

April 2012 Air Quality Summary Report

Licence Number: 13336

Licensee: Barangaroo Delivery Authority

Licensee Address: Lvl 21, 201 Kent Street, Sydney

Sampling period: 1-30 April 2012

Date provided to Licensee: 25 May 2012

Date published: 29 June 2012

April 2012 Air Quality Summary Report

Barangaroo South

This report has been compiled to summarise results of air quality monitoring at Barangaroo South in April 2012 in accordance with [EPL number 13336](#). This data is for samples taken from 1 to 30 April 2012. The data was provided to the Barangaroo Delivery Authority (the Licencee) on 25 May 2012.

Lend Lease conducts continuous air quality monitoring at Barangaroo South to measure air quality and assist the construction team implement appropriate environmental controls on site.

Air quality monitoring is carried out in accordance with all relevant authority and statutory requirements. Monitoring parameters include lead, metallic compounds, polycyclic aromatic hydrocarbons, total solid particles, particulate matter less than 10 microns (PM10), and volatile organic compounds.

Locations of ambient air quality monitoring

Ambient air quality monitoring devices are located at three locations around the site as shown below:



Approximate locations of air monitoring equipment

These locations correspond to the following licenced monitoring locations:

- Northern: EPL Point 5
- Eastern: EPL Point 8
- Southern: EPL Point 13

Note that EPL Points 14, 15, 16 & 17 have not been monitored to date, as they are associated with SISCO remediation works or water treatment works that have not commenced.

April monitoring results – air quality

During April, there was one exceedance of particulate matter criteria on 7 April. On this day, the meteorological conditions were conducive to dust creation with warm temperatures, no rain and strong wind gusts. Construction work was undertaken in accordance with relevant management plans.

General controls implemented during this reporting period included:

- Water cart spraying and road sweeping.
- Covering loads and stockpiles as appropriate.
- Housekeeping to keep exposed areas to a minimum.
- Ongoing monitoring of air and odour quality.

The total suspended particles annual rolling average is below the annual goal and is trending downward.

Metallic Compounds (including Lead)

Date	Monitoring Location	Concentration (ug/m ³)							
		Arsenic	Cadmium	Chromium	Copper	Nickel	Zinc	Lead	Mercury
2 Apr 2012	EPL Point 5	<0.007	<0.004	0.004	0.017	<0.004	0.044	0.008	<0.0005
	EPL Point 8	<0.007	<0.004	0.004	0.023	<0.004	0.056	0.009	<0.0005
	EPL Point 13	<0.007	<0.004	<0.004	0.016	<0.004	0.043	<0.007	<0.0005
8 Apr 2012	EPL Point 5	<0.007	<0.004	0.004	0.014	<0.004	0.03	<0.007	<0.0005
	EPL Point 8	<0.007	<0.004	0.005	0.018	<0.004	0.042	<0.007	<0.0005
	EPL Point 13	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR
14 Apr 2012	EPL Point 5	0.0006	<0.0003	0.005	0.0191	0.0028	0.0294	0.0039	<0.0005
	EPL Point 8	0.0006	<0.0003	0.0044	0.0195	0.0026	0.0312	0.0038	<0.0005
	EPL Point 13	0.011	<0.0003	0.0052	0.0216	0.0034	0.0367	0.0046	<0.0005
20 Apr 2012	EPL Point 5	0.0012	<0.0003	0.0042	0.0221	0.004	0.004	0.0351	<0.0005
	EPL Point 8	0.0014	<0.0003	0.0047	0.0232	0.0046	0.0386	0.0042	<0.0005
	EPL Point 13	0.0013	<0.0003	0.0044	0.0159	0.0043	0.059	0.0037	<0.0005
26 Apr 2012	EPL Point 5	0.0004	<0.0003	0.0027	0.0146	0.0027	0.0312	0.006	<0.0005
	EPL Point 8	0.0004	<0.0003	0.0034	0.02	0.0026	0.0394	0.0098	<0.0005
	EPL Point 13	0.0004	<0.0003	0.0029	0.0148	0.0024	0.0366	0.0063	<0.0005
1 Hour Average Criteria (indicative purposes)		0.09	0.018	0.09	18	0.18	90	-	0.18
No. of 1 hr Exceedences		0	0	0	0	0	0	-	0
Annual Average Criteria (indicative purposes)		-	-	-	-	-	-	0.5	-

DNR – Monitoring equipment did not run

Total Solid Particles (TSP)

Date	EPL Point 5 (ug/m ³)	EPL Point 8 (ug/m ³)	EPL Point 13 (ug/m ³)
2 Apr 2012	31.9	56.6	28.4
8 Apr 2012	86.2	82.7	DNR
14 Apr 2012	24.8	28.9	39.4
20 Apr 2012	35.6	37.6	31
26 Apr 2012	21.2	23.3	18.9
Annual Average Criteria	90	90	90
Rolling Annual Average	44.6	81.3	73.0
Number of Exceedences	0	0	0

DNR – Monitoring equipment did not run

PM10

Monitoring Parameter	EPL Point 5	EPL Point 8	EPL Point 13
Average (ug/m ³)	22.3	22.2	21.0
Minimum (24hr) (ug/m ³)	12.7	9.7	9.3
Maximum (24hr) (ug/m ³)	73.3	49.7	38.4
24hr EPA Criteria (ug/m³)	50	50	50
Number of Exceedences (calendar 24 hr)	1	0	0

Environment Protection Licence number: 13336

Licencee: Barangaroo Delivery Authority, Level 21, AON/Maritime Trade Towers, 201 Kent Street, Sydney, 2000

These results have been made available in accordance with Environment Protection Authority requirements for publishing pollution monitoring data

Polycyclic Aromatic Hydrocarbons (PAH)

Date	EPL Point 5		EPL Point 8		EPL Point 13	
	Total PAH (ng/m ³)	Benzo(a) pyrene (ng/m ³)	Total PAH (ng/m ³)	Benzo(a) pyrene (ng/m ³)	Total PAH (ng/m ³)	Benzo(a) pyrene (ng/m ³)
2 Apr 2012	0.32	<0.20	0.71	<0.20	0.22	<0.20
8 Apr 2012	<0.20	<0.20	<0.20	<0.20	DNR	DNR
14 Apr 2012	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
20 Apr 2012	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
26 Apr 2012	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1 Hour Avg Criteria (PAHs as BaP) (ng/m³)	400	400	400	400	400	400
No. of Exceedences	0	0	0	0	0	0

DNR – Monitoring equipment did not run

Volatile Organic Compounds (VOCs)

Monitoring Parameter	EPL Point 5	EPL Point 8	EPL Point 13
Average (ppm)	0.23	<0.1	<0.1
Minimum (ppm)	<0.1	<0.1	<0.1
Maximum (ppm)	1.4	0.2	0.5
Limit	No licence limit, monitoring requirement only		
Number of Exceedences	N/A	N/A	N/A

Frequency

Parameter	Frequency	EPL Point 5	EPL Point 8	EPL Point 13
TSP, PAHs, metallic compounds	Monitoring frequency required by licence	24 Hours every 6 days		
	No. of samples required by licence	5	5	5
	No. of samples collected & analysed	5	5	4
PM10, VOCs	Monitoring frequency required by licence	Continuous		
	No. of samples required by licence	Continuous	Continuous	Continuous
	No. of samples collected & analysed	Continuous	Continuous	Continuous