	POINTHOR	822458.7	823695.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_098	POINTHOR	822410.7	823679.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_099	POINTHOR	822362.7	823664.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_100	POINTHOR	822314.7	823649.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_101	POINTHOR	822266.7	823633.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_102	POINTHOR	822218.7	823618.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_103	POINTHOR	822170.7	823603.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_104	POINTHOR	822122.7	823587.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_105	POINTHOR	822074.7	823572.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_106	POINTHOR	822026.7	823557	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_107	POINTHOR	821978.7	823541.6	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_108	POINTHOR	821930.7	823526.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_109	POINTHOR	821882.7	823510.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_110	POINTHOR	821834.7	823495.6	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_111	POINTHOR	821786.7	823480.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_112	POINTHOR	821738.7	823464.9	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_113	POINTHOR	821690.7	823449.5	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_114	POINTHOR	821642.6	823434.2	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_115	POINTHOR	821594.6	823418.8	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_116	POINTHOR	821546.6	823403.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_117	POINTHOR	821498.6	823388.1	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_118	POINTHOR	821450.6	823372.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_119	POINTHOR	821402.6	823357.4	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_120	POINTHOR	821354.6	823342	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_121	POINTHOR	821306.6	823326.7	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_122	POINTHOR	821258.6	823311.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_123	POINTHOR	821210.6	823296	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_124	POINTHOR	821162.6	823280.6	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05
2	1	G2_C1_125	POINTHOR	821114.6	823265.3	0	1.3	773	8	0.7	3.74E-03	8.83E-05	8.26E-05

Notes:

[1] Modelling parameters are referred to Approved EIA of Proposed Road Improvement Works in West Kowloon Reclamation Development – Phase 1 – Investigation, Design and Construction (AEIAR-179/2013) and Expansion of Hong Kong Airport into a Three-Runway System (AEIAR-185/2014).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	1,040

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:

[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 2	
Start	End	No. of Marine Vessels [1]	Hourly Multiplying Factor
0	1	0	0.0%
1	2	0	0.0%
2	3	0	0.0%
3	4	0	0.0%
4	5	1	0.1%
5	6	0	0.0%
6	7	0	0.0%
7	8	40	3.8%
8	9	112	10.8%
9	10	42	4.0%
10	11	65	6.3%
11	12	98	9.4%
12	13	88	8.5%
13	14	50	4.8%
14	15	80	7.7%
15	16	72	6.9%
16	17	83	8.0%
17	18	60	5.8%
18	19	129	12.4%
19	20	22	2.1%
20	21	78	7.5%
21	22	17	1.6%
22	23	3	0.3%
23	24	0	0.0%

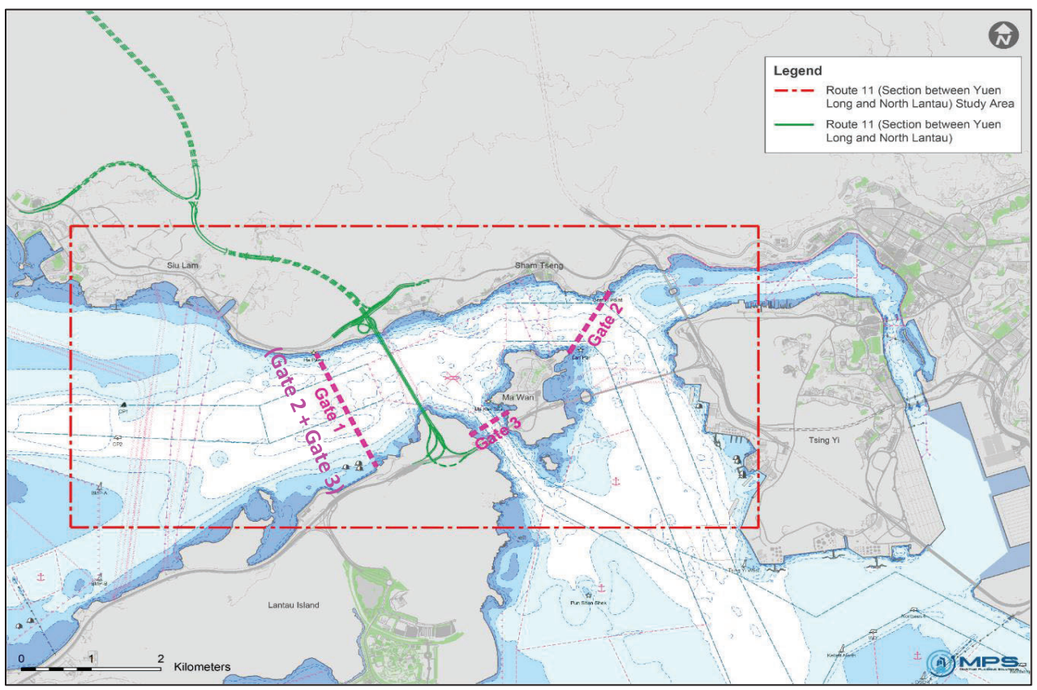
Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 0 marine vessels for the first hour during the whole December.

Annex II
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Cross Boundary Ferries_Gate 3

Marine Traffic Information

Assessment Year 2048
Assessed Vessel Type Cross Boundary Ferries
Gate 3



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 3	1,230	33	4,300

Notes:

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 34 knot is provided by Marine Traffic Consultant and assumed to be constant throughout the channel (i.e. Gate 1 to Gate 3).

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [2]			Annual No. of Vessel Arrivals in Year 2019 [3]	Composite Emission Rate per Trip (g/s) [4]		
		NO_X	RSP	FSP		NOx	RSP	FSP
1	PRD Ferry - Shekou	0.630	0.015	0.014	20	0.808	0.019	0.018
	PRD Ferry - Zhuhai	0.986	0.023	0.022	28			
	PRD Ferry - Shunde	0.735	0.017	0.016	8			
	PRD Ferry - Zhongshan	0.813	0.019	0.018	14			
	PRD Ferry - Jiangmen	0.574	0.014	0.013	2			
	PRD Ferry - Nansha	0.790	0.019	0.017	12			
	PRD Ferry - Heshan	0.717	0.017	0.016	2			

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] Marine Traffic Consultant has provided the total number of CBFs but without breakdown into different vessel types. Hence, reference has been made to Operator's Schedule for the different vessel types. (http://barcaferry.com/timetable/route_hkchina_c.htm)

[4] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are calculated from actual speed provided by the Marine Traffic Consultant divded by the maximum speed based on desktop review, or made reference to Table 4-10 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The average engine powers are based on desktop review.

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-17. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_C1_001	POINTHOR	824160.2	822449.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_002	POINTHOR	824127.4	822490.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_003	POINTHOR	824094.6	822530.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_004	POINTHOR	824061.7	822571.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_005	POINTHOR	824028.9	822612.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_006	POINTHOR	823996.1	822652.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_007	POINTHOR	823963.2	822693.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_008	POINTHOR	823930.4	822734.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_009	POINTHOR	823897.6	822774.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_010	POINTHOR	823864.7	822815.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_011	POINTHOR	823831.9	822856.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_012	POINTHOR	823799.1	822896.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_013	POINTHOR	823766.2	822937.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_014	POINTHOR	823732.5	822977.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_015	POINTHOR	823696.9	823015	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_016	POINTHOR	823661.3	823052.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_017	POINTHOR	823625.6	823090.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_018	POINTHOR	823590	823128.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_019	POINTHOR	823554.4	823166.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_020	POINTHOR	823518.8	823204.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_021	POINTHOR	823483.2	823242	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_022	POINTHOR	823447.5	823279.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_023	POINTHOR	823411.9	823317.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_024	POINTHOR	823376.3	823355.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_025	POINTHOR	823340.7	823393.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_026	POINTHOR	823305.1	823431.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_027	POINTHOR	823269.5	823469.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_028	POINTHOR	823233.8	823506.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_029	POINTHOR	823198.2	823544.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_030	POINTHOR	823162.6	823582.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_031	POINTHOR	823122.4	823613.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_032	POINTHOR	823077.4	823637.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_033	POINTHOR	823032.5	823661	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_034	POINTHOR	822987.6	823684.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_035	POINTHOR	822942.6	823708.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_036	POINTHOR	822897.7	823732.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_037	POINTHOR	822852.7	823756	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_038	POINTHOR	822807.8	823779.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_039	POINTHOR	822759.3	823789.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_040	POINTHOR	822709.4	823793	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_041	POINTHOR	822659.4	823796.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_042	POINTHOR	822609.4	823800.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_043	POINTHOR	822559.5	823803.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_044	POINTHOR	822509.5	823807.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_C1_045	POINTHOR	822459.5	823810.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_046	POINTHOR	822409.6	823814.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_047	POINTHOR	822359.5	823816	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_048	POINTHOR	822309.5	823815.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_049	POINTHOR	822259.4	823814.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_050	POINTHOR	822209.3	823813.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_051	POINTHOR	822159.2	823812.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_052	POINTHOR	822109.2	823811.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_053	POINTHOR	822059.1	823811	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_054	POINTHOR	822009	823810.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_055	POINTHOR	821958.9	823809.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_056	POINTHOR	821909.1	823805.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_057	POINTHOR	821859.5	823797.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_058	POINTHOR	821810	823789.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_059	POINTHOR	821760.4	823782.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_060	POINTHOR	821710.8	823774.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_061	POINTHOR	821661.3	823766.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_062	POINTHOR	821611.7	823759	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_063	POINTHOR	821562.1	823751.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_064	POINTHOR	821512.6	823743.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_065	POINTHOR	821463	823735.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_066	POINTHOR	821413.4	823728.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_067	POINTHOR	821363.9	823720.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_068	POINTHOR	821314.3	823712.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_069	POINTHOR	821264.7	823705	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_070	POINTHOR	821215.2	823697.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_071	POINTHOR	821165.6	823689.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_072	POINTHOR	821116	823681.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_073	POINTHOR	824038.7	822435.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_074	POINTHOR	824005.3	822475.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_075	POINTHOR	823972	822515.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_076	POINTHOR	823938.7	822555.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_077	POINTHOR	823905.4	822595.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_078	POINTHOR	823872	822636.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_079	POINTHOR	823838.7	822676.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_080	POINTHOR	823805.4	822716.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_081	POINTHOR	823772.1	822756.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_082	POINTHOR	823738.7	822796.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_083	POINTHOR	823705.4	822837	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_084	POINTHOR	823672.1	822877.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_085	POINTHOR	823633.7	822911.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_086	POINTHOR	823594.1	822944.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_087	POINTHOR	823554.4	822977.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_088	POINTHOR	823514.8	823010.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_089	POINTHOR	823475.1	823043.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_C1_090	POINTHOR	823435.5	823076.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_091	POINTHOR	823395.9	823109	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_092	POINTHOR	823356.2	823141.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_093	POINTHOR	823316.6	823174.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_094	POINTHOR	823276.9	823207.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_095	POINTHOR	823237.3	823240.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_096	POINTHOR	823197.7	823273.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_097	POINTHOR	823158	823306.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_098	POINTHOR	823114.6	823332.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_099	POINTHOR	823069	823354.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_100	POINTHOR	823023.5	823377.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_101	POINTHOR	822977.9	823399.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_102	POINTHOR	822932.4	823422.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_103	POINTHOR	822886.9	823444.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_104	POINTHOR	822841.3	823466.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_105	POINTHOR	822795.8	823489.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_106	POINTHOR	822747.3	823497.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_107	POINTHOR	822697.2	823498.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_108	POINTHOR	822647.1	823499.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_109	POINTHOR	822597	823500.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_110	POINTHOR	822547	823501.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_111	POINTHOR	822496.9	823502.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_112	POINTHOR	822446.8	823503.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_113	POINTHOR	822396.8	823500.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_114	POINTHOR	822346.9	823496.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_115	POINTHOR	822296.9	823493.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_116	POINTHOR	822246.9	823489.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_117	POINTHOR	822196.9	823486.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_118	POINTHOR	822147	823482.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_119	POINTHOR	822097.2	823477.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_120	POINTHOR	822048.3	823465.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_121	POINTHOR	821999.4	823453.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_122	POINTHOR	821950.5	823442.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_123	POINTHOR	821901.6	823430.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_124	POINTHOR	821852.7	823419.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_125	POINTHOR	821803.8	823407.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_126	POINTHOR	821754.9	823395.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_127	POINTHOR	821706	823384.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_128	POINTHOR	821657.1	823372.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_129	POINTHOR	821608.2	823361.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_130	POINTHOR	821559.3	823349.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_131	POINTHOR	821510.4	823337.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_132	POINTHOR	821461.4	823326.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_133	POINTHOR	821412.5	823314.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_134	POINTHOR	821363.6	823303.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_C1_135	POINTHOR	821314.7	823291.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_136	POINTHOR	821265.8	823280	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_137	POINTHOR	821216.9	823268.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_138	POINTHOR	821168	823256.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_139	POINTHOR	821119.1	823245.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_140	POINTHOR	823882.7	822443.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_141	POINTHOR	823848.5	822482.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_142	POINTHOR	823814.2	822521.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_143	POINTHOR	823779.9	822561	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_144	POINTHOR	823745.6	822600.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_145	POINTHOR	823711.4	822639.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_146	POINTHOR	823677.1	822678.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_147	POINTHOR	823642.8	822718.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_148	POINTHOR	823608.6	822757.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_149	POINTHOR	823574.3	822796.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_150	POINTHOR	823538.2	822833.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_151	POINTHOR	823498.7	822866.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_152	POINTHOR	823459.3	822900	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_153	POINTHOR	823419.9	822933.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_154	POINTHOR	823380.4	822966.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_155	POINTHOR	823341	822999.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_C1_156	POINTHOR	823301.6	823032.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_157	POINTHOR	823262.1	823066	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_158	POINTHOR	823222.6	823098.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_159	POINTHOR	823175.1	823116.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_160	POINTHOR	823127.8	823133.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_161	POINTHOR	823080.5	823151.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_162	POINTHOR	823033.2	823169.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_163	POINTHOR	822985.9	823186.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_164	POINTHOR	822938.7	823204.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_165	POINTHOR	822891.4	823222.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_166	POINTHOR	822844.1	823240.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_167	POINTHOR	822796.9	823258	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_168	POINTHOR	822746.9	823258.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_169	POINTHOR	822696.8	823258.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_170	POINTHOR	822646.7	823258.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_171	POINTHOR	822596.6	823258	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_172	POINTHOR	822546.5	823257.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_173	POINTHOR	822496.4	823257.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_174	POINTHOR	822446.4	823257.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_175	POINTHOR	822399.5	823238.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_176	POINTHOR	822352.8	823219.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_177	POINTHOR	822306.1	823199.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_178	POINTHOR	822259.4	823180.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_179	POINTHOR	822212.7	823161.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_180	POINTHOR	822166	823141.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_181	POINTHOR	822119.3	823122.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_182	POINTHOR	822072.6	823102.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_183	POINTHOR	822025.8	823083.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_184	POINTHOR	821979	823064.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_185	POINTHOR	821932.1	823045.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_186	POINTHOR	821885.2	823026.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_C1_187	POINTHOR	821838.3	823007.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_188	POINTHOR	821791.3	822988.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_189	POINTHOR	821744.4	822970.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_190	POINTHOR	821697.5	822951.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_191	POINTHOR	821650.6	822932.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_192	POINTHOR	821603.6	822913.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_193	POINTHOR	821556.7	822894.8	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_194	POINTHOR	821509.8	822876	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_195	POINTHOR	821462.8	822857.2	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_196	POINTHOR	821415.9	822838.4	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_197	POINTHOR	821369	822819.6	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_198	POINTHOR	821322.1	822800.7	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_199	POINTHOR	821275.1	822781.9	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_200	POINTHOR	821228.2	822763.1	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_201	POINTHOR	821181.3	822744.3	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05
3	1	G3_C1_202	POINTHOR	821134.3	822725.5	0	1.3	773	8	0.7	4.00E-03	9.46E-05	8.85E-05

Notes:

[1] Modelling parameters are referred to Approved EIA of Proposed Road Improvement Works in West Kowloon Reclamation Development – Phase 1 – Investigation, Design and Construction (AEIAR-179/2013) and Expansion of Hong Kong Airport into a Three-Runway System (AEIAR-185/2014).

Calculation of Multiplying Factor for Total Vessel Count

Calculation of Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 3	1,230

Notes:
[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:
[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Monthly-Hourly Profile of Marine Traffic for Year 2048

Hour		Gate 3	
Start	End	No. of Marine Vessels [1]	Hourly Multiplying Factor
0	1	3	0.2%
1	2	0	0.0%
2	3	4	0.3%
3	4	0	0.0%
4	5	0	0.0%
5	6	0	0.0%
6	7	0	0.0%
7	8	2	0.2%
8	9	53	4.3%
9	10	63	5.1%
10	11	155	12.6%
11	12	92	7.5%
12	13	68	5.5%
13	14	93	7.6%
14	15	85	6.9%
15	16	52	4.2%
16	17	120	9.8%
17	18	124	10.1%
18	19	64	5.2%
19	20	130	10.6%
20	21	12	1.0%
21	22	92	7.5%
22	23	18	1.5%
23	24	0	0.0%

Notes:
[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 3 marine vessels for the first hour during the whole December.

Legend

- Gate 2 CBF Modelled Sources
- Gate 3 CBF Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

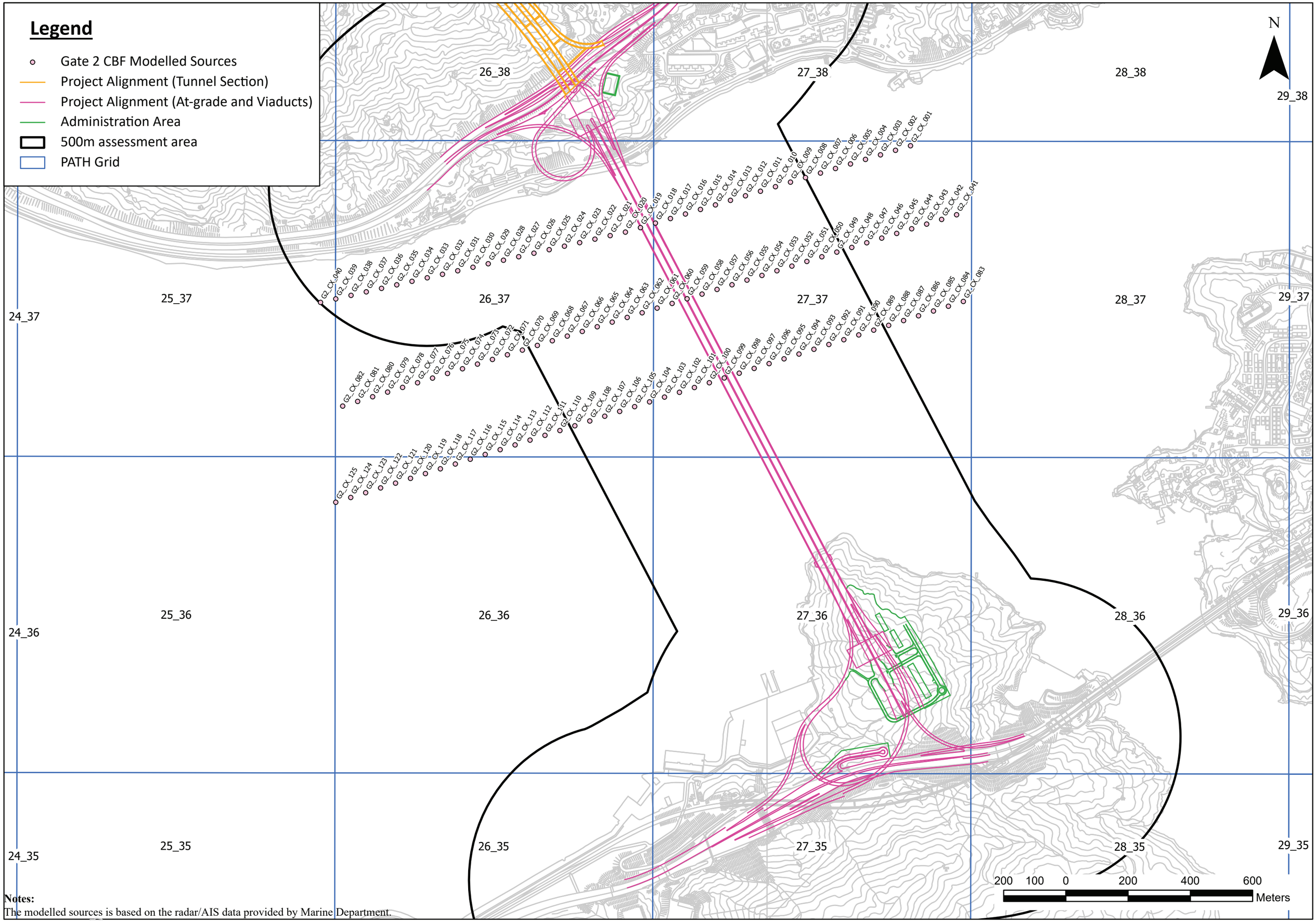
24_37 25_37 26_37 27_37 28_37 29_37

24_36 25_36 26_36 27_36 28_36 29_36

24_35 25_35 26_35 27_35 28_35 29_35

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.



Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 3 CBF Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

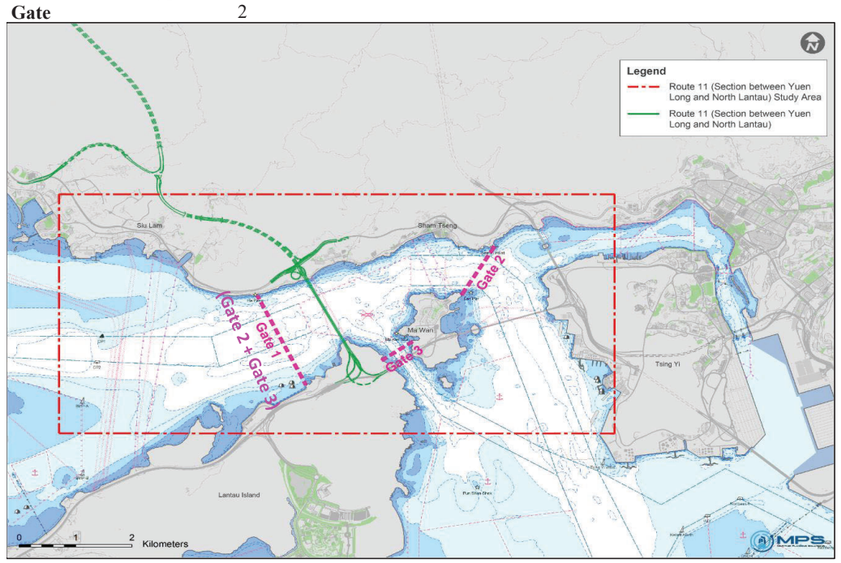
Appendix 3.10d

Emission Inventory and Source Locations for Local Vessels (Local Ferries) at Ha Pang Fairway in Year 2048

Annex I
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Local Ferries_Gate 2

Marine Traffic Information

Assessment Year	2048
Assessed Vessel Type	Local Ferries
Gate	2



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 2	87	10	2,400

Notes

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 10 knot is provided by Marine Traffic Consultant.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [3]		
		NO_X	RSP	FSP
1	Local Ferry	0.430	0.010	0.010

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 4-9 and Table 4-10 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The average engine powers are based on desktop review. The average main and auxiliary engine power are 1400kW and 188kW respectively.

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-17. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_LF1_001	POINTHOR	822589.5	824408.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_002	POINTHOR	822541.5	824393.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_003	POINTHOR	822493.6	824377.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_004	POINTHOR	822445.6	824362.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_005	POINTHOR	822397.7	824346.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_006	POINTHOR	822349.7	824331.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_007	POINTHOR	822301.8	824315.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_008	POINTHOR	822253.8	824300.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_009	POINTHOR	822205.9	824284.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_010	POINTHOR	822157.9	824269	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_011	POINTHOR	822110.2	824252.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_012	POINTHOR	822062.4	824236.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_013	POINTHOR	822014.6	824220.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_014	POINTHOR	821966.8	824204.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_015	POINTHOR	821919.1	824188.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_016	POINTHOR	821870.9	824173.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_017	POINTHOR	821822.6	824159.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_018	POINTHOR	821774.3	824145.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_019	POINTHOR	821726	824130.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_020	POINTHOR	821678.8	824112.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_021	POINTHOR	821631.7	824094.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_022	POINTHOR	821584.6	824076.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_023	POINTHOR	821537.5	824057.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_024	POINTHOR	821490.4	824039.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_025	POINTHOR	821443.3	824021.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_026	POINTHOR	821393.9	824013.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_027	POINTHOR	821344.3	824006	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_028	POINTHOR	821296.8	823989.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_029	POINTHOR	821249.2	823972.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_030	POINTHOR	821201.7	823955.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_031	POINTHOR	821152.4	823948.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_032	POINTHOR	821102.4	823945.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_033	POINTHOR	821052.4	823942.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_034	POINTHOR	823091.4	824191.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_035	POINTHOR	823048.6	824163.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_036	POINTHOR	823005.9	824135.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_037	POINTHOR	822963.2	824107.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_038	POINTHOR	822920.5	824079.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_039	POINTHOR	822877.8	824051	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_040	POINTHOR	822835	824022.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_041	POINTHOR	822792.3	823994.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_042	POINTHOR	822749.6	823966.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_043	POINTHOR	822706.9	823938.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_044	POINTHOR	822664.2	823910.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_LF1_045	POINTHOR	822621.4	823882.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_046	POINTHOR	822578.7	823854.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_047	POINTHOR	822536	823826.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_048	POINTHOR	822493.3	823798	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_049	POINTHOR	822450.5	823769.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_050	POINTHOR	822407.8	823741.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_051	POINTHOR	822365.1	823713.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_052	POINTHOR	822322.4	823685.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_053	POINTHOR	822279.7	823657.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_054	POINTHOR	822236.9	823629.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_055	POINTHOR	822194.2	823601.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_056	POINTHOR	822148.8	823579.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_057	POINTHOR	822101.9	823560.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_058	POINTHOR	822055.1	823541	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_059	POINTHOR	822008.3	823521.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_060	POINTHOR	821961.5	823502.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_061	POINTHOR	821914.7	823483.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_062	POINTHOR	821867.9	823464.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_063	POINTHOR	821821.1	823445.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_064	POINTHOR	821774.3	823426.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_065	POINTHOR	821727.4	823407	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_066	POINTHOR	821680.6	823387.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_067	POINTHOR	821633.8	823368.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_068	POINTHOR	821587	823349.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_069	POINTHOR	821540.2	823330.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_070	POINTHOR	821493.4	823311.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_071	POINTHOR	821446.5	823292.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_072	POINTHOR	821399.7	823273.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_073	POINTHOR	821352.9	823253.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_074	POINTHOR	821306.1	823234.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_075	POINTHOR	821259.3	823215.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_076	POINTHOR	821212.5	823196.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_077	POINTHOR	821165.7	823177.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_078	POINTHOR	821118.8	823158.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_079	POINTHOR	823119	823619.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_080	POINTHOR	823081.5	823583.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_081	POINTHOR	823044	823547.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_082	POINTHOR	823006.6	823511.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_083	POINTHOR	822969.1	823476.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_084	POINTHOR	822931.6	823440.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_085	POINTHOR	822894.1	823404.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_086	POINTHOR	822856.7	823369	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_087	POINTHOR	822819.2	823333.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_088	POINTHOR	822781.7	823297.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_LF1_089	POINTHOR	822744.3	823261.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_090	POINTHOR	822706.8	823226.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_091	POINTHOR	822669.3	823190.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_092	POINTHOR	822631.8	823154.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_093	POINTHOR	822594.4	823118.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_094	POINTHOR	822556.9	823083.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_095	POINTHOR	822519.4	823047.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_096	POINTHOR	822481.9	823011.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_097	POINTHOR	822444.5	822976	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_098	POINTHOR	822407	822940.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_099	POINTHOR	822369.5	822904.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_100	POINTHOR	822332	822868.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_101	POINTHOR	822289.2	822842.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_102	POINTHOR	822243.1	822821.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_103	POINTHOR	822196.9	822800.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_104	POINTHOR	822150.8	822779.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_105	POINTHOR	822104.6	822758.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_106	POINTHOR	822058.5	822737.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_107	POINTHOR	822012.3	822716.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_108	POINTHOR	821966.2	822695.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_109	POINTHOR	821920	822674.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_110	POINTHOR	821873.9	822653.9	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_111	POINTHOR	821827.7	822633	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_112	POINTHOR	821781.6	822612	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_113	POINTHOR	821735.4	822591.1	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_114	POINTHOR	821689.3	822570.2	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_115	POINTHOR	821643.1	822549.3	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_116	POINTHOR	821597	822528.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_117	POINTHOR	821550.8	822507.4	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_118	POINTHOR	821504.7	822486.5	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_119	POINTHOR	821458.5	822465.6	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_120	POINTHOR	821412.4	822444.7	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05
2	1	G2_LF1_121	POINTHOR	821366.2	822423.8	0	1.3	773	8	0.7	3.55E-03	8.53E-05	7.98E-05

Notes:

[1] Modelling parameters are referred to Approved EIA of Proposed Road Improvement Works in West Kowloon Reclamation Development – Phase 1 – Investigation, Design and Construction (AEIAR-179/2013) and Expansion of Hong Kong Airport into a Three-Runway System (AEIAR-185/2014).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	87

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:

[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 2	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	0	0.0%
1	2	0	0.0%
2	3	0	0.0%
3	4	2	2.3%
4	5	0	0.0%
5	6	0	0.0%
6	7	0	0.0%
7	8	2	2.3%
8	9	2	2.3%
9	10	14	16.1%
10	11	6	6.9%
11	12	3	3.4%
12	13	15	17.2%
13	14	5	5.7%
14	15	4	4.6%
15	16	10	11.5%
16	17	3	3.4%
17	18	4	4.6%
18	19	5	5.7%
19	20	2	2.3%
20	21	4	4.6%
21	22	1	1.1%
22	23	1	1.1%
23	24	4	4.6%

Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 0 marine vessels for the first hour during the whole December.

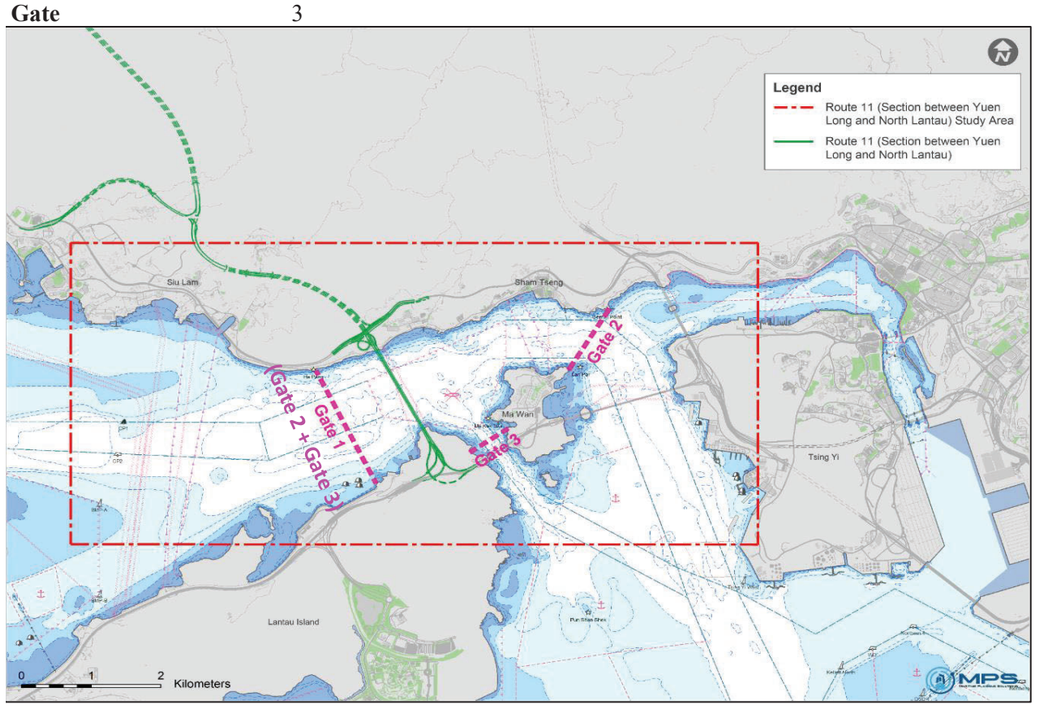
Annex II
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Local Ferries_Gate 3

Marine Traffic Information

Assessment Year 2048

Assessed Vessel Type Local Ferries

Gate 3



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 3	38	9	3,600

Notes:

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 10 knot is provided by Marine Traffic Consultant.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [3]		
		NO_X	RSP	FSP
1	Local Ferry	0.7160	0.0172	0.0161

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 4-9 and Table 4-10 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The average engine powers are based on desktop review. The average main and auxiliary engine power are 1400kW and 188kW respectively.

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-17. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_LF1_001	POINTHOR	824110.1	822432.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_002	POINTHOR	824075	822470.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_003	POINTHOR	824039.9	822509.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_004	POINTHOR	824004.9	822547.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_005	POINTHOR	823969.8	822586.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_006	POINTHOR	823934.8	822624.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_007	POINTHOR	823899.7	822663	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_008	POINTHOR	823864.6	822701.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_009	POINTHOR	823829.6	822739.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_010	POINTHOR	823794.5	822778.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_011	POINTHOR	823759.5	822816.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_012	POINTHOR	823724.4	822855.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_013	POINTHOR	823689.4	822893.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_014	POINTHOR	823654.3	822932.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_015	POINTHOR	823619.2	822970.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_016	POINTHOR	823584.2	823009	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_017	POINTHOR	823549.1	823047.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_018	POINTHOR	823514.1	823085.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_019	POINTHOR	823479	823124.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_020	POINTHOR	823443.9	823162.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_021	POINTHOR	823404.9	823195.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_022	POINTHOR	823361.3	823222	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_023	POINTHOR	823317.6	823248.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_024	POINTHOR	823273.9	823274.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_LF1_025	POINTHOR	823230.2	823301	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_026	POINTHOR	823186.5	823327.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_027	POINTHOR	823142.8	823353.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_028	POINTHOR	823099.2	823380	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_029	POINTHOR	823055.5	823406.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_030	POINTHOR	823011.8	823432.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_031	POINTHOR	822968.1	823458.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_032	POINTHOR	822924.4	823485.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_033	POINTHOR	822880.7	823511.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_034	POINTHOR	822837.1	823537.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_035	POINTHOR	822793.4	823564.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_036	POINTHOR	822748.4	823587.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_037	POINTHOR	822700.3	823602.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_038	POINTHOR	822652.1	823617	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_039	POINTHOR	822604	823631.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_040	POINTHOR	822555.9	823646.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_041	POINTHOR	822507.8	823661.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_042	POINTHOR	822459.6	823676.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_043	POINTHOR	822411.5	823691.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_044	POINTHOR	822363.4	823706.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_045	POINTHOR	822315.3	823721.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_046	POINTHOR	822267.2	823736.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_047	POINTHOR	822219	823751.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_048	POINTHOR	822170.9	823766	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_049	POINTHOR	822122.8	823780.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_050	POINTHOR	822074.7	823795.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_051	POINTHOR	822026.5	823810.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_052	POINTHOR	821978.4	823825.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_053	POINTHOR	821930.3	823840.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_054	POINTHOR	821881.6	823852.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_055	POINTHOR	821831.7	823857.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_056	POINTHOR	821781.9	823862.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_057	POINTHOR	821732	823867.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_058	POINTHOR	821682.2	823872.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_059	POINTHOR	821632.3	823877.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_060	POINTHOR	821582.5	823882.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_061	POINTHOR	821532.6	823887.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_062	POINTHOR	821482.7	823892.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_063	POINTHOR	821432.9	823897.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_064	POINTHOR	821383	823902.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_065	POINTHOR	821333.2	823908	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_066	POINTHOR	821283.3	823913.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_067	POINTHOR	821233.5	823918.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_068	POINTHOR	821183.6	823923.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_069	POINTHOR	821133.7	823928.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_070	POINTHOR	821083.9	823933.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_LF1_071	POINTHOR	821034	823938.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_072	POINTHOR	824016.8	822432.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_073	POINTHOR	823982	822471.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_074	POINTHOR	823947.3	822510.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_075	POINTHOR	823912.5	822548.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_076	POINTHOR	823877.7	822587.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_077	POINTHOR	823843	822626.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_078	POINTHOR	823808.2	822665.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_079	POINTHOR	823773.5	822703.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_080	POINTHOR	823738.7	822742.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_081	POINTHOR	823704	822781.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_082	POINTHOR	823669.2	822820.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_083	POINTHOR	823634.4	822859	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_084	POINTHOR	823599.7	822897.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_085	POINTHOR	823558.7	822928.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_086	POINTHOR	823517.7	822959.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_087	POINTHOR	823476.6	822990.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_088	POINTHOR	823435.5	823021.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_089	POINTHOR	823394.4	823051.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_090	POINTHOR	823353.4	823082.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_091	POINTHOR	823312.3	823113.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_092	POINTHOR	823271.2	823144.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_093	POINTHOR	823230.1	823175.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_094	POINTHOR	823189.1	823205.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_095	POINTHOR	823144.8	823229.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_096	POINTHOR	823096.3	823242.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_097	POINTHOR	823047.9	823256.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_098	POINTHOR	822999.5	823270.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_099	POINTHOR	822951	823284	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_100	POINTHOR	822902.6	823297.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_101	POINTHOR	822854.2	823311.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_102	POINTHOR	822805.7	823325.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_103	POINTHOR	822757.3	823338.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_104	POINTHOR	822708.9	823352.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_105	POINTHOR	822660.4	823366.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_106	POINTHOR	822612	823379.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_107	POINTHOR	822563.6	823393.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_108	POINTHOR	822515.2	823407.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_109	POINTHOR	822466.7	823420.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_110	POINTHOR	822417.5	823409.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_111	POINTHOR	822368.4	823399.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_112	POINTHOR	822319.2	823389.5	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_113	POINTHOR	822270	823379.3	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_114	POINTHOR	822220.8	823369.1	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_115	POINTHOR	822171.7	823358.9	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_116	POINTHOR	822122.5	823348.7	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_LF1_117	POINTHOR	822073.3	823338.4	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_118	POINTHOR	822024.1	823328.2	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_119	POINTHOR	821975	823318	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_120	POINTHOR	821925.8	823307.8	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_121	POINTHOR	821876.6	823297.6	0	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_122	POINTHOR	821827.4	823287.4	1	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_123	POINTHOR	821778.3	823277.2	2	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_124	POINTHOR	821729.1	823267	3	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_125	POINTHOR	821679.9	823256.8	4	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_126	POINTHOR	821630.7	823246.6	5	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_127	POINTHOR	821581.6	823236.3	6	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_128	POINTHOR	821532.4	823226.1	7	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_129	POINTHOR	821483.2	823215.9	8	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_130	POINTHOR	821434	823205.7	9	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_131	POINTHOR	821384.8	823195.5	10	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_132	POINTHOR	821335.7	823185.3	11	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_133	POINTHOR	821286.5	823175.1	12	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_134	POINTHOR	821237.3	823164.9	13	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_135	POINTHOR	821188.1	823154.7	14	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_136	POINTHOR	821139	823144.5	15	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_137	POINTHOR	823900.2	822434.5	16	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_138	POINTHOR	823867.4	822475.1	17	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_139	POINTHOR	823834.6	822515.7	18	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_140	POINTHOR	823801.7	822556.4	19	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_141	POINTHOR	823768.9	822597	20	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_142	POINTHOR	823736	822637.7	21	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_143	POINTHOR	823703.2	822678.3	22	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_144	POINTHOR	823670.4	822719	23	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_145	POINTHOR	823637.5	822759.6	24	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_146	POINTHOR	823596.8	822790.7	25	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_147	POINTHOR	823555.2	822820.6	26	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_148	POINTHOR	823513.6	822850.6	27	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_149	POINTHOR	823472	822880.5	28	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_150	POINTHOR	823430.3	822910.4	29	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_151	POINTHOR	823388.7	822940.3	30	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_152	POINTHOR	823344.9	822966.2	31	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_153	POINTHOR	823299.8	822989.6	32	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_154	POINTHOR	823254.6	823012.9	33	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_155	POINTHOR	823209.5	823036.2	34	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_LF1_156	POINTHOR	823164.3	823059.5	35	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_157	POINTHOR	823118.8	823081.9	36	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_158	POINTHOR	823073.3	823104.3	37	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_159	POINTHOR	823027.7	823126.7	38	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_160	POINTHOR	822982.2	823149.1	39	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_161	POINTHOR	822936.7	823171.5	40	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_162	POINTHOR	822891.1	823194	41	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_163	POINTHOR	822842.6	823206.7	42	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_164	POINTHOR	822793.6	823218	43	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_165	POINTHOR	822744.7	823229.3	44	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_166	POINTHOR	822695.7	823240.6	45	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_167	POINTHOR	822646.7	823251.9	46	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_168	POINTHOR	822606.9	823238	47	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_169	POINTHOR	822578.1	823194	48	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_170	POINTHOR	822549.4	823149.9	49	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_171	POINTHOR	822520.6	823105.9	50	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_172	POINTHOR	822491.8	823061.8	51	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_173	POINTHOR	822463	823017.7	52	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_174	POINTHOR	822434.2	822973.7	53	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_175	POINTHOR	822405.4	822929.6	54	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_176	POINTHOR	822370.4	822893.1	55	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_177	POINTHOR	822326.1	822868.2	56	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_178	POINTHOR	822281.7	822843.2	57	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_179	POINTHOR	822237.3	822818.2	58	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_180	POINTHOR	822193	822793.2	59	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_181	POINTHOR	822148.6	822768.3	60	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_182	POINTHOR	822104.2	822743.3	61	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_183	POINTHOR	822059.8	822718.3	62	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_184	POINTHOR	822015.5	822693.4	63	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_185	POINTHOR	821971.1	822668.4	64	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_186	POINTHOR	821926.7	822643.4	65	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_187	POINTHOR	821882.3	822618.4	66	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_188	POINTHOR	821837.9	822593.5	67	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_189	POINTHOR	821792.1	822572.3	68	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_190	POINTHOR	821744.5	822555.4	69	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_191	POINTHOR	821696.9	822538.6	70	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_192	POINTHOR	821649.4	822521.8	71	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_193	POINTHOR	821601.8	822505	72	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_194	POINTHOR	821554.2	822488.2	73	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_195	POINTHOR	821506.6	822471.4	74	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_196	POINTHOR	821459	822454.6	75	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_197	POINTHOR	821411.4	822437.8	76	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05
3	1	G3_LF1_198	POINTHOR	821363.9	822421	77	1.3	773	8	0.7	3.62E-03	8.68E-05	8.12E-05

Notes:

[1] Modelling parameters are referred to Approved EIA of Proposed Road Improvement Works in West Kowloon Reclamation Development – Phase 1 – Investigation, Design and Construction (AEIAR-179/2013) and Expansion of Hong Kong Airport into a Three-Runway System (AEIAR-185/2014).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 3	38

Notes:
[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:
[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 3	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	1	2.6%
1	2	0	0.0%
2	3	0	0.0%
3	4	0	0.0%
4	5	0	0.0%
5	6	2	5.3%
6	7	0	0.0%
7	8	2	5.3%
8	9	0	0.0%
9	10	1	2.6%
10	11	1	2.6%
11	12	4	10.5%
12	13	0	0.0%
13	14	3	7.9%
14	15	4	10.5%
15	16	3	7.9%
16	17	1	2.6%
17	18	1	2.6%
18	19	7	18.4%
19	20	3	7.9%
20	21	4	10.5%
21	22	0	0.0%
22	23	0	0.0%
23	24	1	2.6%

Notes:
[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 1 marine vessels for the first hour during the whole December.

Legend

- Gate 2 LF Modelled Sources
- Gate 3 LF Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 2 LF Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 3 LF Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

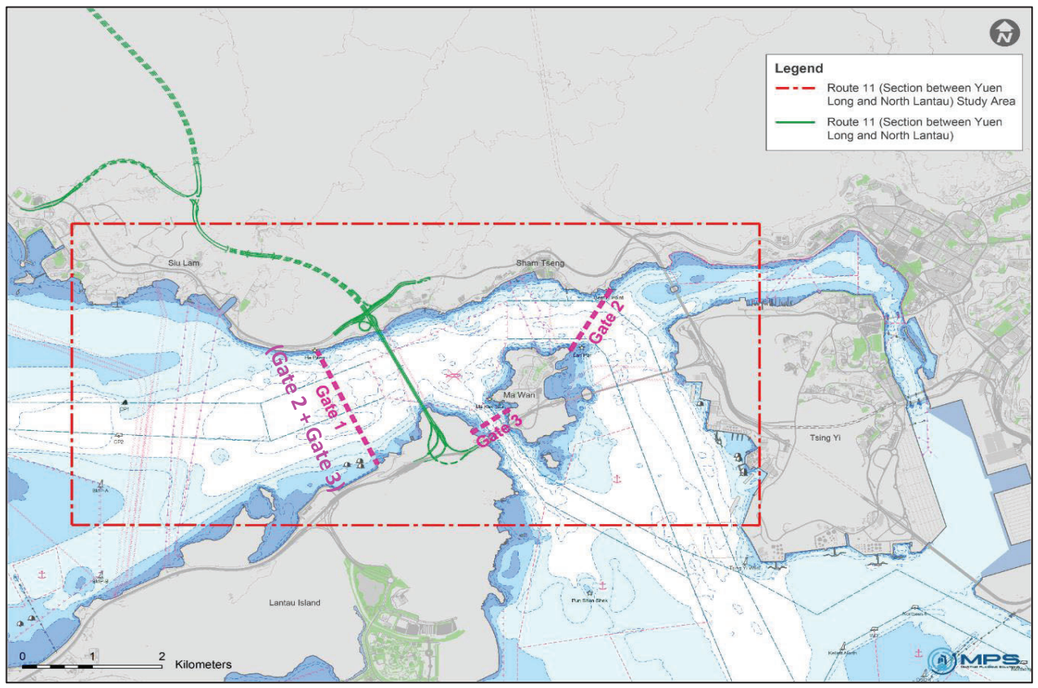
Appendix 3.10e

Emission Inventory and Source Locations for Local Vessels (Fast Launches) at Ha Pang Fairway in Year 2048

Annex I
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Fast Launches_Gate 2

Marine Traffic Information

Assessment Year 2048
Assessed Vessel Type Fast Launches
Gate 2



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 2	2,030	6	2,400

Notes

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.
[2] Average speed of 6 knot is provided by Marine Traffic Consultant.
[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [2]			Percentage of Vessel Counts [3]	Composite Emission Rate per Trip (g/s) [4]		
		NO_X	RSP	FSP		NOx	RSP	FSP
1	Government Launch	0.289	0.008	0.008	60%	0.202	0.006	0.006
	Pilot Boat	0.072	0.002	0.002	40%			

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] As adivsed by marine traffic consultant, the fast launch is composed of 60% government launch and 40% pilot boat.

[4] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are calculated from actual speed provided by the Marine Traffic Consultant divided by the maximum speed based on desktop review, or made reference to Table 3-2, Table 3-3 and Table 3-56 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder".

(iii) The average engine powers are based on desktop review.

(iv) The engine emission factors are made reference to Table 3-4, Table 3-9, Table 3-38, Table 3-39 and Table 3-58 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder". Tier 2 emission factors are adopted, which assumed the age of vessels is >40 years old in Year 2048 for conservative assessment. Emission factors of FSP is assumed to be the same as those of RSP.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_FL1_001	POINTHOR	822586.6	824415.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_002	POINTHOR	822538.8	824398.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_003	POINTHOR	822491.1	824382.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_004	POINTHOR	822443.3	824366.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_005	POINTHOR	822395.6	824350.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_006	POINTHOR	822347.8	824333.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_007	POINTHOR	822300.1	824317.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_008	POINTHOR	822252.4	824301.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_009	POINTHOR	822204.6	824285.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_010	POINTHOR	822156.9	824268.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_011	POINTHOR	822109.1	824252.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_012	POINTHOR	822061.3	824236.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_013	POINTHOR	822013.2	824221.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_014	POINTHOR	821965.2	824206.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_015	POINTHOR	821917.1	824191.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_016	POINTHOR	821869.1	824176	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_017	POINTHOR	821821	824160.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_018	POINTHOR	821772.9	824145.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_019	POINTHOR	821724.9	824130.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_020	POINTHOR	821676.8	824115.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_021	POINTHOR	821628.8	824100.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_022	POINTHOR	821580.7	824085	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_023	POINTHOR	821532.7	824069.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_024	POINTHOR	821484.6	824054.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_025	POINTHOR	821436	824042.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_026	POINTHOR	821386.6	824033.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_027	POINTHOR	821337.1	824024.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_028	POINTHOR	821287.7	824016.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_029	POINTHOR	821238.3	824007.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_030	POINTHOR	821188.9	823998.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_031	POINTHOR	821139.4	823990.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_032	POINTHOR	821090	823981.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_033	POINTHOR	821040.6	823972.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_034	POINTHOR	823109.9	824095.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_035	POINTHOR	823062.9	824077.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_036	POINTHOR	823015.8	824059.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_037	POINTHOR	822968.7	824040.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_038	POINTHOR	822921.6	824022.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_039	POINTHOR	822874.5	824004.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_040	POINTHOR	822827.5	823985.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_041	POINTHOR	822780.4	823967.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_042	POINTHOR	822733.3	823949	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_043	POINTHOR	822686.2	823930.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_044	POINTHOR	822639.1	823912.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_FL1_045	POINTHOR	822592.1	823893.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_046	POINTHOR	822545	823875.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_047	POINTHOR	822497.9	823857.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_048	POINTHOR	822450.8	823838.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_049	POINTHOR	822403.7	823820.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_050	POINTHOR	822356.7	823802.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_051	POINTHOR	822309.6	823783.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_052	POINTHOR	822263.5	823763	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_053	POINTHOR	822218.7	823738.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_054	POINTHOR	822174	823714.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_055	POINTHOR	822129.3	823690.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_056	POINTHOR	822084.5	823666.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_057	POINTHOR	822039.8	823642	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_058	POINTHOR	821995	823617.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_059	POINTHOR	821950.3	823593.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_060	POINTHOR	821905.6	823569.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_061	POINTHOR	821860.8	823545.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_062	POINTHOR	821816.1	823521	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_063	POINTHOR	821771.3	823496.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_064	POINTHOR	821726.6	823472.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_065	POINTHOR	821681.8	823448.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_066	POINTHOR	821637.1	823424.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_067	POINTHOR	821592.4	823400	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_068	POINTHOR	821547.6	823375.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_069	POINTHOR	821502.9	823351.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_070	POINTHOR	821456.3	823332.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_071	POINTHOR	821409.1	823314	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_072	POINTHOR	821361.9	823295.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_073	POINTHOR	821314.7	823277.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_074	POINTHOR	821267.5	823259.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_075	POINTHOR	821220.4	823241.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_076	POINTHOR	821173.2	823223.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_077	POINTHOR	821126	823205.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_078	POINTHOR	823114.1	823658.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_079	POINTHOR	823070.4	823631.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_080	POINTHOR	823026.7	823605.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_081	POINTHOR	822983.1	823579.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_082	POINTHOR	822939.4	823553	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_083	POINTHOR	822895.7	823526.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_084	POINTHOR	822852	823500.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_085	POINTHOR	822808.3	823474	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_086	POINTHOR	822764.6	823447.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_087	POINTHOR	822720.9	823421.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_088	POINTHOR	822677.2	823395	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_FL1_089	POINTHOR	822633.5	823368.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_090	POINTHOR	822589.8	823342.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_091	POINTHOR	822546.1	823316	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_092	POINTHOR	822502.5	823289.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_093	POINTHOR	822458.8	823263.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_094	POINTHOR	822415	823237.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_095	POINTHOR	822371.3	823210.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_096	POINTHOR	822327.6	823184.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_097	POINTHOR	822283.9	823158.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_098	POINTHOR	822240.2	823132	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_099	POINTHOR	822196.5	823105.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_100	POINTHOR	822152.7	823079.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_101	POINTHOR	822109	823053.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_102	POINTHOR	822065.3	823026.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_103	POINTHOR	822021.6	823000.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_104	POINTHOR	821977.9	822974.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_105	POINTHOR	821933.8	822948.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_106	POINTHOR	821889.2	822924.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_107	POINTHOR	821844.7	822899.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_108	POINTHOR	821800.2	822874.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_109	POINTHOR	821755.7	822850.2	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_110	POINTHOR	821711.1	822825.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_111	POINTHOR	821666.6	822800.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_112	POINTHOR	821622.1	822776.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_113	POINTHOR	821577.6	822751.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_114	POINTHOR	821533.1	822726.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_115	POINTHOR	821488.5	822702.3	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_116	POINTHOR	821443.8	822678.1	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_117	POINTHOR	821399	822654	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_118	POINTHOR	821354.2	822629.9	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_119	POINTHOR	821309.4	822605.8	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_120	POINTHOR	821264.6	822581.7	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_121	POINTHOR	821219.8	822557.6	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_122	POINTHOR	821175	822533.5	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05
2	1	G2_FL1_123	POINTHOR	821130.3	822509.4	0	6	773	8	0.7	1.64E-03	4.58E-05	4.58E-05

Notes:

[1] Modelling parameters are referred to Approved EIA of Lei Yue Mun Waterfront Enhancement Project (AERIAR-219/2018).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	2,030

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:

[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 2	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	29	1.4%
1	2	29	1.4%
2	3	24	1.2%
3	4	41	2.0%
4	5	24	1.2%
5	6	135	6.7%
6	7	118	5.8%
7	8	111	5.5%
8	9	102	5.0%
9	10	99	4.9%
10	11	130	6.4%
11	12	86	4.2%
12	13	106	5.2%
13	14	85	4.2%
14	15	100	4.9%
15	16	95	4.7%
16	17	108	5.3%
17	18	156	7.7%
18	19	112	5.5%
19	20	85	4.2%
20	21	102	5.0%
21	22	64	3.2%
22	23	45	2.2%
23	24	44	2.2%

Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 29 marine vessels for the first hour during the whole December.

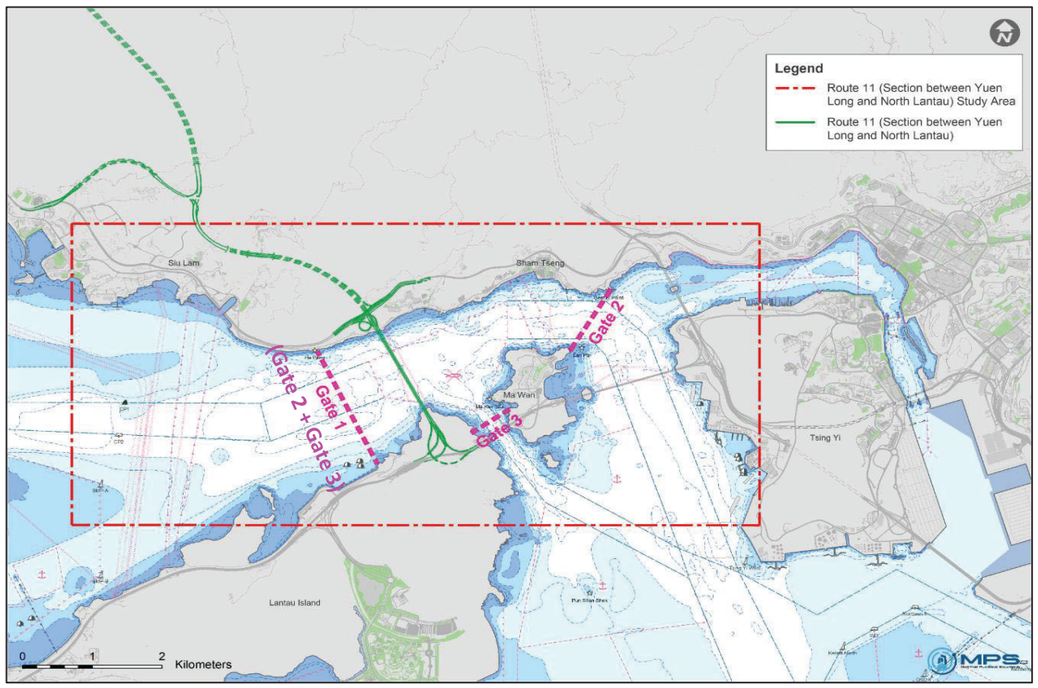
Annex II
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Fast Launches_Gate 3

Marine Traffic Information

Assessment Year 2048

Assessed Vessel Type Fast Launches

Gate 3



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 3	485	7	4,000

Notes:

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 6 knot is provided by Marine Traffic Consultant.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type	Emission Rate per Trip (g/s) [2]			Percentage of Vessel Counts [3]	Composite Emission Rate per Trip (g/s) [4]		
		NO_X	RSP	FSP		NOx	RSP	FSP
1	Government Launch	0.470	0.013	0.013	60%	0.330	0.009	0.009
	Pilot Boat	0.120	0.003	0.003	40%			

Engine in Operation

Engine	On (1) or Off (0) [2]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

[3] As adivsed by marine traffic consultant, the fast launch is composed of 60% government launch and 40% pilot boat.

[4] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are calculated from actual speed provided by the Marine Traffic Consultant divided by the maximum speed based on desktop review, or made reference to Table 3-2, Table 3-3 and Table 3-56 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder".

(iii) The average engine powers are based on desktop review.

(iv) The engine emission factors are made reference to Table 3-4, Table 3-9, Table 3-38, Table 3-39 and Table 3-58 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder". Tier 2 emission factors are adopted, which assumed the age of vessels is >40 years old in Year 2048 for conservative assessment. Emission factors of FSP is assumed to be the same as those of RSP.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_FL1_001	POINTHOR	824144.7	822488.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_002	POINTHOR	824112.6	822529.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_003	POINTHOR	824080.5	822570.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_004	POINTHOR	824048.4	822612.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_005	POINTHOR	824016.4	822653.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_006	POINTHOR	823984.3	822694.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_007	POINTHOR	823952.2	822736.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_008	POINTHOR	823920.1	822777.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_009	POINTHOR	823888	822818.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_010	POINTHOR	823855.9	822860.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_011	POINTHOR	823823.8	822901.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_012	POINTHOR	823791.8	822942.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_013	POINTHOR	823759.7	822984.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_014	POINTHOR	823727.6	823025.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_015	POINTHOR	823695.5	823066.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_016	POINTHOR	823663.4	823108.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_017	POINTHOR	823631.3	823149.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_018	POINTHOR	823599.2	823190.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_FL1_019	POINTHOR	823567.2	823232.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_020	POINTHOR	823535.1	823273.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_021	POINTHOR	823503	823314.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_022	POINTHOR	823470.9	823356.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_023	POINTHOR	823438.8	823397.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_024	POINTHOR	823402.2	823432.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_025	POINTHOR	823358.3	823458.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_026	POINTHOR	823314.5	823484.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_027	POINTHOR	823270.6	823510.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_028	POINTHOR	823226.7	823536.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_029	POINTHOR	823182.8	823562.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_030	POINTHOR	823139	823588.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_031	POINTHOR	823095.1	823614.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_032	POINTHOR	823051.2	823640.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_033	POINTHOR	823007.4	823666.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_034	POINTHOR	822963.5	823692.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_035	POINTHOR	822919.6	823718.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_036	POINTHOR	822875	823742.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_037	POINTHOR	822827.8	823760.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_038	POINTHOR	822780.5	823778.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_039	POINTHOR	822733.2	823796.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_040	POINTHOR	822686	823813.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_041	POINTHOR	822638.7	823831.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_042	POINTHOR	822591.5	823849.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_043	POINTHOR	822544.2	823867.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_044	POINTHOR	822496.9	823885.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_045	POINTHOR	822449.7	823902.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_046	POINTHOR	822402.4	823920.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_047	POINTHOR	822355.1	823938.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_048	POINTHOR	822307.9	823956.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_049	POINTHOR	822259.5	823970	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_050	POINTHOR	822211	823983.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_051	POINTHOR	822162.5	823997.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_052	POINTHOR	822114.1	824010.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_053	POINTHOR	822065.2	824021.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_054	POINTHOR	822015.1	824022.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_055	POINTHOR	821965.1	824024.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_056	POINTHOR	821915	824026.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_057	POINTHOR	821865	824028.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_058	POINTHOR	821814.9	824030.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_059	POINTHOR	821764.9	824031.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_060	POINTHOR	821714.8	824033.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_061	POINTHOR	821664.8	824033.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_062	POINTHOR	821614.8	824029.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_FL1_063	POINTHOR	821564.9	824025.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_064	POINTHOR	821514.9	824022.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_065	POINTHOR	821465.8	824012.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_066	POINTHOR	821417.3	823999.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_067	POINTHOR	821368.8	823985.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_068	POINTHOR	821320.3	823972.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_069	POINTHOR	821271.7	823959.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_070	POINTHOR	821222.6	823953.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_071	POINTHOR	821172.7	823957.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_072	POINTHOR	821122.8	823961.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_073	POINTHOR	821072.8	823965.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_074	POINTHOR	821022.9	823970	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_075	POINTHOR	824043.8	822434.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_076	POINTHOR	824011.1	822475.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_077	POINTHOR	823978.4	822516.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_078	POINTHOR	823945.7	822557.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_079	POINTHOR	823913.1	822597.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_080	POINTHOR	823880.4	822638.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_081	POINTHOR	823847.7	822679.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_082	POINTHOR	823815	822720.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_083	POINTHOR	823782.4	822761	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_084	POINTHOR	823749.7	822801.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_085	POINTHOR	823717	822842.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_086	POINTHOR	823684.3	822883.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_087	POINTHOR	823651.7	822924.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_088	POINTHOR	823618.3	822964.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_089	POINTHOR	823578.1	822996.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_090	POINTHOR	823537.8	823028.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_091	POINTHOR	823497.6	823060.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_092	POINTHOR	823457.3	823092.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_093	POINTHOR	823417.1	823124.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_094	POINTHOR	823376.9	823156.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_095	POINTHOR	823336.6	823188.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_096	POINTHOR	823296.4	823220.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_097	POINTHOR	823256.1	823252.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_098	POINTHOR	823215.9	823284.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_099	POINTHOR	823175.7	823316.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_100	POINTHOR	823133.6	823345.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_101	POINTHOR	823086.8	823364.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_102	POINTHOR	823040	823383.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_103	POINTHOR	822993.1	823402.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_104	POINTHOR	822946.3	823421.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_105	POINTHOR	822899.5	823440.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_106	POINTHOR	822852.7	823459.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_FL1_107	POINTHOR	822805.8	823478.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_108	POINTHOR	822757.8	823491.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_109	POINTHOR	822707.8	823494.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_110	POINTHOR	822657.8	823497.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_111	POINTHOR	822607.8	823500	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_112	POINTHOR	822557.8	823502.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_113	POINTHOR	822507.7	823505.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_114	POINTHOR	822457.7	823508	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_115	POINTHOR	822407.7	823510.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_116	POINTHOR	822357.7	823513.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_117	POINTHOR	822307.7	823516	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_118	POINTHOR	822257.6	823518.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_119	POINTHOR	822207.6	823521.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_120	POINTHOR	822159.6	823506.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_121	POINTHOR	822111.8	823490.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_122	POINTHOR	822063.9	823474.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_123	POINTHOR	822016	823459	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_124	POINTHOR	821968.2	823443.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_125	POINTHOR	821920.3	823427.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_126	POINTHOR	821872.4	823411.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_127	POINTHOR	821824.6	823395.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_128	POINTHOR	821776.7	823379.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_129	POINTHOR	821728.8	823363.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_130	POINTHOR	821681	823348.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_131	POINTHOR	821633.1	823332.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_132	POINTHOR	821585.2	823316.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_133	POINTHOR	821537.4	823300.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_134	POINTHOR	821489.5	823284.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_135	POINTHOR	821441.6	823268.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_136	POINTHOR	821393.8	823253.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_137	POINTHOR	821345.9	823237.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_138	POINTHOR	821298	823221.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_139	POINTHOR	821250.2	823205.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_140	POINTHOR	821202.3	823189.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_141	POINTHOR	821154.4	823173.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_142	POINTHOR	823881.7	822431.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_143	POINTHOR	823851	822474.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_144	POINTHOR	823820.2	822516.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_145	POINTHOR	823789.5	822559.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_146	POINTHOR	823758.8	822601.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_147	POINTHOR	823728.1	822644.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_148	POINTHOR	823697.4	822686.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_149	POINTHOR	823660.6	822722.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_150	POINTHOR	823621.9	822757.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_FL1_151	POINTHOR	823583.3	822791.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_152	POINTHOR	823544.6	822825.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_153	POINTHOR	823506	822859.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_154	POINTHOR	823467.3	822894	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_155	POINTHOR	823428.6	822928.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_156	POINTHOR	823390	822962.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_157	POINTHOR	823351.3	822996.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_158	POINTHOR	823312.7	823030.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_159	POINTHOR	823274	823065.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_160	POINTHOR	823235.4	823099.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_161	POINTHOR	823192	823124.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_162	POINTHOR	823144.6	823141.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_163	POINTHOR	823097.1	823159	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_164	POINTHOR	823049.7	823176.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_165	POINTHOR	823002.3	823193.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_166	POINTHOR	822954.8	823210.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_167	POINTHOR	822907.2	823227.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_168	POINTHOR	822857.8	823236.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_169	POINTHOR	822808.5	823245.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_170	POINTHOR	822759.2	823254.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_171	POINTHOR	822709.8	823264.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_172	POINTHOR	822661.7	823253.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_173	POINTHOR	822613.9	823237.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_174	POINTHOR	822566.1	823221.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_175	POINTHOR	822518.3	823205.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_176	POINTHOR	822470.5	823189	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_177	POINTHOR	822422.7	823172.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_178	POINTHOR	822377.5	823150	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_179	POINTHOR	822333.1	823125.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_180	POINTHOR	822288.7	823100.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_181	POINTHOR	822244.2	823075.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_182	POINTHOR	822199.8	823050.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_183	POINTHOR	822155.4	823025.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_184	POINTHOR	822111	823000.9	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_185	POINTHOR	822066.5	822976	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_186	POINTHOR	822022.1	822951.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_187	POINTHOR	821977.7	822926.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_188	POINTHOR	821933.2	822901.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_189	POINTHOR	821888.8	822876.6	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_190	POINTHOR	821844.4	822851.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_191	POINTHOR	821800	822826.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_192	POINTHOR	821755.5	822802	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_193	POINTHOR	821711.1	822777.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_194	POINTHOR	821666.7	822752.3	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_FL1_195	POINTHOR	821622.2	822727.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_196	POINTHOR	821577.8	822702.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_197	POINTHOR	821533.4	822677.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_198	POINTHOR	821489	822652.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_199	POINTHOR	821444.5	822628	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_200	POINTHOR	821400.1	822603.1	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_201	POINTHOR	821355.7	822578.2	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_202	POINTHOR	821311.2	822553.4	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_203	POINTHOR	821266.8	822528.5	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_204	POINTHOR	821222.4	822503.7	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_205	POINTHOR	821178	822478.8	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05
3	1	G3_FL1_206	POINTHOR	821133.5	822454	0	6	773	8	0.7	1.60E-03	4.46E-05	4.46E-05

Notes:

[1] Modelling parameters are referred to Approved EIA of Lei Yue Mun Waterfront Enhancement Project (AERIAR-219/2018).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 3	485

Notes:
[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

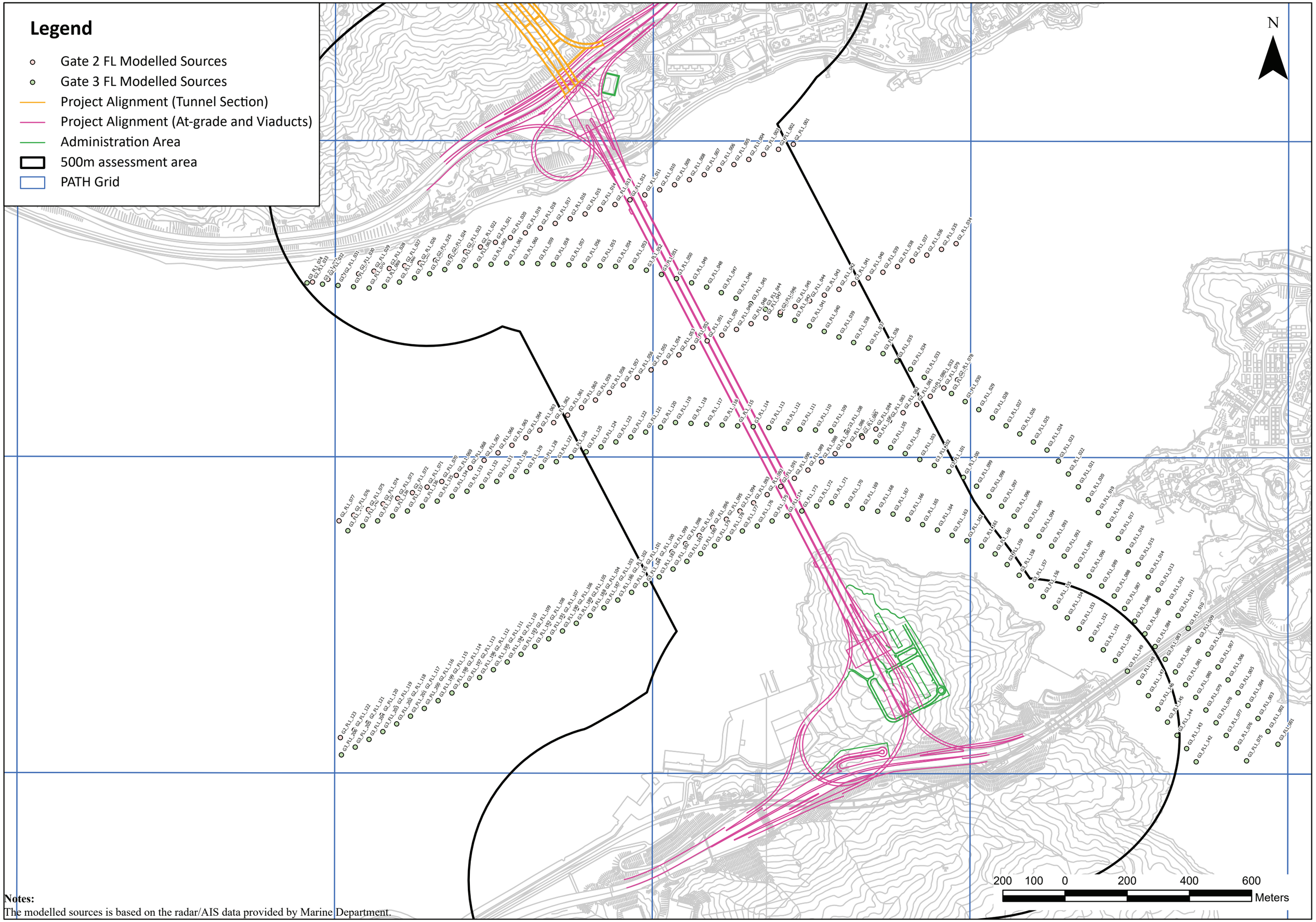
Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:
[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 3	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	12	2.5%
1	2	23	4.7%
2	3	23	4.7%
3	4	6	1.2%
4	5	26	5.4%
5	6	15	3.1%
6	7	32	6.6%
7	8	29	6.0%
8	9	14	2.9%
9	10	18	3.7%
10	11	26	5.4%
11	12	30	6.2%
12	13	18	3.7%
13	14	24	4.9%
14	15	26	5.4%
15	16	23	4.7%
16	17	14	2.9%
17	18	24	4.9%
18	19	17	3.5%
19	20	21	4.3%
20	21	18	3.7%
21	22	15	3.1%
22	23	20	4.1%
23	24	11	2.3%

Notes:
[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 12 marine vessels for the first hour during the whole December.



Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 2 FL Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid
- basemap - 5k-Polyline

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 3 FL Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600
Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Appendix 3.10f

Emission Inventory and Source Locations for Local Vessels (Small Crafts – Pleasure Vessels and Fishing Sampans) at Ha Pang Fairway in Year 2048

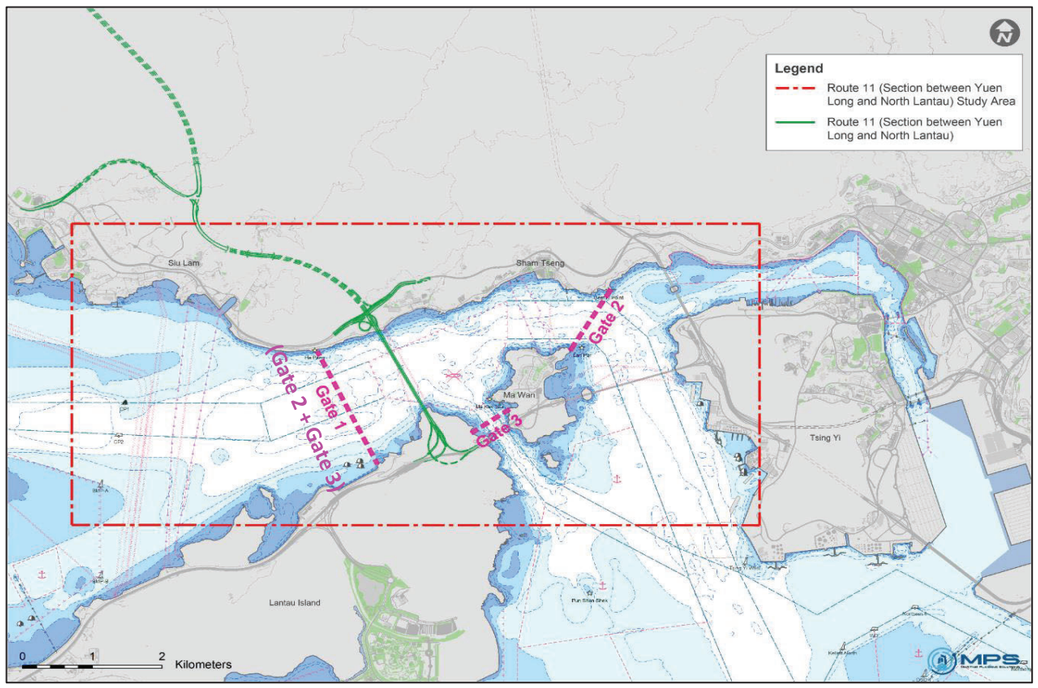
Annex I
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Small Crafts - pleasure vessels and sampan_Gate 2

Marine Traffic Information

Assessment Year 2048

Assessed Vessel Type Small Crafts - pleasure vessels and sampan

Gate 2



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 2	6,410	5	2,900

Notes

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 5 knot is provided by Marine Traffic Consultant.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type [2]	Emission Rate per Trip (g/s) [3]		
		NO_X	RSP	FSP
1	Pleasure Vessel	0.155	0.003	0.003
2	Sampan	0.030	0.001	0.001

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Marine traffic consultant advised the small craft is composed of pleasure vessel, sampan, work boat and tugboat.

[3] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 3-2, Table 3-3 and Table 3-56 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder".

(iii) The average engine powers are based on desktop review.

(iv) The engine emission factors are made reference to Table 3-4 and Table 3-58 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder". Tier 2 emission factors are adopted, which assumed the age of vessels is >40 years old in Year 2048 for conservative assessment. Emission factors of FSP is assumed to be the same as those of RSP.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_SC1_001	POINTHOR	822568.9	824550.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_002	POINTHOR	822519.8	824539.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_003	POINTHOR	822470.7	824529.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_004	POINTHOR	822421.6	824518.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_005	POINTHOR	822372.5	824508	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_006	POINTHOR	822323.4	824497.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_007	POINTHOR	822283.4	824467.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_008	POINTHOR	822246.1	824431.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_009	POINTHOR	822208.9	824395.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_010	POINTHOR	822171.6	824359.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_011	POINTHOR	822133.1	824325.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_012	POINTHOR	822085.1	824310.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_013	POINTHOR	822037	824295.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_014	POINTHOR	821988.9	824280.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_015	POINTHOR	821940.9	824265.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_016	POINTHOR	821892.8	824250.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_017	POINTHOR	821844.7	824235.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_018	POINTHOR	821796.7	824219.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_019	POINTHOR	821748.6	824204.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_020	POINTHOR	821700.5	824189.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_021	POINTHOR	821652.5	824174.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_SC1_022	POINTHOR	821604.4	824159.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_023	POINTHOR	821556.3	824144.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_024	POINTHOR	821508.3	824129.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_025	POINTHOR	821460.2	824114.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_026	POINTHOR	821412.1	824098.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_027	POINTHOR	821364.1	824083.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_028	POINTHOR	821316	824068.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_029	POINTHOR	821268	824053.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_030	POINTHOR	821219.9	824038.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_031	POINTHOR	821171.8	824023.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_032	POINTHOR	821122.7	824013.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_033	POINTHOR	821072.9	824008.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_034	POINTHOR	821023.1	824003.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_035	POINTHOR	820973.2	823997.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_036	POINTHOR	823115.8	824291.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_037	POINTHOR	823074.4	824261.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_038	POINTHOR	823032.9	824230.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_039	POINTHOR	822991.4	824200.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_040	POINTHOR	822950	824170.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_041	POINTHOR	822908.5	824140.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_042	POINTHOR	822867.1	824110.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_043	POINTHOR	822825.6	824079.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_044	POINTHOR	822784.1	824049.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_045	POINTHOR	822742.7	824019.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_046	POINTHOR	822701.2	823989.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_047	POINTHOR	822659.7	823959.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_048	POINTHOR	822618.3	823928.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_049	POINTHOR	822576.8	823898.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_050	POINTHOR	822535	823869.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_051	POINTHOR	822492.2	823841.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_052	POINTHOR	822449.4	823813.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_053	POINTHOR	822406.6	823785.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_054	POINTHOR	822363.8	823757.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_055	POINTHOR	822321	823729.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_056	POINTHOR	822278.2	823701.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_057	POINTHOR	822235.4	823673.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_058	POINTHOR	822192.6	823645.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_059	POINTHOR	822149.8	823617.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_060	POINTHOR	822107	823589.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_061	POINTHOR	822064.2	823561.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_062	POINTHOR	822021.4	823533.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_063	POINTHOR	821978.6	823505.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_064	POINTHOR	821935.8	823477.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_065	POINTHOR	821893	823449.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_SC1_066	POINTHOR	821850.2	823421.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_067	POINTHOR	821807.4	823393.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_068	POINTHOR	821764.6	823365.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_069	POINTHOR	821721.8	823337.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_070	POINTHOR	821679	823309.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_071	POINTHOR	821636.2	823281.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_072	POINTHOR	821593.4	823253.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_073	POINTHOR	821550.6	823226	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_074	POINTHOR	821507.8	823198	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_075	POINTHOR	821465	823170.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_076	POINTHOR	821422.2	823142.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_077	POINTHOR	821379.4	823114.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_078	POINTHOR	821336.6	823086.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_079	POINTHOR	821293.8	823058.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_080	POINTHOR	821251	823030.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_081	POINTHOR	821208.2	823002.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_082	POINTHOR	821165.3	822974.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_083	POINTHOR	821122.5	822946.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_084	POINTHOR	821580.3	822021.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_085	POINTHOR	821624.6	822046.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_086	POINTHOR	821668.9	822071.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_087	POINTHOR	821713.2	822096.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_088	POINTHOR	821757.5	822121.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_089	POINTHOR	821801.8	822146.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_090	POINTHOR	821846.1	822171.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_091	POINTHOR	821867.4	822220	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_092	POINTHOR	821887.8	822269.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_093	POINTHOR	821908.3	822318.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_094	POINTHOR	821928.7	822367.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_095	POINTHOR	821954.5	822412.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_096	POINTHOR	821988.4	822452.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_097	POINTHOR	822022.2	822492.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_098	POINTHOR	822056.1	822531.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_099	POINTHOR	822090	822571.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_100	POINTHOR	822123.8	822611.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_101	POINTHOR	822161.2	822647	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_102	POINTHOR	822199.1	822682.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_103	POINTHOR	822237.1	822717.3	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_104	POINTHOR	822275	822752.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_105	POINTHOR	822313	822787.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_106	POINTHOR	822350.9	822822.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_107	POINTHOR	822389	822857.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_108	POINTHOR	822427.1	822892.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_109	POINTHOR	822465.2	822927.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_SC1_110	POINTHOR	822503.3	822962.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_111	POINTHOR	822541.4	822997.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_112	POINTHOR	822579.4	823032.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_113	POINTHOR	822608.5	823075.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_114	POINTHOR	822632.4	823122.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_115	POINTHOR	822656.3	823170	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_116	POINTHOR	822682.9	823214.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_117	POINTHOR	822722	823248.5	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_118	POINTHOR	822761.2	823282.1	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_119	POINTHOR	822800.3	823315.7	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_120	POINTHOR	822839.4	823349.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_121	POINTHOR	822878.6	823382.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_122	POINTHOR	822917.7	823416.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_123	POINTHOR	822956.9	823450	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_124	POINTHOR	822996	823483.6	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_125	POINTHOR	823035.2	823517.2	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_126	POINTHOR	823074.3	823550.8	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_127	POINTHOR	823113.5	823584.4	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	1	G2_SC1_128	POINTHOR	823152.6	823617.9	0	0.5	673	8	0.3	1.21E-03	2.25E-05	2.25E-05
2	2	G2_SC2_001	POINTHOR	822568.9	824550.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_002	POINTHOR	822519.8	824539.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_003	POINTHOR	822470.7	824529.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_004	POINTHOR	822421.6	824518.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_005	POINTHOR	822372.5	824508	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_006	POINTHOR	822323.4	824497.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_007	POINTHOR	822283.4	824467.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_008	POINTHOR	822246.1	824431.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_009	POINTHOR	822208.9	824395.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_010	POINTHOR	822171.6	824359.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_011	POINTHOR	822133.1	824325.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_012	POINTHOR	822085.1	824310.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_013	POINTHOR	822037	824295.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_014	POINTHOR	821988.9	824280.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_015	POINTHOR	821940.9	824265.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_016	POINTHOR	821892.8	824250.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_017	POINTHOR	821844.7	824235.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_018	POINTHOR	821796.7	824219.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_019	POINTHOR	821748.6	824204.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_020	POINTHOR	821700.5	824189.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_021	POINTHOR	821652.5	824174.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_022	POINTHOR	821604.4	824159.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_023	POINTHOR	821556.3	824144.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_024	POINTHOR	821508.3	824129.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_025	POINTHOR	821460.2	824114.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_SC2_026	POINTHOR	821412.1	824098.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_027	POINTHOR	821364.1	824083.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_028	POINTHOR	821316	824068.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_029	POINTHOR	821268	824053.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_030	POINTHOR	821219.9	824038.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_031	POINTHOR	821171.8	824023.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_032	POINTHOR	821122.7	824013.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_033	POINTHOR	821072.9	824008.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_034	POINTHOR	821023.1	824003.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_035	POINTHOR	820973.2	823997.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_036	POINTHOR	823115.8	824291.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_037	POINTHOR	823074.4	824261.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_038	POINTHOR	823032.9	824230.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_039	POINTHOR	822991.4	824200.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_040	POINTHOR	822950	824170.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_041	POINTHOR	822908.5	824140.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_042	POINTHOR	822867.1	824110.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_043	POINTHOR	822825.6	824079.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_044	POINTHOR	822784.1	824049.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_045	POINTHOR	822742.7	824019.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_046	POINTHOR	822701.2	823989.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_047	POINTHOR	822659.7	823959.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_048	POINTHOR	822618.3	823928.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_049	POINTHOR	822576.8	823898.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_050	POINTHOR	822535	823869.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_051	POINTHOR	822492.2	823841.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_052	POINTHOR	822449.4	823813.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_053	POINTHOR	822406.6	823785.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_054	POINTHOR	822363.8	823757.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_055	POINTHOR	822321	823729.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_056	POINTHOR	822278.2	823701.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_057	POINTHOR	822235.4	823673.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_058	POINTHOR	822192.6	823645.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_059	POINTHOR	822149.8	823617.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_060	POINTHOR	822107	823589.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_061	POINTHOR	822064.2	823561.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_062	POINTHOR	822021.4	823533.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_063	POINTHOR	821978.6	823505.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_064	POINTHOR	821935.8	823477.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_065	POINTHOR	821893	823449.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_066	POINTHOR	821850.2	823421.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_067	POINTHOR	821807.4	823393.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_068	POINTHOR	821764.6	823365.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_069	POINTHOR	821721.8	823337.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_SC2_070	POINTHOR	821679	823309.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_071	POINTHOR	821636.2	823281.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_072	POINTHOR	821593.4	823253.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_073	POINTHOR	821550.6	823226	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_074	POINTHOR	821507.8	823198	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_075	POINTHOR	821465	823170.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_076	POINTHOR	821422.2	823142.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_077	POINTHOR	821379.4	823114.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_078	POINTHOR	821336.6	823086.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_079	POINTHOR	821293.8	823058.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_080	POINTHOR	821251	823030.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_081	POINTHOR	821208.2	823002.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_082	POINTHOR	821165.3	822974.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_083	POINTHOR	821122.5	822946.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_084	POINTHOR	821580.3	822021.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_085	POINTHOR	821624.6	822046.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_086	POINTHOR	821668.9	822071.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_087	POINTHOR	821713.2	822096.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_088	POINTHOR	821757.5	822121.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_089	POINTHOR	821801.8	822146.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_090	POINTHOR	821846.1	822171.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_091	POINTHOR	821867.4	822220	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_092	POINTHOR	821887.8	822269.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_093	POINTHOR	821908.3	822318.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_094	POINTHOR	821928.7	822367.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_095	POINTHOR	821954.5	822412.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_096	POINTHOR	821988.4	822452.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_097	POINTHOR	822022.2	822492.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_098	POINTHOR	822056.1	822531.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_099	POINTHOR	822090	822571.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_100	POINTHOR	822123.8	822611.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_101	POINTHOR	822161.2	822647	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_102	POINTHOR	822199.1	822682.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_103	POINTHOR	822237.1	822717.3	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_104	POINTHOR	822275	822752.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_105	POINTHOR	822313	822787.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_106	POINTHOR	822350.9	822822.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_107	POINTHOR	822389	822857.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_108	POINTHOR	822427.1	822892.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_109	POINTHOR	822465.2	822927.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_110	POINTHOR	822503.3	822962.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_111	POINTHOR	822541.4	822997.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_112	POINTHOR	822579.4	823032.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_113	POINTHOR	822608.5	823075.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_SC2_114	POINTHOR	822632.4	823122.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_115	POINTHOR	822656.3	823170	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_116	POINTHOR	822682.9	823214.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_117	POINTHOR	822722	823248.5	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_118	POINTHOR	822761.2	823282.1	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_119	POINTHOR	822800.3	823315.7	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_120	POINTHOR	822839.4	823349.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_121	POINTHOR	822878.6	823382.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_122	POINTHOR	822917.7	823416.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_123	POINTHOR	822956.9	823450	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_124	POINTHOR	822996	823483.6	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_125	POINTHOR	823035.2	823517.2	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_126	POINTHOR	823074.3	823550.8	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_127	POINTHOR	823113.5	823584.4	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06
2	2	G2_SC2_128	POINTHOR	823152.6	823617.9	0	6	555	8	0.3	2.33E-04	6.36E-06	6.36E-06

Notes:

[1] Modelling parameters are referred to Tuen Mun South Extension (AERIAR-236/2022) and the Examination Guidebook on Pleasure Vessel Operator Grade 2 Certificate of Competency.

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	6,410

Notes:
[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:
[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 2	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	102	1.6%
1	2	94	1.5%
2	3	126	2.0%
3	4	101	1.6%
4	5	121	1.9%
5	6	181	2.8%
6	7	344	5.4%
7	8	362	5.6%
8	9	429	6.7%
9	10	364	5.7%
10	11	348	5.4%
11	12	398	6.2%
12	13	303	4.7%
13	14	349	5.4%
14	15	387	6.0%
15	16	376	5.9%
16	17	467	7.3%
17	18	405	6.3%
18	19	289	4.5%
19	20	228	3.6%
20	21	199	3.1%
21	22	164	2.6%
22	23	153	2.4%
23	24	120	1.9%

Notes:
[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 102 marine vessels for the first hour during the whole December.

Annex II

Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048

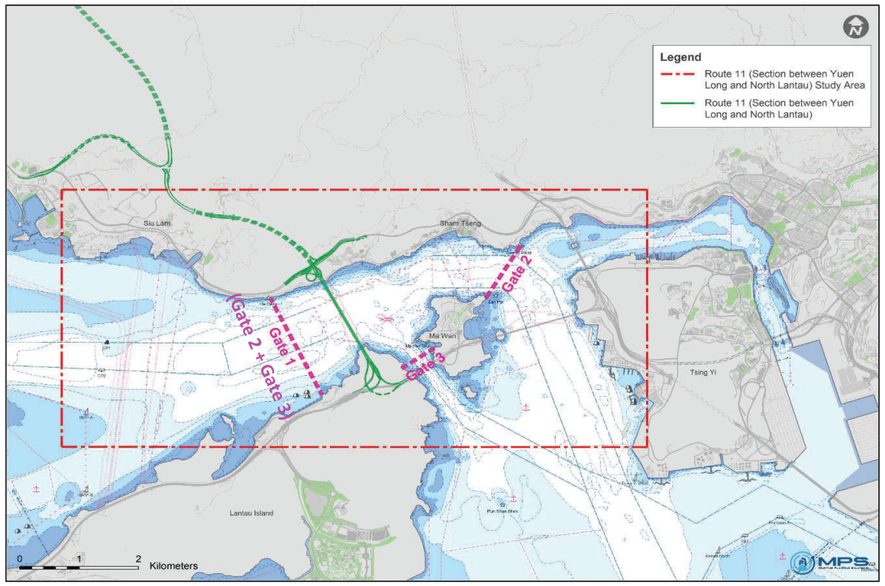
Small Crafts - pleasure vessels and sampan_Gate 3

Marine Traffic Information

Assessment Year 2048

Assessed Vessel Type Small Crafts - pleasure vessels and sampan

Gate 3



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 3	1,417	5	3,900

Notes:

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 5 knot is provided by Marine Traffic Consultant.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type [2]	Emission Rate per Trip (g/s) [3]		
		NO_X	RSP	FSP
1	Pleasure Vessel	0.209	0.004	0.004
2	Sampan	0.040	0.001	0.001

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Marine traffic consultant advised the small craft is composed of pleasure vessel, sampan, work boat and tugboat.

[3] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 3-2, Table 3-3 and Table 3-56 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder".

(iii) The average engine powers are based on desktop review.

(iv) The engine emission factors are made reference to Table 3-4 and Table 3-58 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder". Tier 2 emission factors are adopted, which assumed the age of vessels is >40 years old in Year 2048 for conservative assessment. Emission factors of FSP is assumed to be the same as those of RSP.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_SC1_001	POINTHOR	824152.7	822444.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_002	POINTHOR	824126.3	822490.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_003	POINTHOR	824100	822536.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_004	POINTHOR	824073.7	822582.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_005	POINTHOR	824047.4	822628	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_006	POINTHOR	824021	822673.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_007	POINTHOR	823994.7	822719.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_008	POINTHOR	823968.4	822765.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_009	POINTHOR	823942	822811.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_010	POINTHOR	823912	822854.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_011	POINTHOR	823880	822895.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_012	POINTHOR	823848	822936.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_013	POINTHOR	823816	822978.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_014	POINTHOR	823784	823019.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_015	POINTHOR	823752	823061.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_016	POINTHOR	823720	823102.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_017	POINTHOR	823690	823145.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_018	POINTHOR	823661.4	823189.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_019	POINTHOR	823632.7	823233.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_020	POINTHOR	823604	823278	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_021	POINTHOR	823575.3	823322.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_SC1_022	POINTHOR	823546.6	823366.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_023	POINTHOR	823517.9	823410.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_024	POINTHOR	823474.6	823434.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_025	POINTHOR	823428.2	823455.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_026	POINTHOR	823381.8	823475.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_027	POINTHOR	823335.4	823495.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_028	POINTHOR	823289.1	823516	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_029	POINTHOR	823242.7	823536.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_030	POINTHOR	823196.3	823556.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_031	POINTHOR	823149.9	823576.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_032	POINTHOR	823103.5	823597.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_033	POINTHOR	823057.1	823617.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_034	POINTHOR	823010.8	823637.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_035	POINTHOR	822964.4	823658.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_036	POINTHOR	822918	823678.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_037	POINTHOR	822871.6	823698.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_038	POINTHOR	822825.2	823719	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_039	POINTHOR	822778.8	823739.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_040	POINTHOR	822732.5	823759.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_041	POINTHOR	822686.1	823779.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_042	POINTHOR	822639.7	823800.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_043	POINTHOR	822593.3	823820.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_044	POINTHOR	822546.9	823840.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_045	POINTHOR	822500.6	823861.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_046	POINTHOR	822454.2	823881.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_047	POINTHOR	822405.8	823894.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_048	POINTHOR	822357	823907	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_049	POINTHOR	822308.2	823919	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_050	POINTHOR	822259.4	823931	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_051	POINTHOR	822210.6	823943.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_052	POINTHOR	822161.7	823955.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_053	POINTHOR	822112.9	823967.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_054	POINTHOR	822064	823978.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_055	POINTHOR	822013.9	823978.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_056	POINTHOR	821963.8	823979.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_057	POINTHOR	821913.8	823980.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_058	POINTHOR	821863.7	823981	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_059	POINTHOR	821813.6	823981.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_060	POINTHOR	821763.5	823982.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_061	POINTHOR	821713.5	823983.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_062	POINTHOR	821663.4	823983.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_063	POINTHOR	821613.3	823984.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_064	POINTHOR	821563.2	823985.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_065	POINTHOR	821513.2	823986	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_SC1_066	POINTHOR	821463.1	823986.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_067	POINTHOR	821413	823987.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_068	POINTHOR	821362.9	823988.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_069	POINTHOR	821312.9	823988.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_070	POINTHOR	821262.8	823989.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_071	POINTHOR	821212.7	823990.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_072	POINTHOR	821162.6	823991.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_073	POINTHOR	821112.6	823991.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_074	POINTHOR	821062.5	823992.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_075	POINTHOR	821012.4	823993.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_076	POINTHOR	823992	822430.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_077	POINTHOR	823961.5	822472.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_078	POINTHOR	823930.9	822515.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_079	POINTHOR	823900.4	822558.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_080	POINTHOR	823869.9	822600.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_081	POINTHOR	823839.4	822643.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_082	POINTHOR	823808.8	822686.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_083	POINTHOR	823778.3	822728.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_084	POINTHOR	823747.8	822771.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_085	POINTHOR	823717.3	822814.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_086	POINTHOR	823686.7	822857	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_087	POINTHOR	823652.4	822895.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_088	POINTHOR	823613.7	822929.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_089	POINTHOR	823575.1	822964.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_090	POINTHOR	823536.4	822998.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_091	POINTHOR	823497.8	823032.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_092	POINTHOR	823459.1	823066.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_093	POINTHOR	823420.5	823101.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_094	POINTHOR	823381.8	823135.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_095	POINTHOR	823343.1	823169.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_096	POINTHOR	823304.5	823203.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_097	POINTHOR	823265.8	823238	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_098	POINTHOR	823227.2	823272.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_099	POINTHOR	823188.5	823306.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_100	POINTHOR	823147.1	823335.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_101	POINTHOR	823100.2	823354.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_102	POINTHOR	823053.3	823373.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_103	POINTHOR	823006.5	823392.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_104	POINTHOR	822959.6	823411.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_105	POINTHOR	822912.7	823430.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_106	POINTHOR	822865.9	823449.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_107	POINTHOR	822819	823468.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_108	POINTHOR	822772.1	823487.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_109	POINTHOR	822724.4	823501.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_SC1_110	POINTHOR	822674.3	823503.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_111	POINTHOR	822624.3	823505.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_112	POINTHOR	822574.2	823507.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_113	POINTHOR	822524.2	823509.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_114	POINTHOR	822474.1	823511	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_115	POINTHOR	822424.1	823512.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_116	POINTHOR	822374	823514.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_117	POINTHOR	822324	823516.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_118	POINTHOR	822273.9	823518.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_119	POINTHOR	822223.9	823520.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_120	POINTHOR	822175.3	823511.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_121	POINTHOR	822128	823493.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_122	POINTHOR	822080.6	823476.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_123	POINTHOR	822033.3	823458.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_124	POINTHOR	821985.9	823441.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_125	POINTHOR	821938.6	823423.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_126	POINTHOR	821891.2	823406.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_127	POINTHOR	821843.9	823388.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_128	POINTHOR	821796.5	823371.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_129	POINTHOR	821749.2	823353.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_130	POINTHOR	821701.8	823336	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_131	POINTHOR	821654.5	823318.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_132	POINTHOR	821607.1	823300.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_133	POINTHOR	821559.8	823283.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_134	POINTHOR	821512.4	823265.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_135	POINTHOR	821465.1	823248.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_136	POINTHOR	821417.7	823230.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_137	POINTHOR	821370.4	823213.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_138	POINTHOR	821323	823195.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_139	POINTHOR	821275.7	823178	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_140	POINTHOR	821228.3	823160.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_141	POINTHOR	821181	823142.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_142	POINTHOR	821133.6	823125.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_143	POINTHOR	823786.1	822441.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_144	POINTHOR	823760.5	822487.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_145	POINTHOR	823734.9	822534.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_146	POINTHOR	823709.3	822580.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_147	POINTHOR	823683.6	822626.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_148	POINTHOR	823658	822673	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_149	POINTHOR	823626.6	822714.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_150	POINTHOR	823590.3	822751.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_151	POINTHOR	823554	822788.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_152	POINTHOR	823517.7	822825.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_153	POINTHOR	823481.4	822862.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_SC1_154	POINTHOR	823443.5	822897.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_155	POINTHOR	823404.3	822931.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_156	POINTHOR	823365	822964.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_157	POINTHOR	823325.8	822998.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_158	POINTHOR	823286.6	823031.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_159	POINTHOR	823247.3	823065	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_160	POINTHOR	823205.9	823094.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_161	POINTHOR	823158.6	823111.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_162	POINTHOR	823111.2	823129.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_163	POINTHOR	823063.9	823146.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_164	POINTHOR	823016.5	823164.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_165	POINTHOR	822969.2	823181.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_166	POINTHOR	822921.8	823199.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_167	POINTHOR	822874.5	823217	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_168	POINTHOR	822827.1	823234.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_169	POINTHOR	822779.8	823252.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_170	POINTHOR	822733.4	823253.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_171	POINTHOR	822688.5	823229.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_172	POINTHOR	822643.7	823206	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_173	POINTHOR	822598.8	823182.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_174	POINTHOR	822553.9	823158.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_175	POINTHOR	822509	823134.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_176	POINTHOR	822464.2	823110.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_177	POINTHOR	822419.3	823086.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_178	POINTHOR	822374.4	823062.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_179	POINTHOR	822329.6	823038.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_180	POINTHOR	822284.7	823014.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_181	POINTHOR	822239.8	822990.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_182	POINTHOR	822194.9	822966.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_183	POINTHOR	822150.1	822942.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_184	POINTHOR	822105.2	822919	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_185	POINTHOR	822060.3	822895.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_186	POINTHOR	822015.4	822871.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_187	POINTHOR	821970.6	822847.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_188	POINTHOR	821925.7	822823.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_189	POINTHOR	821880.8	822799.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_190	POINTHOR	821835.9	822775.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_191	POINTHOR	821791.1	822751.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_192	POINTHOR	821746.2	822727.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_193	POINTHOR	821701.3	822703.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_194	POINTHOR	821656.4	822679.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_195	POINTHOR	821611.6	822655.9	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_196	POINTHOR	821566.7	822632	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_197	POINTHOR	821521.8	822608.1	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_SC1_198	POINTHOR	821476.9	822584.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_199	POINTHOR	821432.1	822560.2	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_200	POINTHOR	821387.2	822536.3	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_201	POINTHOR	821342.3	822512.4	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_202	POINTHOR	821297.4	822488.5	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_203	POINTHOR	821252.6	822464.6	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_204	POINTHOR	821207.7	822440.7	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	1	G3_SC1_205	POINTHOR	821162.8	822416.8	0	0.5	673	8	0.3	1.02E-03	1.89E-05	1.89E-05
3	2	G3_SC2_001	POINTHOR	824152.7	822444.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_002	POINTHOR	824126.3	822490.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_003	POINTHOR	824100	822536.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_004	POINTHOR	824073.7	822582.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_005	POINTHOR	824047.4	822628	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_006	POINTHOR	824021	822673.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_007	POINTHOR	823994.7	822719.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_008	POINTHOR	823968.4	822765.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_009	POINTHOR	823942	822811.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_010	POINTHOR	823912	822854.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_011	POINTHOR	823880	822895.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_012	POINTHOR	823848	822936.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_013	POINTHOR	823816	822978.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_014	POINTHOR	823784	823019.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_015	POINTHOR	823752	823061.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_016	POINTHOR	823720	823102.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_017	POINTHOR	823690	823145.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_018	POINTHOR	823661.4	823189.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_019	POINTHOR	823632.7	823233.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_020	POINTHOR	823604	823278	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_021	POINTHOR	823575.3	823322.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_022	POINTHOR	823546.6	823366.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_023	POINTHOR	823517.9	823410.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_024	POINTHOR	823474.6	823434.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_025	POINTHOR	823428.2	823455.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_026	POINTHOR	823381.8	823475.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_027	POINTHOR	823335.4	823495.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_028	POINTHOR	823289.1	823516	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_029	POINTHOR	823242.7	823536.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_030	POINTHOR	823196.3	823556.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_031	POINTHOR	823149.9	823576.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_032	POINTHOR	823103.5	823597.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_033	POINTHOR	823057.1	823617.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_034	POINTHOR	823010.8	823637.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_035	POINTHOR	822964.4	823658.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_036	POINTHOR	822918	823678.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_SC2_037	POINTHOR	822871.6	823698.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_038	POINTHOR	822825.2	823719	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_039	POINTHOR	822778.8	823739.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_040	POINTHOR	822732.5	823759.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_041	POINTHOR	822686.1	823779.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_042	POINTHOR	822639.7	823800.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_043	POINTHOR	822593.3	823820.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_044	POINTHOR	822546.9	823840.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_045	POINTHOR	822500.6	823861.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_046	POINTHOR	822454.2	823881.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_047	POINTHOR	822405.8	823894.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_048	POINTHOR	822357	823907	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_049	POINTHOR	822308.2	823919	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_050	POINTHOR	822259.4	823931	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_051	POINTHOR	822210.6	823943.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_052	POINTHOR	822161.7	823955.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_053	POINTHOR	822112.9	823967.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_054	POINTHOR	822064	823978.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_055	POINTHOR	822013.9	823978.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_056	POINTHOR	821963.8	823979.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_057	POINTHOR	821913.8	823980.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_058	POINTHOR	821863.7	823981	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_059	POINTHOR	821813.6	823981.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_060	POINTHOR	821763.5	823982.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_061	POINTHOR	821713.5	823983.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_062	POINTHOR	821663.4	823983.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_063	POINTHOR	821613.3	823984.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_064	POINTHOR	821563.2	823985.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_065	POINTHOR	821513.2	823986	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_066	POINTHOR	821463.1	823986.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_067	POINTHOR	821413	823987.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_068	POINTHOR	821362.9	823988.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_069	POINTHOR	821312.9	823988.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_070	POINTHOR	821262.8	823989.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_071	POINTHOR	821212.7	823990.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_072	POINTHOR	821162.6	823991.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_073	POINTHOR	821112.6	823991.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_074	POINTHOR	821062.5	823992.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_075	POINTHOR	821012.4	823993.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_076	POINTHOR	823992	822430.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_077	POINTHOR	823961.5	822472.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_078	POINTHOR	823930.9	822515.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_079	POINTHOR	823900.4	822558.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_080	POINTHOR	823869.9	822600.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_SC2_081	POINTHOR	823839.4	822643.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_082	POINTHOR	823808.8	822686.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_083	POINTHOR	823778.3	822728.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_084	POINTHOR	823747.8	822771.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_085	POINTHOR	823717.3	822814.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_086	POINTHOR	823686.7	822857	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_087	POINTHOR	823652.4	822895.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_088	POINTHOR	823613.7	822929.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_089	POINTHOR	823575.1	822964.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_090	POINTHOR	823536.4	822998.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_091	POINTHOR	823497.8	823032.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_092	POINTHOR	823459.1	823066.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_093	POINTHOR	823420.5	823101.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_094	POINTHOR	823381.8	823135.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_095	POINTHOR	823343.1	823169.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_096	POINTHOR	823304.5	823203.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_097	POINTHOR	823265.8	823238	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_098	POINTHOR	823227.2	823272.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_099	POINTHOR	823188.5	823306.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_100	POINTHOR	823147.1	823335.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_101	POINTHOR	823100.2	823354.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_102	POINTHOR	823053.3	823373.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_103	POINTHOR	823006.5	823392.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_104	POINTHOR	822959.6	823411.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_105	POINTHOR	822912.7	823430.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_106	POINTHOR	822865.9	823449.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_107	POINTHOR	822819	823468.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_108	POINTHOR	822772.1	823487.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_109	POINTHOR	822724.4	823501.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_110	POINTHOR	822674.3	823503.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_111	POINTHOR	822624.3	823505.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_112	POINTHOR	822574.2	823507.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_113	POINTHOR	822524.2	823509.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_114	POINTHOR	822474.1	823511	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_115	POINTHOR	822424.1	823512.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_116	POINTHOR	822374	823514.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_117	POINTHOR	822324	823516.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_118	POINTHOR	822273.9	823518.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_119	POINTHOR	822223.9	823520.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_120	POINTHOR	822175.3	823511.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_121	POINTHOR	822128	823493.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_122	POINTHOR	822080.6	823476.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_123	POINTHOR	822033.3	823458.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_124	POINTHOR	821985.9	823441.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_SC2_125	POINTHOR	821938.6	823423.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_126	POINTHOR	821891.2	823406.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_127	POINTHOR	821843.9	823388.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_128	POINTHOR	821796.5	823371.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_129	POINTHOR	821749.2	823353.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_130	POINTHOR	821701.8	823336	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_131	POINTHOR	821654.5	823318.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_132	POINTHOR	821607.1	823300.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_133	POINTHOR	821559.8	823283.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_134	POINTHOR	821512.4	823265.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_135	POINTHOR	821465.1	823248.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_136	POINTHOR	821417.7	823230.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_137	POINTHOR	821370.4	823213.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_138	POINTHOR	821323	823195.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_139	POINTHOR	821275.7	823178	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_140	POINTHOR	821228.3	823160.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_141	POINTHOR	821181	823142.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_142	POINTHOR	821133.6	823125.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_143	POINTHOR	823786.1	822441.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_144	POINTHOR	823760.5	822487.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_145	POINTHOR	823734.9	822534.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_146	POINTHOR	823709.3	822580.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_147	POINTHOR	823683.6	822626.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_148	POINTHOR	823658	822673	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_149	POINTHOR	823626.6	822714.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_150	POINTHOR	823590.3	822751.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_151	POINTHOR	823554	822788.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_152	POINTHOR	823517.7	822825.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_153	POINTHOR	823481.4	822862.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_154	POINTHOR	823443.5	822897.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_155	POINTHOR	823404.3	822931.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_156	POINTHOR	823365	822964.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_157	POINTHOR	823325.8	822998.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_158	POINTHOR	823286.6	823031.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_159	POINTHOR	823247.3	823065	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_160	POINTHOR	823205.9	823094.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_161	POINTHOR	823158.6	823111.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_162	POINTHOR	823111.2	823129.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_163	POINTHOR	823063.9	823146.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_164	POINTHOR	823016.5	823164.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_165	POINTHOR	822969.2	823181.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_166	POINTHOR	822921.8	823199.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_167	POINTHOR	822874.5	823217	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_168	POINTHOR	822827.1	823234.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_SC2_169	POINTHOR	822779.8	823252.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_170	POINTHOR	822733.4	823253.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_171	POINTHOR	822688.5	823229.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_172	POINTHOR	822643.7	823206	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_173	POINTHOR	822598.8	823182.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_174	POINTHOR	822553.9	823158.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_175	POINTHOR	822509	823134.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_176	POINTHOR	822464.2	823110.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_177	POINTHOR	822419.3	823086.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_178	POINTHOR	822374.4	823062.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_179	POINTHOR	822329.6	823038.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_180	POINTHOR	822284.7	823014.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_181	POINTHOR	822239.8	822990.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_182	POINTHOR	822194.9	822966.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_183	POINTHOR	822150.1	822942.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_184	POINTHOR	822105.2	822919	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_185	POINTHOR	822060.3	822895.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_186	POINTHOR	822015.4	822871.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_187	POINTHOR	821970.6	822847.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_188	POINTHOR	821925.7	822823.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_189	POINTHOR	821880.8	822799.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_190	POINTHOR	821835.9	822775.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_191	POINTHOR	821791.1	822751.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_192	POINTHOR	821746.2	822727.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_193	POINTHOR	821701.3	822703.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_194	POINTHOR	821656.4	822679.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_195	POINTHOR	821611.6	822655.9	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_196	POINTHOR	821566.7	822632	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_197	POINTHOR	821521.8	822608.1	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_198	POINTHOR	821476.9	822584.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_199	POINTHOR	821432.1	822560.2	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_200	POINTHOR	821387.2	822536.3	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_201	POINTHOR	821342.3	822512.4	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_202	POINTHOR	821297.4	822488.5	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_203	POINTHOR	821252.6	822464.6	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_204	POINTHOR	821207.7	822440.7	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06
3	2	G3_SC2_205	POINTHOR	821162.8	822416.8	0	6	555	8	0.3	1.95E-04	5.34E-06	5.34E-06

Notes:

[1] Modelling parameters are referred to Tuen Mun South Extension (AERIAR-236/2022) and the Examination Guidebook on Pleasure Vessel Operator Grade 2 Certificate of Competency.

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 3	1,417

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:

[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 3	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	16	1.1%
1	2	11	0.8%
2	3	13	0.9%
3	4	20	1.4%
4	5	25	1.8%
5	6	45	3.2%
6	7	68	4.8%
7	8	64	4.5%
8	9	66	4.6%
9	10	82	5.8%
10	11	115	8.1%
11	12	84	5.9%
12	13	94	6.6%
13	14	68	4.8%
14	15	90	6.4%
15	16	125	8.8%
16	17	148	10.4%
17	18	107	7.6%
18	19	53	3.8%
19	20	37	2.6%
20	21	34	2.4%
21	22	20	1.4%
22	23	10	0.7%
23	24	21	1.5%

Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 16 marine vessels for the first hour during the whole December.

Legend

- Gate 2 SC Modelled Sources
- Gate 3 SC Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 2 SC Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 3 SC Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600
Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Appendix 3.10g

Emission Inventory and Source Locations for Local Vessels (Small Crafts – tugboats and workboats) at Ha Pang Fairway in Year 2048

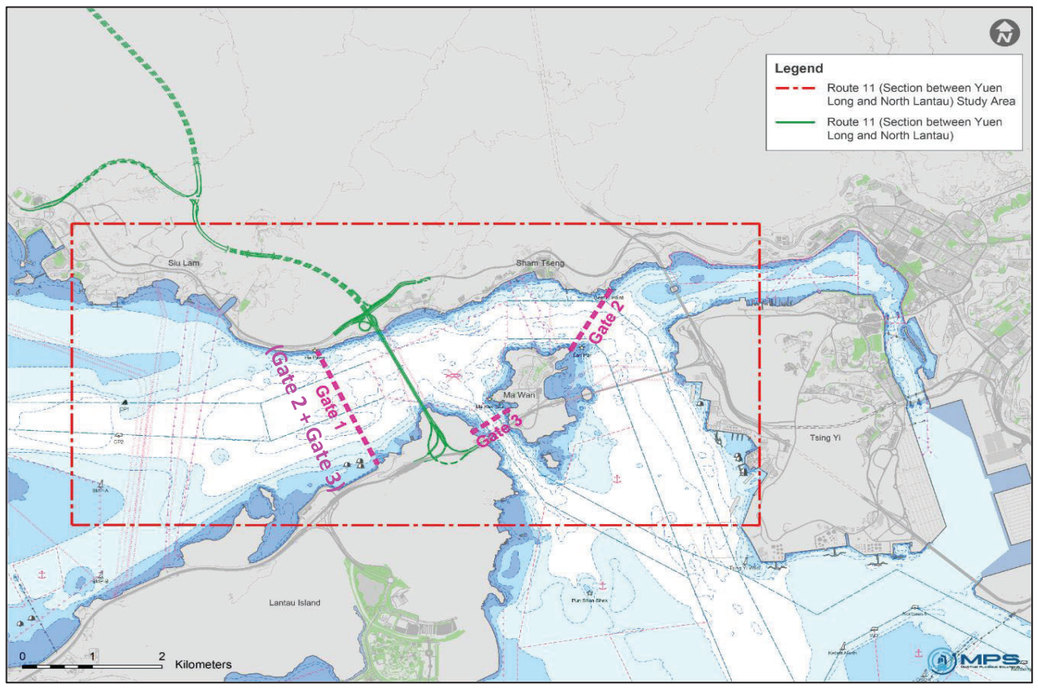
Annex I
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Small Craft - Work Boat and Tugboat_Gate 2

Marine Traffic Information

Assessment Year 2048

Assessed Vessel Type Small Craft - Work Boat and Tugboat

Gate 2



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 2	9,225	5	2,900

Notes:

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 5 knot is provided by Marine Traffic Consultant.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

[4] As advised by Marine Traffic Consultant, the workboats refer to small cargo junk and tugboats refers to those with size less than 20m.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type [2]	Emission Rate per Trip (g/s) [3]		
		NO_X	RSP	FSP
1	Work Boat	0.107	0.004	0.004
2	Tugboat	0.228	0.012	0.012

Engine in Operation

Engine	On (1) or Off (0) [4]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Marine traffic consultant advised the small craft is composed of pleasure vessel, sampan, work boat and tugboat.

[3] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 4-7, Table 4-10 and Table 3-24 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The engine powers are made reference to Table 4-5 and Table 4-6 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) - cargo junk of GRT 0-499 class and tug of GRT 0-499 (average of Grade II tug boat of locally licensed vessel).

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-16. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

[4] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_TW1_001	POINT	822568.9	824550.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_002	POINT	822519.8	824539.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_003	POINT	822470.7	824529.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_004	POINT	822421.6	824518.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_005	POINT	822372.5	824508	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_006	POINT	822323.4	824497.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_007	POINT	822283.4	824467.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_008	POINT	822246.1	824431.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_009	POINT	822208.9	824395.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_010	POINT	822171.6	824359.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_011	POINT	822133.1	824325.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_012	POINT	822085.1	824310.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_013	POINT	822037	824295.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_014	POINT	821988.9	824280.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_015	POINT	821940.9	824265.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_016	POINT	821892.8	824250.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_017	POINT	821844.7	824235.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_018	POINT	821796.7	824219.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_019	POINT	821748.6	824204.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_020	POINT	821700.5	824189.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_021	POINT	821652.5	824174.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_022	POINT	821604.4	824159.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_023	POINT	821556.3	824144.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_024	POINT	821508.3	824129.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_025	POINT	821460.2	824114.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_026	POINT	821412.1	824098.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_027	POINT	821364.1	824083.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_028	POINT	821316	824068.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_029	POINT	821268	824053.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_030	POINT	821219.9	824038.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_031	POINT	821171.8	824023.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_032	POINT	821122.7	824013.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_033	POINT	821072.9	824008.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_034	POINT	821023.1	824003.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_035	POINT	820973.2	823997.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_036	POINT	823115.8	824291.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_037	POINT	823074.4	824261.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_038	POINT	823032.9	824230.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_039	POINT	822991.4	824200.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_040	POINT	822950	824170.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_041	POINT	822908.5	824140.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_042	POINT	822867.1	824110.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_043	POINT	822825.6	824079.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_044	POINT	822784.1	824049.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_TW1_045	POINT	822742.7	824019.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_046	POINT	822701.2	823989.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_047	POINT	822659.7	823959.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_048	POINT	822618.3	823928.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_049	POINT	822576.8	823898.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_050	POINT	822535	823869.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_051	POINT	822492.2	823841.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_052	POINT	822449.4	823813.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_053	POINT	822406.6	823785.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_054	POINT	822363.8	823757.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_055	POINT	822321	823729.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_056	POINT	822278.2	823701.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_057	POINT	822235.4	823673.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_058	POINT	822192.6	823645.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_059	POINT	822149.8	823617.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_060	POINT	822107	823589.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_061	POINT	822064.2	823561.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_062	POINT	822021.4	823533.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_063	POINT	821978.6	823505.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_064	POINT	821935.8	823477.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_065	POINT	821893	823449.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_066	POINT	821850.2	823421.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_067	POINT	821807.4	823393.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_068	POINT	821764.6	823365.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_069	POINT	821721.8	823337.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_070	POINT	821679	823309.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_071	POINT	821636.2	823281.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_072	POINT	821593.4	823253.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_073	POINT	821550.6	823226	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_074	POINT	821507.8	823198	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_075	POINT	821465	823170.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_076	POINT	821422.2	823142.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_077	POINT	821379.4	823114.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_078	POINT	821336.6	823086.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_079	POINT	821293.8	823058.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_080	POINT	821251	823030.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_081	POINT	821208.2	823002.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_082	POINT	821165.3	822974.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_083	POINT	821122.5	822946.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_084	POINT	821580.3	822021.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_085	POINT	821624.6	822046.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_086	POINT	821668.9	822071.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_087	POINT	821713.2	822096.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_088	POINT	821757.5	822121.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	1	G2_TW1_089	POINT	821801.8	822146.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_090	POINT	821846.1	822171.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_091	POINT	821867.4	822220	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_092	POINT	821887.8	822269.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_093	POINT	821908.3	822318.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_094	POINT	821928.7	822367.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_095	POINT	821954.5	822412.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_096	POINT	821988.4	822452.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_097	POINT	822022.2	822492.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_098	POINT	822056.1	822531.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_099	POINT	822090	822571.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_100	POINT	822123.8	822611.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_101	POINT	822161.2	822647	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_102	POINT	822199.1	822682.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_103	POINT	822237.1	822717.3	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_104	POINT	822275	822752.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_105	POINT	822313	822787.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_106	POINT	822350.9	822822.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_107	POINT	822389	822857.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_108	POINT	822427.1	822892.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_109	POINT	822465.2	822927.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_110	POINT	822503.3	822962.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_111	POINT	822541.4	822997.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_112	POINT	822579.4	823032.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_113	POINT	822608.5	823075.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_114	POINT	822632.4	823122.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_115	POINT	822656.3	823170	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_116	POINT	822682.9	823214.9	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_117	POINT	822722	823248.5	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_118	POINT	822761.2	823282.1	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_119	POINT	822800.3	823315.7	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_120	POINT	822839.4	823349.2	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_121	POINT	822878.6	823382.8	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_122	POINT	822917.7	823416.4	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_123	POINT	822956.9	823450	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_124	POINT	822996	823483.6	0	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_125	POINT	823035.2	823517.2	1	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_126	POINT	823074.3	823550.8	2	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_127	POINT	823113.5	823584.4	3	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	1	G2_TW1_128	POINT	823152.6	823617.9	4	11	588	8	0.2	8.39E-04	2.85E-05	2.77E-05
2	2	G2_TW2_001	POINTHOR	822568.9	824550.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_002	POINTHOR	822519.8	824539.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_003	POINTHOR	822470.7	824529.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_004	POINTHOR	822421.6	824518.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_TW2_005	POINTHOR	822372.5	824508	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_006	POINTHOR	822323.4	824497.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_007	POINTHOR	822283.4	824467.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_008	POINTHOR	822246.1	824431.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_009	POINTHOR	822208.9	824395.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_010	POINTHOR	822171.6	824359.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_011	POINTHOR	822133.1	824325.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_012	POINTHOR	822085.1	824310.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_013	POINTHOR	822037	824295.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_014	POINTHOR	821988.9	824280.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_015	POINTHOR	821940.9	824265.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_016	POINTHOR	821892.8	824250.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_017	POINTHOR	821844.7	824235.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_018	POINTHOR	821796.7	824219.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_019	POINTHOR	821748.6	824204.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_020	POINTHOR	821700.5	824189.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_021	POINTHOR	821652.5	824174.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_022	POINTHOR	821604.4	824159.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_023	POINTHOR	821556.3	824144.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_024	POINTHOR	821508.3	824129.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_025	POINTHOR	821460.2	824114.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_026	POINTHOR	821412.1	824098.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_027	POINTHOR	821364.1	824083.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_028	POINTHOR	821316	824068.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_029	POINTHOR	821268	824053.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_030	POINTHOR	821219.9	824038.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_031	POINTHOR	821171.8	824023.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_032	POINTHOR	821122.7	824013.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_033	POINTHOR	821072.9	824008.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_034	POINTHOR	821023.1	824003.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_035	POINTHOR	820973.2	823997.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_036	POINTHOR	823115.8	824291.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_037	POINTHOR	823074.4	824261.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_038	POINTHOR	823032.9	824230.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_039	POINTHOR	822991.4	824200.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_040	POINTHOR	822950	824170.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_041	POINTHOR	822908.5	824140.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_042	POINTHOR	822867.1	824110.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_043	POINTHOR	822825.6	824079.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_044	POINTHOR	822784.1	824049.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_045	POINTHOR	822742.7	824019.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_046	POINTHOR	822701.2	823989.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_047	POINTHOR	822659.7	823959.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_048	POINTHOR	822618.3	823928.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_TW2_049	POINTHOR	822576.8	823898.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_050	POINTHOR	822535	823869.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_051	POINTHOR	822492.2	823841.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_052	POINTHOR	822449.4	823813.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_053	POINTHOR	822406.6	823785.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_054	POINTHOR	822363.8	823757.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_055	POINTHOR	822321	823729.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_056	POINTHOR	822278.2	823701.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_057	POINTHOR	822235.4	823673.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_058	POINTHOR	822192.6	823645.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_059	POINTHOR	822149.8	823617.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_060	POINTHOR	822107	823589.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_061	POINTHOR	822064.2	823561.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_062	POINTHOR	822021.4	823533.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_063	POINTHOR	821978.6	823505.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_064	POINTHOR	821935.8	823477.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_065	POINTHOR	821893	823449.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_066	POINTHOR	821850.2	823421.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_067	POINTHOR	821807.4	823393.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_068	POINTHOR	821764.6	823365.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_069	POINTHOR	821721.8	823337.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_070	POINTHOR	821679	823309.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_071	POINTHOR	821636.2	823281.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_072	POINTHOR	821593.4	823253.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_073	POINTHOR	821550.6	823226	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_074	POINTHOR	821507.8	823198	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_075	POINTHOR	821465	823170.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_076	POINTHOR	821422.2	823142.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_077	POINTHOR	821379.4	823114.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_078	POINTHOR	821336.6	823086.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_079	POINTHOR	821293.8	823058.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_080	POINTHOR	821251	823030.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_081	POINTHOR	821208.2	823002.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_082	POINTHOR	821165.3	822974.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_083	POINTHOR	821122.5	822946.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_084	POINTHOR	821580.3	822021.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_085	POINTHOR	821624.6	822046.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_086	POINTHOR	821668.9	822071.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_087	POINTHOR	821713.2	822096.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_088	POINTHOR	821757.5	822121.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_089	POINTHOR	821801.8	822146.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_090	POINTHOR	821846.1	822171.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_091	POINTHOR	821867.4	822220	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_092	POINTHOR	821887.8	822269.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
2	2	G2_TW2_093	POINTHOR	821908.3	822318.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_094	POINTHOR	821928.7	822367.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_095	POINTHOR	821954.5	822412.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_096	POINTHOR	821988.4	822452.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_097	POINTHOR	822022.2	822492.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_098	POINTHOR	822056.1	822531.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_099	POINTHOR	822090	822571.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_100	POINTHOR	822123.8	822611.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_101	POINTHOR	822161.2	822647	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_102	POINTHOR	822199.1	822682.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_103	POINTHOR	822237.1	822717.3	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_104	POINTHOR	822275	822752.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_105	POINTHOR	822313	822787.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_106	POINTHOR	822350.9	822822.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_107	POINTHOR	822389	822857.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_108	POINTHOR	822427.1	822892.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_109	POINTHOR	822465.2	822927.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_110	POINTHOR	822503.3	822962.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_111	POINTHOR	822541.4	822997.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_112	POINTHOR	822579.4	823032.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_113	POINTHOR	822608.5	823075.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_114	POINTHOR	822632.4	823122.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_115	POINTHOR	822656.3	823170	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_116	POINTHOR	822682.9	823214.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_117	POINTHOR	822722	823248.5	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_118	POINTHOR	822761.2	823282.1	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_119	POINTHOR	822800.3	823315.7	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_120	POINTHOR	822839.4	823349.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_121	POINTHOR	822878.6	823382.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_122	POINTHOR	822917.7	823416.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_123	POINTHOR	822956.9	823450	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_124	POINTHOR	822996	823483.6	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_125	POINTHOR	823035.2	823517.2	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_126	POINTHOR	823074.3	823550.8	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_127	POINTHOR	823113.5	823584.4	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05
2	2	G2_TW2_128	POINTHOR	823152.6	823617.9	0	4	694.7	8	0.3	1.78E-03	9.56E-05	9.30E-05

Notes:

[1] Modelling parameters are referred to Tuen Mun South Extension (AERIAR-236/2022).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 2	9,225

Notes:
[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:
[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 2	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	146	1.6%
1	2	135	1.5%
2	3	182	2.0%
3	4	145	1.6%
4	5	174	1.9%
5	6	261	2.8%
6	7	495	5.4%
7	8	521	5.6%
8	9	618	6.7%
9	10	525	5.7%
10	11	500	5.4%
11	12	572	6.2%
12	13	436	4.7%
13	14	502	5.4%
14	15	556	6.0%
15	16	542	5.9%
16	17	673	7.3%
17	18	582	6.3%
18	19	415	4.5%
19	20	328	3.6%
20	21	287	3.1%
21	22	237	2.6%
22	23	221	2.4%
23	24	172	1.9%

Notes:
[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 146 marine vessels for the first hour during the whole December.

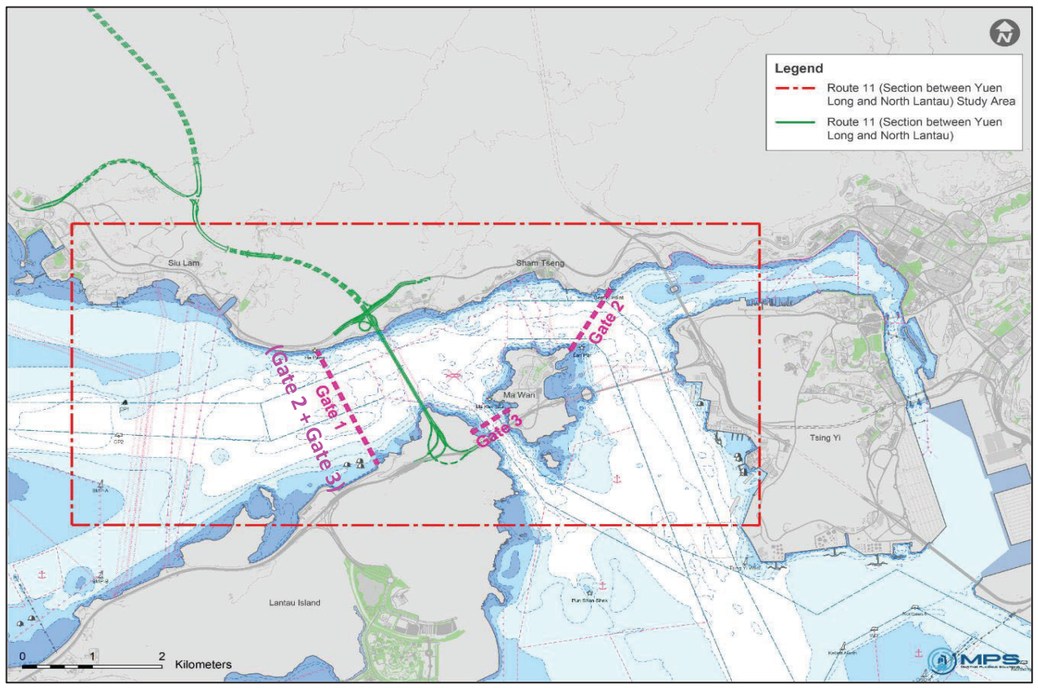
Annex II
Marine Emission Rate for Tsing Lung Tau Fairway in Year 2048
Small Craft - Work Boat and Tugboat_Gate 3

Marine Traffic Information

Assessment Year 2048

Assessed Vessel Type Small Craft - Work Boat and Tugboat

Gate 3



Marine Traffic Information from Marine Traffic Consultants

Location	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) [3]
Gate 3	2,038	5	3,900

Notes

[1] Monthly Vessel Count is advised by Marine Traffic Consultant and accepted by Marine Department.

[2] Average speed of 5 knot is provided by Marine Traffic Consultant.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

[4] As advised by Marine Traffic Consultant, the workboats refer to small cargo junk and tugboats refers to those with size less than 20m.

Marine Emission Inventory

Total Emission Rate

Group [1]	Vessel Type [2]	Emission Rate per Trip (g/s) [3]		
		NO_X	RSP	FSP
1	Work Boat	0.144	0.005	0.005
2	Tugboat	0.306	0.016	0.016

Engine in Operation

Engine	On (1) or Off (0) [4]
ME	1
AE	1

Notes:

[1] The vessel type is grouped according to the modelling parameter (i.e. stack height, exit temperature, exit velocity etc). Vessel types with the identical modelling parameters will be grouped.

[2] Marine traffic consultant advised the small craft is composed of pleasure vessel, sampan, work boat and tugboat.

[3] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 4-7, Table 4-10 and Table 3-24 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012).

(iii) The engine powers are made reference to Table 4-5 and Table 4-6 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) - cargo junk of GRT 0-499 class and tug of GRT 0-499 (average of Grade II tug boat of locally licensed vessel).

(iv) The emission factor is made reference to Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012) Table 4-16. Under the Air Pollution Control (Fuel for Vessels) Regulation, all vessels assumed to use MGO due to requirement to fuel switch to compliant fuel (sulphur content <=0.5%) within Hong Kong waters.

[4] Main and auxiliary engine are assumed in operation during maneuvering for conservative assessment with reference to Table 3-25 of Study on Marine Vessels Emission Inventory Final Report (HKUST, February 2012). The emission rate per trip considers the emission from the engine in operation as indicated in the table "Engine in Operation", and the calculation is documented in the "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD.

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_TW1_001	POINT	824152.7	822444.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_002	POINT	824126.3	822490.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_003	POINT	824100	822536.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_004	POINT	824073.7	822582.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_005	POINT	824047.4	822628	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_006	POINT	824021	822673.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_007	POINT	823994.7	822719.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_008	POINT	823968.4	822765.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_009	POINT	823942	822811.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_010	POINT	823912	822854.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_011	POINT	823880	822895.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_012	POINT	823848	822936.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_013	POINT	823816	822978.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_014	POINT	823784	823019.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_015	POINT	823752	823061.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_016	POINT	823720	823102.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_017	POINT	823690	823145.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_018	POINT	823661.4	823189.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_019	POINT	823632.7	823233.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_020	POINT	823604	823278	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_021	POINT	823575.3	823322.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_022	POINT	823546.6	823366.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_023	POINT	823517.9	823410.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_024	POINT	823474.6	823434.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_025	POINT	823428.2	823455.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_026	POINT	823381.8	823475.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_027	POINT	823335.4	823495.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_028	POINT	823289.1	823516	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_029	POINT	823242.7	823536.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_030	POINT	823196.3	823556.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_031	POINT	823149.9	823576.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_032	POINT	823103.5	823597.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_033	POINT	823057.1	823617.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_034	POINT	823010.8	823637.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_035	POINT	822964.4	823658.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_036	POINT	822918	823678.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_037	POINT	822871.6	823698.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_038	POINT	822825.2	823719	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_039	POINT	822778.8	823739.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_040	POINT	822732.5	823759.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_041	POINT	822686.1	823779.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_042	POINT	822639.7	823800.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_043	POINT	822593.3	823820.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_044	POINT	822546.9	823840.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_TW1_045	POINT	822500.6	823861.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_046	POINT	822454.2	823881.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_047	POINT	822405.8	823894.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_048	POINT	822357	823907	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_049	POINT	822308.2	823919	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_050	POINT	822259.4	823931	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_051	POINT	822210.6	823943.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_052	POINT	822161.7	823955.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_053	POINT	822112.9	823967.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_054	POINT	822064	823978.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_055	POINT	822013.9	823978.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_056	POINT	821963.8	823979.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_057	POINT	821913.8	823980.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_058	POINT	821863.7	823981	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_059	POINT	821813.6	823981.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_060	POINT	821763.5	823982.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_061	POINT	821713.5	823983.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_062	POINT	821663.4	823983.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_063	POINT	821613.3	823984.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_064	POINT	821563.2	823985.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_065	POINT	821513.2	823986	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_066	POINT	821463.1	823986.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_067	POINT	821413	823987.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_068	POINT	821362.9	823988.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_069	POINT	821312.9	823988.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_070	POINT	821262.8	823989.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_071	POINT	821212.7	823990.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_072	POINT	821162.6	823991.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_073	POINT	821112.6	823991.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_074	POINT	821062.5	823992.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_075	POINT	821012.4	823993.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_076	POINT	823992	822430.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_077	POINT	823961.5	822472.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_078	POINT	823930.9	822515.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_079	POINT	823900.4	822558.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_080	POINT	823869.9	822600.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_081	POINT	823839.4	822643.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_082	POINT	823808.8	822686.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_083	POINT	823778.3	822728.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_084	POINT	823747.8	822771.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_085	POINT	823717.3	822814.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_086	POINT	823686.7	822857	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_087	POINT	823652.4	822895.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_088	POINT	823613.7	822929.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_TW1_089	POINT	823575.1	822964.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_090	POINT	823536.4	822998.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_091	POINT	823497.8	823032.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_092	POINT	823459.1	823066.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_093	POINT	823420.5	823101.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_094	POINT	823381.8	823135.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_095	POINT	823343.1	823169.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_096	POINT	823304.5	823203.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_097	POINT	823265.8	823238	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_098	POINT	823227.2	823272.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_099	POINT	823188.5	823306.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_100	POINT	823147.1	823335.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_101	POINT	823100.2	823354.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_102	POINT	823053.3	823373.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_103	POINT	823006.5	823392.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_104	POINT	822959.6	823411.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_105	POINT	822912.7	823430.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_106	POINT	822865.9	823449.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_107	POINT	822819	823468.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_108	POINT	822772.1	823487.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_109	POINT	822724.4	823501.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_110	POINT	822674.3	823503.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_111	POINT	822624.3	823505.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_112	POINT	822574.2	823507.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_113	POINT	822524.2	823509.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_114	POINT	822474.1	823511	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_115	POINT	822424.1	823512.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_116	POINT	822374	823514.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_117	POINT	822324	823516.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_118	POINT	822273.9	823518.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_119	POINT	822223.9	823520.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_120	POINT	822175.3	823511.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_121	POINT	822128	823493.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_122	POINT	822080.6	823476.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_123	POINT	822033.3	823458.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_124	POINT	821985.9	823441.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_125	POINT	821938.6	823423.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_126	POINT	821891.2	823406.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_127	POINT	821843.9	823388.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_128	POINT	821796.5	823371.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_129	POINT	821749.2	823353.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_130	POINT	821701.8	823336	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_131	POINT	821654.5	823318.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_132	POINT	821607.1	823300.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_TW1_133	POINT	821559.8	823283.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_134	POINT	821512.4	823265.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_135	POINT	821465.1	823248.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_136	POINT	821417.7	823230.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_137	POINT	821370.4	823213.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_138	POINT	821323	823195.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_139	POINT	821275.7	823178	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_140	POINT	821228.3	823160.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_141	POINT	821181	823142.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_142	POINT	821133.6	823125.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_143	POINT	823786.1	822441.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_144	POINT	823760.5	822487.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_145	POINT	823734.9	822534.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_146	POINT	823709.3	822580.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_147	POINT	823683.6	822626.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_148	POINT	823658	822673	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_149	POINT	823626.6	822714.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_150	POINT	823590.3	822751.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_151	POINT	823554	822788.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_152	POINT	823517.7	822825.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_153	POINT	823481.4	822862.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_154	POINT	823443.5	822897.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_155	POINT	823404.3	822931.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_156	POINT	823365	822964.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_157	POINT	823325.8	822998.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_158	POINT	823286.6	823031.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_159	POINT	823247.3	823065	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_160	POINT	823205.9	823094.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_161	POINT	823158.6	823111.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_162	POINT	823111.2	823129.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_163	POINT	823063.9	823146.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_164	POINT	823016.5	823164.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_165	POINT	822969.2	823181.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_166	POINT	822921.8	823199.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_167	POINT	822874.5	823217	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_168	POINT	822827.1	823234.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_169	POINT	822779.8	823252.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_170	POINT	822733.4	823253.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_171	POINT	822688.5	823229.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_172	POINT	822643.7	823206	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_173	POINT	822598.8	823182.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_174	POINT	822553.9	823158.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_175	POINT	822509	823134.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_176	POINT	822464.2	823110.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	1	G3_TW1_177	POINT	822419.3	823086.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_178	POINT	822374.4	823062.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_179	POINT	822329.6	823038.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_180	POINT	822284.7	823014.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_181	POINT	822239.8	822990.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_182	POINT	822194.9	822966.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_183	POINT	822150.1	822942.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_184	POINT	822105.2	822919	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_185	POINT	822060.3	822895.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_186	POINT	822015.4	822871.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_187	POINT	821970.6	822847.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_188	POINT	821925.7	822823.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_189	POINT	821880.8	822799.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_190	POINT	821835.9	822775.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_191	POINT	821791.1	822751.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_192	POINT	821746.2	822727.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_193	POINT	821701.3	822703.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_194	POINT	821656.4	822679.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_195	POINT	821611.6	822655.9	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_196	POINT	821566.7	822632	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_197	POINT	821521.8	822608.1	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_198	POINT	821476.9	822584.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_199	POINT	821432.1	822560.2	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_200	POINT	821387.2	822536.3	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_201	POINT	821342.3	822512.4	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_202	POINT	821297.4	822488.5	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_203	POINT	821252.6	822464.6	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_204	POINT	821207.7	822440.7	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	1	G3_TW1_205	POINT	821162.8	822416.8	0	11	588	8	0.2	7.04E-04	2.40E-05	2.33E-05
3	2	G3_TW2_001	POINTHOR	824152.7	822444.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_002	POINTHOR	824126.3	822490.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_003	POINTHOR	824100	822536.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_004	POINTHOR	824073.7	822582.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_005	POINTHOR	824047.4	822628	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_006	POINTHOR	824021	822673.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_007	POINTHOR	823994.7	822719.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_008	POINTHOR	823968.4	822765.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_009	POINTHOR	823942	822811.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_010	POINTHOR	823912	822854.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_011	POINTHOR	823880	822895.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_012	POINTHOR	823848	822936.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_013	POINTHOR	823816	822978.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_014	POINTHOR	823784	823019.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_015	POINTHOR	823752	823061.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_TW2_016	POINTHOR	823720	823102.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_017	POINTHOR	823690	823145.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_018	POINTHOR	823661.4	823189.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_019	POINTHOR	823632.7	823233.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_020	POINTHOR	823604	823278	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_021	POINTHOR	823575.3	823322.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_022	POINTHOR	823546.6	823366.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_023	POINTHOR	823517.9	823410.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_024	POINTHOR	823474.6	823434.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_025	POINTHOR	823428.2	823455.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_026	POINTHOR	823381.8	823475.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_027	POINTHOR	823335.4	823495.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_028	POINTHOR	823289.1	823516	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_029	POINTHOR	823242.7	823536.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_030	POINTHOR	823196.3	823556.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_031	POINTHOR	823149.9	823576.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_032	POINTHOR	823103.5	823597.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_033	POINTHOR	823057.1	823617.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_034	POINTHOR	823010.8	823637.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_035	POINTHOR	822964.4	823658.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_036	POINTHOR	822918	823678.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_037	POINTHOR	822871.6	823698.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_038	POINTHOR	822825.2	823719	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_039	POINTHOR	822778.8	823739.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_040	POINTHOR	822732.5	823759.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_041	POINTHOR	822686.1	823779.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_042	POINTHOR	822639.7	823800.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_043	POINTHOR	822593.3	823820.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_044	POINTHOR	822546.9	823840.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_045	POINTHOR	822500.6	823861.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_046	POINTHOR	822454.2	823881.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_047	POINTHOR	822405.8	823894.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_048	POINTHOR	822357	823907	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_049	POINTHOR	822308.2	823919	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_050	POINTHOR	822259.4	823931	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_051	POINTHOR	822210.6	823943.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_052	POINTHOR	822161.7	823955.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_053	POINTHOR	822112.9	823967.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_054	POINTHOR	822064	823978.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_055	POINTHOR	822013.9	823978.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_056	POINTHOR	821963.8	823979.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_057	POINTHOR	821913.8	823980.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_058	POINTHOR	821863.7	823981	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_059	POINTHOR	821813.6	823981.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_TW2_060	POINTHOR	821763.5	823982.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_061	POINTHOR	821713.5	823983.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_062	POINTHOR	821663.4	823983.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_063	POINTHOR	821613.3	823984.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_064	POINTHOR	821563.2	823985.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_065	POINTHOR	821513.2	823986	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_066	POINTHOR	821463.1	823986.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_067	POINTHOR	821413	823987.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_068	POINTHOR	821362.9	823988.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_069	POINTHOR	821312.9	823988.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_070	POINTHOR	821262.8	823989.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_071	POINTHOR	821212.7	823990.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_072	POINTHOR	821162.6	823991.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_073	POINTHOR	821112.6	823991.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_074	POINTHOR	821062.5	823992.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_075	POINTHOR	821012.4	823993.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_076	POINTHOR	823992	822430.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_077	POINTHOR	823961.5	822472.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_078	POINTHOR	823930.9	822515.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_079	POINTHOR	823900.4	822558.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_080	POINTHOR	823869.9	822600.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_081	POINTHOR	823839.4	822643.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_082	POINTHOR	823808.8	822686.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_083	POINTHOR	823778.3	822728.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_084	POINTHOR	823747.8	822771.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_085	POINTHOR	823717.3	822814.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_086	POINTHOR	823686.7	822857	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_087	POINTHOR	823652.4	822895.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_088	POINTHOR	823613.7	822929.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_089	POINTHOR	823575.1	822964.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_090	POINTHOR	823536.4	822998.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_091	POINTHOR	823497.8	823032.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_092	POINTHOR	823459.1	823066.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_093	POINTHOR	823420.5	823101.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_094	POINTHOR	823381.8	823135.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_095	POINTHOR	823343.1	823169.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_096	POINTHOR	823304.5	823203.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_097	POINTHOR	823265.8	823238	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_098	POINTHOR	823227.2	823272.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_099	POINTHOR	823188.5	823306.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_100	POINTHOR	823147.1	823335.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_101	POINTHOR	823100.2	823354.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_102	POINTHOR	823053.3	823373.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_103	POINTHOR	823006.5	823392.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_TW2_104	POINTHOR	822959.6	823411.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_105	POINTHOR	822912.7	823430.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_106	POINTHOR	822865.9	823449.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_107	POINTHOR	822819	823468.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_108	POINTHOR	822772.1	823487.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_109	POINTHOR	822724.4	823501.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_110	POINTHOR	822674.3	823503.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_111	POINTHOR	822624.3	823505.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_112	POINTHOR	822574.2	823507.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_113	POINTHOR	822524.2	823509.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_114	POINTHOR	822474.1	823511	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_115	POINTHOR	822424.1	823512.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_116	POINTHOR	822374	823514.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_117	POINTHOR	822324	823516.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_118	POINTHOR	822273.9	823518.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_119	POINTHOR	822223.9	823520.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_120	POINTHOR	822175.3	823511.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_121	POINTHOR	822128	823493.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_122	POINTHOR	822080.6	823476.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_123	POINTHOR	822033.3	823458.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_124	POINTHOR	821985.9	823441.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_125	POINTHOR	821938.6	823423.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_126	POINTHOR	821891.2	823406.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_127	POINTHOR	821843.9	823388.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_128	POINTHOR	821796.5	823371.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_129	POINTHOR	821749.2	823353.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_130	POINTHOR	821701.8	823336	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_131	POINTHOR	821654.5	823318.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_132	POINTHOR	821607.1	823300.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_133	POINTHOR	821559.8	823283.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_134	POINTHOR	821512.4	823265.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_135	POINTHOR	821465.1	823248.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_136	POINTHOR	821417.7	823230.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_137	POINTHOR	821370.4	823213.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_138	POINTHOR	821323	823195.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_139	POINTHOR	821275.7	823178	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_140	POINTHOR	821228.3	823160.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_141	POINTHOR	821181	823142.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_142	POINTHOR	821133.6	823125.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_143	POINTHOR	823786.1	822441.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_144	POINTHOR	823760.5	822487.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_145	POINTHOR	823734.9	822534.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_146	POINTHOR	823709.3	822580.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_147	POINTHOR	823683.6	822626.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_TW2_148	POINTHOR	823658	822673	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_149	POINTHOR	823626.6	822714.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_150	POINTHOR	823590.3	822751.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_151	POINTHOR	823554	822788.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_152	POINTHOR	823517.7	822825.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_153	POINTHOR	823481.4	822862.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_154	POINTHOR	823443.5	822897.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_155	POINTHOR	823404.3	822931.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_156	POINTHOR	823365	822964.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_157	POINTHOR	823325.8	822998.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_158	POINTHOR	823286.6	823031.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_159	POINTHOR	823247.3	823065	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_160	POINTHOR	823205.9	823094.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_161	POINTHOR	823158.6	823111.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_162	POINTHOR	823111.2	823129.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_163	POINTHOR	823063.9	823146.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_164	POINTHOR	823016.5	823164.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_165	POINTHOR	822969.2	823181.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_166	POINTHOR	822921.8	823199.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_167	POINTHOR	822874.5	823217	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_168	POINTHOR	822827.1	823234.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_169	POINTHOR	822779.8	823252.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_170	POINTHOR	822733.4	823253.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_171	POINTHOR	822688.5	823229.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_172	POINTHOR	822643.7	823206	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_173	POINTHOR	822598.8	823182.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_174	POINTHOR	822553.9	823158.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_175	POINTHOR	822509	823134.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_176	POINTHOR	822464.2	823110.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_177	POINTHOR	822419.3	823086.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_178	POINTHOR	822374.4	823062.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_179	POINTHOR	822329.6	823038.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_180	POINTHOR	822284.7	823014.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_181	POINTHOR	822239.8	822990.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_182	POINTHOR	822194.9	822966.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_183	POINTHOR	822150.1	822942.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_184	POINTHOR	822105.2	822919	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_185	POINTHOR	822060.3	822895.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_186	POINTHOR	822015.4	822871.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_187	POINTHOR	821970.6	822847.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_188	POINTHOR	821925.7	822823.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_189	POINTHOR	821880.8	822799.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_190	POINTHOR	821835.9	822775.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_191	POINTHOR	821791.1	822751.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05

Modelling Parameters

Gate	Group	Source ID	Type	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
											NOx	RSP	FSP
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
3	2	G3_TW2_192	POINTHOR	821746.2	822727.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_193	POINTHOR	821701.3	822703.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_194	POINTHOR	821656.4	822679.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_195	POINTHOR	821611.6	822655.9	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_196	POINTHOR	821566.7	822632	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_197	POINTHOR	821521.8	822608.1	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_198	POINTHOR	821476.9	822584.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_199	POINTHOR	821432.1	822560.2	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_200	POINTHOR	821387.2	822536.3	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_201	POINTHOR	821342.3	822512.4	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_202	POINTHOR	821297.4	822488.5	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_203	POINTHOR	821252.6	822464.6	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_204	POINTHOR	821207.7	822440.7	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05
3	2	G3_TW2_205	POINTHOR	821162.8	822416.8	0	4	694.7	8	0.3	1.49E-03	8.03E-05	7.81E-05

Notes:

[1] Modelling parameters are referred to Tuen Mun South Extension (AERIAR-236/2022).

Calculation of Multiplying Factor for Total Vessel Count

Monthly Vessel Count for Year 2048

Marine Gate	Monthly Vessel Count in Dec [1]
Gate 3	2,038

Notes:

[1] The marine traffic data for December is provided by Marine Traffic Consultant.

Monthly Profile of Marine Traffic for Year 2019

Month	Monthly Multiplying Factor
Jan-19	1.00
Feb-19	0.90
Mar-19	1.00
Apr-19	0.97
May-19	1.00
Jun-19	0.97
Jul-19	1.00
Aug-19	1.00
Sep-19	0.97
Oct-19	1.00
Nov-19	0.97
Dec-19	**1.00**

Notes:

[1] No monthly profile is available from Marine Traffic Consultant and port statistics. Same number of vessel count each day is assumed.

Hourly Multiplying Factor derived from Marine Traffic in December 2048

Hour		Gate 3	
Start	End	No. of Marine Vessels [1]	Hourly Multplying Factor
0	1	22	1.1%
1	2	17	0.8%
2	3	19	0.9%
3	4	29	1.4%
4	5	37	1.8%
5	6	64	3.1%
6	7	99	4.9%
7	8	91	4.5%
8	9	94	4.6%
9	10	117	5.7%
10	11	166	8.1%
11	12	120	5.9%
12	13	135	6.6%
13	14	98	4.8%
14	15	130	6.4%
15	16	180	8.8%
16	17	212	10.4%
17	18	154	7.6%
18	19	77	3.8%
19	20	53	2.6%
20	21	50	2.5%
21	22	29	1.4%
22	23	15	0.7%
23	24	31	1.5%

Notes:

[1] The number of hourly marine vessels for Dec 2048 is provided by Marine Traffic Consultant. It contains the total number of marine vessels for the 31 days in December in Year 2048 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 22 marine vessels for the first hour during the whole December.

Legend

- Gate 2 TW Modelled Sources
- Gate 3 TW Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 2 TW Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Legend

- Gate 3 TW Modelled Sources
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- Administration Area
- 500m assessment area
- PATH Grid

N

200 100 0 200 400 600 Meters

Notes:
The modelled sources is based on the radar/AIS data provided by Marine Department.

Appendix 3.10h

Emission Inventory and Source Locations for Pleasure Vessels at Gold Coast in Year 2048

Marine Traffic Information

Assessed Vessel Type	Yacht
Location	Gold Coast Marina
Total Length of Berth (m)	2,195
Monthly Vessel Count in Decemeber 2019 of the entire Gold Coast Marina [1]	155
Travelling Speed (knots) [2]	3

Notes:

[1] Monthly Vessel Count is based on the AIS and Radar data in 2019 from Marine Department. Due to the pandemic situation, data of Year 2019 is considered the most appropriate. Since it is expected that the capacity of Gold Coast will remain unchanged, the vessel count in 2019 is assumed the same and adopted for future years.

[2] Average speed of 3 knot is based on the AIS and Radar data in 2019 from Marine Department.

Marine Traffic Information by Routes

Sailing Route	Length of Berth (m) within Assessment Area	Monthly Vessel Count in Dec [1]	Travelling Speed (knots) [2]	Length of Sailing Route (m) within Assessment Area [3]
1	217	15	3	435
2	290	20	3	206
3	185	13	3	42
4	0	0	3	0
5	0	0	3	0

Notes:

[1] No information on the vessel count breakdown at different berth and routes. Hence monthly vessel count by routes is estimated by pro-rata to the length of the approached berth. Only marine vessel approaching the berth within 500m assessment area is assessed. The monthly marine vessel count in Dec within the assessment area (e.g. for Sailing route 1, it is 15) is estimated by the marine vessel count of the entire Gold Coast Marina (i.e. 155) * length of berth within assessment area in each sailing route (e.g. 217m in Sailing Route 1) / Total Length of Berth (2195m).

[2] Average speed of 3 knot is based on the AIS and Radar data in 2019 from Marine Department.

[3] Possible maximum length of sailing route is estimated for conservative assessment.

Marine Emission Inventory

Total Emission Rate

Sailing Route	Emission Rate per Trip (g/s) [1][2]		
	NOx	RSP	FSP
1	1.60E-02	2.97E-04	2.97E-04
2	1.73E-02	3.20E-04	3.20E-04
3	4.18E-03	7.75E-05	7.75E-05

Notes:

[1] On-shore power is provided at Gold Coast Marina and hence assumed engine is turned off during berth. Only emission during maneuvering is considered.

[2] The emission rate per trip is calculated based on the following equation. Breakdown is provided and documented in "Technical Notes on Marine Emission for So Kwun Wat and Tsing Lung Tau Areas" submitted to EPD and emission rates are evenly apportioned into point sources in the model as shown in subsequent pages of this Appendix.

Engine Emission Rate per Trip = (i)Time-in-mode x (ii)Engine Load Factors x (iii) Engine Power x (iv) Emission Factor, where

(i) Time-in-mode is calculated from the average speed and possible maximum length of sailing route within assessment area provided by Marine Traffic Consultant.

(ii) Engine Load Factors are made reference to Table 3-56 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder".

(iii) The average engine powers are based on desktop review.

(iv) The engine emission factors are made reference to Table 3-58 of USEPA (2008) – "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder". Tier 2 emission factors are adopted, which assumed the age of vessels is >40 years old in Year 2048 for conservative assessment. Emission factors of FSP is assumed to be the same as those of RSP.

Modelling Parameters

Sailing Route	Source ID	Type [1]	X	Y	Base Elevation	Release Height [1]	Exit Temperature [1]	Exit velocity [1]	Internal diameter [1]	Emission Rate per Trip		
										NOx	RSP	FSP
			(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(g/s)	(g/s)	(g/s)
1	GC_R1_001	POINTHOR	817299.9	825727.2	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_002	POINTHOR	817271.1	825771.3	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_003	POINTHOR	817242.4	825815.4	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_004	POINTHOR	817209.3	825839.7	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_005	POINTHOR	817165.4	825814	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_006	POINTHOR	817121.4	825788.2	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_007	POINTHOR	817077.4	825762.5	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_008	POINTHOR	817033.4	825736.7	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
1	GC_R1_009	POINTHOR	817009.4	825704.4	0	0.5	673	8	0.3	1.78E-03	3.30E-05	3.30E-05
2	GC_R2_001	POINTHOR	817240.8	825789.5	0	0.5	673	8	0.3	3.45E-03	6.40E-05	6.40E-05
2	GC_R2_002	POINTHOR	817197.1	825763.2	0	0.5	673	8	0.3	3.45E-03	6.40E-05	6.40E-05
2	GC_R2_003	POINTHOR	817153.4	825736.9	0	0.5	673	8	0.3	3.45E-03	6.40E-05	6.40E-05
2	GC_R2_004	POINTHOR	817109.7	825710.7	0	0.5	673	8	0.3	3.45E-03	6.40E-05	6.40E-05
2	GC_R2_005	POINTHOR	817066.8	825684.9	0	0.5	673	8	0.3	3.45E-03	6.40E-05	6.40E-05
3	GC_R3_001	POINTHOR	817279.7	825732.9	0	0.5	673	8	0.3	4.18E-03	7.75E-05	7.75E-05

Notes:

[1] The modelling parameters including release height, exit velocity, internal diameter and release direction are made reference to the approved EIA of Tuen Mun South Extension (AERIAR-236/2022) and the exit temperature refers to the Examination Guidebook on Pleasure Vessel Operator Grade 2 Certificate of Competency.

Modelled Hourly Emission Multiplier of Yachts in Gold Coast Marina

Distribution of Vessel Count in Different Routes derived from Berth Length

Sailing Route	Length of Berth (m)	Percentage of Berth Length within Assessment Area [1]	Monthly Vessel Count in Dec [2]
1	217	10%	15
2	290	13%	20
3	185	8%	13

Notes:

[1] The percentage of berth length is used for estimating the number of vessels entering into each route and berthing within the Assessment Area (i.e. 500m). The number of vessels entering each route within the Assessment Area is estimated by the percentage of berth length (i.e. length of the berth within the Assessment Area divided by total length of the berth within the marina).

[2] Vessel Count by routes is estimated according to the percentage of berth length. Please see "Marine Traffic Information" for more details.

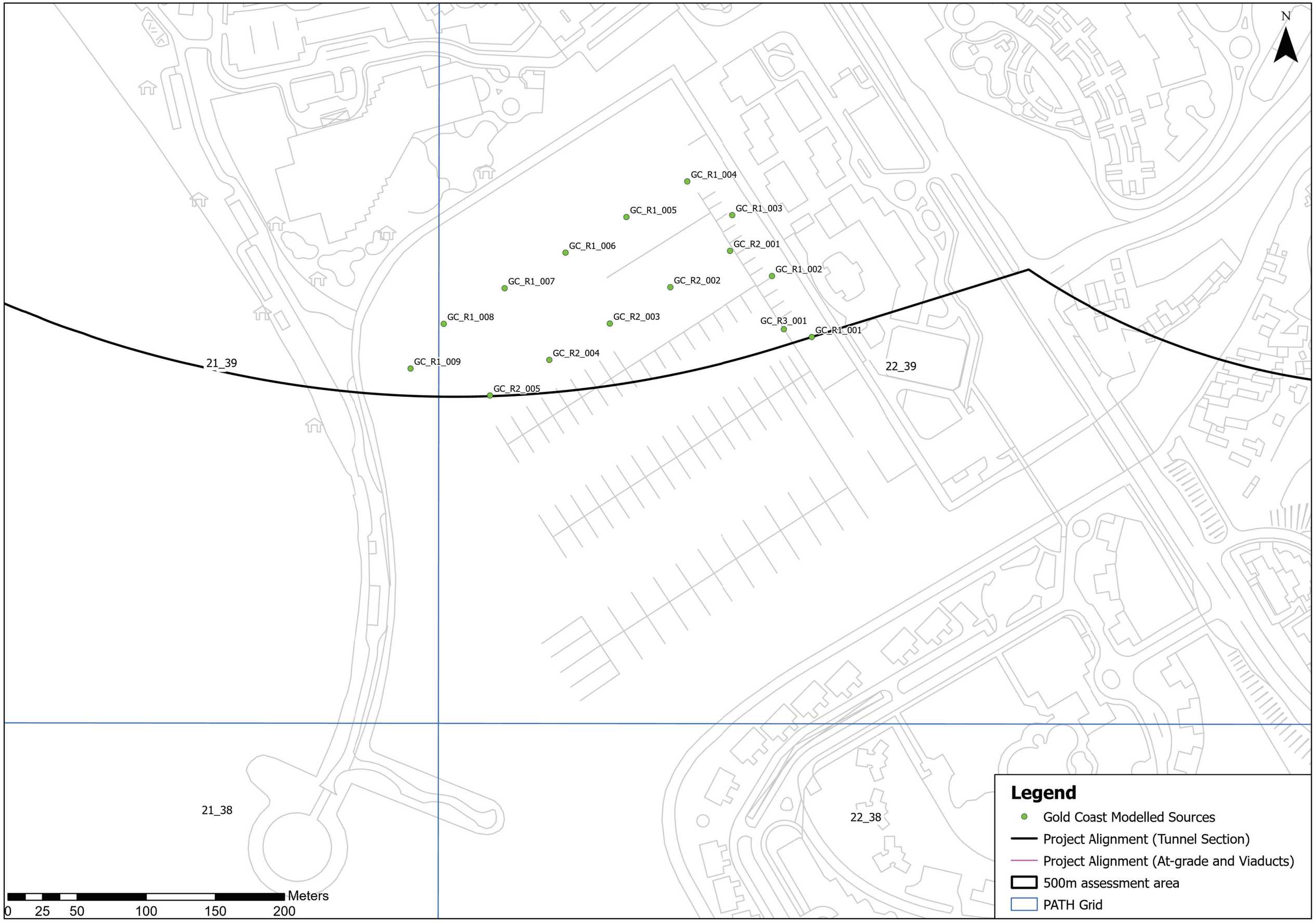
Total Marine Vessels Count in December 2019 by hour

Hour	Start	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	End	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Monday		1	6	3	0	1	1	0	3	1	0	1	0	1	0	0	0	0	1	0	0	0	0	1	0
Tuesday		1	2	1	2	0	1	2	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Wednesday		5	3	3	2	1	1	2	2	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
Thursday		1	7	4	1	0	1	4	4	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Friday		0	5	2	2	1	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Saturday		2	2	1	3	3	1	2	3	2	2	0	0	2	0	0	1	0	1	0	0	0	0	2	2
Sunday		2	2	6	1	1	0	0	1	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1

Notes:

[1] The number of hourly marine vessels for Dec 2019 is provided based on the AIS and Radar data in 2019 from Marine Department.Due to the pandemic situation, data of Year 2019 is considered the most appropriate and therefore adopted and assumed the same for future years. It contains the total number of marine vessels for the 31 days in December in Year 2019 for each hour. For example, from Hour 0 to Hour 1 (i.e. first hour of 1 Dec + first hour of 2 Dec, ... 1st hour of 31 Dec), there are total 1 marine vessels during the whole December. Due to the fixed capacity of Gold Coast Marina, no growth is assumed.

Location of Modelled Point Sources


N
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GC_R1_005
GC_R1_003
GC_R1_006
GC_R2_001
GC_R1_002
GC_R1_007
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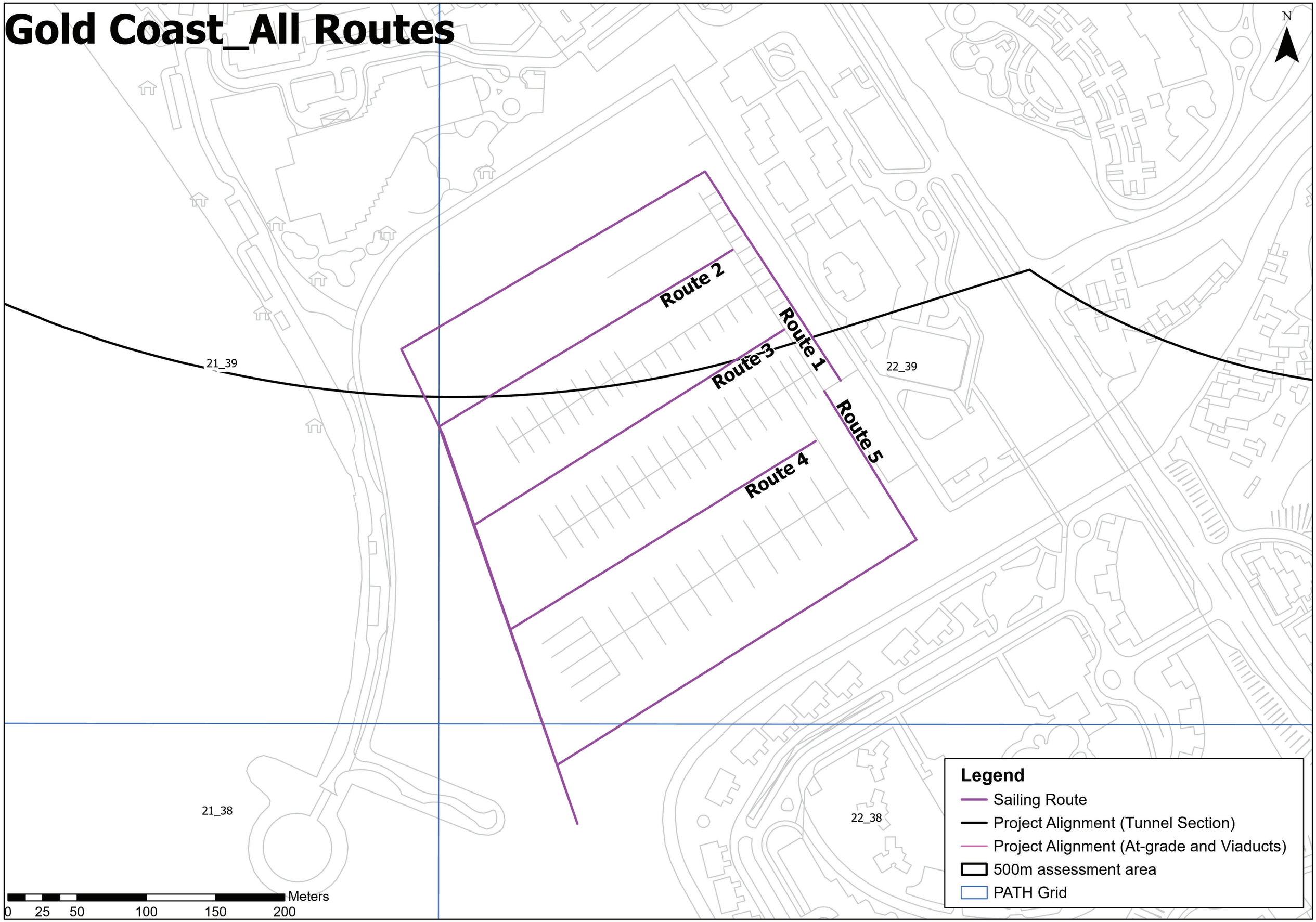
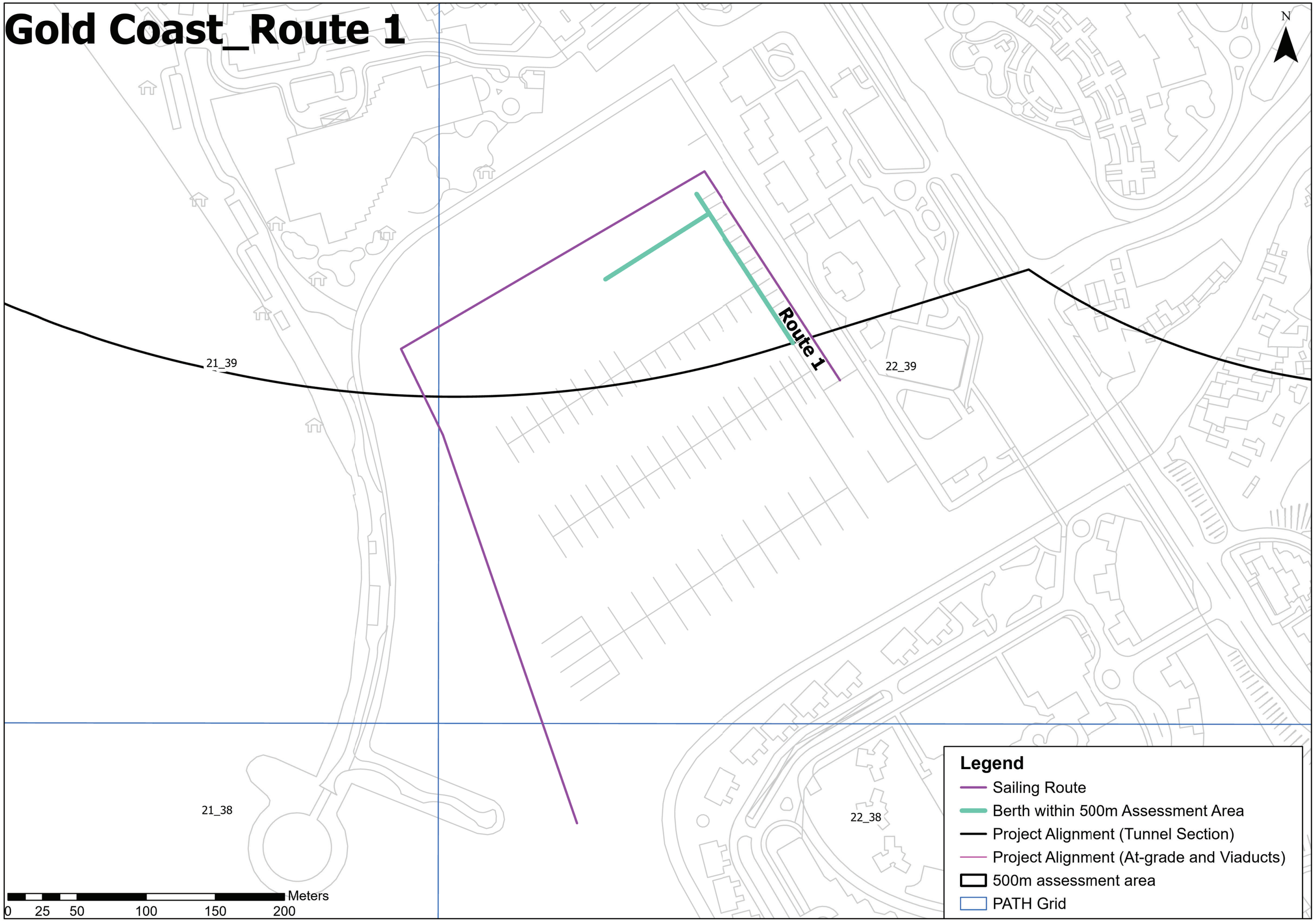
GC_R1_008
GC_R2_003
GC_R3_001
GC_R1_001
GC_R1_009
GC_R2_004
GC_R2_005
21_39
22_39
21_38
22_38
Meters
0 25 50 100 150 200
Legend
Gold Coast Modelled Sources
Project Alignment (Tunnel Section)
Project Alignment (At-grade and Viaducts)
500m assessment area
PATH Grid

Sailing Route and Berth Length

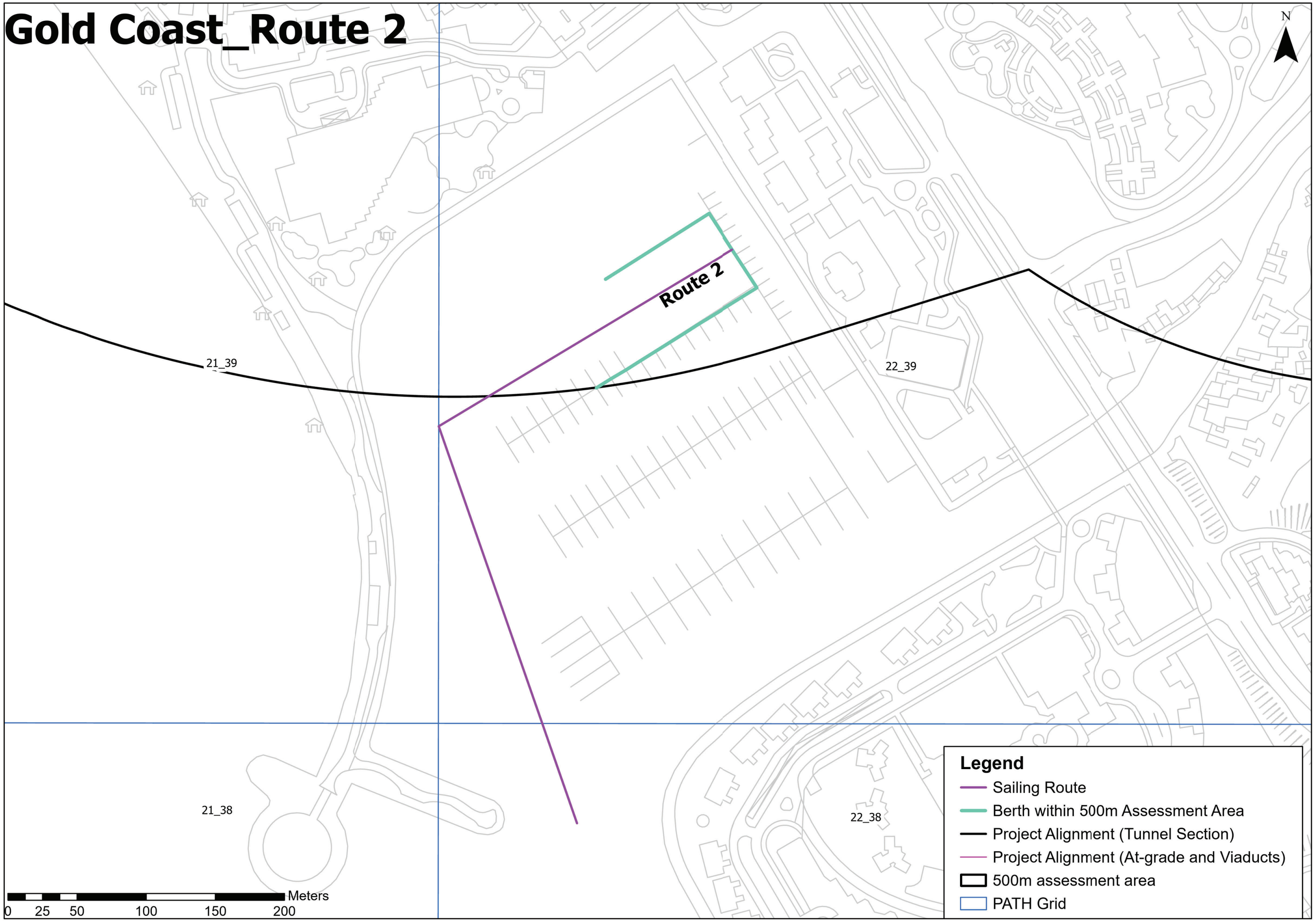
Gold Coast_All Routes



Gold Coast_Route 1



Gold Coast_Route 2



Gold Coast_Route 3

N

21_39

Route 3

22_39

21_38

22_38

Meters

0 25 50 100 150 200

Legend

- Sailing Route
- Berth within 500m Assessment Area
- Project Alignment (Tunnel Section)
- Project Alignment (At-grade and Viaducts)
- 500m assessment area
- PATH Grid