

Monthly Monitoring Data

Environmental Protection Licence Number: 12693

Licensee: Newcastle Coal Infrastructure Group Pty Ltd, Locked Bag 6003, Hunter Region Mail Centre NSW 2310

Premises: Newcastle Coal Infrastructure Group, Cormorant Road, Kooragang NSW 2304

Date Published: 19 July 2012

Depositional Dust Monitoring

Sample Period: 4 June 2012 – 2 July 2012

Date Obtained: 11 July 2012

Units of Measure: grams per square metre per month (g/m²/month)

Frequency: Monthly

	Monitoring Point 7 - DG3 (Kooragang Island)	Monitoring Point 8 - DG4 (Mayfield Sport Rec Club)	Monitoring Point 9 - DG5 (Mayfield West)	Monitoring Point 10 - DG6 (Sandgate)
Depositional Dust	0.6	0.2	0.6	1.6

High Volume Air Sampling

Units of measure: micrograms per cubic metre (µg/m³)

Frequency: Weekly

	Monitoring Point 14 - HVAS 1 (Steel River) (Obtained 13 July 2012)		Monitoring Point 15 - HVAS 2 (Mayfield Sport Rec Club) (Obtained 13 July 2012)	
	TSP	PM10	TSP	PM10
2-Apr	30	14	33	19
8-Apr	*	12	20	11
14-Apr	22	11	15	9
20-Apr	36	15	24	9
26-Apr	36	19	29	34

*Data not yet available

NB. Sample period is a 24 hour period on each of the above dates | TSP = Total Suspended Particulates | PM10 = Particulate Matter <10 microns

Groundwater Sampling Point 1**Sample Date:** 8 June 2012**Units of Measure:** pH units; milligrams per litre (mg/L); microSiemens per centimetre ($\mu\text{S}/\text{cm}$); micrograms per litre ($\mu\text{g}/\text{L}$)

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.3
Conductivity	$\mu\text{S}/\text{cm}$	Every 6 Months	9960
Cobalt	mg/L	Every 6 Months	<0.001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.093
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	<0.005
Iron	mg/L	Every 6 Months	<0.05
Magnesium	mg/L	Every 6 Months	114
Sodium	mg/L	Every 6 Months	2110
Potassium	mg/L	Every 6 Months	140
Total PAHs	$\mu\text{g}/\text{L}$	Every 6 Months	<0.5
C6-9 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<20
C10-14 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<50
C15-28 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<100
C29-36 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<50
Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	<1
Toluene	$\mu\text{g}/\text{L}$	Every 6 Months	<2
Ethyl Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	<2
m+p Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	<2
o Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	<2
Cyanide (free)	$\mu\text{g}/\text{L}$	Every 6 Months	<4
Cyanide (total)	$\mu\text{g}/\text{L}$	Every 6 Months	<4
Ammonia	$\mu\text{g}/\text{L}$	Every 6 Months	<100
Phenol	$\mu\text{g}/\text{L}$	Every 6 Months	<1



Groundwater Sampling Point 20**Sample Date:** 8 June 2012**Units of Measure:** pH units; microSiemens per centimetre ($\mu\text{S}/\text{cm}$), micrograms per litre ($\mu\text{g}/\text{L}$).

Pollutant	Units of Measure	Frequency	Recorded Value	EP Licence Trigger Level	Exceedance (yes/no)
pH	pH units	Every 6 Months	*	N/A	N/A
Conductivity	$\mu\text{S}/\text{cm}$	Every 6 Months	*	N/A	N/A
Ammonia	$\mu\text{g}/\text{L}$	Every 6 Months	*	N/A	N/A
Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	*	700	#
Ethyl Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	*	5	#
m+p Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	*	75	#
o Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	*	350	#
Cyanide (free)	$\mu\text{g}/\text{L}$	Every 6 Months	*	4	#
Cyanide (total)	$\mu\text{g}/\text{L}$	Every 6 Months	*	81.1	#
Phenol	$\mu\text{g}/\text{L}$	Every 6 Months	*	400	#
Toluene	$\mu\text{g}/\text{L}$	Every 6 Months	*	180	#
Total PAHs	$\mu\text{g}/\text{L}$	Every 6 Months	*	1	#
C6-9 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	20	#
C10-14 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	50	#
C15-28 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	100	#
C29-36 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	50	#

*Stand pipe damaged, unable to sample # Unable to determine

Note: If trigger level is exceeded, actions listed in Condition E1.2 of EPL12693 are to be followed. These actions include notifying the EPA and resampling the location to confirm the elevated concentration.



Groundwater Sampling Point 21**Sample Date:** 8 June 2012**Units of Measure:** pH units; microSiemens per centimetre ($\mu\text{S}/\text{cm}$), micrograms per litre ($\mu\text{g}/\text{L}$).

Pollutant	Units of Measure	Frequency	Recorded Value	EP Licence Trigger Level	Exceedance (yes/no)
pH	pH units	Every 6 Months	*	N/A	N/A
Conductivity	$\mu\text{S}/\text{cm}$	Every 6 Months	*	N/A	N/A
Ammonia	$\mu\text{g}/\text{L}$	Every 6 Months	*	N/A	N/A
Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	*	700	#
Ethyl Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	*	5	#
m+p Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	*	75	#
o Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	*	350	#
Cyanide (free)	$\mu\text{g}/\text{L}$	Every 6 Months	*	4	#
Cyanide (total)	$\mu\text{g}/\text{L}$	Every 6 Months	*	21.8	#
Phenol	$\mu\text{g}/\text{L}$	Every 6 Months	*	400	#
Toluene	$\mu\text{g}/\text{L}$	Every 6 Months	*	180	#
Total PAHs	$\mu\text{g}/\text{L}$	Every 6 Months	*	1.1	#
C6-9 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	20	#
C10-14 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	50	#
C15-28 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	100	#
C29-36 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	*	50	#

*Stand pipe damaged, unable to sample # Unable to determine

Note: If trigger level is exceeded, actions listed in Condition E1.2 of EPL12693 are to be followed. These actions include notifying the EPA and resampling the location to confirm the elevated concentration.



Groundwater Sampling Point 22**Sample Date:** 8 June 2012**Units of Measure:** pH units; microSiemens per centimetre ($\mu\text{S}/\text{cm}$), micrograms per litre ($\mu\text{g}/\text{L}$).

Pollutant	Units of Measure	Frequency	Recorded Value	EP Licence Trigger Level	Exceedance (Yes/No)
pH	pH units	Every 6 Months	7.4	N/A	N/A
Conductivity	$\mu\text{S}/\text{cm}$	Every 6 Months	709	N/A	N/A
Ammonia	$\mu\text{g}/\text{L}$	Every 6 Months	130	N/A	N/A
Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	<1	700	No
Ethyl Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	5	No
m+p Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	75	No
o Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	350	No
Cyanide (free)	$\mu\text{g}/\text{L}$	Every 6 Months	<4	4	No
Cyanide (total)	$\mu\text{g}/\text{L}$	Every 6 Months	<4	16.6	No
Phenol	$\mu\text{g}/\text{L}$	Every 6 Months	<1	400	No
Toluene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	180	No
Total PAHs	$\mu\text{g}/\text{L}$	Every 6 Months	<0.5	2.2	No
C6-9 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<20	20	No
C10-14 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<50	50	No
C15-28 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<100	100	No
C29-36 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<50	50	No

Note: If trigger level is exceeded, actions listed in Condition E1.2 of EPL12693 are to be followed. These actions include notifying the EPA and resampling the location to confirm the elevated concentration.



Groundwater Sampling Point 23**Sample Date:** 8 June 2012**Units of Measure:** pH units; milligrams per litre (mg/L); microSiemens per centimetre ($\mu\text{S}/\text{cm}$), micrograms per litre ($\mu\text{g}/\text{L}$).

Pollutant	Units of Measure	Frequency	Recorded Value	EP Licence Trigger Level	Exceedance (Yes/No)
pH	pH units	Every 6 Months	7.0	N/A	N/A
Conductivity	$\mu\text{S}/\text{cm}$	Every 6 Months	17380	N/A	N/A
Ammonia	$\mu\text{g}/\text{L}$	Every 6 Months	4920	N/A	N/A
Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	<1	700	No
Ethyl Benzene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	5	No
m+p Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	75	No
o Xylene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	350	No
Cyanide (free)	$\mu\text{g}/\text{L}$	Every 6 Months	<4	4	No
Cyanide (total)	$\mu\text{g}/\text{L}$	Every 6 Months	<4	75.6	No
Phenol	$\mu\text{g}/\text{L}$	Every 6 Months	<1	400	No
Toluene	$\mu\text{g}/\text{L}$	Every 6 Months	<2	180	No
Total PAHs	$\mu\text{g}/\text{L}$	Every 6 Months	<0.5	1.5	No
C6-9 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<20	20	No
C10-14 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<50	50	No
C15-28 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<100	100	No
C29-36 Fraction	$\mu\text{g}/\text{L}$	Every 6 Months	<50	50	No

Note: If trigger level is exceeded, actions listed in Condition E1.2 of EPL12693 are to be followed. These actions include notifying the EPA and resampling the location to confirm the elevated concentration.

