

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp

Monthly Air Quality Report

DOCUMENT No: TMF-2035-EV-0017



## IN TUNNEL AIR QUALITY MONITORING VALIDATED DATA FOR March 2014

FOR THE

LANE COVE TUNNEL



&

MILITARY ROAD E-RAMP



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**Position:** HSEQ Advisor

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**Knowledge Mgrs:** Ben Callinan

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Date: November, 2013

Revision: 7

Page 1 of 26

## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

### 1. INTRODUCTION

The Lane Cove Tunnel commenced operation on 25 March 2007. Transfield Services (Australia) Pty Ltd are contracted by LCT/MRE to undertake the day to day operation and maintenance of the Tunnel. As a core part of this contract, Transfield are responsible for the maintenance of the air quality monitoring system inside the tunnel which ensures that the carbon monoxide (CO) levels inside the Tunnel are always kept to within acceptable levels and limits stipulated by the Department of Planning. Continual measurements of CO inside the tunnel are recorded, validated and reported publicly by Transfield on a monthly basis.

This report presents the results of these measurements for the period 1 March 2014 – 31 March 2014.

#### 1.1. Facility Address

The Lane Cove Tunnel is a 3.5km underground road tunnel running between portals at the Gore Hill Freeway in Artarmon NSW just east of the Pacific Highway and Epping Road near its junction with Mowbray Road. It also has access ramps onto and off the Pacific Highway at Artarmon.

The air quality data from the in-tunnel sensors is stored and processed at the Motorway Control Centre located at 5 Sirius Road, Lane Cove West, NSW, 2066.

### 2. SUMMMARY

#### 2.1. Compliance with Limits

During the period 1 March 2014 – 31 March 2014, CO levels inside the tunnel were within the limits stipulated by the Department of Planning. The results are presented in full in section 5 of the report.

#### 2.2. Data Availability

The percentage of time the instruments were online was estimated to be 92%. This data capture rate should be sufficient to provide representative reporting of CO levels experienced in the tunnel.

## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

### 3. DEFINITIONS & ABBREVIATIONS

Term	Definition
AM-6	A method standard recommended by the NSW EPA (OEH) for the sampling and analysis of carbon monoxide in ambient air. The method conforms to AS 3580.7.1 1992.
CO	carbon monoxide – a toxic gas present in motor vehicle exhausts
NSW EPA	New South Wales Environment Protection Authority which was incorporated into the Department of Environment and Climate Change and Water (DECCW). Most functions of DECCW have now been incorporated into the Office of Environment and Heritage (OEH)

### 4. EXPLANATION OF MONITORING

#### 4.1. Method of Analysis

Carbon monoxide (CO) levels are measured inside the tunnel using a network of 28 separate CO monitors attached to the walls of both eastbound and westbound tunnels. The monitors measure CO using an analytical method known as non-dispersive infra-red absorption with gas filter correlation. Basically this involves projecting an infra-red beam across a 3 metre section of the tunnel and measuring the amount of infra-red light absorbed by CO molecules in the path of the beam. The quantity of infra-red light absorbed is proportional to the concentration of CO in the path of the beam. The monitors used were specially designed for use in road tunnels where access for routine essential maintenance is restricted by the need to minimise traffic disruption. Similar monitors are widely used in other road tunnels in Australia and worldwide.

This method of analysis is similar to the standard method AM-6 outlined in "NSW EPA 2001, Approved Methods for Sampling and Analysis of Pollutants in New South Wales." However the method differs from the standard principally by the use of the open beam type instrument as described above in place of a closed analytical cell and sample delivery pump as typically used in ambient air monitoring stations. This deviation from the standard method has been approved by the Department of Planning on the advice of an independent consultant with specialist expertise in the field of air quality monitoring.

The number and locations of the CO monitors has been selected using computer generated modelling to provide a representative profile of CO levels inside the tunnel.

## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

### 4.2. Presentation of Measurement Results

The monitors provide continual measurements of CO at the point location in the tunnel where they are installed. These measurements are termed **single point concentrations**.

The monitoring system has also been configured using continuous measurements of traffic flow from speed sensors in the tunnel to calculate the exposure to CO of a theoretical motorist travelling through the tunnel every minute using every possible entry/exit portal combination. These measurements are termed **exposure concentrations**.

### 4.3. Limits

The Department of Planning have stipulated Limits which air quality inside the tunnel must meet. These limits relate to the maximum concentration of carbon monoxide (CO) in air inside the tunnel and are presented in table 1 below:

**Table 1: Department of Planning stipulated limits for CO inside tunnel**

Single Point Concentration Limit (as 3 Minute Rolling Average)	Exposure Concentration Limit (as 15 Minute Rolling Average)	Exposure Concentration Limit (as 30 Minute Rolling Average)
200 ppm CO	87 ppm CO	50 ppm CO

### 4.4. Calibration and Maintenance

All instruments were calibrated following installation and will continue to be routinely calibrated on a schedule not exceeding 12 months between re-calibrations. The sensors are maintained according to a schedule recommended by the manufacturer. To minimise traffic disruption to motorists and provide a safe working environment for instrument technicians, maintenance and calibration is usually only performed during scheduled night time maintenance closures of the tunnel.

### 4.5. Data Validation

The monitoring data is subjected to a validation procedure prior to reporting where it is inspected to ensure that it is representative of CO levels experienced inside the tunnel at the time of measurement.

## IN TUNNEL AIR QUALITY MONITORING March 2014

**DOCUMENT No: TMF-2035-EV-0017**

### 5. RESULTS

The results of the monitoring are presented in Table 2 below:

The figures presented are the maximum values recorded for all sections of the tunnel for each hourly period starting from the times tabulated.

#### 5.1 Factors Affecting Results - Nil

**Table 2: Results of In Tunnel Air Quality Monitoring from 1 March 2014 – 31 March 2014.**

		Max Single Point CO Concentration (3 Minute Rolling Average) ppm	Max CO Exposure Concentration(15 Minute Rolling Average) ppm	Max CO Exposure Concentration (30 Minute Rolling Average) ppm
		<b>Limits</b>		
Date	Time	200	87	50
1-Mar-14	+00:00	9.48842	1.15578	0.918668
1-Mar-14	+01:00	4.80041	0.261326	0.130663
1-Mar-14	+02:00	4.7662	0.16196	0.08098
1-Mar-14	+03:00	5.30325	0.168403	0.0842017
1-Mar-14	+04:00	6.86064	0.196641	0.0983204
1-Mar-14	+05:00	17.8626	0.38346	0.19173
1-Mar-14	+06:00	10.5498	0.401162	0.200581
1-Mar-14	+07:00	5.83504	0.337885	0.168943
1-Mar-14	+08:00	6.85587	0.643756	0.321878
1-Mar-14	+09:00	6.59362	0.672014	0.336007
1-Mar-14	+10:00	12.9263	0.412883	0.206442
1-Mar-14	+11:00	7.16251	0.493778	0.246889
1-Mar-14	+12:00	9.21033	0.603255	0.301628
1-Mar-14	+13:00	9.73862	0.440625	0.220312
1-Mar-14	+14:00	7.70235	0.455362	0.227681
1-Mar-14	+15:00	6.92424	0.343136	0.171568
1-Mar-14	+16:00	6.61585	0.306974	0.153487
1-Mar-14	+17:00	5.31898	0.58841	0.294205
1-Mar-14	+18:00	6.28388	0.567594	0.283797
1-Mar-14	+19:00	6.83368	0.250746	0.125373
1-Mar-14	+20:00	6.1648	0.308225	0.154112
1-Mar-14	+21:00	10.0578	0.886253	0.443127
1-Mar-14	+22:00	9.0609	0.314303	0.157152

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

1-Mar-14	+23:00	6.99258	0.311538	0.155769
2-Mar-14	+00:00	7.30844	0.331889	0.165944
2-Mar-14	+01:00	5.85576	0.370777	0.185388
2-Mar-14	+02:00	7.58531	0.232756	0.116378
2-Mar-14	+03:00	7.02075	0.23883	0.119415
2-Mar-14	+04:00	4.73044	0.350288	0.175144
2-Mar-14	+05:00	7.7627	0.483438	0.241719
2-Mar-14	+06:00	5.21474	0.336097	0.168049
2-Mar-14	+07:00	6.50975	0.260386	0.130193
2-Mar-14	+08:00	8.70693	0.283499	0.14175
2-Mar-14	+09:00	6.8103	0.298335	0.149167
2-Mar-14	+10:00	5.28165	0.37222	0.18611
2-Mar-14	+11:00	15.4551	0.659035	0.329517
2-Mar-14	+12:00	13.213	0.524544	0.262272
2-Mar-14	+13:00	6.1786	0.439974	0.219987
2-Mar-14	+14:00	7.56771	1.00909	0.993461
2-Mar-14	+15:00	5.31214	0.404632	0.202316
2-Mar-14	+16:00	7.35693	0.545512	0.272756
2-Mar-14	+17:00	6.52848	0.519259	0.259629
2-Mar-14	+18:00	6.15579	1.06028	0.689638
2-Mar-14	+19:00	7.17139	0.808796	0.404398
2-Mar-14	+20:00	5.77615	0.481633	0.252242
2-Mar-14	+21:00	5.51239	2.09243	1.51689
2-Mar-14	+22:00	5.84341	2.90242	2.55259
2-Mar-14	+23:00	5.65782	0.971478	0.88373
3-Mar-14	+00:00	5.82973	0.953765	0.822459
3-Mar-14	+01:00	5.27558	0.19238	0.191973
3-Mar-14	+02:00	7.05906	0.154936	0.0774681
3-Mar-14	+03:00	7.50855	0.124771	0.0623853
3-Mar-14	+04:00	5.34795	0.371453	0.185726
3-Mar-14	+05:00	6.3697	0.2891	0.14455
3-Mar-14	+06:00	20.4773	1.34847	0.674235
3-Mar-14	+07:00	20.5001	1.18828	0.594139
3-Mar-14	+08:00	10.0139	0.75732	0.37866
3-Mar-14	+09:00	10.5849	4.83439	3.8242
3-Mar-14	+10:00	12.2089	4.7076	3.82524
3-Mar-14	+11:00	8.34551	0.372756	0.186378
3-Mar-14	+12:00	8.19094	0.353106	0.176553
3-Mar-14	+13:00	10.2165	0.636653	0.318327

Date March 2014

Revision: 7

Page 6 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

3-Mar-14	+14:00	10.1394	0.456906	0.228453
3-Mar-14	+15:00	10.4029	0.767889	0.383944
3-Mar-14	+16:00	9.94281	0.596161	0.29808
3-Mar-14	+17:00	12.0315	0.818272	0.409136
3-Mar-14	+18:00	9.78687	0.341499	0.170749
3-Mar-14	+19:00	4.93836	0.239244	0.119622
3-Mar-14	+20:00	5.77359	0.378962	0.189481
3-Mar-14	+21:00	5.79931	0.252266	0.126133
3-Mar-14	+22:00	5.75234	0.280638	0.140319
3-Mar-14	+23:00	5.24323	0.189001	0.0945003
4-Mar-14	+00:00	10.1768	0.284243	0.142122
4-Mar-14	+01:00	11.0278	0.303354	0.151677
4-Mar-14	+02:00	5.61581	0.186956	0.0934782
4-Mar-14	+03:00	4.1472	0.167041	0.0835204
4-Mar-14	+04:00	3.2411	0.395708	0.197854
4-Mar-14	+05:00	9.62201	0.84956	0.42478
4-Mar-14	+06:00	19.1502	1.58961	0.794804
4-Mar-14	+07:00	22.9322	1.50643	0.753213
4-Mar-14	+08:00	16.39	0.562883	0.281442
4-Mar-14	+09:00	16.3787	0.568908	0.284454
4-Mar-14	+10:00	15.7845	0.569883	0.284942
4-Mar-14	+11:00	7.48167	0.460106	0.230053
4-Mar-14	+12:00	9.20511	0.912507	0.456253
4-Mar-14	+13:00	11.0153	0.401766	0.200883
4-Mar-14	+14:00	9.1974	0.75623	0.378115
4-Mar-14	+15:00	10.7718	0.544863	0.272432
4-Mar-14	+16:00	13.64	0.614082	0.307041
4-Mar-14	+17:00	17.4705	0.718956	0.359478
4-Mar-14	+18:00	14.1035	0.522104	0.261052
4-Mar-14	+19:00	5.12457	0.54826	0.27413
4-Mar-14	+20:00	2.25889	0.351275	0.175638
4-Mar-14	+21:00	5.99282	0.42255	0.211275
4-Mar-14	+22:00	8.12331	0.431933	0.215966
4-Mar-14	+23:00	7.24553	0.51031	0.255155
5-Mar-14	+00:00	3.82351	0.365436	0.182718
5-Mar-14	+01:00	4.75467	0.988772	0.610164
5-Mar-14	+02:00	3.411	0.238949	0.119474
5-Mar-14	+03:00	5.0004	0.196453	0.0982267
5-Mar-14	+04:00	5.09992	0.346506	0.173253

Date March 2014

Revision: 7

Page 7 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

5-Mar-14	+05:00	7.30608	0.411225	0.205612
5-Mar-14	+06:00	21.6573	1.59683	0.798417
5-Mar-14	+07:00	23.0583	3.53634	1.98849
5-Mar-14	+08:00	19.0151	1.53233	1.24992
5-Mar-14	+09:00	19.4827	1.17563	1.19743
5-Mar-14	+10:00	13.0327	0.402057	0.201028
5-Mar-14	+11:00	11.2487	0.512889	0.256444
5-Mar-14	+12:00	11.6837	1.77046	0.88523
5-Mar-14	+13:00	14.2593	0.519217	0.259608
5-Mar-14	+14:00	17.3327	0.599993	0.299996
5-Mar-14	+15:00	15.5504	0.657864	0.328932
5-Mar-14	+16:00	19.6795	0.686252	0.343126
5-Mar-14	+17:00	22.3861	0.629315	0.314657
5-Mar-14	+18:00	17.2	0.479805	0.239903
5-Mar-14	+19:00	10.7726	0.412661	0.20633
5-Mar-14	+20:00	3.72353	0.416617	0.208309
5-Mar-14	+21:00	4.07221	0.361984	0.180992
5-Mar-14	+22:00	3.3095	0.336595	0.168297
5-Mar-14	+23:00	9.86939	0.911187	0.262625
6-Mar-14	+00:00	23.2171	5.72955	2.86477
6-Mar-14	+01:00	6.52012	0.190907	0.0954536
6-Mar-14	+02:00	15.0706	0.369848	0.184924
6-Mar-14	+03:00	18.9879	0.480832	0.240416
6-Mar-14	+04:00	11.3392	0.313957	0.156979
6-Mar-14	+05:00	5.41591	0.506993	0.253497
6-Mar-14	+06:00	18.7921	1.31986	0.659928
6-Mar-14	+07:00	17.8855	0.842283	0.421142
6-Mar-14	+08:00	11.1553	0.515483	0.257741
6-Mar-14	+09:00	12.2369	0.457062	0.228531
6-Mar-14	+10:00	11.8565	0.66215	0.331075
6-Mar-14	+11:00	8.20886	0.489111	0.244556
6-Mar-14	+12:00	9.22682	0.513764	0.256882
6-Mar-14	+13:00	11.1877	1.26589	1.14259
6-Mar-14	+14:00	9.57596	0.704727	0.826606
6-Mar-14	+15:00	8.89284	0.541629	0.270815
6-Mar-14	+16:00	9.39895	0.668508	0.334254
6-Mar-14	+17:00	17.2337	0.73361	0.366805
6-Mar-14	+18:00	16.5686	0.666345	0.333173
6-Mar-14	+19:00	4.13503	0.430619	0.21531

Date March 2014

Revision: 7

Page 8 of 26



# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

6-Mar-14	+20:00	2.54073	0.365312	0.182656
6-Mar-14	+21:00	3.86428	0.348838	0.174419
6-Mar-14	+22:00	3.90112	0.266707	0.133354
6-Mar-14	+23:00	2.44678	0.209289	0.104644
7-Mar-14	+00:00	5.47502	0.24755	0.123775
7-Mar-14	+01:00	5.75181	0.860549	0.0930483
7-Mar-14	+02:00	7.73693	0.857145	0.186116
7-Mar-14	+03:00	14.0487	0.457398	0.228699
7-Mar-14	+04:00	8.07759	0.352924	0.176462
7-Mar-14	+05:00	10.951	0.797095	0.398548
7-Mar-14	+06:00	19.3701	1.08744	0.54372
7-Mar-14	+07:00	16.7967	0.794612	0.397306
7-Mar-14	+08:00	16.5129	1.61576	0.807882
7-Mar-14	+09:00	17.0761	0.495412	0.247706
7-Mar-14	+10:00	13.153	0.537959	0.26898
7-Mar-14	+11:00	15.9612	0.656669	0.328335
7-Mar-14	+12:00	15.2866	0.581727	0.290863
7-Mar-14	+13:00	13.1434	11.9685	11.6672
7-Mar-14	+14:00	13.1416	0.521347	0.260674
7-Mar-14	+15:00	15.0898	0.705656	0.352828
7-Mar-14	+16:00	14.2405	0.730227	0.365114
7-Mar-14	+17:00	23.9955	3.90183	1.95092
7-Mar-14	+18:00	9.34057	3.38323	1.69161
7-Mar-14	+19:00	8.86321	0.425223	0.212611
7-Mar-14	+20:00	6.0447	0.58541	0.292705
7-Mar-14	+21:00	1.70763	0.202625	0.101312
7-Mar-14	+22:00	3.115	0.284415	0.142208
7-Mar-14	+23:00	2.11042	0.241316	0.120658
8-Mar-14	+00:00	4.82572	0.327868	0.163934
8-Mar-14	+01:00	9.06809	0.550222	0.275111
8-Mar-14	+02:00	2.03657	0.125251	0.0626254
8-Mar-14	+03:00	3.11609	0.32797	0.163985
8-Mar-14	+04:00	5.08273	0.265506	0.132753
8-Mar-14	+05:00	6.99129	0.551431	0.275716
8-Mar-14	+06:00	7.05836	0.483532	0.241766
8-Mar-14	+07:00	4.3816	0.393368	0.196684
8-Mar-14	+08:00	6.19911	0.351895	0.175948
8-Mar-14	+09:00	9.99134	0.541184	0.270592
8-Mar-14	+10:00	11.9022	0.468976	0.234488

Date March 2014

Revision: 7

Page 9 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

8-Mar-14	+11:00	13.0291	0.581092	0.290546
8-Mar-14	+12:00	13.7125	0.505639	0.25282
8-Mar-14	+13:00	12.2581	0.544362	0.272181
8-Mar-14	+14:00	11.7938	0.679764	0.339882
8-Mar-14	+15:00	9.09219	0.531385	0.265693
8-Mar-14	+16:00	8.20818	0.445144	0.222572
8-Mar-14	+17:00	6.80778	0.457537	0.228769
8-Mar-14	+18:00	8.12182	0.50783	0.253915
8-Mar-14	+19:00	6.36988	0.272739	0.13637
8-Mar-14	+20:00	2.85275	0.296685	0.148343
8-Mar-14	+21:00	4.47814	0.297836	0.148918
8-Mar-14	+22:00	4.48137	0.430555	0.215277
8-Mar-14	+23:00	5.12573	0.286274	0.143137
9-Mar-14	+00:00	3.07147	0.218745	0.109372
9-Mar-14	+01:00	5.13957	0.367292	0.183646
9-Mar-14	+02:00	6.43037	0.538019	0.26901
9-Mar-14	+03:00	5.18316	0.302618	0.151309
9-Mar-14	+04:00	2.09318	0.295456	0.147728
9-Mar-14	+05:00	2.09783	0.280529	0.140265
9-Mar-14	+06:00	3.12762	0.402822	0.201411
9-Mar-14	+07:00	2.98194	0.210682	0.105341
9-Mar-14	+08:00	4.1427	0.415738	0.207869
9-Mar-14	+09:00	8.03931	0.560956	0.280478
9-Mar-14	+10:00	7.09857	0.461032	0.230516
9-Mar-14	+11:00	8.23094	0.632368	0.316184
9-Mar-14	+12:00	9.201	0.705887	0.352944
9-Mar-14	+13:00	8.1554	0.444698	0.222349
9-Mar-14	+14:00	37.1345	1.12521	0.562605
9-Mar-14	+15:00	9.13248	0.45317	0.226585
9-Mar-14	+16:00	8.25468	0.551381	0.275691
9-Mar-14	+17:00	7.01193	2.65349	1.42405
9-Mar-14	+18:00	6.01847	0.521517	0.260759
9-Mar-14	+19:00	3.94391	0.346892	0.173446
9-Mar-14	+20:00	2.15951	0.589587	0.294793
9-Mar-14	+21:00	3.47344	0.386711	0.193356
9-Mar-14	+22:00	3.13484	0.288637	0.144319
9-Mar-14	+23:00	8.25099	0.578275	0.289137
10-Mar-14	+00:00	3.35141	0.21411	0.107055
10-Mar-14	+01:00	10.6956	0.145058	0.072529

Date March 2014

Revision: 7

Page 10 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

10-Mar-14	+02:00	11.5253	0.120173	0.0600865
10-Mar-14	+03:00	3.13596	0.372882	0.186441
10-Mar-14	+04:00	4.35737	0.278656	0.139328
10-Mar-14	+05:00	7.08561	0.397456	0.198728
10-Mar-14	+06:00	20.0651	1.42324	0.711621
10-Mar-14	+07:00	17.1212	0.98735	0.493675
10-Mar-14	+08:00	16.9845	0.671043	0.335522
10-Mar-14	+09:00	15.2085	0.458194	0.229097
10-Mar-14	+10:00	14.2531	0.35223	0.176115
10-Mar-14	+11:00	9.13507	0.710949	0.355475
10-Mar-14	+12:00	8.75863	0.680975	0.340488
10-Mar-14	+13:00	11.5012	0.496024	0.248012
10-Mar-14	+14:00	12.2021	0.420099	0.21005
10-Mar-14	+15:00	10.8985	0.516038	0.258019
10-Mar-14	+16:00	9.60306	0.524525	0.262262
10-Mar-14	+17:00	11.3122	0.858624	0.429312
10-Mar-14	+18:00	14.253	0.399078	0.199539
10-Mar-14	+19:00	4.88165	0.355824	0.177912
10-Mar-14	+20:00	4.25758	0.271753	0.135876
10-Mar-14	+21:00	6.08736	0.455033	0.227517
10-Mar-14	+22:00	3.71327	0.972271	0.591125
10-Mar-14	+23:00	5.86023	0.540152	0.270076
11-Mar-14	+00:00	4.91916	0.31851	0.190885
11-Mar-14	+01:00	5.67445	0.15501	0.0775051
11-Mar-14	+02:00	4.08193	0.338182	0.169091
11-Mar-14	+03:00	5.74081	0.15079	0.075395
11-Mar-14	+04:00	2.12346	0.169048	0.0845241
11-Mar-14	+05:00	4.13367	0.451756	0.225878
11-Mar-14	+06:00	19.3581	1.29882	0.649411
11-Mar-14	+07:00	13.0406	2.18608	1.09304
11-Mar-14	+08:00	20.9247	11.7198	6.33848
11-Mar-14	+09:00	29.8576	11.0461	5.52306
11-Mar-14	+10:00	7.19271	0.664418	0.332209
11-Mar-14	+11:00	8.88959	0.683623	0.341812
11-Mar-14	+12:00	10.2286	0.682829	0.341415
11-Mar-14	+13:00	9.48821	0.444615	0.222308
11-Mar-14	+14:00	7.91817	0.627006	0.313503
11-Mar-14	+15:00	7.29388	0.749423	0.374712
11-Mar-14	+16:00	6.72775	0.915692	0.467563

Date March 2014

Revision: 7

Page 11 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

11-Mar-14	+17:00	7.34617	0.576062	0.288031
11-Mar-14	+18:00	5.76414	0.56952	0.28476
11-Mar-14	+19:00	3.29721	0.268359	0.134179
11-Mar-14	+20:00	4.10348	0.381553	0.190776
11-Mar-14	+21:00	3.1131	0.343386	0.171693
11-Mar-14	+22:00	2.81929	0.814625	0.418085
11-Mar-14	+23:00	2.03866	0.171807	0.0859035
12-Mar-14	+00:00	2.22326	0.11486	0.0574299
12-Mar-14	+01:00	2.04115	0.146813	0.0734064
12-Mar-14	+02:00	2.02186	0.139428	0.0697142
12-Mar-14	+03:00	2.03136	0.165819	0.0829094
12-Mar-14	+04:00	4.78356	0.425046	0.212523
12-Mar-14	+05:00	8.38884	0.651699	0.325849
12-Mar-14	+06:00	18.1422	1.43053	0.715267
12-Mar-14	+07:00	17.8356	2.53709	1.26854
12-Mar-14	+08:00	18.5984	3.74931	1.87465
12-Mar-14	+09:00	18.2029	0.456652	0.228326
12-Mar-14	+10:00	17.236	1.24554	1.06256
12-Mar-14	+11:00	15.1309	0.775089	0.950642
12-Mar-14	+12:00	15.2116	0.479167	0.239584
12-Mar-14	+13:00	14.2477	6.89918	3.62322
12-Mar-14	+14:00	17.6519	0.651122	0.325561
12-Mar-14	+15:00	15.2102	0.579942	0.289971
12-Mar-14	+16:00	15.2108	0.59205	0.296025
12-Mar-14	+17:00	18.4645	0.644507	0.322254
12-Mar-14	+18:00	38.575	1.66162	0.830811
12-Mar-14	+19:00	10.2211	0.997688	0.498844
12-Mar-14	+20:00	3.83799	0.412396	0.206198
12-Mar-14	+21:00	3.40784	0.421558	0.210779
12-Mar-14	+22:00	2.68431	0.288955	0.144478
12-Mar-14	+23:00	2.10868	0.262786	0.131393
13-Mar-14	+00:00	5.76885	0.178872	0.0894362
13-Mar-14	+01:00	4.68852	0.261369	0.130685
13-Mar-14	+02:00	5.12915	0.221383	0.110691
13-Mar-14	+03:00	5.23587	0.12362	0.0618101
13-Mar-14	+04:00	4.11947	0.372192	0.186096
13-Mar-14	+05:00	7.95594	0.657737	0.328869
13-Mar-14	+06:00	22.5796	1.62061	0.810303
13-Mar-14	+07:00	17.8558	1.03346	0.516729

Date March 2014

Revision: 7

Page 12 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

13-Mar-14	+08:00	14.4764	0.717578	0.358789
13-Mar-14	+09:00	23.3626	0.544783	0.272392
13-Mar-14	+10:00	20.4797	0.580049	0.290025
13-Mar-14	+11:00	10.7685	0.601691	0.300846
13-Mar-14	+12:00	14.0132	0.561125	0.280562
13-Mar-14	+13:00	13.4229	2.62375	2.03316
13-Mar-14	+14:00	13.6894	1.86722	1.66015
13-Mar-14	+15:00	12.1321	0.63388	0.31694
13-Mar-14	+16:00	12.0532	5.04739	2.84031
13-Mar-14	+17:00	12.1216	0.818536	0.409268
13-Mar-14	+18:00	14.2408	0.687904	0.343952
13-Mar-14	+19:00	8.34612	0.330888	0.165444
13-Mar-14	+20:00	5.09089	0.450035	0.225017
13-Mar-14	+21:00	5.64072	0.550355	0.275178
13-Mar-14	+22:00	3.11363	0.838375	0.364776
13-Mar-14	+23:00	3.24147	0.452905	0.226453
14-Mar-14	+00:00	5.09536	0.595486	0.297743
14-Mar-14	+01:00	15.3129	0.913348	0.456674
14-Mar-14	+02:00	11.6032	0.491931	0.245966
14-Mar-14	+03:00	8.10391	0.440946	0.220473
14-Mar-14	+04:00	6.42953	0.236927	0.118464
14-Mar-14	+05:00	8.135	0.589563	0.294782
14-Mar-14	+06:00	16.8712	0.96247	0.481235
14-Mar-14	+07:00	16.7042	0.830312	0.415156
14-Mar-14	+08:00	15.211	0.703487	0.351743
14-Mar-14	+09:00	17.586	0.475776	0.237888
14-Mar-14	+10:00	18.959	0.727516	0.363758
14-Mar-14	+11:00	17.2351	8.50611	4.25306
14-Mar-14	+12:00	13.5818	8.68154	5.43273
14-Mar-14	+13:00	16.6567	0.604458	0.302229
14-Mar-14	+14:00	14.5894	0.635677	0.317839
14-Mar-14	+15:00	13.5038	0.63882	0.31941
14-Mar-14	+16:00	14.9221	0.513583	0.256791
14-Mar-14	+17:00	17.6907	0.558588	0.279294
14-Mar-14	+18:00	15.0359	0.633305	0.316653
14-Mar-14	+19:00	9.19944	0.323656	0.161828
14-Mar-14	+20:00	5.01444	0.402746	0.201373
14-Mar-14	+21:00	4.02361	0.50923	0.254615
14-Mar-14	+22:00	3.09468	0.306726	0.153363

Date March 2014

Revision: 7

Page 13 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

14-Mar-14	+23:00	4.70476	0.313325	0.156662
15-Mar-14	+00:00	5.44503	0.243287	0.121643
15-Mar-14	+01:00	3.14862	0.349098	0.174549
15-Mar-14	+02:00	5.29051	0.307513	0.153757
15-Mar-14	+03:00	6.3292	0.232775	0.116387
15-Mar-14	+04:00	4.93253	0.20559	0.102795
15-Mar-14	+05:00	4.29414	0.389984	0.194992
15-Mar-14	+06:00	5.14943	0.367085	0.183543
15-Mar-14	+07:00	9.79846	0.613206	0.306603
15-Mar-14	+08:00	8.19854	0.389381	0.194691
15-Mar-14	+09:00	9.6385	0.591595	0.295797
15-Mar-14	+10:00	10.5072	0.581068	0.290534
15-Mar-14	+11:00	10.4695	0.4968	0.2484
15-Mar-14	+12:00	12.2016	0.645959	0.32298
15-Mar-14	+13:00	13.7633	1.61431	0.807157
15-Mar-14	+14:00	12.2015	0.727533	0.363767
15-Mar-14	+15:00	11.2576	0.840575	0.420288
15-Mar-14	+16:00	9.19922	0.456806	0.228403
15-Mar-14	+17:00	9.86252	0.781392	0.390696
15-Mar-14	+18:00	6.68445	1.7056	0.852799
15-Mar-14	+19:00	5.17153	0.292719	0.14636
15-Mar-14	+20:00	5.16808	0.537397	0.268699
15-Mar-14	+21:00	4.16797	0.391028	0.195514
15-Mar-14	+22:00	3.12179	0.426715	0.213358
15-Mar-14	+23:00	5.55347	0.617941	0.30897
16-Mar-14	+00:00	4.36597	0.372404	0.186202
16-Mar-14	+01:00	2.53533	0.323416	0.161708
16-Mar-14	+02:00	4.14692	0.266232	0.133116
16-Mar-14	+03:00	2.25136	0.232714	0.116357
16-Mar-14	+04:00	3.64828	0.29839	0.149195
16-Mar-14	+05:00	3.16419	0.452655	0.226328
16-Mar-14	+06:00	5.36768	0.377639	0.18882
16-Mar-14	+07:00	3.99123	0.320136	0.160068
16-Mar-14	+08:00	4.33196	0.297049	0.148524
16-Mar-14	+09:00	5.64537	0.727881	0.363941
16-Mar-14	+10:00	6.80775	0.439517	0.219759
16-Mar-14	+11:00	6.34831	0.59633	0.298165
16-Mar-14	+12:00	6.58978	0.960385	0.480192
16-Mar-14	+13:00	7.16478	1.77116	1.14052

Date March 2014

Revision: 7

Page 14 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

16-Mar-14	+14:00	7.16822	0.518894	0.259447
16-Mar-14	+15:00	6.15464	0.400994	0.200497
16-Mar-14	+16:00	3.11811	0.380682	0.190341
16-Mar-14	+17:00	4.49068	0.402144	0.201072
16-Mar-14	+18:00	3.7708	0.395581	0.197791
16-Mar-14	+19:00	2.84607	0.303137	0.151568
16-Mar-14	+20:00	4.64297	0.238233	0.119116
16-Mar-14	+21:00	26.4209	0.278564	0.139282
16-Mar-14	+22:00	24.5709	1.51035	1.39544
16-Mar-14	+23:00	6.98905	1.62416	1.60727
17-Mar-14	+00:00	5.41378	1.68579	1.59727
17-Mar-14	+01:00	3.62971	0.116715	0.0583577
17-Mar-14	+02:00	4.0351	0.12465	0.062325
17-Mar-14	+03:00	2.19297	0.195704	0.097852
17-Mar-14	+04:00	2.21727	0.318459	0.15923
17-Mar-14	+05:00	9.28022	0.746111	0.373056
17-Mar-14	+06:00	19.6019	1.30031	0.650157
17-Mar-14	+07:00	18.0195	1.03316	0.516579
17-Mar-14	+08:00	17.224	0.558175	0.279087
17-Mar-14	+09:00	22.0032	0.83046	0.41523
17-Mar-14	+10:00	18.774	0.443386	0.221693
17-Mar-14	+11:00	13.1511	0.475158	0.237579
17-Mar-14	+12:00	15.0784	0.547332	0.273666
17-Mar-14	+13:00	20.7927	0.504804	0.252402
17-Mar-14	+14:00	16.164	0.451428	0.225714
17-Mar-14	+15:00	15.2862	0.530146	0.265073
17-Mar-14	+16:00	18.143	1.11482	0.557408
17-Mar-14	+17:00	16.6315	0.75963	0.379815
17-Mar-14	+18:00	18.2029	0.459993	0.229996
17-Mar-14	+19:00	12.0652	0.452412	0.226206
17-Mar-14	+20:00	4.09749	0.386057	0.193028
17-Mar-14	+21:00	4.07573	0.446815	0.223407
17-Mar-14	+22:00	13.218	1.07637	1.04516
17-Mar-14	+23:00	12.2241	2.47361	1.2368
18-Mar-14	+00:00	9.87475	0.599767	0.299883
18-Mar-14	+01:00	4.50221	0.283579	0.14179
18-Mar-14	+02:00	2.25991	0.257199	0.1286
18-Mar-14	+03:00	6.41698	0.0986358	0.0493179
18-Mar-14	+04:00	4.09812	0.334733	0.167367

Date March 2014

Revision: 7

Page 15 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

18-Mar-14	+05:00	8.96324	0.775479	0.387739
18-Mar-14	+06:00	24.3957	1.64849	0.824244
18-Mar-14	+07:00	19.6508	1.09401	0.547007
18-Mar-14	+08:00	19.7643	0.724291	0.362146
18-Mar-14	+09:00	20.2271	0.586389	0.293195
18-Mar-14	+10:00	15.0454	0.534411	0.267206
18-Mar-14	+11:00	11.2582	0.460717	0.230359
18-Mar-14	+12:00	12.193	2.28328	1.14164
18-Mar-14	+13:00	16.1425	0.463676	0.231838
18-Mar-14	+14:00	16.4388	0.676269	0.338135
18-Mar-14	+15:00	16.2869	0.621733	0.310867
18-Mar-14	+16:00	17.241	0.63135	0.315675
18-Mar-14	+17:00	16.1912	0.573598	0.286799
18-Mar-14	+18:00	17.2592	0.481251	0.240625
18-Mar-14	+19:00	11.5344	0.496601	0.2483
18-Mar-14	+20:00	6.2302	0.479419	0.23971
18-Mar-14	+21:00	4.95485	0.447319	0.223659
18-Mar-14	+22:00	4.7967	0.305592	0.152796
18-Mar-14	+23:00	4.65373	0.41247	0.206235
19-Mar-14	+00:00	5.06886	0.287896	0.143948
19-Mar-14	+01:00	3.72407	0.212072	0.106036
19-Mar-14	+02:00	4.48729	0.223997	0.111998
19-Mar-14	+03:00	4.10451	0.164507	0.0822533
19-Mar-14	+04:00	2.15933	0.216374	0.108187
19-Mar-14	+05:00	8.30697	0.553428	0.276714
19-Mar-14	+06:00	16.6956	1.7183	0.859148
19-Mar-14	+07:00	17.9005	3.28132	1.64066
19-Mar-14	+08:00	18.8593	3.50252	1.75126
19-Mar-14	+09:00	16.2548	0.501094	0.250547
19-Mar-14	+10:00	18.1979	0.483793	0.241897
19-Mar-14	+11:00	20.4059	0.575786	0.287893
19-Mar-14	+12:00	18.5675	0.543785	0.271892
19-Mar-14	+13:00	12.9863	0.491495	0.245748
19-Mar-14	+14:00	13.8469	0.545254	0.272627
19-Mar-14	+15:00	14.5152	0.599142	0.299571
19-Mar-14	+16:00	13.6891	0.948414	0.514127
19-Mar-14	+17:00	12.6109	0.541196	0.270598
19-Mar-14	+18:00	16.9707	0.414665	0.207333
19-Mar-14	+19:00	17.2513	0.315583	0.157791

Date March 2014

Revision: 7

Page 16 of 26



# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

19-Mar-14	+20:00	3.24562	0.271631	0.135815
19-Mar-14	+21:00	4.85272	0.520112	0.260056
19-Mar-14	+22:00	4.89665	0.445222	0.222611
19-Mar-14	+23:00	4.93077	0.274098	0.137049
20-Mar-14	+00:00	3.54352	0.720419	0.485873
20-Mar-14	+01:00	4.9179	0.33084	0.483961
20-Mar-14	+02:00	5.26979	0.372168	0.289805
20-Mar-14	+03:00	3.19469	0.104962	0.0524809
20-Mar-14	+04:00	6.2063	0.301816	0.150908
20-Mar-14	+05:00	9.1059	0.865335	0.432668
20-Mar-14	+06:00	21.1691	1.39287	0.696436
20-Mar-14	+07:00	21.4246	1.08514	0.54257
20-Mar-14	+08:00	12.5456	0.621458	0.310729
20-Mar-14	+09:00	14.2175	0.472653	0.236327
20-Mar-14	+10:00	17.2475	0.460653	0.230327
20-Mar-14	+11:00	13.312	0.539996	0.269998
20-Mar-14	+12:00	14.38	0.563651	0.281826
20-Mar-14	+13:00	14.3389	0.468993	0.234496
20-Mar-14	+14:00	12.8773	0.916036	0.458018
20-Mar-14	+15:00	13.8695	1.08507	0.542534
20-Mar-14	+16:00	12.9599	0.718664	0.359332
20-Mar-14	+17:00	21.0925	1.69763	0.848816
20-Mar-14	+18:00	16.2944	0.612704	0.306352
20-Mar-14	+19:00	7.15046	0.346012	0.173006
20-Mar-14	+20:00	6.39861	1.00402	0.521635
20-Mar-14	+21:00	4.00587	0.242291	0.121145
20-Mar-14	+22:00	2.03274	0.285296	0.142648
20-Mar-14	+23:00	5.39232	0.214341	0.10717
21-Mar-14	+00:00	3.80197	0.181218	0.0906092
21-Mar-14	+01:00	5.18759	0.187865	0.0939326
21-Mar-14	+02:00	6.32932	0.134258	0.0671291
21-Mar-14	+03:00	5.46613	0.218053	0.109027
21-Mar-14	+04:00	5.00296	0.28946	0.14473
21-Mar-14	+05:00	6.45721	0.498455	0.249228
21-Mar-14	+06:00	15.4631	1.06978	0.534889
21-Mar-14	+07:00	12.9471	1.02934	0.514672
21-Mar-14	+08:00	12.9243	8.53729	4.56751
21-Mar-14	+09:00	15.2156	0.474837	0.237419
21-Mar-14	+10:00	14.2288	0.338108	0.169054

Date March 2014

Revision: 7

Page 17 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

21-Mar-14	+11:00	11.4872	0.44045	0.220225
21-Mar-14	+12:00	12.6602	0.509742	0.254871
21-Mar-14	+13:00	13.8933	0.528719	0.26436
21-Mar-14	+14:00	8.90993	0.630708	0.315354
21-Mar-14	+15:00	11.1276	0.62426	0.31213
21-Mar-14	+16:00	10.4016	1.47134	0.735672
21-Mar-14	+17:00	28.306	5.23505	2.61752
21-Mar-14	+18:00	15.1962	1.80409	0.902047
21-Mar-14	+19:00	10.114	0.421886	0.210943
21-Mar-14	+20:00	9.07856	0.758571	0.379286
21-Mar-14	+21:00	8.86968	0.446112	0.223056
21-Mar-14	+22:00	6.69314	0.434839	0.217419
21-Mar-14	+23:00	4.05228	0.278326	0.139163
22-Mar-14	+00:00	2.12185	0.28951	0.144755
22-Mar-14	+01:00	3.91806	0.306987	0.153493
22-Mar-14	+02:00	3.1716	0.38279	0.191395
22-Mar-14	+03:00	2.12191	0.244489	0.122244
22-Mar-14	+04:00	2.42177	0.301752	0.150876
22-Mar-14	+05:00	4.3338	0.475931	0.237966
22-Mar-14	+06:00	6.17076	0.529402	0.264701
22-Mar-14	+07:00	4.67404	0.316049	0.158025
22-Mar-14	+08:00	7.16371	0.564793	0.282397
22-Mar-14	+09:00	13.2439	0.494401	0.247201
22-Mar-14	+10:00	16.0815	1.37153	0.685765
22-Mar-14	+11:00	17.2475	0.595621	0.29781
22-Mar-14	+12:00	18.1973	0.696259	0.348129
22-Mar-14	+13:00	18.0896	1.35259	0.908366
22-Mar-14	+14:00	19.6953	0.724894	0.362447
22-Mar-14	+15:00	17.2529	0.518472	0.259236
22-Mar-14	+16:00	11.2462	0.804406	0.402203
22-Mar-14	+17:00	10.8434	0.676221	0.33811
22-Mar-14	+18:00	7.89772	0.47474	0.23737
22-Mar-14	+19:00	9.31775	0.918652	0.459326
22-Mar-14	+20:00	10.0756	0.730083	0.365041
22-Mar-14	+21:00	4.43193	0.377911	0.188955
22-Mar-14	+22:00	3.28141	0.358787	0.179394
22-Mar-14	+23:00	3.19637	0.325778	0.162889
23-Mar-14	+00:00	4.12516	0.313218	0.156609
23-Mar-14	+01:00	2.74667	0.200988	0.100494

Date March 2014

Revision: 7

Page 18 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

23-Mar-14	+02:00	2.12076	0.19187	0.0959351
23-Mar-14	+03:00	1.74952	0.152481	0.0762403
23-Mar-14	+04:00	2.80459	0.1431	0.07155
23-Mar-14	+05:00	4.13184	0.406821	0.203411
23-Mar-14	+06:00	5.93808	0.212521	0.106261
23-Mar-14	+07:00	4.29691	0.326767	0.163384
23-Mar-14	+08:00	5.39162	0.392465	0.196232
23-Mar-14	+09:00	4.60259	0.367525	0.183762
23-Mar-14	+10:00	6.87253	0.630312	0.315156
23-Mar-14	+11:00	15.7082	0.922401	0.461201
23-Mar-14	+12:00	15.5193	0.84024	0.42012
23-Mar-14	+13:00	7.36121	0.724877	0.362438
23-Mar-14	+14:00	6.11046	0.45206	0.22603
23-Mar-14	+15:00	6.19498	0.351585	0.175793
23-Mar-14	+16:00	6.65852	0.540796	0.270398
23-Mar-14	+17:00	7.13811	0.303215	0.151607
23-Mar-14	+18:00	4.15206	0.319808	0.159904
23-Mar-14	+19:00	3.7587	0.469777	0.234889
23-Mar-14	+20:00	2.02165	0.264831	0.132415
23-Mar-14	+21:00	2.6286	0.202071	0.101035
23-Mar-14	+22:00	2.01205	0.256279	0.128139
23-Mar-14	+23:00	2.10072	1.37678	1.01647
24-Mar-14	+00:00	4.07534	0.968699	0.793771
24-Mar-14	+01:00	3.10233	0.204727	0.102364
24-Mar-14	+02:00	2.14093	0.126657	0.0633286
24-Mar-14	+03:00	2.11792	0.544617	0.272308
24-Mar-14	+04:00	2.62499	0.375385	0.187693
24-Mar-14	+05:00	8.09028	0.531987	0.265994
24-Mar-14	+06:00	17.157	1.22658	0.613292
24-Mar-14	+07:00	23.2474	2.13981	1.00689
24-Mar-14	+08:00	13.2211	2.27485	1.13742
24-Mar-14	+09:00	15.0918	0.483765	0.241883
24-Mar-14	+10:00	13.5972	0.563305	0.509627
24-Mar-14	+11:00	8.21038	0.642188	0.321094
24-Mar-14	+12:00	8.14797	0.417454	0.208727
24-Mar-14	+13:00	8.29893	0.745416	0.438409
24-Mar-14	+14:00	10.2213	0.72366	0.36183
24-Mar-14	+15:00	10.7178	0.698401	0.349201
24-Mar-14	+16:00	11.6671	0.565694	0.282847

Date March 2014

Revision: 7

Page 19 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

24-Mar-14	+17:00	9.47842	6.51452	3.54583
24-Mar-14	+18:00	8.58515	0.331161	0.16558
24-Mar-14	+19:00	2.09179	0.24524	0.12262
24-Mar-14	+20:00	5.10618	0.52468	0.26234
24-Mar-14	+21:00	2.15714	0.248769	0.124384
24-Mar-14	+22:00	3.13082	0.21409	0.107045
24-Mar-14	+23:00	2.72487	0.225799	0.1129
25-Mar-14	+00:00	2.81662	1.28976	0.844682
25-Mar-14	+01:00	3.21082	0.145357	0.0726786
25-Mar-14	+02:00	5.18801	1.16589	0.995352
25-Mar-14	+03:00	3.17032	1.31159	1.18321
25-Mar-14	+04:00	2.19879	0.281842	0.140921
25-Mar-14	+05:00	7.02795	0.576558	0.288279
25-Mar-14	+06:00	20.3862	1.34419	0.672094
25-Mar-14	+07:00	10.1463	0.612264	0.306132
25-Mar-14	+08:00	13.5749	0.473476	0.236738
25-Mar-14	+09:00	16.8184	0.464289	0.232144
25-Mar-14	+10:00	17.2563	1.12094	0.766594
25-Mar-14	+11:00	12.198	1.78544	0.949083
25-Mar-14	+12:00	12.1901	0.581655	0.290828
25-Mar-14	+13:00	13.6865	1.25584	0.920911
25-Mar-14	+14:00	12.4221	0.478111	0.239055
25-Mar-14	+15:00	11.2349	0.513458	0.256729
25-Mar-14	+16:00	11.8884	0.749572	0.374786
25-Mar-14	+17:00	15.8027	1.07929	0.539643
25-Mar-14	+18:00	13.2956	0.51082	0.25541
25-Mar-14	+19:00	8.45927	0.665268	0.352526
25-Mar-14	+20:00	3.26289	0.39504	0.19752
25-Mar-14	+21:00	2.30393	0.283507	0.141754
25-Mar-14	+22:00	4.14706	0.170645	0.0853225
25-Mar-14	+23:00	6.92842	0.184503	0.0922516
26-Mar-14	+00:00	9.26649	0.281882	0.140941
26-Mar-14	+01:00	5.90773	0.199065	0.0995325
26-Mar-14	+02:00	5.03901	0.338724	0.169362
26-Mar-14	+03:00	4.08922	0.221109	0.110555
26-Mar-14	+04:00	5.60925	0.206976	0.103488
26-Mar-14	+05:00	8.71977	0.760887	0.380444
26-Mar-14	+06:00	21.5373	1.2028	0.601398
26-Mar-14	+07:00	14.7262	3.42807	1.71403

Date March 2014

Revision: 7

Page 20 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

26-Mar-14	+08:00	11.2523	6.68899	4.97828
26-Mar-14	+09:00	11.7915	0.7536	0.3768
26-Mar-14	+10:00	14.3941	0.569932	0.284966
26-Mar-14	+11:00	14.4104	0.493776	0.246888
26-Mar-14	+12:00	11.1617	0.515155	0.257577
26-Mar-14	+13:00	9.73539	0.393463	0.196732
26-Mar-14	+14:00	9.20491	0.662027	0.331013
26-Mar-14	+15:00	7.58777	0.621761	0.31088
26-Mar-14	+16:00	8.14532	0.538549	0.269275
26-Mar-14	+17:00	10.4659	0.566861	0.283431
26-Mar-14	+18:00	13.9023	0.484135	0.242067
26-Mar-14	+19:00	5.10528	0.508563	0.254282
26-Mar-14	+20:00	5.78621	0.674897	0.337448
26-Mar-14	+21:00	3.17775	0.254965	0.127482
26-Mar-14	+22:00	4.19149	0.480826	0.240413
26-Mar-14	+23:00	3.7239	0.191499	0.0957497
27-Mar-14	+00:00	4.0761	0.162754	0.0813768
27-Mar-14	+01:00	4.99591	0.187473	0.0937364
27-Mar-14	+02:00	4.41505	0.192795	0.0963974
27-Mar-14	+03:00	3.29493	0.181217	0.0906087
27-Mar-14	+04:00	2.37222	0.294361	0.147181
27-Mar-14	+05:00	7.45172	0.544469	0.272235
27-Mar-14	+06:00	19.6967	1.8218	0.910898
27-Mar-14	+07:00	11.079	3.89621	2.85908
27-Mar-14	+08:00	12.2036	1.5481	0.774049
27-Mar-14	+09:00	16.1405	0.622573	0.311287
27-Mar-14	+10:00	14.2396	1.47871	0.739357
27-Mar-14	+11:00	10.1583	2.54723	1.27362
27-Mar-14	+12:00	9.20767	1.49044	1.28288
27-Mar-14	+13:00	9.93803	0.591799	0.2959
27-Mar-14	+14:00	11.4401	0.537095	0.268548
27-Mar-14	+15:00	13.6807	0.801242	0.400621
27-Mar-14	+16:00	10.7724	0.518281	0.25914
27-Mar-14	+17:00	9.8239	0.532025	0.266013
27-Mar-14	+18:00	14.9104	0.701683	0.350842
27-Mar-14	+19:00	4.16812	0.420628	0.210314
27-Mar-14	+20:00	4.95134	0.320579	0.16029
27-Mar-14	+21:00	7.81622	0.567204	0.283602
27-Mar-14	+22:00	3.81871	0.512837	0.46081

Date March 2014

Revision: 7

Page 21 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

27-Mar-14	+23:00	6.36124	4.2244	2.37664
28-Mar-14	+00:00	3.43934	4.23559	2.87507
28-Mar-14	+01:00	4.45133	1.36061	0.912878
28-Mar-14	+02:00	5.5107	1.27608	1.07136
28-Mar-14	+03:00	72.8931	0.160398	0.080199
28-Mar-14	+04:00	2.01845	0.259229	0.129615
28-Mar-14	+05:00	6.06888	0.514504	0.257252
28-Mar-14	+06:00	15.2965	1.16719	0.583595
28-Mar-14	+07:00	10.9986	0.810406	0.405203
28-Mar-14	+08:00	12.6459	2.65814	1.40256
28-Mar-14	+09:00	15.3328	0.572963	0.286481
28-Mar-14	+10:00	14.2224	0.374037	0.187019
28-Mar-14	+11:00	13.9368	0.816833	0.408417
28-Mar-14	+12:00	11.2478	1.07839	0.975714
28-Mar-14	+13:00	10.5483	0.469619	0.234809
28-Mar-14	+14:00	8.60066	0.472111	0.236056
28-Mar-14	+15:00	11.1365	1.17786	0.875246
28-Mar-14	+16:00	9.83251	0.434895	0.217447
28-Mar-14	+17:00	13.2777	0.537424	0.268712
28-Mar-14	+18:00	14.0836	0.523017	0.261508
28-Mar-14	+19:00	11.1711	0.42056	0.21028
28-Mar-14	+20:00	4.44372	0.455626	0.227813
28-Mar-14	+21:00	4.31821	0.306807	0.153404
28-Mar-14	+22:00	6.41884	1.13357	0.793834
28-Mar-14	+23:00	4.86743	1.03529	0.815546
29-Mar-14	+00:00	4.47508	0.23347	0.116735
29-Mar-14	+01:00	4.15215	0.265664	0.132832
29-Mar-14	+02:00	5.13009	0.247232	0.123616
29-Mar-14	+03:00	2.03815	0.146425	0.0732123
29-Mar-14	+04:00	3.98579	0.216202	0.108101
29-Mar-14	+05:00	6.54886	0.454694	0.227347
29-Mar-14	+06:00	5.87946	0.524303	0.262152
29-Mar-14	+07:00	7.98479	0.642504	0.321252
29-Mar-14	+08:00	5.51868	0.380073	0.190037
29-Mar-14	+09:00	6.21895	0.626723	0.313362
29-Mar-14	+10:00	7.15098	0.542565	0.271282
29-Mar-14	+11:00	9.20221	0.777959	0.38898
29-Mar-14	+12:00	9.21014	0.969053	0.484526
29-Mar-14	+13:00	14.7526	0.591366	0.295683

Date March 2014

Revision: 7

Page 22 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

29-Mar-14	+14:00	7.49337	0.78631	0.393155
29-Mar-14	+15:00	9.20551	0.723334	0.361667
29-Mar-14	+16:00	7.15935	0.463199	0.231599
29-Mar-14	+17:00	4.28889	0.427518	0.213759
29-Mar-14	+18:00	4.5957	0.437432	0.218716
29-Mar-14	+19:00	3.97032	0.675196	0.338498
29-Mar-14	+20:00	3.65236	0.338641	0.16932
29-Mar-14	+21:00	9.94066	0.919896	0.459948
29-Mar-14	+22:00	5.09907	0.585209	0.292605
29-Mar-14	+23:00	4.94768	0.44108	0.22054
30-Mar-14	+00:00	4.73383	0.25156	0.12578
30-Mar-14	+01:00	5.22439	0.24077	0.120385
30-Mar-14	+02:00	5.92362	0.244406	0.122203
30-Mar-14	+03:00	2.51448	0.270786	0.135393
30-Mar-14	+04:00	5.8696	0.198174	0.0990871
30-Mar-14	+05:00	3.93502	0.251563	0.125782
30-Mar-14	+06:00	4.31568	0.168027	0.0840137
30-Mar-14	+07:00	3.35651	0.279754	0.139877
30-Mar-14	+08:00	3.09887	0.365959	0.182979
30-Mar-14	+09:00	6.31007	0.520393	0.260196
30-Mar-14	+10:00	6.33537	0.439636	0.219818
30-Mar-14	+11:00	7.86767	0.441881	0.220941
30-Mar-14	+12:00	8.73575	0.578788	0.289394
30-Mar-14	+13:00	6.99866	0.394981	0.19749
30-Mar-14	+14:00	7.16224	0.681698	0.340849
30-Mar-14	+15:00	6.85113	0.557277	0.278639
30-Mar-14	+16:00	7.19839	0.400617	0.200308
30-Mar-14	+17:00	6.11924	0.419073	0.209536
30-Mar-14	+18:00	5.17652	0.590062	0.295031
30-Mar-14	+19:00	5.10576	0.366272	0.183136
30-Mar-14	+20:00	7.7548	0.360974	0.180487
30-Mar-14	+21:00	5.83173	0.465568	0.232784
30-Mar-14	+22:00	4.9386	0.28281	0.251953
30-Mar-14	+23:00	4.31672	0.221094	0.221095
31-Mar-14	+00:00	7.07743	0.248287	0.221095
31-Mar-14	+01:00	3.34266	1.93021	1.07358
31-Mar-14	+02:00	2.4156	0.582027	0.383845
31-Mar-14	+03:00	5.39596	0.182624	0.091312
31-Mar-14	+04:00	3.50099	0.189217	0.0946085

Date March 2014

Revision: 7

Page 23 of 26

# TRANSFIELD SERVICES

Lane Cove Tunnel & Military Road E-Ramp



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

31-Mar-14	+05:00	6.74705	0.637668	0.318834
31-Mar-14	+06:00	21.1029	1.68986	0.844929
31-Mar-14	+07:00	16.1459	0.926855	0.463428
31-Mar-14	+08:00	11.2601	0.790873	0.395437
31-Mar-14	+09:00	14.429	0.511483	0.255742
31-Mar-14	+10:00	18.1735	1.59651	0.798253
31-Mar-14	+11:00	10.6436	0.294778	0.147389
31-Mar-14	+12:00	10.1602	0.48498	0.24249
31-Mar-14	+13:00	6.65474	0.983122	0.491561
31-Mar-14	+14:00	9.48775	0.917549	0.479484
31-Mar-14	+15:00	8.69478	0.633609	0.316805
31-Mar-14	+16:00	8.16105	0.362139	0.181069
31-Mar-14	+17:00	7.48451	0.539156	0.269578
31-Mar-14	+18:00	7.23963	0.502058	0.251029
31-Mar-14	+19:00	4.43039	0.857634	0.458138
31-Mar-14	+20:00	4.91312	0.816932	0.573404
31-Mar-14	+21:00	6.94157	0.254126	0.127063
31-Mar-14	+22:00	4.51647	0.340165	0.170083
31-Mar-14	+23:00	4.31419	0.254742	0.127371

Date March 2014

Revision: 7

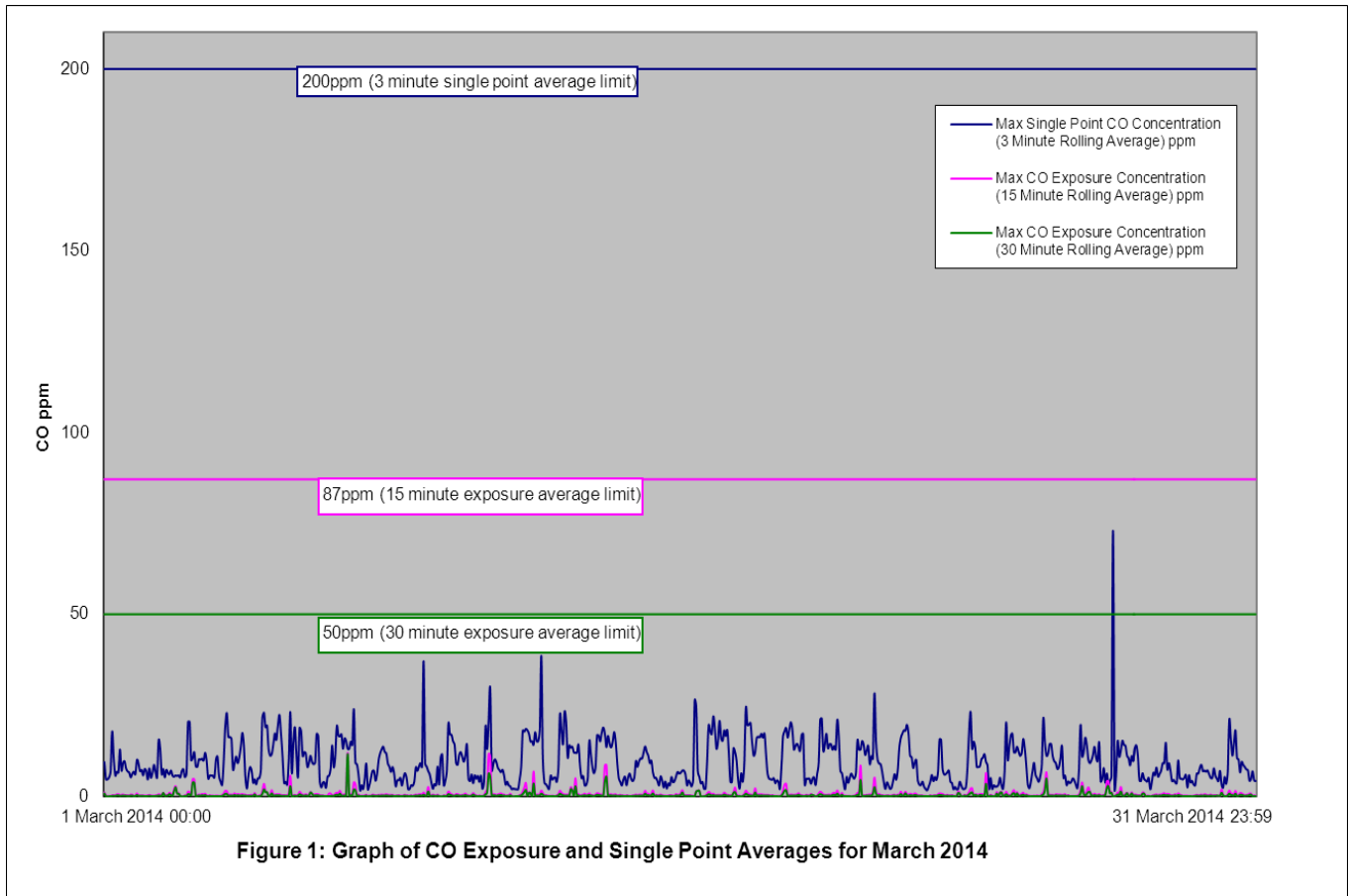
Page 24 of 26



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

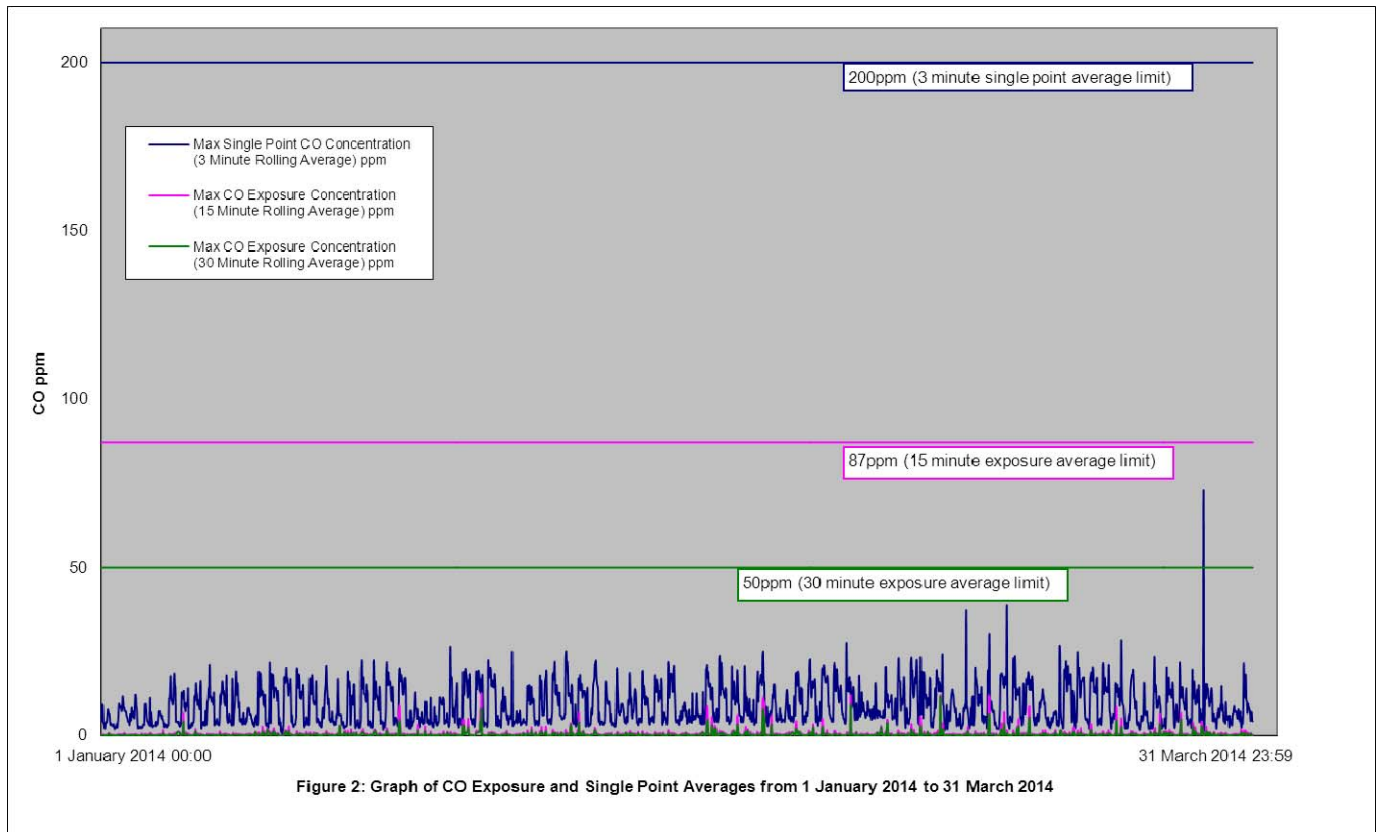
### 5.1. Monthly Trend



## IN TUNNEL AIR QUALITY MONITORING March 2014

DOCUMENT No: TMF-2035-EV-0017

### 5.2. Three Monthly Trend



### 5.3. Uncertainty

The uncertainty for the measurement of CO has been calculated at  $\pm 12\%$ .