

## A. Statement of Compliance - Licence Details

**ALL Licence holders must check that the Licence details in Section A are correct.**

If there are changes to any of these details, **you must advise Environment Protection Authority (EPA) and apply as soon as possible for a variation to your Licence or for a Licence transfer.**

Licence variation and transfer application forms are available on the EPA website at: <http://www.epa.nsw.gov.au/licensing-and-regulation/licensing> or from regional offices of the EPA, or by contacting by telephone 02 9995 5700.

If you are applying to vary or transfer your Licence, you must still complete and submit this Annual Return.

### A1. Licence holder

**Licence number** : 5862  
**Licence holder** : WOLLONGONG CITY COUNCIL  
**Trading name (if applicable)** :  
**ABN** : 63 139 525 939  
**ACN** :  
**Reporting period** : From: 29-5-2018 To: 28-5-2019

### A2. Premises to which Licence Applies (if applicable)

**Common name (if any)** : WHYTES GULLY WASTE DISPOSAL FACILITY  
**Premises** : REDDALLS ROAD KEMBLA GRANGE 2526 NSW

### A3. Activities to which Licence Applies

Waste disposal (application to land)

### A4. Other Activities (if applicable)

### A5. Fee-Based Activity Classifications

Note that the fee based activity classification is used to calculate the administrative fee.

Fee-based activity	Activity scale	Unit of measure
Waste disposal by application to land	> 0.00	capacity

### A6. Assessable Pollutants (if applicable)

**Note** that the identification of assessable pollutants is used to calculate the **load-based fee**.  
The following assessable pollutants are identified for the fee-based activity classifications in the licence:

## B. Monitoring and Complaints Summary

### B1. Number of Pollution Complaints

Pollution Complaint Category	Complaints
Air	23
Water	0
Noise	0
Waste	0
Other	0
<b>Total complaints recorded by the licensee during the reporting period</b>	<b>23</b>

### B2. Concentration Monitoring Summary

For each concentration monitoring point identified in your licence, details are displayed below. If concentration monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

**Note** that this does not exclude the need to conduct appropriate concentration monitoring of assessable pollutants as required by load-based licensing (if applicable).

#### Discharge & Monitoring Point 1

Stormwater monitoring and discharge point, Outlet at Reddalls Road - Monitoring point labelled 1 on Figure 13 titled "Proposed Surface Water Monitoring Locations" dated 26 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297777 N6183972

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Ammonia	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Conductivity	microsiemens per centimetre					
Dissolved Oxygen	milligrams per litre					

Filterable iron	milligrams per litre					
Fluoride	milligrams per litre					
Magnesium	milligrams per litre					
Nitrate	milligrams per litre					
pH	pH					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Sulfate	milligrams per litre					
Temperature	degrees Celsius					
Total organic carbon	milligrams per litre					
Total Phenolics	milligrams per litre					
Total suspended solids	milligrams per litre					

### Monitoring Point 3

Surface gas monitoring, Areas where intermediate or final cover has been placed.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 4

Gas accumulation monitoring, Inside all buildings within 250 metres of deposited waste.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 5

Groundwater quality monitoring , Monitoring point labelled GABH02 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297754.9 N6184377

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					

Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 9

Groundwater quality monitoring, Monitoring point labelled GMW102 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297952.6 N6184807

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					

Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					

Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 10

Groundwater quality monitoring, Monitoring point labelled GMW103 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298470.2 N6184603

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					

Conductivity	microsiemens per centimetre				
Copper	milligrams per litre				
Ethyl benzene	micrograms per litre				
Fluoride	milligrams per litre				
Lead	milligrams per litre				
Magnesium	milligrams per litre				
Manganese	micrograms per litre				
Mercury	milligrams per litre				
Nitrate	milligrams per litre				
Nitrite	milligrams per litre				
Nitrogen (ammonia)	milligrams per litre				
Organochlorine pesticides	milligrams per litre				
Organophosphate pesticides	milligrams per litre				
pH	pH				
Polycyclic aromatic hydrocarbons	milligrams per litre				
Potassium	milligrams per litre				
Sodium	milligrams per litre				
Standing Water Level	metres				
Sulfate	milligrams per litre				
Toluene	milligrams per litre				
Total dissolved solids	milligrams per litre				
Total organic carbon	milligrams per litre				
Total petroleum hydrocarbons	milligrams per litre				
Total Phenolics	milligrams per litre				
Xylene	milligrams per litre				



Zinc	milligrams per kilogram					
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### Monitoring Point 11

Groundwater quality monitoring, Monitoring point labelled GMW104 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297597.9 N6184508

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					

Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 12

Groundwater quality monitoring, Monitoring point labelled GMW105 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298433.3 N6184397

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					

Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					

Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 13

Groundwater quality monitoring, Monitoring point labelled GMW106 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298356.8 N6184294

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					

Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					

Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 14

Groundwater quality monitoring, Monitoring point labelled GMW108S on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297870.2 N6184262

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					

Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 15

Groundwater quality monitoring, Monitoring point labelled GMW108D on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297871.4 N6184262

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					



Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 16

Groundwater quality monitoring, Monitoring point labelled GMW109S on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297605.7 N6184068

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					

Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					

Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 17

Groundwater quality monitoring, Monitoring point labelled GMW110 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297572.6 N6184266

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					

Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

## Monitoring Point 18

Groundwater quality monitoring, Monitoring point labelled GMW111 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297588.6 N6184385

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					

Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 19

Groundwater quality monitoring, Monitoring point labelled GMW109D on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297604.9 N6184068

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					

Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					
Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					

Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					
Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 20

Groundwater quality monitoring, Monitoring point labelled BH6 on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297807.4 N6184052

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Aluminium	milligrams per litre					
Arsenic	milligrams per litre					
Barium	milligrams per litre					
Benzene	milligrams per litre					
Cadmium	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Chromium (hexavalent)	milligrams per litre					



Chromium (total)	milligrams per litre					
Cobalt	milligrams per litre					
Conductivity	microsiemens per centimetre					
Copper	milligrams per litre					
Ethyl benzene	micrograms per litre					
Fluoride	milligrams per litre					
Lead	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	micrograms per litre					
Mercury	milligrams per litre					
Nitrate	milligrams per litre					
Nitrite	milligrams per litre					
Nitrogen (ammonia)	milligrams per litre					
Organochlorine pesticides	milligrams per litre					
Organophosphate pesticides	milligrams per litre					
pH	pH					
Polycyclic aromatic hydrocarbons	milligrams per litre					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Standing Water Level	metres					
Sulfate	milligrams per litre					
Toluene	milligrams per litre					
Total dissolved solids	milligrams per litre					
Total organic carbon	milligrams per litre					
Total petroleum hydrocarbons	milligrams per litre					

Total Phenolics	milligrams per litre					
Xylene	milligrams per litre					
Zinc	milligrams per kilogram					

### Monitoring Point 21

Subsurface gas monitoring, Monitoring point labelled LFG MW1 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298084 N6184278

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 22

Subsurface gas monitoring, Monitoring point labelled LFG MW2 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298202 N6184228

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 23

Subsurface gas monitoring, Monitoring point labelled LFG MW3 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298297 N6184244

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 24

Subsurface gas monitoring, Monitoring point labelled LFG MW4 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298376 N6184303

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 25

Subsurface gas monitoring, Monitoring point labelled LFG MW5 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298438 N6184381

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 26

Subsurface gas monitoring, Monitoring point labelled LFG MW6 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298376 N6184303

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 27

Subsurface gas monitoring, Monitoring point labelled LFG MW7 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298470 N6184553

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 28

Subsurface gas monitoring, Monitoring point labelled LFG MW8 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298376 N6184303

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 29

Subsurface gas monitoring, Monitoring point labelled LFG MW9 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298465 N6184645

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 30

Subsurface gas monitoring, Monitoring point labelled LFG MW10 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298448 N6184684

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 31

Subsurface gas monitoring, Monitoring point labelled LFG MW11 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298400 N6184695

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 32

Subsurface gas monitoring, Monitoring point labelled LFG MW12 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E298351 N6184701

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume					

### Monitoring Point 33

Stormwater monitoring point, Downstream monitoring point labelled 4 on Figure 13 titled "Proposed Surface Water Monitoring Locations" dated 26 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297767 N6183396

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Ammonia	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Conductivity	microsiemens per centimetre					
Dissolved Oxygen	milligrams per litre					
Filterable iron	milligrams per litre					
Fluoride	milligrams per litre					
Magnesium	milligrams per litre					

Nitrate	milligrams per litre					
pH	pH					
Potassium	milligrams per litre					
Sodium	milligrams per litre					
Sulfate	milligrams per litre					
Temperature	degrees Celsius					
Total organic carbon	milligrams per litre					
Total Phenolics	milligrams per litre					
Total suspended solids	milligrams per litre					

### Monitoring Point 34

Stormwater monitoring point, Upstream monitoring point labelled 6 on Figure 13 titled "Proposed Surface Water Monitoring Locations" dated 26 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297495 N6184504

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre					
Ammonia	milligrams per litre					
Calcium	milligrams per litre					
Chloride	milligrams per litre					
Conductivity	microsiemens per centimetre					
Dissolved Oxygen	milligrams per litre					
Filterable iron	milligrams per litre					
Fluoride	milligrams per litre					
Magnesium	milligrams per litre					
Nitrate	milligrams per litre					
pH	pH					

Potassium	milligrams per litre					
Sodium	milligrams per litre					
Sulfate	milligrams per litre					
Temperature	degrees Celsius					
Total organic carbon	milligrams per litre					
Total Phenolics	milligrams per litre					
Total suspended solids	milligrams per litre					

<b>Name of the uploaded file containing point data ▼</b>
WG returns.xlsx

### B3. Volume or Mass Monitoring Summary

For each volume or mass monitoring point identified in your licence, details are displayed below. If volume or mass monitoring is not required by your licence, **no data** will appear below. If data was provided from an uploaded file, the file name will be displayed below instead of any data. **Note** that this does not exclude the need to conduct appropriate volume or mass monitoring of assessable pollutants are required by load-based licensing (if applicable).

## C. Statement of Compliance - Licence Conditions

### C1. Compliance with Licence Conditions

Were all conditions of the licence complied with (including monitoring and reporting requirements)?	Yes
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## D. Statement of Compliance - Load Based Fee Calculation

If you are not required to monitor assessable pollutants by your licence, **no data** will appear below.

If assessable pollutants have been identified on your licence, the following worksheets for each assessable pollutant will determine your load based fee for the licence fee period to which this Annual Return relates.

**Loads of assessable pollutants must be calculated using any of the methods provided in EPA's Load Calculation Protocol for the relevant activity.** A Load Calculation Protocol would have been already sent to you with your licence. If you require additional copies, you can download the Protocol from the EPA's website or you can contact us on telephone 02 9995 5700.

You are required to keep all records used to calculate licence fees for four years after the licence fee was paid or became payable, whichever is the later date.

## E. Statement of Compliance - Requirement to Prepare PIRMP

<b>Have you prepared a Pollution Incident Response Management Plan (PIRMP) as required under section 153A of the Protection of the Environment Operations (POEO) Act 1997?</b>		<b>Yes</b>
Is the PIRMP available at the premises?		<b>Yes</b>
Is the PIRMP available in a prominent position on a publicly accessible website?		<b>Yes</b>
Address of the web page where the PIRMP can be accessed ▼		
<b>www.wollongong.nsw.gov.au</b>		
Has the PIRMP been tested?		<b>Yes</b>
The PIRMP was last tested on	<b>4-3-2019</b>	
Has the PIRMP been updated?		<b>Yes</b>
The PIRMP was last updated on	<b>30-6-2019</b>	
Number of times the PIRMP was activated in this reporting period?		<b>1</b>
The PIRMP was activated on	<b>04/03/2019</b>	

## F. Statement of Compliance - Requirement to Publish Pollution Monitoring Data

<b>Are there any conditions attached to your licence that require pollution monitoring to be undertaken as required under section 66(6) of the Protection of the Environment Operations (POEO) Act 1997?</b>		<b>Yes</b>
Do you operate a website?		<b>Yes</b>
Is the pollution monitoring data published on your website in accordance with the EPA's written requirements for publishing pollution monitoring data?		<b>Yes</b>
Address of the web page where the pollution monitoring data can be accessed ▼		
<b>www.wollongong.nsw.gov.au</b>		



## G. Statement of Compliance - Environment Management System and Practices

Do you have an ISO 14001 certified Environmental Management System (EMS) OR any other system that EPA considers is equivalent to the accountability, procedures, documentation and record keeping requirements of an ISO 14001 certified EMS?	No
Have you conducted an assessment of your activities and operations to identify the aspects that have a potential to cause environmental impacts and implemented operational controls to address these aspects?	Yes
Have you established and implemented an operational maintenance program, including preventative maintenance?	Yes
Do you keep records of regular inspections and maintenance of plant and equipment?	Yes
Do you conduct regular site audits to assess compliance with environmental legal requirements and assess conformance to the requirements of any documented environmental practices, procedures and systems in place?	Yes
Are the audits of documented environmental practices, procedures and systems undertaken by a third party?	Yes
Have you established and implemented an environmental improvement or management plan?	Yes
Do you train staff in environmental issues that may arise from your activities and operations and keep records of this	Yes

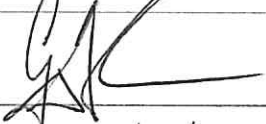
## H. Signature and Certification

This Annual Return may only be signed by person(s) with legal authority to sign it as set out in following categories: an Individual, a Company, a Public authority or a Local council.

It is an offence to supply any information in this form that is false or misleading in a material respect, or to certify a statement that is false or misleading in a material respect. There is a maximum penalty of \$250,000 for a corporation and \$120,000 for an individual.

I/We

- declare that the information in the Monitoring and Complaints Summary in Section B of this Annual Return application is correct and not false or misleading in a material respect, and
- certify that the information in the Statement and Compliance in sections A, C, D, E, F, G and H and any other pages attached to Section C is correct and not false or misleading in a material respect.

Signature	
Name	24/7/09

Position	GENERAL MANAGER
Date	24 <sup>th</sup> 7 <sup>th</sup> 19
<p><b>Declaration</b></p> <p>I declare that the information in the Monitoring and Complaints Summary in section B of this Annual Return is correct and not false or misleading in a material respect, and</p> <p>I certify that the information in the Statement of Compliance in section A,C,D,E,F and G and any pages attached to Section C is correct and not false or misleading in a material respect.</p>	

WG Concentration  
Monitoring Summary  
29/5/2018-28/5/2019

B2

For each monitoring point identified in your licence complete all the details for each pollutants listed in the tables provided below

Discharge & Monitoring Point 1						
Stormwater monitoring and discharge point, Outlet at Reddalls Road - Monitoring point labelled 1 on Figure 13 titled 'Proposed Surface Water Monitoring Locations' dated 26 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV) E297777 N6183972						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	1	1	208	208	208
Ammonia	milligrams per litre	1	1	0.11	0.11	0.11
Calcium	milligrams per litre	1	1	49	49	49
Chloride	milligrams per litre	1	1	102	102	102
Conductivity	microsiemens per centimeter	1	1	719	719	719
Dissolved Oxygen	milligrams per litre	1	1	6.41	6.41	6.41
Filterable Iron	milligrams per litre	1	1	0.12	0.12	0.12
Fluoride	milligrams per litre	1	1	0.4	0.4	0.4
Magnesium	milligrams per litre	1	1	22	22	22
Nitrate	milligrams per litre	1	1	0.11	0.11	0.11
pH	pH	1	1	7.8	7.8	7.8
Potassium	milligrams per litre	1	1	3	3	3
Sodium	milligrams per litre	1	1	73	73	73
Sulfate	milligrams per litre	1	1	18	18	18
Temperature	milligrams per litre	1	1	20.1	20.1	20.1
Total Organic Carbon	milligrams per litre	1	1	11	11	11
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Total suspended solids	milligrams per litre	1	1	21	21	21
note: No discharge when annual sampling conducted. Standing water sample only						

Monitoring Point 10						
Groundwater quality monitoring, Monitoring point labelled GMW103 on Figure 15 titled "Current Site Investigation Locations" dated 6						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	372	415.75	462
Aluminium	milligrams per litre	1	1	3.19	3.19	3.19
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.026	0.026	0.026
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	164	174	194
Chloride	milligrams per litre	4	4	305	368	482
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.004	0.004	0.004
Cobalt	milligrams per litre	1	1	0.006	0.006	0.006
Conductivity	microsiemens per centimeter	4	4	1820	1967.5	2160
Copper	milligrams per litre	1	1	0.011	0.011	0.011
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.4	0.4	0.4
Lead	milligrams per litre	1	1	0.006	0.006	0.006
Magnesium	milligrams per litre	4	4	55	58.25	63
Manganese	micrograms per litre	1	1	0.141	0.141	0.141
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001

Nitrate	milligrams per litre	1	1	0.01	0.01	0.01
Nitrite	milligrams per litre	1	1	0.26	0.26	0.26
Nitrogen (ammonia)	milligrams per litre	4	4	0.02	0.0375	0.06
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	7.1	7.2	7.4
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	1	1
Sodium	milligrams per litre	4	4	162	162.5	165
Standing Water Level	meters	4	4	3.85	6.6975	7.87
Sulfate	milligrams per litre	4	4	76	127.25	158
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	978	1132	1280
Total organic carbon	milligrams per litre	4	4	1	1.5	2
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.027	0.027	0.027

#### Monitoring Point 11

Groundwater quality monitoring, Monitoring point labelled GMW104 on Figure 15 titled "Current Site Investigation Locations" dated 6

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	318	409.5	481
Aluminium	milligrams per litre	1	3	7.56	10.32	12.6
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.038	0.038	0.038
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	47	61.5	73
Chloride	milligrams per litre	4	4	72	104.25	120
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.007	0.007	0.007
Cobalt	milligrams per litre	1	1	0.001	0.001	0.001
Conductivity	microsiemens per centimeter	4	4	1010	1227.5	1360
Copper	milligrams per litre	1	1	0.01	0.01	0.01
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.8	0.8	0.8
Lead	milligrams per litre	1	1	0.007	0.007	0.007
Magnesium	milligrams per litre	4	4	30	38.5	46
Manganese	micrograms per litre	1	1	0.624	0.624	0.624
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.03	0.03	0.03
Nitrite	milligrams per litre	1	1	0.01	0.01	0.01
Nitrogen (ammonia)	milligrams per litre	4	4	0.02	0.0275	0.03
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	7.2	7.375	7.4
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	1.25	2
Sodium	milligrams per litre	4	4	132	156.75	167
Standing Water Level	meters	4	4	3.32	6.74	8.06
Sulfate	milligrams per litre	4	4	46	59	67
Toluene	milligrams per litre	1	1	2	2	2

Total dissolved solids	milligrams per litre	4	4	616	692.25	774
Total organic carbon	milligrams per litre	4	4	1	1.75	3
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.044	0.044	0.044

#### Monitoring Point 12

Groundwater quality monitoring, Monitoring point labelled GMW105 on Figure 15 titled "Current Site Investigation Locations" dated 6

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	DRY	DRY	DRY
Aluminium	milligrams per litre	1	1	DRY	DRY	DRY
Arsenic	milligrams per litre	1	1	DRY	DRY	DRY
Barium	milligrams per litre	1	1	DRY	DRY	DRY
Benzene	milligrams per litre	1	1	DRY	DRY	DRY
Cadmium	milligrams per litre	1	1	DRY	DRY	DRY
Calcium	milligrams per litre	4	4	DRY	DRY	DRY
Chloride	milligrams per litre	4	4	DRY	DRY	DRY
Chromium (hexavalent)	milligrams per litre	1	1	DRY	DRY	DRY
Chromium (total)	milligrams per litre	1	1	DRY	DRY	DRY
Cobalt	milligrams per litre	1	1	DRY	DRY	DRY
Conductivity	microsiemens per centimeter	4	4	DRY	DRY	DRY
Copper	milligrams per litre	1	1	DRY	DRY	DRY
Ethyl benzene	micrograms per litre	1	1	DRY	DRY	DRY
Fluoride	milligrams per litre	1	1	DRY	DRY	DRY
Lead	milligrams per litre	1	1	DRY	DRY	DRY
Magnesium	milligrams per litre	4	4	DRY	DRY	DRY
Manganese	micrograms per litre	1	1	DRY	DRY	DRY
Mercury	milligrams per litre	1	1	DRY	DRY	DRY
Nitrate	milligrams per litre	1	1	DRY	DRY	DRY
Nitrite	milligrams per litre	1	1	DRY	DRY	DRY
Nitrogen (ammonia)	milligrams per litre	4	4	DRY	DRY	DRY
Organochlorine pesticides	milligrams per litre	1	1	DRY	DRY	DRY
Organophosphate pesticides	milligrams per litre	1	1	DRY	DRY	DRY
pH	pH	4	4	DRY	DRY	DRY
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	DRY	DRY	DRY
Potassium	milligrams per litre	4	4	DRY	DRY	DRY
Sodium	milligrams per litre	4	4	DRY	DRY	DRY
Standing Water Level	meters	4	4	DRY	DRY	DRY
Sulfate	milligrams per litre	4	4	DRY	DRY	DRY
Toluene	milligrams per litre	1	1	DRY	DRY	DRY
Total dissolved solids	milligrams per litre	4	4	DRY	DRY	DRY
Total organic carbon	milligrams per litre	4	4	DRY	DRY	DRY
Total petroleum hydrocarbons	milligrams per litre	1	1	DRY	DRY	DRY
Total Phenolics	milligrams per litre	1	1	DRY	DRY	DRY
Xylene	milligrams per litre	1	1	DRY	DRY	DRY
Zinc	milligrams per kilogram	1	1	DRY	DRY	DRY

#### Monitoring Point 13

Groundwater quality monitoring, Monitoring point labelled GMW106 on Figure 15 titled "Current Site Investigation Locations" dated 6

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
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Alkalinity (as calcium carbonate)	milligrams per litre	4	4	DRY	DRY	DRY
Aluminium	milligrams per litre	1	1	DRY	DRY	DRY
Arsenic	milligrams per litre	1	1	DRY	DRY	DRY
Barium	milligrams per litre	1	1	DRY	DRY	DRY
Benzene	milligrams per litre	1	1	DRY	DRY	DRY
Cadmium	milligrams per litre	1	1	DRY	DRY	DRY
Calcium	milligrams per litre	4	4	DRY	DRY	DRY
Chloride	milligrams per litre	4	4	DRY	DRY	DRY
Chromium (hexavalent)	milligrams per litre	1	1	DRY	DRY	DRY
Chromium (total)	milligrams per litre	1	1	DRY	DRY	DRY
Cobalt	milligrams per litre	1	1	DRY	DRY	DRY
Conductivity	microsiemens per centimeter	4	4	DRY	DRY	DRY
Copper		1	1	DRY	DRY	DRY
Ethyl benzene	micrograms per litre	1	1	DRY	DRY	DRY
Fluoride	milligrams per litre	1	1	DRY	DRY	DRY
Lead	milligrams per litre	1	1	DRY	DRY	DRY
Magnesium	milligrams per litre	4	4	DRY	DRY	DRY
Manganese	micrograms per litre	1	1	DRY	DRY	DRY
Mercury	milligrams per litre	1	1	DRY	DRY	DRY
Nitrate	milligrams per litre	1	1	DRY	DRY	DRY
Nitrite	milligrams per litre	1	1	DRY	DRY	DRY
Nitrogen (ammonia)	milligrams per litre	4	4	DRY	DRY	DRY
Organochlorine pesticides	milligrams per litre	1	1	DRY	DRY	DRY
Organophosphate pesticides	milligrams per litre	1	1	DRY	DRY	DRY
pH	pH	4	4	DRY	DRY	DRY
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	DRY	DRY	DRY
Potassium	milligrams per litre	4	4	DRY	DRY	DRY
Sodium	milligrams per litre	4	4	DRY	DRY	DRY
Standing Water Level	meters	4	4	DRY	DRY	DRY
Sulfate	milligrams per litre	4	4	DRY	DRY	DRY
Toluene	milligrams per litre	1	1	DRY	DRY	DRY
Total dissolved solids	milligrams per litre	4	4	DRY	DRY	DRY
Total organic carbon	milligrams per litre	4	4	DRY	DRY	DRY
Total petroleum hydrocarbons	milligrams per litre	1	1	DRY	DRY	DRY
Total Phenolics	milligrams per litre	1	1	DRY	DRY	DRY
Xylene	milligrams per litre	1	1	DRY	DRY	DRY
Zinc	milligrams per kilogram	1	1	DRY	DRY	DRY

<b>Monitoring Point 14</b>						
Groundwater quality monitoring, Monitoring point labelled GMW108S on Figure 15 titled "Current Site Investigation Locations" dated 6						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	319	351.25	447
Aluminium	milligrams per litre	1	1	11.9	11.9	11.9
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.209	0.209	0.209
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	88	89.75	112
Chloride	milligrams per litre	4	4	242	375	577
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.01	0.01	0.01
Cobalt	milligrams per litre	1	1	0.009	0.009	0.009
Conductivity	microsiemens per centimeter	4	4	1460	1955	2770
Copper	milligrams per litre	1	1	0.039	0.039	0.039
Ethyl benzene	micrograms per litre	1	1	2	2	2

Fluoride	milligrams per litre	1	1	0.4	0.4	0.4
Lead	milligrams per litre	1	1	0.047	0.047	0.047
Magnesium	milligrams per litre	4	4	39	55	75
Manganese	micrograms per litre	1	1	0.442	0.442	0.442
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.01	0.01	0.01
Nitrite	milligrams per litre	1	1	0.01	0.01	0.01
Nitrogen (ammonia)	milligrams per litre	4	4	0.08	0.14	0.21
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	2	4.5	6
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	2	4.5	6
Sodium	milligrams per litre	4	4	170	224.25	313
Standing Water Level	meters	4	4	2.94	3.155	3.5
Sulfate	milligrams per litre	4	4	68	109.75	165
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	836	1202	1610
Total organic carbon	milligrams per litre	4	4	4	6.25	12
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.047	0.047	0.047

#### Monitoring Point 15

Groundwater quality monitoring, Monitoring point labelled GMW108D on Figure 15 titled "Current Site Investigation Locations" dated 6

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	408	448	490
Aluminium	milligrams per litre	1	1	0.09	0.09	0.09
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.017	0.017	0.017
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	128	129.25	130
Chloride	milligrams per litre	4	4	661	700.5	739
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.001	0.001	0.001
Cobalt	milligrams per litre	1	1	0.001	0.001	0.001
Conductivity	microsiemens per centimeter	4	4	3160	3240	3380
Copper	milligrams per litre	1	1	0.001	0.001	0.001
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.7	0.7	0.7
Lead	milligrams per litre	1	1	0.001	0.001	0.001
Magnesium	milligrams per litre	4	4	82	84.75	88
Manganese	micrograms per litre	1	1	0.031	0.031	0.031
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.01	0.01	0.01
Nitrite	milligrams per litre	1	1	0.01	0.01	0.01
Nitrogen (ammonia)	milligrams per litre	4	4	0.02	0.44	0.34
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	6.8	6.925	7
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	1.5	2

Sodium	milligrams per litre	4	4	396	406.25	416
Standing Water Level	meters	4	4	2.51	2.64	2.75
Sulfate	milligrams per litre	4	4	189	208	247
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	1670	1792.5	1870
Total organic carbon	milligrams per litre	4	4	1	1.75	3
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.005	0.005	0.005

<b>Monitoring Point 16</b>						
Groundwater quality monitoring, Monitoring point labelled GMW109S on Figure 15 titled "Current Site Investigation Locations" dated 6						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	195	220.75	254
Aluminium	milligrams per litre	1	1	2.31	2.31	2.31
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.068	0.068	0.068
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	28	65	78
Chloride	milligrams per litre	4	4	299	335	368
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.003	0.003	0.003
Cobalt	milligrams per litre	1	1	0.016	0.016	0.016
Conductivity	microsiemens per centimeter	4	4	1460.00	1562.50	1630
Copper	milligrams per litre	1	1	0.009	0.009	0.009
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.1	0.1	0.1
Lead	milligrams per litre	1	1	0.004	0.004	0.004
Magnesium	milligrams per litre	4	4	18	41.5	51
Manganese	micrograms per litre	1	3	1.33	2.47	4.62
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.01	0.01	0.01
Nitrite	milligrams per litre	1	1	0.01	0.01	0.01
Nitrogen (ammonia)	milligrams per litre	4	4	0.34	0.4825	0.66
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	6.2	6.325	6.5
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	1.75	2
Sodium	milligrams per litre	4	4	61	136.25	168
Standing Water Level	meters	4	4	3.29	3.485	3.63
Sulfate	milligrams per litre	4	4	95	113.5	135
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	814	881.75	974
Total organic carbon	milligrams per litre	4	4	1	4	8
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	3	0.023	0.0515	0.109



<b>Monitoring Point 17</b>						
Groundwater quality monitoring, Monitoring point labelled GMW110 on Figure 15 titled "Current Site Investigation Locations" dated 6						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	506	560.5	618
Aluminium	milligrams per litre	1	1	2.29	2.29	2.29
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.008	0.008	0.008
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	204	208.75	212
Chloride	milligrams per litre	4	4	942	1224.5	1910
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.002	0.002	0.002
Cobalt	milligrams per litre	1	1	0.002	0.002	0.002
Conductivity	microsiemens per centimeter	4	4	4340	4450	4710
Copper	milligrams per litre	1	1	0.011	0.011	0.011
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.5	0.5	0.5
Lead	milligrams per litre	1	1	0.003	0.003	0.003
Magnesium	milligrams per litre	4	4	153	157.5	162
Manganese	micrograms per litre	1	1	0.098	0.098	0.098
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.57	0.57	0.57
Nitrite	milligrams per litre	1	1	0.01	0.01	0.01
Nitrogen (ammonia)	milligrams per litre	4	4	0.01	0.0175	0.02
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	6.8	6.85	6.9
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	1.75	2
Sodium	milligrams per litre	4	4	454	464.25	480
Standing Water Level	meters	4	4	4.25	4.355	4.47
Sulfate	milligrams per litre	4	4	286	334.75	400
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	2350	2587.5	2820
Total organic carbon	milligrams per litre	4	4	1	2.75	7
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.021	0.021	0.021

<b>Monitoring Point 18</b>						
Groundwater quality monitoring, Monitoring point labelled GMW111 on Figure 15 titled "Current Site Investigation Locations" dated 6						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	450	521.5	610
Aluminium	milligrams per litre	1	1	6.29	6.29	6.29
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.031	0.031	0.031
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	114	124.75	134
Chloride	milligrams per litre	4	4	700	733.75	800

Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.004	0.004	0.004
Cobalt	milligrams per litre	1	1	0.007	0.007	0.007
Conductivity	microsiemens per centimeter	4	4	3210	3400	3670
Copper	milligrams per litre	1	1	0.016	0.016	0.016
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.5	0.5	0.5
Lead	milligrams per litre	1	1	0.007	0.007	0.007
Magnesium	milligrams per litre	4	4	93	98	101
Manganese	micrograms per litre	1	1	0.369	0.369	0.369
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.01	0.01	0.01
Nitrite	milligrams per litre	1	1	0.01	0.01	0.01
Nitrogen (ammonia)	milligrams per litre	4	4	0.01	0.02	0.03
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	6.8	7	7.1
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	1	1
Sodium	milligrams per litre	4	4	409	415.75	420
Standing Water Level	meters	4	4	5.88	6.3325	6.55
Sulfate	milligrams per litre	4	4	108	187.75	246
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	1650	1830	1930
Total organic carbon	milligrams per litre	4	4	1	1.25	2
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.036	0.036	0.036

<b>Monitoring Point 19</b>						
Groundwater quality monitoring, Monitoring point labelled GMW109D on Figure 15 titled "Current Site Investigation Locations" dated 6 March 2012 (Whytes Gully New Landfill Cell EA - Volume IV). E297604.9 N6184068						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	200	218.5	234
Aluminium	milligrams per litre	1	1	0.05	0.05	0.05
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.146	0.146	0.146
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	92	95.75	98
Chloride	milligrams per litre	4	4	359	450.5	492
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.01	0.01	0.01
Cobalt	milligrams per litre	1	1	0.001	0.001	0.001
Conductivity	microsiemens per centimeter	4	4	1820	1830	1840
Copper	milligrams per litre	1	1	0.003	0.003	0.003
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.4	0.4	0.4
Lead	milligrams per litre	1	1	0.001	0.001	0.001
Magnesium	milligrams per litre	4	4	48	49.25	50
Manganese	micrograms per litre	1	1	0.053	0.053	0.053
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.71	0.71	0.71
Nitrite	milligrams per litre	1	1	0.01	0.01	0.01

Nitrogen (ammonia)	milligrams per litre	4	4	0.03	0.085	0.11
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	6.9	6.95	7.1
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	1	1
Sodium	milligrams per litre	4	4	186	188	190
Standing Water Level	meters	4	4	3.17	3.28	3.38
Sulfate	milligrams per litre	4	4	21	23.25	25
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	994	1116	1260
Total organic carbon	milligrams per litre	4	4	1	1	1
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.006	0.006	0.006

#### Monitoring Point 20

Groundwater quality monitoring, Monitoring point labelled BH6 on Figure 15 titled "Current Site Investigation Locations" dated 6 March

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	426	569.25	650
Aluminium	milligrams per litre	1	1	0.65	0.65	0.65
Arsenic	milligrams per litre	1	1	0.005	0.005	0.005
Barium	milligrams per litre	1	1	0.09	0.09	0.09
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	73	102.5	118
Chloride	milligrams per litre	4	4	66	469.5	1120
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.002	0.002	0.002
Cobalt	milligrams per litre	1	1	0.008	0.008	0.008
Conductivity	microsiemens per centimeter	4	4	1180	2647.5	5060
Copper	milligrams per litre	1	1	0.011	0.011	0.011
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.6	0.6	0.6
Lead	milligrams per litre	1	1	0.009	0.009	0.009
Magnesium	milligrams per litre	4	4	33	67	19
Manganese	micrograms per litre	1	1	0.87	0.87	0.87
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.02	0.02	0.02
Nitrite	milligrams per litre	1	1	0.02	0.02	0.02
Nitrogen (ammonia)	milligrams per litre	4	4	0.2	0.28	0.44
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	6.9	7	7.1
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	1	4.25	9
Sodium	milligrams per litre	4	4	119	367	747
Standing Water Level	meters	4	4	1.63	1.805	2.03

Sulfate	milligrams per litre	4	4	117	212	315
Toluene	milligrams per litre	1	1	2	2	2
Total dissolved solids	milligrams per litre	4	4	744	1483.5	2520
Total organic carbon	milligrams per litre	4	4	6	19.5	31
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.017	0.017	0.017

<b>Monitoring Point 21</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW1 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0667	0.1

<b>Monitoring Point 22</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW2 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0667	0.1

<b>Monitoring Point 23</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW3 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0667	0.1

<b>Monitoring Point 24</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW4 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.1752	0.1

<b>Monitoring Point 25</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW5 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.06675	0.1

<b>Monitoring Point 26</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW6 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0584	0.1

<b>Monitoring Point 27</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW7 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0669	0.1

<b>Monitoring Point 28</b>						
Subsurface gas monitoring, Monitoring point labelled LFG MW8 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.06765	0.1

<b>Monitoring Point 29</b>						
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Subsurface gas monitoring, Monitoring point labelled LFG MW9 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0668	0.1

Monitoring Point 3						
Surface Gas Monitoring. Areas where intermediate or final cover has been placed						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.64	4.1

Monitoring Point 30						
Subsurface gas monitoring, Monitoring point labelled LFG MW10 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0666	0.1

Monitoring Point 31						
Subsurface gas monitoring, Monitoring point labelled LFG MW11 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0666	0.1

Monitoring Point 32						
Subsurface gas monitoring, Monitoring point labelled LFG MW12 on Figure 14 titled "Proposed Landfill Gas Monitoring Locations" dated						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.0666	0.1

Monitoring Point 33						
Stormwater monitoring point, Downstream monitoring point labelled 4 on Figure 13 titled "Proposed Surface Water Monitoring						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	1	1	92	92	92
Ammonia	milligrams per litre	1	1	0.05	0.05	0.05
Calcium	milligrams per litre	1	1	15	15	15
Chloride	milligrams per litre	1	1	19	19	19
Conductivity	microsiemens per centimeter	1	1	201	201	201
Dissolved Oxygen	milligrams per litre	1	1	5.2	5.2	5.2
Filterable Iron	milligrams per litre	1	1	0.27	0.27	0.27
Fluoride	milligrams per litre	1	1	0.1	0.1	0.1
Magnesium	milligrams per litre	1	1	4	4	4
Nitrate	milligrams per litre	1	1	0.03	0.03	0.03
pH	pH	1	1	7.1	7.1	7.1
Potassium	milligrams per litre	1	1	2	2	2
Sodium	milligrams per litre	1	1	21	21	21
Sulfate	milligrams per litre	1	1	12	12	12
Temperature	milligrams per litre	1	1	21.1	21.1	21.1
Total Organic Carbon	milligrams per litre	1	1	6	6	6
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Total suspended solids	milligrams per litre	1	1	10	10	10

Monitoring Point 34						
Stormwater monitoring point, Upstream monitoring point labelled 6 on Figure 13 titled "Proposed Surface Water Monitoring Locations"						
Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	1	1	202	202	202
Ammonia	milligrams per litre	1	1	0.02	0.02	0.02

Calcium	milligrams per litre	1	1	48	48	48
Chloride	milligrams per litre	1	1	49	49	49
Conductivity	microsiemens per centimeter	1	1	551	551	551
Dissolved Oxygen	milligrams per litre	1	1	4.31	4.31	4.31
Filterable Iron	milligrams per litre	1	1	0.09	0.09	0.09
Fluoride	milligrams per litre	1	1	0.2	0.2	0.2
Magnesium	milligrams per litre	1	1	21	21	21
Nitrate	milligrams per litre	1	1	0.01	0.01	0.01
pH	pH	1	1	7.4	7.4	7.4
Potassium	milligrams per litre	1	1	4	4	4
Sodium	milligrams per litre	1	1	42	42	42
Sulfate	milligrams per litre	1	1	23	23	23
Temperature	milligrams per litre	1	1	19.7	19.7	19.7
Total Organic Carbon	milligrams per litre	1	1	7	7	7
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Total suspended solids	milligrams per litre	1	1	9	9	9

#### Monitoring Point 4

Gas accumulation monitoring, Inside all buildings within 250 meters of deposited waste

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Methane	percent by volume	12	12	0	0.78	6.1

#### Monitoring Point 5

Groundwater quality monitoring , Monitoring point labelled GABH02 on Figure 15 titled "Current Site Investigation Locations" dated 6

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	870	1020.75	1130
Aluminium	milligrams per litre	1	1	6.61	6.61	6.61
Arsenic	milligrams per litre	1	1	0.001	0.001	0.001
Barium	milligrams per litre	1	1	0.015	0.015	0.015
Benzene	milligrams per litre	1	1	1	1	1
Cadmium	milligrams per litre	1	1	0.0001	0.0001	0.0001
Calcium	milligrams per litre	4	4	295	304.5	310
Chloride	milligrams per litre	4	4	1180	1212.5	1270
Chromium (hexavalent)	milligrams per litre	1	1	0.01	0.01	0.01
Chromium (total)	milligrams per litre	1	1	0.005	0.005	0.005
Cobalt	milligrams per litre	1	1	0.002	0.002	0.002
Conductivity	microsiemens per centimeter	4	4	5429	5570	5940
Copper	milligrams per litre	1	1	0.015	0.015	0.015
Ethyl benzene	micrograms per litre	1	1	2	2	2
Fluoride	milligrams per litre	1	1	0.6	0.6	0.6
Lead	milligrams per litre	1	1	0.004	0.004	0.004
Magnesium	milligrams per litre	4	4	181	188.25	196
Manganese	micrograms per litre	1	1	0.082	0.082	0.082
Mercury	milligrams per litre	1	1	0.0001	0.0001	0.0001
Nitrate	milligrams per litre	1	1	0.01	0.01	0.01
Nitrite	milligrams per litre			0.01	0.01	0.01
Nitrogen (ammonia)	milligrams per litre	4	4	0.02	0.0275	0.04
Organochlorine pesticides	milligrams per litre	1	1	0.5	0.5	0.5
Organophosphate pesticides	milligrams per litre	1	1	0.5	0.5	0.5
pH	pH	4	4	6.6	6.725	6.9
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	1	1	1
Potassium	milligrams per litre	4	4	2	2.5	3
Sodium	milligrams per litre	4	4	583	602.75	599
Standing Water Level	meters	4	4	5.37	5.47	5.58
Sulfate	milligrams per litre	4	4	166	178.5	211
Toluene	milligrams per litre	1	1	2	2	2

Total dissolved solids	milligrams per litre	4	4	2830	3027.5	3380
Total organic carbon	milligrams per litre	4	4	1	4.25	8
Total petroleum hydrocarbons	milligrams per litre	1	1	50	50	50
Total Phenolics	milligrams per litre	1	1	0.05	0.05	0.05
Xylene	milligrams per litre	1	1	2	2	2
Zinc	milligrams per kilogram	1	1	0.035	0.035	0.035

#### Monitoring Point 9

Groundwater quality monitoring, Monitoring point labelled GMW102 on Figure 15 titled "Current Site Investigation Locations" dated 6

Pollutant	Unit of Measure	No of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	4	DRY	DRY	DRY
Aluminium	milligrams per litre	1	1	DRY	DRY	DRY
Arsenic	milligrams per litre	1	1	DRY	DRY	DRY
Barium	milligrams per litre	1	1	DRY	DRY	DRY
Benzene	milligrams per litre	1	1	DRY	DRY	DRY
Cadmium	milligrams per litre	1	1	DRY	DRY	DRY
Calcium	milligrams per litre	4	4	DRY	DRY	DRY
Chloride	milligrams per litre	4	4	DRY	DRY	DRY
Chromium (hexavalent)	milligrams per litre	1	1	DRY	DRY	DRY
Chromium (total)	milligrams per litre	1	1	DRY	DRY	DRY
Cobalt	milligrams per litre	1	1	DRY	DRY	DRY
Conductivity	microsiemens per centimeter	4	4	DRY	DRY	DRY
Copper	milligrams per litre	1	1	DRY	DRY	DRY
Ethyl benzene	micrograms per litre	1	1	DRY	DRY	DRY
Fluoride	milligrams per litre	1	1	DRY	DRY	DRY
Lead	milligrams per litre	1	1	DRY	DRY	DRY
Magnesium	milligrams per litre	4	4	DRY	DRY	DRY
Manganese	micrograms per litre	1	1	DRY	DRY	DRY
Mercury	milligrams per litre	1	1	DRY	DRY	DRY
Nitrate	milligrams per litre	1	1	DRY	DRY	DRY
Nitrite	milligrams per litre	1	1	DRY	DRY	DRY
Nitrogen (ammonia)	milligrams per litre	4	4	DRY	DRY	DRY
Organochlorine pesticides	milligrams per litre	1	1	DRY	DRY	DRY
Organophosphate pesticides	milligrams per litre	1	1	DRY	DRY	DRY
pH	pH	4	4	DRY	DRY	DRY
Polycyclic aromatic hydrocarbons	milligrams per litre	1	1	DRY	DRY	DRY
Potassium	milligrams per litre	4	4	DRY	DRY	DRY
Sodium	milligrams per litre	4	4	DRY	DRY	DRY
Standing Water Level	meters	4	4	DRY	DRY	DRY
Sulfate	milligrams per litre	4	4	DRY	DRY	DRY
Toluene	milligrams per litre	1	1	DRY	DRY	DRY
Total dissolved solids	milligrams per litre	4	4	DRY	DRY	DRY
Total organic carbon	milligrams per litre	4	4	DRY	DRY	DRY
Total petroleum hydrocarbons	milligrams per litre	1	1	DRY	DRY	DRY
Total Phenolics	milligrams per litre	1	1	DRY	DRY	DRY
Xylene	milligrams per litre	1	1	DRY	DRY	DRY
Zinc	milligrams per kilogram	1	1	DRY	DRY	DRY