

Monthly Monitoring Data

Environmental Protection Licence Number: 12693

link to EPL12693 on EPA Public Register: [Click Here](#)

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

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Note: On the 25th of August 2017 an amendment was made to the NCIG Environmental Protection Licence (EPL12693) which removed the requirement for ambient air quality monitoring at Points 7-10 and 14-15. However, NCIG will continue to publish ambient air quality data for these locations previously listed in EPL12693 for the interest of the public.

Depositional Dust Monitoring

Sample Period: 02 Dec 2024 – 02 Jan 2025

Units of Measure: Insoluble Solids (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	0.8	1.5	0.8	2.2

High Volume Air Sampling

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

Frequency: Weekly

	Monitoring Point 14 - HVAS 1 (Steel River, Mayfield West)		Monitoring Point 15 - HVAS 2 (Crebert Street, Mayfield)			
	TSP	PM10	TSP		PM10	
02-Dec-24	48.3	02-Dec-24 24.3	01-Dec-24 26		01-Dec-24 14	
08-Dec-24	35.9	08-Dec-24 18.8	07-Dec-24 46		07-Dec-24 22	
14-Dec-24	48.4	14-Dec-24 27.6	13-Dec-24 67		13-Dec-24 35	
20-Dec-24	36.4	20-Dec-24 18.6	19-Dec-24 22		19-Dec-24 11	
26-Dec-24	43.0	26-Dec-24 23.5	25-Dec-24 54		25-Dec-24 23	
			31-Dec-24 43		31-Dec-24 12	

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

6 Monthly Groundwater Monitoring

Sampling Point 1, 38, 39 (Background Monitoring Wells)

Groundwater Sampling Point 1 (GW1)

Sample Date: 19 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.01
Conductivity	µS/cm	Every 6 Months	15900
Bromide	mg/L	Every 6 Months	13.4
Aluminium	mg/L	Every 6 Months	<0.01
Arsenic	mg/L	Every 6 Months	<0.001
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.185
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	0.025
Iron	mg/L	Every 6 Months	2.24
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<50
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	<0.004

Groundwater Sampling Point 38 (BH21S)

Sample Date: 23 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	10.48
Conductivity	µS/cm	Every 6 Months	2150
Bromide	mg/L	Every 6 Months	2.24
Aluminium	mg/L	Every 6 Months	0.16
Arsenic	mg/L	Every 6 Months	0.002
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.002
Nickel	mg/L	Every 6 Months	0.002
Zinc	mg/L	Every 6 Months	0.006
Iron	mg/L	Every 6 Months	0.05
Total PAH	µg/L	Every 6 Months	218
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	380
TPH C15-28 Fraction	µg/L	Every 6 Months	270
TPH C29-36 Fraction	µg/L	Every 6 Months	150
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	0.284

Groundwater Sampling Point 39 (BH21D)

Sample Date: 23 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	10.48
Conductivity	µS/cm	Every 6 Months	2150
Bromide	mg/L	Every 6 Months	10.0
Aluminium	mg/L	Every 6 Months	0.02
Arsenic	mg/L	Every 6 Months	0.001
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.242
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	0.021
Iron	mg/L	Every 6 Months	2.24
Total PAH	µg/L	Every 6 Months	66.2
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<50
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	0.059

Sampling Point 20,21,22,23,36,37,40,41 (Regular Monitoring Wells)

Groundwater Sampling Point 20 (K9/3N)

Sample Date: 16 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.06
Conductivity	µS/cm	Every 6 Months	15500
Bromide	mg/L	Every 6 Months	19.8
Aluminium	mg/L	Every 6 Months	<0.01
Arsenic	mg/L	Every 6 Months	<0.001
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.727
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	0.005
Iron	mg/L	Every 6 Months	<0.05
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<50
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	<0.004

Groundwater Sampling Point 21 (K9/3S)

Sample Date: 16 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.95
Conductivity	µS/cm	Every 6 Months	2440
Bromide	mg/L	Every 6 Months	0.01
Aluminium	mg/L	Every 6 Months	0.001*
Arsenic	mg/L	Every 6 Months	<0.0001
Cadmium	mg/L	Every 6 Months	<0.001
Copper	mg/L	Every 6 Months	0.565
Manganese	mg/L	Every 6 Months	<0.001
Nickel	mg/L	Every 6 Months	<0.005
Zinc	mg/L	Every 6 Months	0.05
Iron	mg/L	Every 6 Months	0.01
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	120*
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	<0.004

* Trigger Condition 1 and/or 2 met. 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 (K11/1)

Sample Date: 19 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.18
Conductivity	µS/cm	Every 6 Months	1110
Bromide	mg/L	Every 6 Months	0.193
Aluminium	mg/L	Every 6 Months	<0.01
Arsenic	mg/L	Every 6 Months	<0.001
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	1.1
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	0.01
Iron	mg/L	Every 6 Months	0.16
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<50
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	<0.004

Groundwater Sampling Point 23 (K11/1S)

Sample Date: 19 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	7.71*
Conductivity	µS/cm	Every 6 Months	6600
Bromide	mg/L	Every 6 Months	5.54
Aluminium	mg/L	Every 6 Months	<0.01
Arsenic	mg/L	Every 6 Months	<0.001
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.128
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	<0.005
Iron	mg/L	Every 6 Months	0.06*
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	520*
TPH C29-36 Fraction	µg/L	Every 6 Months	1020*
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	0.007*

* Trigger Condition 1 and/or 2 met. 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 36 (BH20S)

Sample Date: 23 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	6.72
Conductivity	µS/cm	Every 6 Months	1600
Bromide	mg/L	Every 6 Months	0.272
Aluminium	mg/L	Every 6 Months	<0.01
Arsenic	mg/L	Every 6 Months	0.007
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	3.77
Nickel	mg/L	Every 6 Months	0.004
Zinc	mg/L	Every 6 Months	0.025
Iron	mg/L	Every 6 Months	5.12
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<50
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	<0.004

Groundwater Sampling Point 37 (BH20D)

Sample Date: 23 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	6.11
Conductivity	µS/cm	Every 6 Months	44000
Bromide	mg/L	Every 6 Months	50.4
Aluminium	mg/L	Every 6 Months	<0.10
Arsenic	mg/L	Every 6 Months	<0.010
Cadmium	mg/L	Every 6 Months	<0.0010
Copper	mg/L	Every 6 Months	<0.010
Manganese	mg/L	Every 6 Months	9.68
Nickel	mg/L	Every 6 Months	0.024
Zinc	mg/L	Every 6 Months	0.265*
Iron	mg/L	Every 6 Months	36.8
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<50
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	<0.004

* Trigger Condition 1 and/or 2 met. 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 40 (BH23S)

Sample Date: 23 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	8.3
Conductivity	µS/cm	Every 6 Months	975
Bromide	mg/L	Every 6 Months	0.56
Aluminium	mg/L	Every 6 Months	0.02
Arsenic	mg/L	Every 6 Months	0.001
Cadmium	mg/L	Every 6 Months	<0.0001
Copper	mg/L	Every 6 Months	<0.001
Manganese	mg/L	Every 6 Months	0.345
Nickel	mg/L	Every 6 Months	<0.001
Zinc	mg/L	Every 6 Months	<0.005
Iron	mg/L	Every 6 Months	<0.05
Total PAH	µg/L	Every 6 Months	<0.5
TPH C6-9 Fraction	µg/L	Every 6 Months	<20
TPH C10-14 Fraction	µg/L	Every 6 Months	<50
TPH C15-28 Fraction	µg/L	Every 6 Months	<100
TPH C29-36 Fraction	µg/L	Every 6 Months	<50
Cyanide (free)	mg/L	Every 6 Months	<0.004
Cyanide (total)	mg/L	Every 6 Months	0.009

Groundwater Sampling Point 41 (BH23D)

Sample Date: 23 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Every 6 Months	Bore blocked
Conductivity	µS/cm	Every 6 Months	
Bromide	mg/L	Every 6 Months	
Aluminium	mg/L	Every 6 Months	
Arsenic	mg/L	Every 6 Months	
Cadmium	mg/L	Every 6 Months	
Copper	mg/L	Every 6 Months	
Manganese	mg/L	Every 6 Months	
Nickel	mg/L	Every 6 Months	
Zinc	mg/L	Every 6 Months	
Iron	mg/L	Every 6 Months	
Total PAH	µg/L	Every 6 Months	
TPH C6-9 Fraction	µg/L	Every 6 Months	
TPH C10-14 Fraction	µg/L	Every 6 Months	
TPH C15-28 Fraction	µg/L	Every 6 Months	
TPH C29-36 Fraction	µg/L	Every 6 Months	
Cyanide (free)	mg/L	Every 6 Months	
Cyanide (total)	mg/L	Every 6 Months	

Sampling Point 24,25,26,27,28,29,30,31,32,33 (Additional Contingency Wells)

Groundwater Sampling Point BHe23S (Note: BHe23S has been used as a substitute to Monitoring Point 24 (K11/3E), which no longer exists due to previous impacts to the bore).

Sample Date: N/A

Note: Sampling Point BHe23S was unable to be sampled in this monitoring round as the well was dry.

Groundwater Sampling Point BHe23D (Note: BHe23D has been used as a substitute to Monitoring Point 25 (K11/3W), which no longer exists due to previous impacts to the bore).

Sample Date: 16 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.05
Conductivity	µS/cm	Special Frequency 1	13500
Bromide	mg/L	Special Frequency 1	15.9
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.85
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.008
Iron	mg/L	Special Frequency 1	<0.05
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 26 (K11/2W)

Sample Date: 16 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.27
Conductivity	µS/cm	Special Frequency 1	6270
Bromide	mg/L	Special Frequency 1	5.18
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.055
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.007
Iron	mg/L	Special Frequency 1	<0.05
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 27 (K11/2E)

Sample Date: 16 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.08
Conductivity	µS/cm	Special Frequency 1	1180
Bromide	mg/L	Special Frequency 1	0.557
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	0.004
Manganese	mg/L	Special Frequency 1	0.516
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.015
Iron	mg/L	Special Frequency 1	4.54
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 28 (K9/4W)

Sample Date: 18 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.07
Conductivity	µS/cm	Special Frequency 1	6810
Bromide	mg/L	Special Frequency 1	4.63
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.158
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.009
Iron	mg/L	Special Frequency 1	2.23
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 29 (K9/4E)

Sample Date: 18 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.09
Conductivity	µS/cm	Special Frequency 1	5480
Bromide	mg/L	Special Frequency 1	5.59
Aluminium	mg/L	Special Frequency 1	0.03
Arsenic	mg/L	Special Frequency 1	0.002
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.718
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	<0.005
Iron	mg/L	Special Frequency 1	0.1
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 30 (K9/2W)

Sample Date: 18 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	6.98
Conductivity	µS/cm	Special Frequency 1	2640
Bromide	mg/L	Special Frequency 1	1.88
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	0.006
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.442
Nickel	mg/L	Special Frequency 1	0.002
Zinc	mg/L	Special Frequency 1	0.012
Iron	mg/L	Special Frequency 1	0.56
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point 31 (K9/2E)

Sample Date: 16 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.04
Conductivity	µS/cm	Special Frequency 1	24600
Bromide	mg/L	Special Frequency 1	29.4
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.49
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.015
Iron	mg/L	Special Frequency 1	0.35
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point BHe29D (Note: BHe29D has been used as a substitute to Monitoring Point 32 (K10/4W), which no longer exists due to previous impacts to the bore).

Sample Date: 16 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.05
Conductivity	µS/cm	Special Frequency 1	13500
Bromide	mg/L	Special Frequency 1	6.0
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	<0.001
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.122
Nickel	mg/L	Special Frequency 1	<0.001
Zinc	mg/L	Special Frequency 1	0.006
Iron	mg/L	Special Frequency 1	0.05
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

Groundwater Sampling Point BHe26S (Note: BHe26S has been used as a substitute to Monitoring Point 33 (DM10), which no longer exists due to previous impacts to the bore).

Sample Date: 19 Dec 2024

Pollutant	Units of Measure	Frequency	Recorded Value
pH	pH units	Special Frequency 1	7.79
Conductivity	µS/cm	Special Frequency 1	2670
Bromide	mg/L	Special Frequency 1	1.48
Aluminium	mg/L	Special Frequency 1	<0.01
Arsenic	mg/L	Special Frequency 1	0.003
Cadmium	mg/L	Special Frequency 1	<0.0001
Copper	mg/L	Special Frequency 1	<0.001
Manganese	mg/L	Special Frequency 1	0.112
Nickel	mg/L	Special Frequency 1	0.001
Zinc	mg/L	Special Frequency 1	<0.005
Iron	mg/L	Special Frequency 1	<0.05
Total PAH	µg/L	Special Frequency 1	<0.5
TPH C6-9 Fraction	µg/L	Special Frequency 1	<20
TPH C10-14 Fraction	µg/L	Special Frequency 1	<50
TPH C15-28 Fraction	µg/L	Special Frequency 1	<100
TPH C29-36 Fraction	µg/L	Special Frequency 1	<50
Cyanide (free)	mg/L	Special Frequency 1	<0.004
Cyanide (total)	mg/L	Special Frequency 1	<0.004

Note: For the purposes of the table(s) above Special Frequency 1 means the collection of samples on a six monthly basis if trigger conditions specified in condition E1.1 of EPL12693 are met.

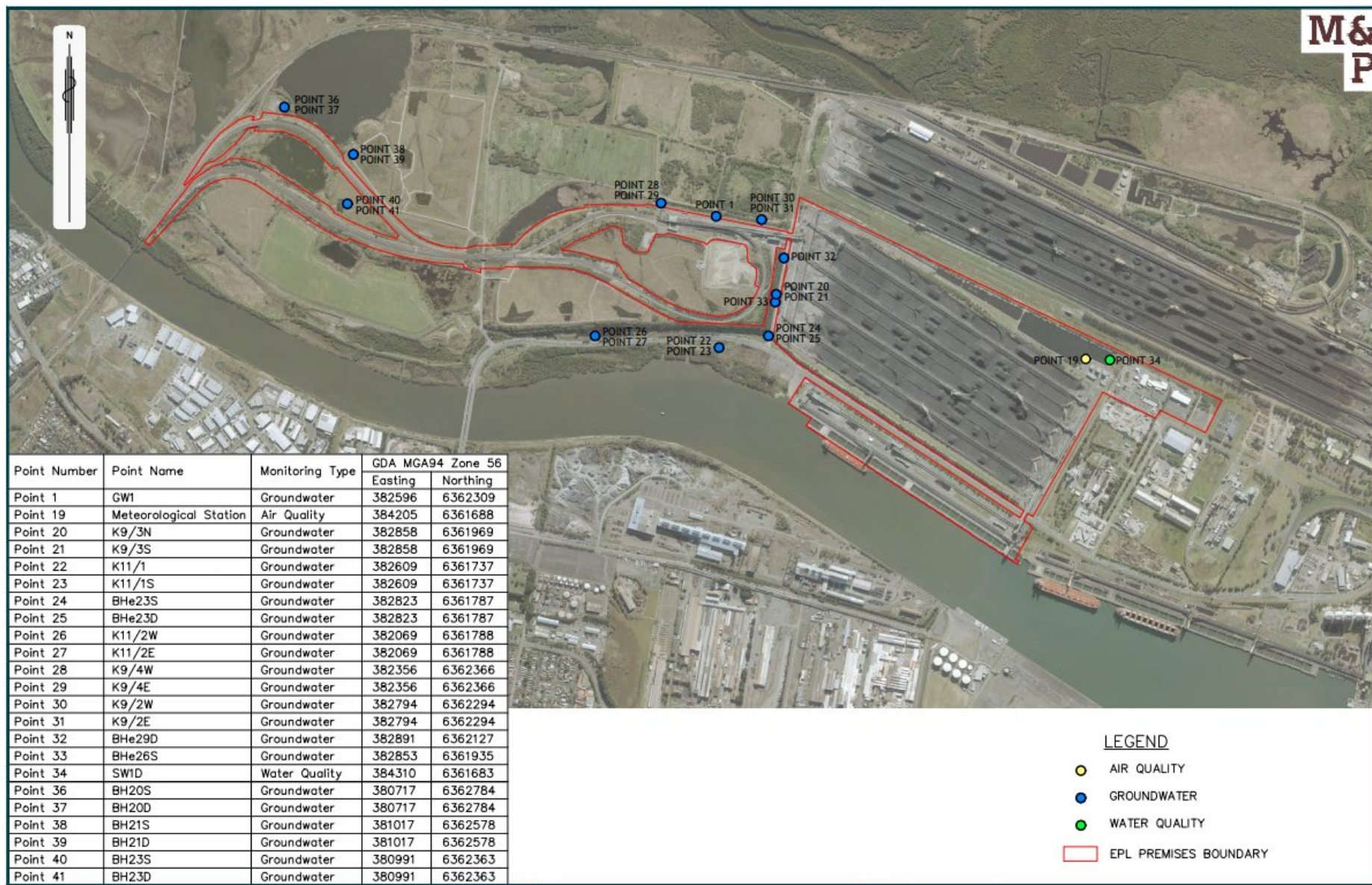


Figure 1: Groundwater, Surface Water and Additional Ambient Air Quality Monitoring Locations.