

Report

28 March 2025

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From	Charlie Rolfe	Project No.	12662246
Project Name	Kimberley Supply Chain Cluster EIA - Final Approvals Documentation		
Subject	Results of preliminary contaminant survey of reclamation fill		

1. Introduction

GHD Pty Ltd (GHD) was engaged by Crestlink Pty Ltd (Crestlink) to prepare a factual report which summarises the findings of the preliminary contaminant survey of the proposed reclamation fill material, undertaken on Cockatoo Island, Western Australia on 24 February 2025 (herein referred to as 'the site').

Crestlink proposes to construct and operate the Kimberley Supply Chain Cluster (the 'Project'). The purpose of this supply base is to establish a multi-user supply chain and logistics hub comprising of an upgraded airfield, a wharf and an aftermarket subsea workshop as well as other related support infrastructure.

GHD understands that the development of a wharf to its full extent will involve a reclamation area of approximately 5.8 Hectares (Ha) of land and will require approximately 700,000 cubic metres (m³) of fill to raise the level of the platform to approximately 3 m above high tide.

It is understood that Crestlink propose to resource fill material from the island, to reclaim the intertidal area and create the wharf which is noted to be 'largely mine waste' fill. The geochemical properties of the fill material and source of the fill material with regards to original excavation is currently unknown.

Based on public comment of the Environmental Review Document (ERD) of the proposed project, Crestlink engaged GHD to undertake preliminary sampling of the proposed reclamation fill material from the island.

1.1 Objectives

The objective of the sampling was to undertake a preliminary contaminant survey of near surface samples of the proposed reclamation fill material.

As full characterisation of this material was not possible under this scope, the scope and methodology provided in Section 3 can only provide a preliminary understanding of the soil quality (from a contamination stand point) of the proposed reclamation fill material.

1.2 Scope of work

The scope of work undertaken to address the objectives includes the following:

- Preparation of a Job Safety and Environmental Assessment (JSEA)
- Collection of 16 samples by a geotechnical engineer contracted by Crestlink from the seven preliminary geotechnical assessment sites on Cockatoo Island for the potential reclamation fill material.
- Submission of samples to the primary laboratory ALS and secondary laboratory Eurofins.

- Analysis of all samples for the following Contaminants of Potential Concern (CoPC): Metals, Total Recoverable Hydrocarbons (TRH), Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN), Polycyclic Aromatic Hydrocarbons (PAH), Total Nitrogen (N) and Total Phosphorous (P), Ammonia as N, Nitrate as N and Nitrite as N, Fluoride, Chloride and Sulfate.
- Scheduling and analysis of five samples for Australia Standard Leaching Procedure (ASLP) leachate testing for lead and nickel.
- Preparation of this factual report.

1.3 Limitations

This factual report has been prepared by GHD for Crestlink. It is not prepared as, and is not represented to be, a deliverable suitable for reliance by any person for any purpose. It is not intended for circulation or incorporation into other documents. The matters discussed in this factual report are limited to those specifically detailed in the factual report and are subject to any limitations or assumptions specially set out.

The undertaken scope of services is preliminary in nature and definitive outcomes are not possible.

The scope of work was completed by others, therefore GHD is not able to comment on the suitability of personnel who completed the work.

Accessibility of documents

If this factual report is required to be accessible in any other format this can be provided by GHD upon request and at an additional cost if necessary.

2. Guidelines

The stockpiled proposed reclamation fill material was sampled with reference to the following guidelines:

- Department of Water and Environmental Regulation, Assessment and management of contaminated sites, (DWER 2021).
- National Environmental Protection Council (NEPC), *National Environment Protection (Assessment of Site Contamination) Measure 1999*, as amended in 2013 (ASC NEPM 2013).

In accordance with the ASC NEPM 2013, field personnel are required to be suitably qualified to undertake appropriate sampling.

3. Methodology

The following sections prescribe the methodology undertaken for the preliminary sampling work.

3.1 Health, safety and the environment

A site-specific JSEA was prepared prior to the commencement of fieldworks. The JSEA documented health and safety systems and procedures that applied during the term of the contract, site organisation and coordination, hazard evaluation and management, communication procedures, personal protective equipment required and emergency procedures including route to the nearest hospital.

The JSEA included daily pre-work risk assessment which were completed at the commencement of fieldworks.

3.2 Soil sampling

3.2.1 Sample placement and coordinates

All soil samples were collected by a geotechnical engineer, contracted by Crestlink.

GHD understand that there are seven preliminary geotechnical assessment sites on Cockatoo Island for the proposed reclamation fill material (See Figure 1, Attachment 1). Three samples were collected in relative proximity

to each of the geotechnical sites in effort that the preliminary contamination assessment can be linked to the geotechnical properties of potential fill material. A total of 16 samples were collected.

GHD were informed that three samples were unable to be collected from two of the preliminary geotechnical assessment sites as part of the preliminary contaminant survey due to time constraints.

The coordinates of the sample locations were recorded on Google Earth. The sample locations and coordinates are provided in Table 1 and displayed on Figure 1 (Attachment 1).

Table 1 *Sample location coordinates*

Location ID	X Coordinate	Y Coordinate
1A	565972	8220111
3A	566097	8220136
3B	566091	8220131
3C	566085	8220127
4A	566104	8220210
4B	566106	8220208
4C	566110	8220206
5A	566034	8220294
5B	566039	8220287
5C	566046	8220280
6A	565945	8220369
6B	565952	8220360
6C	565963	8220356
7A	565854	8220315
7B	565866	8220312
7C	565866	8220294

3.2.2 Sample collection

- Using a decontaminated trowel samples were collected from at least 300 mm below the stockpile surface into the laboratory supplied sample jar.
- The soil jar was filled to the top with no headspace remaining and the lid firmly secured.

3.3 Sample preservation

- Samples were placed immediately into chilled laboratory supplied eskies following collection.
- Ice and/or ice bricks were regularly changed to ensure that samples were kept chilled, before being transported to the laboratory.

3.4 Decontamination procedures

3.4.1 Trowel decontamination

The trowel was decontaminated between each sample location using the following procedure:

- Any bulk residual material was removed from the trowel (if present).
- The trowel was washed in a bucket filled with tap water and decontamination solution (Liquinox®).
- The trowel was rinsed in a second bucket filled with tap water.

3.4.2 Sample handling

- All samples were handled using disposable nitrile gloves, which were replaced between each sampling location.

3.5 QA/QC samples

One set of duplicate and triplicate samples were collected as part of the preliminary contaminant survey. The material collected was first put into a large ziplock bag and homogenised and then distributed between the primary, duplicate and triplicate sample.

One rinsate sample was collected at the end of the sampling from the trowel.

3.6 Analytical schedule

Analysis of the collected samples was in accordance with the Cockatoo Island Multi Use Supply Base Construction Environmental Management Plan (CEMP), which comprise the CoPC documented in Table 2.

The analytes within Table 2 were considered to be suitable for an initial survey, and further material characterisation (including but not limited to Acid Sulfate Soils, Acid Mine Drainage which will incorporate metalliferous drainage and dispersive potential) may be required prior to re-use.

All primary soil samples were analysed for all CoPC as documented in Table 2 and ASLP testing was undertaken on 5 of the 16 primary samples. Duplicate and triplicate quality control samples were analysed for all CoPC as per Table 2 however, ASLP testing was not undertaken on these.

Rinsate samples were analysed for all analytes as per Table 2.

Table 2 Fill analytical suite

Analyte	Limit of Reporting (LOR)
WA Waste Classification (Metals Suite)** <i>Leachate (ASLP) – lead and nickel (discretionary – approximately 10% of samples)</i>	0.1 – 50 mg/kg, 1%, 0.1 pH unit
TRH, BTEXN	0.2 – 100 mg/kg
PAH	0.5 – 5 mg/kg
Total N and Total P	1 %, 0.1 – 20 mg/kg
Ammonia as N	20 mg/kg
Nitrate as N and Nitrite as N	0.1 mg/kg
Fluoride	40 mg/kg
Chloride	10 mg/kg
Sulfate	100 mg/kg
**As, B, Ba, Be, Cd, Cr, Co, Cu, Mn, Mo, Ni, Pb, Se, V, Zn, Hg. Leachate (ASLP) – lead and nickel	
**Standard level (12 analytes)	

4. Assessment criteria

Soil analytical results were compared to the following adopted assessment criteria:

- National Environment Protection Measure (NEPM) 2013 Ecological Screening Levels:
 - Areas of Ecological Significance
 - Commercial/Industrial
- NEPM 2013 Ecological Investigation Levels:
 - Areas of Ecological Significance, coarse soil

- Commercial/Industrial, coarse soil
- Australian and New Zealand Environment and Conservation Council (ANZECC) 2000 Interim sediment quality guideline (ISQG):
 - High
 - Low
- National Assessment Guidelines for Dredging 2009 (Commonwealth of Australia 2009)

5. Results

5.1 Analytical results

Results have been tabulated and are provided in Attachment 2 and laboratory documentation is provided in Attachment 3.

All soil and leachate analytical results were reported below the adopted assessment criteria, except for those in Table 3.

Table 3 Soil exceedances of the adopted assessment criteria

Analyte	Laboratory Report number	Concentration	Guideline(s) exceeded
Chromium (III + VI)	1193218	97 mg/kg	National Assessment Guidelines for Dredging 2009 Screening Level and ANZECC 2000 ISQG -Low of 80 mg/kg
Nickel		6.0 mg/kg	NEPM 2013 EIL Areas of Ecological Significance of 5 mg/kg

5.2 QA/QC

A Quality Assurance/Quality Control (QA/QC) assessment has been included as Attachment 4.

Based on the results of the evaluation of the QA/QC data, the reported QA/QC non-compliances are not considered to significantly influence the reliability of the analytical data. It is further considered that:

- The field and laboratory quality assurance measures implemented are considered to provide a reasonable level of confidence that the data collected and reported is appropriately complete, comparable and representative.
- The field and laboratory quality control measures implemented are considered to provide a reasonable level of confidence that the data collected and reported is appropriately accurate and precise.

Systematic errors have not been identified. Whilst there are QA/QC outliers when considering the dataset as a whole the outliers do not impact the outcome of the assessment.

The overall review of the QA/QC results indicates that the data collected for the investigation is considered to be of acceptable quality upon which to provide an adequate and reliable assessment of the property.

6. Conclusions

The preliminary and indicative survey of potential reclamation material for the wharf development of the Project found that only chromium and nickel were reported above the adopted assessment criteria.

This preliminary and indicative survey does not provide definitive outcomes because of the limited nature of the scope of works and uncertainty regarding the reclamation fill material source site.

A Sampling Analysis and Quality Plan (SAQP) will be developed and implemented as committed to in the CEMP to ensure that the reclamation material and management complies with regulatory requirements.

Project name		Kimberley Supply Chain Cluster EIA - Final Approvals Documentation					
Document title		Report Results of preliminary contaminant survey of reclamation fill					
Project number		12662246					
File name		12662246-SREP-2025-Cockatoo Island Stockpile Sampling.docx					
Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S4	1	C Rolfe	Peter Zafiropoulos		J. Romero		28-03-25

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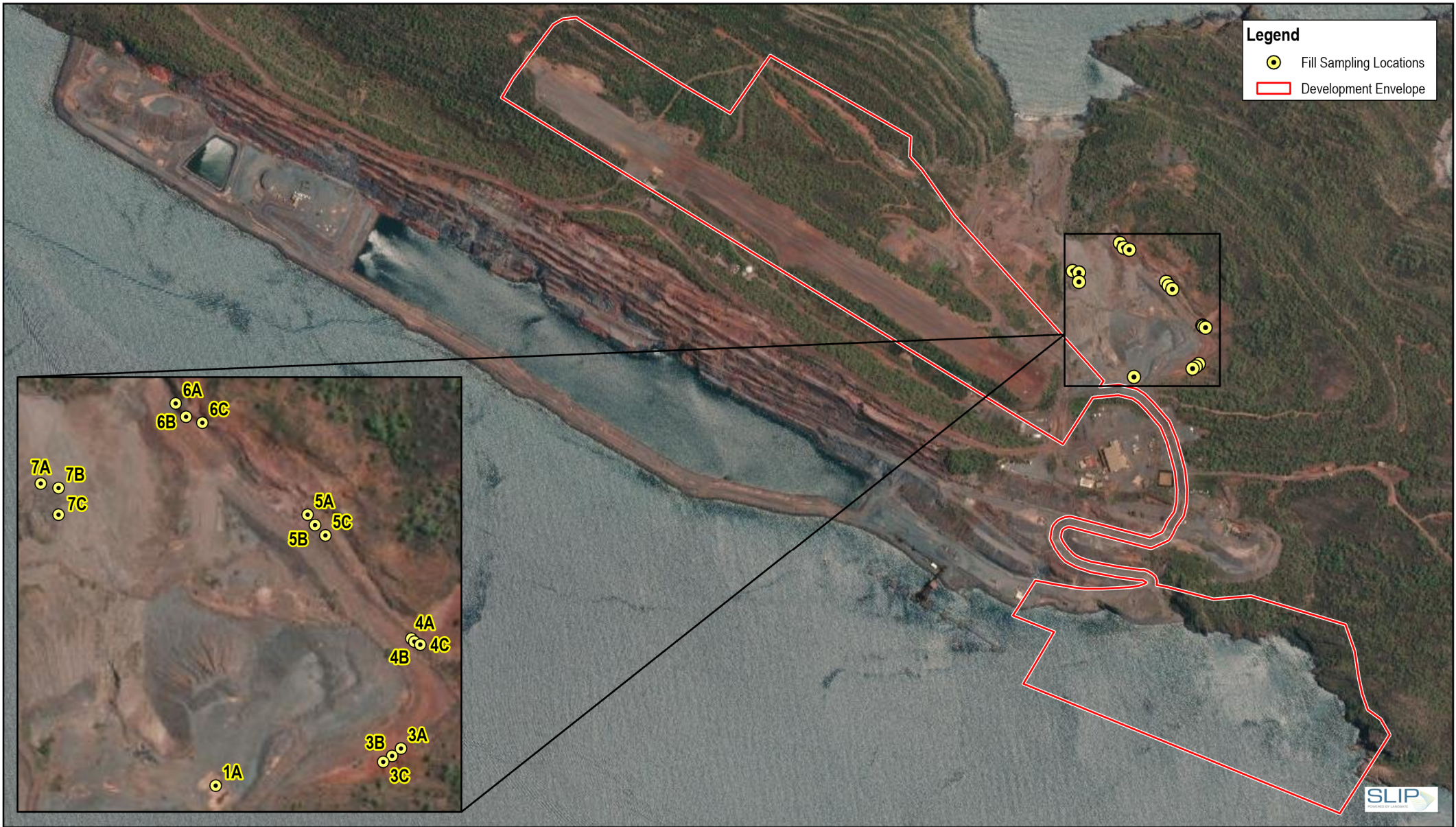
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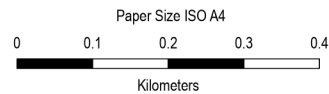
Attachments

Attachment 1

Figures



DRAFT



Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 51



Crestlink Pty Ltd
Kimberley Supply Chain Cluster
EIA - Final Approvals Documentation

Project No. **12662246**
Revision No. **A**
Date **17/03/2025**

Fill Sampling Locations

FIGURE 1

Attachment 2

Results tables



										Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
										Location Code	1A	3A	3B	3C
										Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
										Field ID	1A	3A	3B	3C
										Sample Type	Normal	Normal	Normal	Normal
										Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
			ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil					
	Unit	EQL												
Leach Preparation														
pH of Leaching Fluid	pH units	0.1								-	5.0	-	-	
pH (Initial)	pH units	0.1								-	5.6	-	-	
pH (after HCL)	pH units	0.1								-	1.1	-	-	
pH (Final)	pH units	0.1								-	5.1	-	-	
Inorganics														
Moisture (%)	%	1								5.4	17.8	14.8	14.8	
pH (Lab)	pH units	0.1								9.2	5.5	4.5	5.7	
Major Ions														
Chloride	mg/kg	10								<10	<10	<10	<10	
Sulfate (filtered)	mg/kg	10								20	20	10	10	
Fluoride	mg/kg	40								110	380	90	270	
Nutrients														
Ammonia as N	mg/kg	20								<20	<20	<20	<20	
Nitrate (as N)	mg/kg	0.1								0.1	0.1	0.4	0.2	
Nitrite (as N)	mg/kg	0.1								<0.1	<0.1	<0.1	<0.1	
Nitrogen (Total Oxidised) (as N)	mg/kg	0.1								0.1	0.1	0.4	0.2	
Nitrogen (Total)	mg/kg	20								<20	90	50	120	
Kjeldahl Nitrogen Total	mg/kg	20								<20	90	50	120	
Phosphorus (Total)	mg/kg	2								78	74	59	97	
Metals														
Aluminium	mg/kg	50								630	6,410	3,550	9,780	
Arsenic	mg/kg	5	70	20	20	40	160			<5	<5	<5	<5	
Barium	mg/kg	10								<10	<10	<10	<10	
Beryllium	mg/kg	1								<1	<1	<1	<1	
Boron	mg/kg	50								<50	<50	<50	<50	
Cadmium	mg/kg	0.1	10	1.5	1.5					<0.1	<0.1	<0.1	<0.1	
Chromium (hexavalent)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Cobalt	mg/kg	2								<2	<2	<2	<2	
Copper	mg/kg	5	270	65	65	20	85			<5	<5	<5	<5	
Lead	mg/kg	0.1	220	50	50	470	1,800			1.3	9.7	5.0	8.3	
Lead (filtered)	mg/L	0.1								-	<0.1	-	-	
Manganese	mg/kg	5								24	14	7	23	
Mercury	mg/kg	0.1	1	0.15	0.15					<0.1	<0.1	<0.1	<0.1	
Molybdenum	mg/kg	2								<2	<2	<2	<2	
Nickel	mg/kg	2	52	21	21	5	55			<2	<2	<2	<2	
Nickel (filtered)	mg/L	0.1								-	<0.1	-	-	
Selenium	mg/kg	1								<1	<1	<1	<1	
Silver	mg/kg	2	3.7	1	1					<2	<2	<2	<2	
Vanadium	mg/kg	5								<5	79	38	71	
Zinc	mg/kg	5	410	200	200	15	110			<5	<5	<5	<5	



									Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
									Location Code	1A	3A	3B	3C
									Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
									Field ID	1A	3A	3B	3C
									Sample Type	Normal	Normal	Normal	Normal
									Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
			ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil				
	Unit	EQL											
BTEXN													
Naphthalene (value used in F2 calc)	mg/kg	1								<1	<1	<1	<1
Benzene	mg/kg	0.2						10	75	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5						10	135	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5						1.5	165	<0.5	<0.5	<0.5	<0.5
Xylene (o)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5
Xylene Total	mg/kg	0.5						10	180	<0.5	<0.5	<0.5	<0.5
BTEX (Sum of Total) - Lab Calc	mg/kg	0.2								<0.2	<0.2	<0.2	<0.2
TRH - NEPM 2013													
F1 (C6-C10 minus BTEX)	mg/kg	10						125	215	<10	<10	<10	<10
C6-C10 Fraction	mg/kg	10								<10	<10	<10	<10
F2 (>C10-C16 minus Naphthalene)	mg/kg	50						25		<50	<50	<50	<50
>C10-C16 Fraction	mg/kg	50						25	170	<50	<50	<50	<50
F3 (>C16-C34 Fraction)	mg/kg	100							1,700	<100	<100	<100	<100
F4 (>C34-C40 Fraction)	mg/kg	100							3,300	<100	<100	<100	<100
>C10-C40 (Sum of Total)	mg/kg	50								<50	<50	<50	<50
TRH - NEPM 1999													
C6-C9 Fraction	mg/kg	10			550					<10	<10	<10	<10
C10-C14 Fraction	mg/kg	50			550					<50	<50	<50	<50
C15-C28 Fraction	mg/kg	100			550					<100	<100	<100	<100
C29-C36 Fraction	mg/kg	100			550					<100	<100	<100	<100
C10-C36 (Sum of Total)	mg/kg	50			550					<50	<50	<50	<50
PAHs - standard 16													
Acenaphthene	mg/kg	0.5	0.5	0.016						<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5	0.64	0.044						<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5	1.1	0.085						<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5	1.6	0.261						<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5	1.6	0.43				0.7	1.4	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5		0.384						<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5	0.26	0.063						<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5	5.1	0.6						<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5	0.54	0.019						<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5	2.1	0.16		10	370			<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5	1.5	0.24						<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5	2.6	0.665						<0.5	<0.5	<0.5	<0.5
PAHs (Sum of total) - Lab calc	mg/kg	0.5	45	4	10					<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5								0.6	0.6	0.6	0.6
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5								1.2	1.2	1.2	1.2



										Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
										Location Code	4A	4B	4C	5A
										Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
										Field ID	4A	4B	4C	5A
										Sample Type	Normal	Normal	Normal	Normal
										Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
			ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil					
	Unit	EQL												
Leach Preparation														
pH of Leaching Fluid	pH units	0.1								5.0	-	5.0	5.0	
pH (Initial)	pH units	0.1								5.6	-	6.3	5.4	
pH (after HCL)	pH units	0.1								1.1	-	1.1	1.2	
pH (Final)	pH units	0.1								5.1	-	5.1	5.1	
Inorganics														
Moisture (%)	%	1								15.3	11.0	10.0	11.7	
pH (Lab)	pH units	0.1								5.6	6.3	6.3	5.2	
Major Ions														
Chloride	mg/kg	10								<10	<10	<10	<10	
Sulfate (filtered)	mg/kg	10								40	<10	<10	10	
Fluoride	mg/kg	40								170	70	80	80	
Nutrients														
Ammonia as N	mg/kg	20								<20	<20	<20	<20	
Nitrate (as N)	mg/kg	0.1								0.1	0.2	0.3	0.1	
Nitrite (as N)	mg/kg	0.1								<0.1	<0.1	<0.1	<0.1	
Nitrogen (Total Oxidised) (as N)	mg/kg	0.1								0.1	0.2	0.3	0.1	
Nitrogen (Total)	mg/kg	20								100	100	140	<20	
Kjeldahl Nitrogen Total	mg/kg	20								100	100	140	<20	
Phosphorus (Total)	mg/kg	2								95	88	85	239	
Metals														
Aluminium	mg/kg	50								6,240	5,430	4,810	1,180	
Arsenic	mg/kg	5	70	20	20	40	160			<5	<5	<5	<5	
Barium	mg/kg	10								<10	<10	<10	<10	
Beryllium	mg/kg	1								<1	<1	<1	<1	
Boron	mg/kg	50								<50	<50	<50	<50	
Cadmium	mg/kg	0.1	10	1.5	1.5					<0.1	<0.1	<0.1	<0.1	
Chromium (hexavalent)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Cobalt	mg/kg	2								<2	<2	<2	<2	
Copper	mg/kg	5	270	65	65	20	85			<5	<5	<5	<5	
Lead	mg/kg	0.1	220	50	50	470	1,800			8.0	6.6	5.5	4.6	
Lead (filtered)	mg/L	0.1								<0.1	-	<0.1	<0.1	
Manganese	mg/kg	5								21	17	17	54	
Mercury	mg/kg	0.1	1	0.15	0.15					<0.1	<0.1	<0.1	<0.1	
Molybdenum	mg/kg	2								<2	<2	<2	<2	
Nickel	mg/kg	2	52	21	21	5	55			<2	<2	<2	<2	
Nickel (filtered)	mg/L	0.1								<0.1	-	<0.1	<0.1	
Selenium	mg/kg	1								<1	<1	<1	<1	
Silver	mg/kg	2	3.7	1	1					<2	<2	<2	<2	
Vanadium	mg/kg	5								59	55	39	18	
Zinc	mg/kg	5	410	200	200	15	110			<5	<5	<5	<5	



										Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
										Location Code	4A	4B	4C	5A
										Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
										Field ID	4A	4B	4C	5A
										Sample Type	Normal	Normal	Normal	Normal
										Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
	Unit	EQL	ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil					
BTEXN														
Naphthalene (value used in F2 calc)	mg/kg	1								<1	<1	<1	<1	
Benzene	mg/kg	0.2						10	75	<0.2	<0.2	<0.2	<0.2	
Toluene	mg/kg	0.5						10	135	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	mg/kg	0.5						1.5	165	<0.5	<0.5	<0.5	<0.5	
Xylene (o)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Xylene (m & p)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Xylene Total	mg/kg	0.5						10	180	<0.5	<0.5	<0.5	<0.5	
BTEX (Sum of Total) - Lab Calc	mg/kg	0.2								<0.2	<0.2	<0.2	<0.2	
TRH - NEPM 2013														
F1 (C6-C10 minus BTEX)	mg/kg	10						125	215	<10	<10	<10	<10	
C6-C10 Fraction	mg/kg	10								<10	<10	<10	<10	
F2 (>C10-C16 minus Naphthalene)	mg/kg	50						25		<50	<50	<50	<50	
>C10-C16 Fraction	mg/kg	50						25	170	<50	<50	<50	<50	
F3 (>C16-C34 Fraction)	mg/kg	100							1,700	<100	<100	<100	<100	
F4 (>C34-C40 Fraction)	mg/kg	100							3,300	<100	<100	<100	<100	
>C10-C40 (Sum of Total)	mg/kg	50								<50	<50	<50	<50	
TRH - NEPM 1999														
C6-C9 Fraction	mg/kg	10			550					<10	<10	<10	<10	
C10-C14 Fraction	mg/kg	50			550					<50	<50	<50	<50	
C15-C28 Fraction	mg/kg	100			550					<100	<100	<100	<100	
C29-C36 Fraction	mg/kg	100			550					<100	<100	<100	<100	
C10-C36 (Sum of Total)	mg/kg	50			550					<50	<50	<50	<50	
PAHs - standard 16														
Acenaphthene	mg/kg	0.5	0.5	0.016						<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	mg/kg	0.5	0.64	0.044						<0.5	<0.5	<0.5	<0.5	
Anthracene	mg/kg	0.5	1.1	0.085						<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	mg/kg	0.5	1.6	0.261						<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	mg/kg	0.5	1.6	0.43				0.7	1.4	<0.5	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Benzo(g,h,i)perylene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Chrysene	mg/kg	0.5	2.8	0.384						<0.5	<0.5	<0.5	<0.5	
Dibenz(a,h)anthracene	mg/kg	0.5	0.26	0.063						<0.5	<0.5	<0.5	<0.5	
Fluoranthene	mg/kg	0.5	5.1	0.6						<0.5	<0.5	<0.5	<0.5	
Fluorene	mg/kg	0.5	0.54	0.019						<0.5	<0.5	<0.5	<0.5	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Naphthalene	mg/kg	0.5	2.1	0.16		10	370			<0.5	<0.5	<0.5	<0.5	
Phenanthrene	mg/kg	0.5	1.5	0.24						<0.5	<0.5	<0.5	<0.5	
Pyrene	mg/kg	0.5	2.6	0.665						<0.5	<0.5	<0.5	<0.5	
PAHs (Sum of total) - Lab calc	mg/kg	0.5	45	4	10					<0.5	<0.5	<0.5	<0.5	
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5								0.6	0.6	0.6	0.6	
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5								1.2	1.2	1.2	1.2	



										Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
										Location Code	5B	5C	6A	6B
										Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
										Field ID	5B	5C	6A	6B
										Sample Type	Normal	Normal	Normal	Normal
										Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
			ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus- trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil					
	Unit	EQL												
Leach Preparation														
pH of Leaching Fluid	pH units	0.1								-	-	-	-	
pH (Initial)	pH units	0.1								-	-	-	-	
pH (after HCL)	pH units	0.1								-	-	-	-	
pH (Final)	pH units	0.1								-	-	-	-	
Inorganics														
Moisture (%)	%	1								16.9	13.8	9.2	9.9	
pH (Lab)	pH units	0.1								5.2	5.2	7.9	6.8	
Major Ions														
Chloride	mg/kg	10								<10	<10	<10	<10	
Sulfate (filtered)	mg/kg	10								20	<10	<10	10	
Fluoride	mg/kg	40								120	740	200	80	
Nutrients														
Ammonia as N	mg/kg	20								<20	<20	<20	<20	
Nitrate (as N)	mg/kg	0.1								<0.1	0.1	<0.1	0.1	
Nitrite (as N)	mg/kg	0.1								<0.1	<0.1	<0.1	<0.1	
Nitrogen (Total Oxidised) (as N)	mg/kg	0.1								<0.1	0.1	<0.1	0.1	
Nitrogen (Total)	mg/kg	20								<20	<20	20	40	
Kjeldahl Nitrogen Total	mg/kg	20								<20	<20	20	40	
Phosphorus (Total)	mg/kg	2								227	226	138	125	
Metals														
Aluminium	mg/kg	50								2,020	1,120	1,610	2,120	
Arsenic	mg/kg	5	70	20	20	40	160			<5	<5	<5	<5	
Barium	mg/kg	10								<10	<10	<10	<10	
Beryllium	mg/kg	1								<1	<1	<1	<1	
Boron	mg/kg	50								<50	<50	<50	<50	
Cadmium	mg/kg	0.1	10	1.5	1.5					<0.1	<0.1	<0.1	<0.1	
Chromium (hexavalent)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Cobalt	mg/kg	2								<2	<2	<2	<2	
Copper	mg/kg	5	270	65	65	20	85			<5	<5	<5	<5	
Lead	mg/kg	0.1	220	50	50	470	1,800			2.1	1.1	12.2	10.6	
Lead (filtered)	mg/L	0.1								-	-	-	-	
Manganese	mg/kg	5								23	28	46	27	
Mercury	mg/kg	0.1	1	0.15	0.15					<0.1	<0.1	<0.1	<0.1	
Molybdenum	mg/kg	2								<2	<2	<2	<2	
Nickel	mg/kg	2	52	21	21	5	55			<2	<2	<2	<2	
Nickel (filtered)	mg/L	0.1								-	-	-	-	
Selenium	mg/kg	1								<1	<1	<1	<1	
Silver	mg/kg	2	3.7	1	1					<2	<2	<2	<2	
Vanadium	mg/kg	5								37	22	22	27	
Zinc	mg/kg	5	410	200	200	15	110			<5	<5	<5	<5	



										Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
										Location Code	5B	5C	6A	6B
										Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
										Field ID	5B	5C	6A	6B
										Sample Type	Normal	Normal	Normal	Normal
										Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
			ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil					
	Unit	EQL												
BTEXN														
Naphthalene (value used in F2 calc)	mg/kg	1								<1	<1	<1	<1	
Benzene	mg/kg	0.2						10	75	<0.2	<0.2	<0.2	<0.2	
Toluene	mg/kg	0.5						10	135	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	mg/kg	0.5						1.5	165	<0.5	<0.5	<0.5	<0.5	
Xylene (o)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Xylene (m & p)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Xylene Total	mg/kg	0.5						10	180	<0.5	<0.5	<0.5	<0.5	
BTEX (Sum of Total) - Lab Calc	mg/kg	0.2								<0.2	<0.2	<0.2	<0.2	
TRH - NEPM 2013														
F1 (C6-C10 minus BTEX)	mg/kg	10						125	215	<10	<10	<10	<10	
C6-C10 Fraction	mg/kg	10								<10	<10	<10	<10	
F2 (>C10-C16 minus Naphthalene)	mg/kg	50						25		<50	<50	<50	<50	
>C10-C16 Fraction	mg/kg	50						25	170	<50	<50	<50	<50	
F3 (>C16-C34 Fraction)	mg/kg	100							1,700	<100	<100	<100	<100	
F4 (>C34-C40 Fraction)	mg/kg	100							3,300	<100	<100	<100	<100	
>C10-C40 (Sum of Total)	mg/kg	50								<50	<50	<50	<50	
TRH - NEPM 1999														
C6-C9 Fraction	mg/kg	10			550					<10	<10	<10	<10	
C10-C14 Fraction	mg/kg	50			550					<50	<50	<50	<50	
C15-C28 Fraction	mg/kg	100			550					<100	<100	<100	<100	
C29-C36 Fraction	mg/kg	100			550					<100	<100	<100	<100	
C10-C36 (Sum of Total)	mg/kg	50			550					<50	<50	<50	<50	
PAHs - standard 16														
Acenaphthene	mg/kg	0.5	0.5	0.016						<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	mg/kg	0.5	0.64	0.044						<0.5	<0.5	<0.5	<0.5	
Anthracene	mg/kg	0.5	1.1	0.085						<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	mg/kg	0.5	1.6	0.261						<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	mg/kg	0.5	1.6	0.43				0.7	1.4	<0.5	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Benzo(g,h,i)perylene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Chrysene	mg/kg	0.5	2.8	0.384						<0.5	<0.5	<0.5	<0.5	
Dibenz(a,h)anthracene	mg/kg	0.5	0.26	0.063						<0.5	<0.5	<0.5	<0.5	
Fluoranthene	mg/kg	0.5	5.1	0.6						<0.5	<0.5	<0.5	<0.5	
Fluorene	mg/kg	0.5	0.54	0.019						<0.5	<0.5	<0.5	<0.5	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Naphthalene	mg/kg	0.5	2.1	0.16		10	370			<0.5	<0.5	<0.5	<0.5	
Phenanthrene	mg/kg	0.5	1.5	0.24						<0.5	<0.5	<0.5	<0.5	
Pyrene	mg/kg	0.5	2.6	0.665						<0.5	<0.5	<0.5	<0.5	
PAHs (Sum of total) - Lab calc	mg/kg	0.5	45	4	10					<0.5	<0.5	<0.5	<0.5	
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5								0.6	0.6	0.6	0.6	
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5								1.2	1.2	1.2	1.2	



										Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
										Location Code	6C	7A	7B	7C
										Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
										Field ID	6C	7A	7B	7C
										Sample Type	Normal	Normal	Normal	Normal
										Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
			ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus- trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil					
	Unit	EQL												
Leach Preparation														
pH of Leaching Fluid	pH units	0.1								5.0	-	-	-	
pH (Initial)	pH units	0.1								6.1	-	-	-	
pH (after HCL)	pH units	0.1								1.1	-	-	-	
pH (Final)	pH units	0.1								5.1	-	-	-	
Inorganics														
Moisture (%)	%	1								10.5	7.8	8.2	9.2	
pH (Lab)	pH units	0.1								5.8	9.4	9.5	9.2	
Major Ions														
Chloride	mg/kg	10								<10	410	40	<10	
Sulfate (filtered)	mg/kg	10								10	30	10	90	
Fluoride	mg/kg	40								120	120	90	610	
Nutrients														
Ammonia as N	mg/kg	20								<20	<20	<20	<20	
Nitrate (as N)	mg/kg	0.1								0.1	1.4	0.2	0.1	
Nitrite (as N)	mg/kg	0.1								<0.1	<0.1	<0.1	<0.1	
Nitrogen (Total Oxidised) (as N)	mg/kg	0.1								0.1	1.4	0.2	0.1	
Nitrogen (Total)	mg/kg	20								40	<20	<20	80	
Kjeldahl Nitrogen Total	mg/kg	20								40	<20	<20	80	
Phosphorus (Total)	mg/kg	2								311	105	87	178	
Metals														
Aluminium	mg/kg	50								2,050	1,040	920	3,670	
Arsenic	mg/kg	5	70	20	20	40	160			<5	<5	<5	5	
Barium	mg/kg	10								<10	<10	<10	<10	
Beryllium	mg/kg	1								<1	<1	<1	<1	
Boron	mg/kg	50								<50	<50	<50	<50	
Cadmium	mg/kg	0.1	10	1.5	1.5					<0.1	<0.1	<0.1	<0.1	
Chromium (hexavalent)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	
Cobalt	mg/kg	2								<2	<2	<2	2	
Copper	mg/kg	5	270	65	65	20	85			<5	<5	<5	<5	
Lead	mg/kg	0.1	220	50	50	470	1,800			13.9	1.1	1.2	3.8	
Lead (filtered)	mg/L	0.1								<0.1	-	-	-	
Manganese	mg/kg	5								36	42	27	64	
Mercury	mg/kg	0.1	1	0.15	0.15					<0.1	<0.1	<0.1	<0.1	
Molybdenum	mg/kg	2								<2	<2	<2	<2	
Nickel	mg/kg	2	52	21	21	5	55			<2	<2	<2	3	
Nickel (filtered)	mg/L	0.1								<0.1	-	-	-	
Selenium	mg/kg	1								<1	<1	<1	<1	
Silver	mg/kg	2	3.7	1	1					<2	<2	<2	<2	
Vanadium	mg/kg	5								30	5	5	10	
Zinc	mg/kg	5	410	200	200	15	110			<5	<5	<5	5	



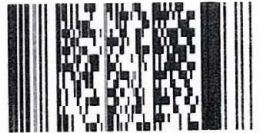
										Site ID	Cockatoo Island	Cockatoo Island	Cockatoo Island	Cockatoo Island
										Location Code	6C	7A	7B	7C
										Date	24 Feb 2025	24 Feb 2025	24 Feb 2025	24 Feb 2025
										Field ID	6C	7A	7B	7C
										Sample Type	Normal	Normal	Normal	Normal
										Lab Report Number	EP2503279	EP2503279	EP2503279	EP2503279
	Unit	EQL	ANZECC 2000 ISQG -High	ANZECC 2000 ISQG -Low	National Assessment Guidelines for Dredging 2009	NEPM 2013 EIL- Areas of Ecological Significance >=0m, <2m	NEPM 2013 EIL- Commercial/Indus trial >=0m, <2m	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil >=0m,	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil					
BTEXN														
Naphthalene (value used in F2 calc)	mg/kg	1								<1	<1	<1	<1	<1
Benzene	mg/kg	0.2						10	75	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5						10	135	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5						1.5	165	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	mg/kg	0.5						10	180	<0.5	<0.5	<0.5	<0.5	<0.5
BTEX (Sum of Total) - Lab Calc	mg/kg	0.2								<0.2	<0.2	<0.2	<0.2	<0.2
TRH - NEPM 2013														
F1 (C6-C10 minus BTEX)	mg/kg	10						125	215	<10	<10	<10	<10	<10
C6-C10 Fraction	mg/kg	10								<10	<10	<10	<10	<10
F2 (>C10-C16 minus Naphthalene)	mg/kg	50						25		<50	<50	<50	<50	<50
>C10-C16 Fraction	mg/kg	50						25	170	<50	<50	<50	<50	<50
F3 (>C16-C34 Fraction)	mg/kg	100							1,700	<100	<100	<100	<100	<100
F4 (>C34-C40 Fraction)	mg/kg	100							3,300	<100	<100	<100	<100	<100
>C10-C40 (Sum of Total)	mg/kg	50								<50	<50	<50	<50	<50
TRH - NEPM 1999														
C6-C9 Fraction	mg/kg	10			550					<10	<10	<10	<10	<10
C10-C14 Fraction	mg/kg	50			550					<50	<50	<50	<50	<50
C15-C28 Fraction	mg/kg	100			550					<100	<100	<100	<100	<100
C29-C36 Fraction	mg/kg	100			550					<100	<100	<100	<100	<100
C10-C36 (Sum of Total)	mg/kg	50			550					<50	<50	<50	<50	<50
PAHs - standard 16														
Acenaphthene	mg/kg	0.5	0.5	0.016						<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5	0.64	0.044						<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5	1.1	0.085						<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5	1.6	0.261						<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5	1.6	0.43				0.7	1.4	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5	2.8	0.384						<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5	0.26	0.063						<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5	5.1	0.6						<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5	0.54	0.019						<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5	2.1	0.16		10	370			<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5	1.5	0.24						<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5	2.6	0.665						<0.5	<0.5	<0.5	<0.5	<0.5
PAHs (Sum of total) - Lab calc	mg/kg	0.5	45	4	10					<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5								<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5								0.6	0.6	0.6	0.6	0.6
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5								1.2	1.2	1.2	1.2	1.2

Attachment 3

Laboratory documentation

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST				 GHD Level 10, 999 Hay Street Perth WA 6000		PO Box 3106 Perth WA 6832 Reception Ph: 08 6222 8222		Page 1 of 1																			
Project ID 12662246		PO Number (to be invoiced) 12662246		Laboratory: ALS Environmental																							
				Address: 26 Rigali Way, Wangara WA 6065																							
Laboratory Quote No. EP25GHDSER0009		Turnaround Time Standard		Laboratory Contact:																							
Project Manager (Invoice) & GHD accounts Invoice to : AccountsPayableAU@ghd.com		Email Address (Results) GHD.LabReports@ghd.com Charlie.Rolfe@ghd.com Jose.Romero@ghd.com Tristan.Sleigh@ghd.com																									
GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix: Soil / Sludge / Water / Air	Container Type: Bottle / Jar / W-Vial / Bag / Glass / P-Plastic	Preservative Unpreserved / HCl / H2SO4 / HNO3 / Other	No	Sulfate as SO4 2- (ED0405)	Chloride (ED045C) (solids)	Fluoride (EK040T-P)	1:5 Leach (EN34)	NH3, NO2, NO3, NOX, TKN, TN, TP (NT-85)	WA Waste Classification (P-19/2)	TRH/BTEXN/PAH (S-07)	Leachable Metals by ICPAES: Ni, Pb (EG005C)	ASIP Leachate Procedure - Glass Leaching Vessel (EN60a-G)	TRH(C6-C9)/BTEXN (S-18)	Sulfate (ED041G Sulfate as S)	Chloride (ED045C)	Fluoride (EK040-P)	Total Nitrogen + NO2 + NO3 + NH3 + Total P (NT-08)	15 Metals (Total) (NEPM) (W-03T)	Al, Ag, Mo (EG020T)	Total Hexavalent Chromium (EG050G-T)	TRH/BTEXN/PAH (W-07)	HOLD	Remarks
7A	1	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
7B	2	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
7C	3	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
6A	4	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
6B	5	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
6C	6	24/02/25		Soil	Jar	No		X	X	X	X	X	X	X	X	X											
5A	7	24/02/25		Soil	Jar	No		X	X	X	X	X	X	X	X	X											
5B	8	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
5C	9	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
4A	10	24/02/25		Soil	Jar	No		X	X	X		X	X	X	X	X											
4B	11	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
4C	12	24/02/25		Soil	Jar	No		X	X	X	X	X	X	X	X	X											
3A	13	24/02/25		Soil	Jar	No		X	X	X	X	X	X	X	X	X											
3B	14	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
3C	15	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
1A	16	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
QC01	17	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
QC03	18	24/02/25		Soil	Jar	No		X	X	X		X	X	X													
RB01	19	24/02/25		Soil	Jar	No												X	X	X	X	X	X	X	X	X	
Sampled by: RM				Date/Time: 24/02/2025				Relinquished by: Charlie Rolfe								Date/Time: 27 /02/2025 15:00											
Received by: <i>20</i>				Date/Time: <i>5/3</i>				Relinquished by:								Date/Time:											

Environmental Division
Perth
Work Order Reference
EP2503279



Telephone -- 61-8-9406 1301

11a~



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2503279**

Client	: GHD PTY LTD	Laboratory	: Environmental Division Perth
Contact	: Charlie Rolfe	Contact	: Angel Tam
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: charlie.rolfe@ghd.com	E-mail	: angel.tam@alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: 12662246	Page	: 1 of 5
Order number	: 12662246	Quote number	: EP2025GHDSE0009 (EP25GHDSE0009)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: RM		

Dates

Date Samples Received	: 05-Mar-2025 11:00	Issue Date	: 06-Mar-2025
Client Requested Due Date	: 14-Mar-2025	Scheduled Reporting Date	: 14-Mar-2025

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 19.8 - Ice Bricks present
Receipt Detail	:	No. of samples received / analysed	: 19 / 19

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 - Requested Deliverables
- Please see scanned COC for sample discrepancies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

Method Sample ID	Sample Container Received	Preferred Sample Container for Analysis
Hexavalent Chromium by Discrete Analyser - Total : EG050G-T		
RB01	- Black Opaque Plastic Bottle - NaOH	- Clear Plastic Bottle - NaOH

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - ED040S Soluble Major Anions	SOIL - ED045G (solids) Chloride Soluble by Discrete Analyser	SOIL - EK040T-P Total Fluoride by Auto Analyzer	SOIL - NT-8S NH ₃ , NO ₂ , NO ₃ , NOX, TKN, TN, TP	SOIL - P-19/2 WA Waste Classification (Metals Suite)	SOIL - S-07 TRH/BTEX/PAH (SIM)
EP2503279-001	24-Feb-2025 00:00	7A	✓	✓	✓	✓	✓	✓	✓
EP2503279-002	24-Feb-2025 00:00	7B	✓	✓	✓	✓	✓	✓	✓
EP2503279-003	24-Feb-2025 00:00	7C	✓	✓	✓	✓	✓	✓	✓
EP2503279-004	24-Feb-2025 00:00	6A	✓	✓	✓	✓	✓	✓	✓
EP2503279-005	24-Feb-2025 00:00	6B	✓	✓	✓	✓	✓	✓	✓
EP2503279-006	24-Feb-2025 00:00	6C	✓	✓	✓	✓	✓	✓	✓
EP2503279-007	24-Feb-2025 00:00	5A	✓	✓	✓	✓	✓	✓	✓
EP2503279-008	24-Feb-2025 00:00	5B	✓	✓	✓	✓	✓	✓	✓
EP2503279-009	24-Feb-2025 00:00	5C	✓	✓	✓	✓	✓	✓	✓
EP2503279-010	24-Feb-2025 00:00	4A	✓	✓	✓	✓	✓	✓	✓
EP2503279-011	24-Feb-2025 00:00	4B	✓	✓	✓	✓	✓	✓	✓
EP2503279-012	24-Feb-2025 00:00	4C	✓	✓	✓	✓	✓	✓	✓
EP2503279-013	24-Feb-2025 00:00	3A	✓	✓	✓	✓	✓	✓	✓
EP2503279-014	24-Feb-2025 00:00	3B	✓	✓	✓	✓	✓	✓	✓
EP2503279-015	24-Feb-2025 00:00	3C	✓	✓	✓	✓	✓	✓	✓
EP2503279-016	24-Feb-2025 00:00	1A	✓	✓	✓	✓	✓	✓	✓
EP2503279-017	24-Feb-2025 00:00	QC01	✓	✓	✓	✓	✓	✓	✓
EP2503279-018	24-Feb-2025 00:00	QC03	✓	✓	✓	✓	✓	✓	✓



Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EG005C Leachable Metals by ICPAES	SOIL - EN60a-G ASLP Leachate Procedure - Glass Leaching
EP2503279-006	24-Feb-2025 00:00	6C	✓	✓
EP2503279-007	24-Feb-2025 00:00	5A	✓	✓
EP2503279-010	24-Feb-2025 00:00	4A	✓	✓
EP2503279-012	24-Feb-2025 00:00	4C	✓	✓
EP2503279-013	24-Feb-2025 00:00	3A	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - ED045G Chloride by Discrete Analyser	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EK040-P Fluoride (Auto Titrator)	WATER - W-03T 15 Metals (Total) (NEPM)	WATER - W-07 TRH/BTEXN/PAH
EP2503279-019	24-Feb-2025 00:00	RB01	✓	✓	✓	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - ED041G Sulfate as S Sulfate (Turbidimetric) by Discrete Analyser	WATER - EG050G-T Total Hexavalent Chromium	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
EP2503279-019	24-Feb-2025 00:00	RB01	✓	✓	✓

Proactive Holding Time Report

The following table summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory.

Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.



Method		Due for extraction	Due for analysis	Samples Received		Instructions Received	
				Date	Evaluation	Date	Evaluation
Client Sample ID(s)	Container						
EA002: pH (1:5)							
1A	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
3A	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
3B	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
3C	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
4A	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
4B	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
4C	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
5A	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
5B	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
5C	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
6A	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
6B	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
6C	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
7A	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
7B	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
7C	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
QC01	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
QC03	Soil Glass Jar - Unpreserved	03-Mar-2025	03-Mar-2025	05-Mar-2025	✗	----	----
EK057G: Nitrite as N - Soluble by Discrete Analyser							
1A	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
3A	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
3B	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
3C	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
4A	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
4B	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
4C	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
5A	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
5B	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
5C	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
6A	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
6B	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
6C	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
7A	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
7B	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
7C	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
QC01	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----
QC03	Soil Glass Jar - Unpreserved	03-Mar-2025	05-Mar-2025	05-Mar-2025	✗	----	----

Matrix: **WATER**

Evaluation: ✗ = Holding time breach ; ✓ = Within holding time.

Method	Container	Due for extraction	Due for analysis	Samples Received		Instructions Received	
				Date	Evaluation	Date	Evaluation
Client Sample ID(s)							
EG050G-T: Hexavalent Chromium by Discrete Analyser - Total							
RB01	Black Opaque Plastic Bottle - Na	----	25-Feb-2025	05-Mar-2025	✗	----	----
EK057G: Nitrite as N by Discrete Analyser							
RB01	Clear Plastic Bottle - Natural	----	26-Feb-2025	05-Mar-2025	✗	----	----
EP071: TRH - Semivolatile Fraction							
RB01	Amber Glass Bottle - Unpreserve	03-Mar-2025	12-Apr-2025	05-Mar-2025	✗	----	----
EP075(SIM): PAH/Phenols (GC/MS - SIM)							
RB01	Amber Glass Bottle - Unpreserve	03-Mar-2025	12-Apr-2025	05-Mar-2025	✗	----	----



Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)

Email accountspayableAU@ghd.com

Charlie Rolfe

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- A4 - AU Tax Invoice (INV)
- AU Guideline Comparison Report (COA_GL_CR)
- Chain of Custody (CoC) (COC)
- EDI Format - ESDAT (ESDAT)
- Electronic SRN for ESdat (ESRN_ESDAT)

Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com
Email charlie.rolfe@ghd.com

JOSE ROMERO

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- AU Guideline Comparison Report (COA_GL_CR)
- Chain of Custody (CoC) (COC)
- EDI Format - ESDAT (ESDAT)
- Electronic SRN for ESdat (ESRN_ESDAT)

Email jose.romero@ghd.com
Email jose.romero@ghd.com
Email jose.romero@ghd.com
Email jose.romero@ghd.com
Email jose.romero@ghd.com
Email jose.romero@ghd.com
Email jose.romero@ghd.com
Email jose.romero@ghd.com

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- AU Guideline Comparison Report (COA_GL_CR)
- Chain of Custody (CoC) (COC)
- EDI Format - ESDAT (ESDAT)
- Electronic SRN for ESdat (ESRN_ESDAT)

Email GHD.LabReports@ghd.com
Email GHD.LabReports@ghd.com
Email GHD.LabReports@ghd.com
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Email GHD.LabReports@ghd.com
Email GHD.LabReports@ghd.com

TRISTAN SLEIGH

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- AU Guideline Comparison Report (COA_GL_CR)
- Chain of Custody (CoC) (COC)
- EDI Format - ESDAT (ESDAT)
- Electronic SRN for ESdat (ESRN_ESDAT)

Email Tristan.Sleigh@ghd.com
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Email Tristan.Sleigh@ghd.com
Email Tristan.Sleigh@ghd.com
Email Tristan.Sleigh@ghd.com
Email Tristan.Sleigh@ghd.com

Inter-Laboratory Testing

Analysis conducted by ALS Melbourne, NATA accreditation no. 825, site no. 13778 (Chemistry).

(SOIL) EK040T-P: Total Fluoride by Auto Analyser



CERTIFICATE OF ANALYSIS

Work Order : EP2503279
Client : GHD PTY LTD
Contact : Charlie Rolfe
Address : 999 HAY STREET
PERTH WA, AUSTRALIA 6000
Telephone : ----
Project : 12662246
Order number : 12662246
C-O-C number : ----
Sampler : RM
Site : ----
Quote number : EP25GHDSE0009
No. of samples received : 19
No. of samples analysed : 19

Page : 1 of 24
Laboratory : Environmental Division Perth
Contact : Angel Tam
Address : 26 Rigali Way Wangara WA Australia 6065
Telephone : +61-8-9406 1301
Date Samples Received : 05-Mar-2025 11:00
Date Analysis Commenced : 06-Mar-2025
Issue Date : 14-Mar-2025 17:33



Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
Daniel Fisher	Inorganics Analyst	Perth Inorganics, Wangara, WA
David Viner	SENIOR LAB TECH	Perth Organics, Wangara, WA
Jarvis Nheu	Non-Metals Team Leader	Melbourne Inorganics, Springvale, VIC



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- Fluoride conducted by ALS Melbourne, NATA accreditation no. 825, site no 13778
- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EG035: Poor matrix spike recovery obtained for Mercury on sample EP2503148-002 due to possible matrix interference. Results have been confirmed by re-preparation and re-analysis.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.



Analytical Results

Sub-Matrix: ACETIC ACID LEACHATE (Matrix: WATER)				Sample ID	6C	5A	4A	4C	3A
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-006	EP2503279-007	EP2503279-010	EP2503279-012	EP2503279-013
					Result	Result	Result	Result	Result
EG005(ED093)C: Leachable Metals by ICPAES									
Lead	7439-92-1	0.1	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	7440-02-0	0.1	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7A	7B	7C	6A	6B
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-001	EP2503279-002	EP2503279-003	EP2503279-004	EP2503279-005
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		9.4	9.5	9.2	7.9	6.8
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		7.8	8.2	9.2	9.2	9.9
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg		30	10	90	<10	10
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg		410	40	<10	<10	<10
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		1040	920	3670	1610	2120
Arsenic	7440-38-2	5	mg/kg		<5	<5	5	<5	<5
Barium	7440-39-3	10	mg/kg		<10	<10	<10	<10	<10
Beryllium	7440-41-7	1	mg/kg		<1	<1	<1	<1	<1
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Cobalt	7440-48-4	2	mg/kg		<2	<2	2	<2	<2
Copper	7440-50-8	5	mg/kg		<5	<5	<5	<5	<5
Manganese	7439-96-5	5	mg/kg		42	27	64	46	27
Molybdenum	7439-98-7	2	mg/kg		<2	<2	<2	<2	<2
Nickel	7440-02-0	2	mg/kg		<2	<2	3	<2	<2
Silver	7440-22-4	2	mg/kg		<2	<2	<2	<2	<2
Vanadium	7440-62-2	5	mg/kg		5	5	10	22	27
Zinc	7440-66-6	5	mg/kg		<5	<5	5	<5	<5
EG020T: Total Metals by ICP-MS									
Cadmium	7440-43-9	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
Lead	7439-92-1	0.1	mg/kg		1.1	1.2	3.8	12.2	10.6
Selenium	7782-49-2	1	mg/kg		<1	<1	<1	<1	<1
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7A	7B	7C	6A	6B
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-001	EP2503279-002	EP2503279-003	EP2503279-004	EP2503279-005
					Result	Result	Result	Result	Result
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EK040T-P: Total Fluoride by Auto Analyser									
Fluoride	16984-48-8	40	mg/kg		120	90	610	200	80
EK055: Ammonia as N									
Ammonia as N	7664-41-7	20	mg/kg		<20	<20	<20	<20	<20
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg		1.4	0.2	0.1	<0.1	0.1
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg		1.4	0.2	0.1	<0.1	0.1
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg		<20	<20	80	20	40
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg		<20	<20	80	20	40
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg		105	87	178	138	125
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				7A	7B	7C	6A	6B
Sampling date / time				24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit	EP2503279-001	EP2503279-002	EP2503279-003	EP2503279-004	EP2503279-005
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7A	7B	7C	6A	6B
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-001	EP2503279-002	EP2503279-003	EP2503279-004	EP2503279-005
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	-----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	-----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		79.3	75.7	78.2	77.2	75.4
2-Chlorophenol-D4	93951-73-6	0.5	%		79.2	75.8	77.8	76.9	75.3
2,4,6-Tribromophenol	118-79-6	0.5	%		59.6	73.2	57.0	51.4	63.0
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		78.1	74.7	76.3	73.9	73.6
Anthracene-d10	1719-06-8	0.5	%		106	100	110	115	119
4-Terphenyl-d14	1718-51-0	0.5	%		118	114	123	130	109
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		87.8	72.6	78.1	75.6	76.7
Toluene-D8	2037-26-5	0.2	%		72.4	67.4	73.5	70.6	72.6
4-Bromofluorobenzene	460-00-4	0.2	%		88.0	84.0	83.6	84.5	83.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	6C	5A	5B	5C	4A
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-006	EP2503279-007	EP2503279-008	EP2503279-009	EP2503279-010
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		5.8	5.2	5.2	5.2	5.6
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		10.5	11.7	16.9	13.8	15.3
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg		10	10	20	<10	40
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg		<10	<10	<10	<10	<10
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		2050	1180	2020	1120	6240
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5
Barium	7440-39-3	10	mg/kg		<10	<10	<10	<10	<10
Beryllium	7440-41-7	1	mg/kg		<1	<1	<1	<1	<1
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Cobalt	7440-48-4	2	mg/kg		<2	<2	<2	<2	<2
Copper	7440-50-8	5	mg/kg		<5	<5	<5	<5	<5
Manganese	7439-96-5	5	mg/kg		36	54	23	28	21
Molybdenum	7439-98-7	2	mg/kg		<2	<2	<2	<2	<2
Nickel	7440-02-0	2	mg/kg		<2	<2	<2	<2	<2
Silver	7440-22-4	2	mg/kg		<2	<2	<2	<2	<2
Vanadium	7440-62-2	5	mg/kg		30	18	37	22	59
Zinc	7440-66-6	5	mg/kg		<5	<5	<5	<5	<5
EG020T: Total Metals by ICP-MS									
Cadmium	7440-43-9	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
Lead	7439-92-1	0.1	mg/kg		13.9	4.6	2.1	1.1	8.0
Selenium	7782-49-2	1	mg/kg		<1	<1	<1	<1	<1
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	6C	5A	5B	5C	4A
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-006	EP2503279-007	EP2503279-008	EP2503279-009	EP2503279-010
					Result	Result	Result	Result	Result
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EK040T-P: Total Fluoride by Auto Analyser									
Fluoride	16984-48-8	40	mg/kg		120	80	120	740	170
EK055: Ammonia as N									
Ammonia as N	7664-41-7	20	mg/kg		<20	<20	<20	<20	<20
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg		0.1	0.1	<0.1	0.1	0.1
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg		0.1	0.1	<0.1	0.1	0.1
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg		40	<20	<20	<20	100
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg		40	<20	<20	<20	100
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg		311	239	227	226	95
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Initial pH	----	0.1	pH Unit		6.1	5.4	----	----	5.6
After HCl pH	----	0.1	pH Unit		1.1	1.2	----	----	1.1
Extraction Fluid pH	----	0.1	pH Unit		5.0	5.0	----	----	5.0
Final pH	----	0.1	pH Unit		5.1	5.1	----	----	5.1
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				6C	5A	5B	5C	4A
Sampling date / time				24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit	EP2503279-006	EP2503279-007	EP2503279-008	EP2503279-009	EP2503279-010
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	-----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	-----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	-----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	-----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	6C	5A	5B	5C	4A
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-006	EP2503279-007	EP2503279-008	EP2503279-009	EP2503279-010
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		78.4	77.5	78.3	77.5	80.0
2-Chlorophenol-D4	93951-73-6	0.5	%		77.8	77.2	77.8	77.2	79.5
2,4,6-Tribromophenol	118-79-6	0.5	%		63.9	46.5	48.9	77.2	48.7
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		72.0	73.0	76.6	70.4	74.0
Anthracene-d10	1719-06-8	0.5	%		107	103	103	105	105
4-Terphenyl-d14	1718-51-0	0.5	%		119	113	116	112	113
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		95.4	74.1	78.5	83.6	75.8
Toluene-D8	2037-26-5	0.2	%		88.5	69.5	72.1	76.8	70.4
4-Bromofluorobenzene	460-00-4	0.2	%		94.2	81.0	86.6	89.9	86.7



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	4B	4C	3A	3B	3C
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-011	EP2503279-012	EP2503279-013	EP2503279-014	EP2503279-015
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		6.3	6.3	5.5	4.5	5.7
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		11.0	10.0	17.8	14.8	14.8
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg		<10	<10	20	10	10
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg		<10	<10	<10	<10	<10
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		5430	4810	6410	3550	9780
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5
Barium	7440-39-3	10	mg/kg		<10	<10	<10	<10	<10
Beryllium	7440-41-7	1	mg/kg		<1	<1	<1	<1	<1
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Cobalt	7440-48-4	2	mg/kg		<2	<2	<2	<2	<2
Copper	7440-50-8	5	mg/kg		<5	<5	<5	<5	<5
Manganese	7439-96-5	5	mg/kg		17	17	14	7	23
Molybdenum	7439-98-7	2	mg/kg		<2	<2	<2	<2	<2
Nickel	7440-02-0	2	mg/kg		<2	<2	<2	<2	<2
Silver	7440-22-4	2	mg/kg		<2	<2	<2	<2	<2
Vanadium	7440-62-2	5	mg/kg		55	39	79	38	71
Zinc	7440-66-6	5	mg/kg		<5	<5	<5	<5	<5
EG020T: Total Metals by ICP-MS									
Cadmium	7440-43-9	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
Lead	7439-92-1	0.1	mg/kg		6.6	5.5	9.7	5.0	8.3
Selenium	7782-49-2	1	mg/kg		<1	<1	<1	<1	<1
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	4B	4C	3A	3B	3C
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-011	EP2503279-012	EP2503279-013	EP2503279-014	EP2503279-015
					Result	Result	Result	Result	Result
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EK040T-P: Total Fluoride by Auto Analyser									
Fluoride	16984-48-8	40	mg/kg		70	80	380	90	270
EK055: Ammonia as N									
Ammonia as N	7664-41-7	20	mg/kg		<20	<20	<20	<20	<20
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg		0.2	0.3	0.1	0.4	0.2
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg		0.2	0.3	0.1	0.4	0.2
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg		100	140	90	50	120
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg		100	140	90	50	120
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg		88	85	74	59	97
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Initial pH	----	0.1	pH Unit		----	6.3	5.6	----	----
After HCl pH	----	0.1	pH Unit		----	1.1	1.1	----	----
Extraction Fluid pH	----	0.1	pH Unit		----	5.0	5.0	----	----
Final pH	----	0.1	pH Unit		----	5.1	5.1	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				4B	4C	3A	3B	3C
Sampling date / time				24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit	EP2503279-011	EP2503279-012	EP2503279-013	EP2503279-014	EP2503279-015
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	-----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	-----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	-----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	-----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	4B	4C	3A	3B	3C
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00
Compound	CAS Number	LOR	Unit		EP2503279-011	EP2503279-012	EP2503279-013	EP2503279-014	EP2503279-015
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		77.5	78.7	77.3	77.5	77.5
2-Chlorophenol-D4	93951-73-6	0.5	%		76.5	77.2	76.6	76.4	76.6
2,4,6-Tribromophenol	118-79-6	0.5	%		85.4	75.6	47.4	42.5	56.0
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		70.1	73.3	73.0	72.1	70.4
Anthracene-d10	1719-06-8	0.5	%		114	105	118	110	108
4-Terphenyl-d14	1718-51-0	0.5	%		108	125	124	117	112
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		80.3	79.2	85.4	74.3	95.2
Toluene-D8	2037-26-5	0.2	%		80.2	68.5	87.6	68.5	86.4
4-Bromofluorobenzene	460-00-4	0.2	%		92.8	83.4	93.8	81.9	95.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	1A	QC01	QC03	----	----
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	----	----
Compound	CAS Number	LOR	Unit		EP2503279-016	EP2503279-017	EP2503279-018	-----	-----
					Result	Result	Result	----	----
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		9.2	9.4	8.1	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		5.4	8.1	16.0	----	----
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg		20	10	10	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg		<10	40	<10	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		630	980	9830	----	----
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	----	----
Barium	7440-39-3	10	mg/kg		<10	<10	<10	----	----
Beryllium	7440-41-7	1	mg/kg		<1	<1	<1	----	----
Boron	7440-42-8	50	mg/kg		<50	<50	<50	----	----
Cobalt	7440-48-4	2	mg/kg		<2	<2	<2	----	----
Copper	7440-50-8	5	mg/kg		<5	<5	<5	----	----
Manganese	7439-96-5	5	mg/kg		24	28	25	----	----
Molybdenum	7439-98-7	2	mg/kg		<2	<2	<2	----	----
Nickel	7440-02-0	2	mg/kg		<2	<2	<2	----	----
Silver	7440-22-4	2	mg/kg		<2	<2	<2	----	----
Vanadium	7440-62-2	5	mg/kg		<5	5	74	----	----
Zinc	7440-66-6	5	mg/kg		<5	<5	<5	----	----
EG020T: Total Metals by ICP-MS									
Cadmium	7440-43-9	0.1	mg/kg		<0.1	<0.1	<0.1	----	----
Lead	7439-92-1	0.1	mg/kg		1.3	1.0	10.6	----	----
Selenium	7782-49-2	1	mg/kg		<1	<1	<1	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	1A	QC01	QC03	----	----
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	----	----
Compound	CAS Number	LOR	Unit		EP2503279-016	EP2503279-017	EP2503279-018	-----	-----
					Result	Result	Result	----	----
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
EK040T-P: Total Fluoride by Auto Analyser									
Fluoride	16984-48-8	40	mg/kg		110	250	80	----	----
EK055: Ammonia as N									
Ammonia as N	7664-41-7	20	mg/kg		<20	<20	<20	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg		<0.1	<0.1	<0.1	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg		0.1	0.2	0.2	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	-----	0.1	mg/kg		0.1	0.2	0.2	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	-----	20	mg/kg		<20	<20	100	----	----
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	-----	20	mg/kg		<20	<20	100	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	-----	2	mg/kg		78	91	95	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	1A	QC01	QC03	----	----
Sampling date / time					24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	----	----
Compound	CAS Number	LOR	Unit		EP2503279-016	EP2503279-017	EP2503279-018	-----	-----
					Result	Result	Result	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		0.6	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		1.2	1.2	1.2	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				1A	QC01	QC03	----	----
Sampling date / time				24-Feb-2025 00:00	24-Feb-2025 00:00	24-Feb-2025 00:00	----	----
Compound	CAS Number	LOR	Unit	EP2503279-016	EP2503279-017	EP2503279-018	-----	-----
				Result	Result	Result	----	----
EP080: BTEXN - Continued								
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of BTEX	-----	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
^ Total Xylenes	-----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	77.4	78.8	80.0	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	76.4	77.4	79.2	----	----
2,4,6-Tribromophenol	118-79-6	0.5	%	42.8	41.1	71.3	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	73.0	72.0	73.0	----	----
Anthracene-d10	1719-06-8	0.5	%	109	115	104	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	128	117	124	----	----
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	78.6	79.8	89.3	----	----
Toluene-D8	2037-26-5	0.2	%	67.6	76.4	90.0	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	82.1	89.0	96.1	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RB01	----	----	----	----
Sampling date / time					24-Feb-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2503279-019	-----	-----	-----	-----
				Result	----	----	----	----	----
ED041G: Sulfate (Turbidimetric) as S by DA									
Sulfate as S - Turbidimetric	----	1	mg/L		<1	----	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		<1	----	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		<1	----	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Boron	7440-42-8	0.05	mg/L		<0.05	----	----	----	----
Barium	7440-39-3	0.001	mg/L		<0.001	----	----	----	----
Beryllium	7440-41-7	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Cobalt	7440-48-4	0.001	mg/L		<0.001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		<0.001	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Selenium	7782-49-2	0.01	mg/L		<0.01	----	----	----	----
Vanadium	7440-62-2	0.01	mg/L		<0.01	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		<0.005	----	----	----	----
Molybdenum	7439-98-7	0.001	mg/L		<0.001	----	----	----	----
Silver	7440-22-4	0.001	mg/L		<0.001	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EG050T: Total Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L		<0.01	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RB01	----	----	----	----
Sampling date / time					24-Feb-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2503279-019	-----	-----	-----	-----
					Result	----	----	----	----
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L		<0.1	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		<0.1	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
[^] Total Nitrogen as N	----	0.1	mg/L		<0.1	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		<0.01	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	----	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	----	----	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	----	----	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	----	----	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	----	----	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	----	----	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	----	----	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	----	----	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	----	----	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	----	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				RB01	----	----	----	----
Sampling date / time				24-Feb-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EP2503279-019	-----	-----	-----	-----
				Result	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	----	----	----	----
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	----	----	----	----
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	-----	0.5	µg/L	<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	-----	0.5	µg/L	<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	-----	20	µg/L	<20	----	----	----	----
C10 - C14 Fraction	-----	50	µg/L	<50	----	----	----	----
C15 - C28 Fraction	-----	100	µg/L	<100	----	----	----	----
C29 - C36 Fraction	-----	50	µg/L	<50	----	----	----	----
^ C10 - C36 Fraction (sum)	-----	50	µg/L	<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	----	----	----	----
>C10 - C16 Fraction	-----	100	µg/L	<100	----	----	----	----
>C16 - C34 Fraction	-----	100	µg/L	<100	----	----	----	----
>C34 - C40 Fraction	-----	100	µg/L	<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	-----	100	µg/L	<100	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	-----	100	µg/L	<100	----	----	----	----
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	----	----	----	----
Toluene	108-88-3	2	µg/L	<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RB01	----	----	----	----
Sampling date / time					24-Feb-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2503279-019	-----	-----	-----	-----
					Result	----	----	----	----
EP080: BTEXN - Continued									
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ Total Xylenes	----	2	µg/L		<2	----	----	----	----
^ Sum of BTEX	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		13.2	----	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		40.3	----	----	----	----
2,4,6-Tribromophenol	118-79-6	1.0	%		34.1	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		60.7	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%		83.1	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		65.0	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%		92.2	----	----	----	----
Toluene-D8	2037-26-5	2	%		106	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		103	----	----	----	----



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	57	119
2-Chlorophenol-D4	93951-73-6	52	130
2,4,6-Tribromophenol	118-79-6	40	132
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	53	139
Anthracene-d10	1719-06-8	68	124
4-Terphenyl-d14	1718-51-0	66	132
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	63	132
Toluene-D8	2037-26-5	66	125
4-Bromofluorobenzene	460-00-4	60	124

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	67
2-Chlorophenol-D4	93951-73-6	29	120
2,4,6-Tribromophenol	118-79-6	10	131
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	34	131
Anthracene-d10	1719-06-8	43	126
4-Terphenyl-d14	1718-51-0	41	142
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	61	141
Toluene-D8	2037-26-5	73	126
4-Bromofluorobenzene	460-00-4	60	125

Inter-Laboratory Testing

Analysis conducted by ALS Melbourne, NATA accreditation no. 825, site no. 13778 (Chemistry).

(SOIL) EK040T-P: Total Fluoride by Auto Analyser



CERTIFICATE OF ANALYSIS (GUIDELINE EVALUATION)

Work Order : EP2503279
Client : GHD PTY LTD
Contact : Charlie Rolfe
Address : 999 HAY STREET
PERTH WA, AUSTRALIA 6000
Telephone : ----
Project : 12662246
Order number : 12662246
C-O-C number : ----
Sampler : RM
Site : ----
Quote number : EP25GHDSE0009
No. of samples received : 19
No. of samples analysed : 19

Page : 1 of 75
Laboratory : Environmental Division Perth
Contact : Angel Tam
Address : 26 Rigali Way Wangara WA Australia 6065
Telephone : +61-8-9406 1301
Date Samples Received : 05-Mar-2025 11:00
Date Analysis Commenced : 06-Mar-2025
Issue Date : 14-Mar-2025 17:33



Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to Assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
Daniel Fisher	Inorganics Analyst	Perth Inorganics, Wangara, WA
David Viner	SENIOR LAB TECH	Perth Organics, Wangara, WA
Jarwis Nheu	Non-Metals Team Leader	Melbourne Inorganics, Springvale, VIC



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty **must be** considered. Refer to the ALS Contract [Terms and Conditions](#) for details, and EnviroMail 53 for a guide on how to interpret the measurement of uncertainty (MU).

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- Fluoride conducted by ALS Melbourne, NATA accreditation no. 825, site no 13778
- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EG035: Poor matrix spike recovery obtained for Mercury on sample EP2503148-002 due to possible matrix interference. Results have been confirmed by re-preparation and re-analysis.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.



Analytical Results

Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate: Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit	EP2503279-001 MU	EP2503279-002 MU			EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU		
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290		
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	5 ± 0.6	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4		
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	3 ± 0.3	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	2	1.1	1.2	3.8	12.2	10.6		
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	300	120	90	610	200	80		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	<0.5	<0.5		



Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate: Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B	
Sampling date/time								24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit					EP2503279-001 MU	EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EP080: BTEXN - Continued													
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	<0.5	<0.5			



Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate: Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit	EP2503279-001 MU	EP2503279-002 MU			EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU		
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290		
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	5 ± 0.6	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4		
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	3 ± 0.3	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	2	1.1	1.2	3.8	12.2	10.6		
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	300	120	90	610	200	80		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	<0.5	<0.5		



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	100000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290	
Arsenic	EG005T	5	mg/kg	----	140	<5 --	<5 --	5 ± 0.6	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	20	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	100000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4	
Molybdenum	EG005T	2	mg/kg	----	100	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	40	<2 --	<2 --	3 ± 0.3	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	200	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	100000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2	
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	4	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	20	1.1	1.2	3.8	12.2	10.6	
Selenium	EG020Y-T	1	mg/kg	----	20	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	3000	120	90	610	200	80	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	1600	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	600	<0.5	<0.5	<0.5	<0.5	<0.5	



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1200	<0.5	<0.5	<0.5	<0.5	<0.5	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	200000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290	
Arsenic	EG005T	5	mg/kg	----	1400	<5 --	<5 --	5 ± 0.6	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	200	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	200000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4	
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	400	<2 --	<2 --	3 ± 0.3	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	2000	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	200000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2	
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	40	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	200	1.1	1.2	3.8	12.2	10.6	
Selenium	EG020Y-T	1	mg/kg	----	200	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	20	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	30000	120	90	610	200	80	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	20	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	16000	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	6000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	12000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate: Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-006 MU	EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	50000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860	
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	50000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3	
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	50000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5	
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	2	13.9	4.6	2.1	1.1	8.0	
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	300	120	80	120	740	170	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	<0.5	<0.5	



Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate: Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit		EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860		
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	<5 --	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3		
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	<2 --	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	2	13.9	4.6	2.1	1.1	8.0		
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	300	120	80	120	740	170		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	<0.5	<0.5		



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-006 MU	EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	100000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860	
Arsenic	EG005T	5	mg/kg	----	140	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	20	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	100000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3	
Molybdenum	EG005T	2	mg/kg	----	100	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	40	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	200	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	100000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5	
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	4	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	20	13.9	4.6	2.1	1.1	8.0	
Selenium	EG020Y-T	1	mg/kg	----	20	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	3000	120	80	120	740	170	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	1600	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	600	<0.5	<0.5	<0.5	<0.5	<0.5	



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1200	<0.5	<0.5	<0.5	<0.5	<0.5	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-006 MU	EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	200000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860	
Arsenic	EG005T	5	mg/kg	----	1400	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	200	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	200000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3	
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	400	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	2000	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	200000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5	
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	40	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	200	13.9	4.6	2.1	1.1	8.0	
Selenium	EG020Y-T	1	mg/kg	----	200	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	20	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	30000	120	80	120	740	170	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	20	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	16000	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	6000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	12000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate: Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	50000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350	
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	50000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3	
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	50000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6	
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	2	6.6	5.5	9.7	5.0	8.3	
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	300	70	80	380	90	270	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	<0.5	<0.5	



Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate: Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	50000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350	
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	50000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3	
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	50000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6	
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	2	6.6	5.5	9.7	5.0	8.3	
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	300	70	80	380	90	270	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	<0.5	<0.5	



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	100000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350	
Arsenic	EG005T	5	mg/kg	----	140	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	20	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	100000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3	
Molybdenum	EG005T	2	mg/kg	----	100	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	40	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	200	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	100000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6	
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	4	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	20	6.6	5.5	9.7	5.0	8.3	
Selenium	EG020Y-T	1	mg/kg	----	20	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	2	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	3000	70	80	380	90	270	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	1600	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	600	<0.5	<0.5	<0.5	<0.5	<0.5	



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-011 MU			EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1200	<0.5	<0.5	<0.5	<0.5	<0.5	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	200000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350	
Arsenic	EG005T	5	mg/kg	----	1400	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	200	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	200000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3	
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	400	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	2000	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	200000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6	
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	40	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	200	6.6	5.5	9.7	5.0	8.3	
Selenium	EG020Y-T	1	mg/kg	----	200	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	20	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	30000	70	80	380	90	270	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	20	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	16000	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	6000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-011 MU			EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	12000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate: Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	----	----	
Compound	Method	LOR	Unit	EP2503279-016 MU			EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU	
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	50000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	50000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	50000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	2	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	300	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	----	----	
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	----	----	
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	----	----	



Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate: Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	-----	-----
Compound	Method	LOR	Unit				EP2503279-016 MU	EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	50000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	14	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	2	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	50000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	10	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	4	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	20	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	50000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	0.4	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	2	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	2	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	0.2	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	10	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	300	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	0.2	<0.2	<0.2	<0.2	----	----	
Toluene	EP080	0.5	mg/kg	----	160	<0.5	<0.5	<0.5	----	----	
Ethylbenzene	EP080	0.5	mg/kg	----	60	<0.5	<0.5	<0.5	----	----	



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	----	----
Compound	Method	LOR	Unit				EP2503279-016 MU	EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	100000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	140	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	20	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	100000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	100	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	40	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	200	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	100000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	4	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	20	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	20	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	2	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	3000	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	2	<0.2	<0.2	<0.2	----	----	
Toluene	EP080	0.5	mg/kg	----	1600	<0.5	<0.5	<0.5	----	----	
Ethylbenzene	EP080	0.5	mg/kg	----	600	<0.5	<0.5	<0.5	----	----	



Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate: Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	----	----	
Compound	Method	LOR	Unit	EP2503279-016 MU			EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1200	<0.5	<0.5	<0.5	----	----	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	-----	-----
Compound	Method	LOR	Unit				EP2503279-016 MU	EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	200000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	1400	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	200	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	200000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	400	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	2000	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	200000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	40	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	200	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	200	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	20	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	30000	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	20	<0.2	<0.2	<0.2	----	----	
Toluene	EP080	0.5	mg/kg	----	16000	<0.5	<0.5	<0.5	----	----	
Ethylbenzene	EP080	0.5	mg/kg	----	6000	<0.5	<0.5	<0.5	----	----	



Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate: Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	----	----	
Compound	Method	LOR	Unit	EP2503279-016 MU			EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	12000	<0.5	<0.5	<0.5	----	----	



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
				Sampling date/time	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit		EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290		
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	5 ± 0.6	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4		
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	3 ± 0.3	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	1500	1.1	1.2	3.8	12.2	10.6		
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	10000	120	90	610	200	80		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
				Sampling date/time	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit		EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290		
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	5 ± 0.6	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4		
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	3 ± 0.3	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	1500	1.1	1.2	3.8	12.2	10.6		
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	10000	120	90	610	200	80		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	7A	7B	7C	6A	6B
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit	EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
				Sampling date/time	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit		EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	100000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290		
Arsenic	EG005T	5	mg/kg	----	5000	<5 --	<5 --	5 ± 0.6	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	1000	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	100000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4		
Molybdenum	EG005T	2	mg/kg	----	10000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	30000	<2 --	<2 --	3 ± 0.3	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	1800	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	100000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2		
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	1000	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	15000	1.1	1.2	3.8	12.2	10.6		
Selenium	EG020Y-T	1	mg/kg	----	500	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	750	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	5000	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	100000	120	90	610	200	80		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	180	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	5180	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	10800	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	7A	7B	7C	6A	6B
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit	EP2503279-001 MU			EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	18000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 4 - Table 4 Concentration limit (CL4) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
				Sampling date/time	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-001 MU	EP2503279-002 MU			EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU		
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	200000	1040 ± 140	920 ± 130	3670 ± 500	1610 ± 220	2120 ± 290		
Arsenic	EG005T	5	mg/kg	----	20000	<5 --	<5 --	5 ± 0.6	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	4000	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	2 ± 0.2	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	200000	42 ± 6	27 ± 4	64 ± 10	46 ± 7	27 ± 4		
Molybdenum	EG005T	2	mg/kg	----	40000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	120000	<2 --	<2 --	3 ± 0.3	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	7200	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	200000	5 ± 0.5	5 ± 0.5	10 ± 0.9	22 ± 2	27 ± 2		
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	5 ± 0.5	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	4000	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	60000	1.1	1.2	3.8	12.2	10.6		
Selenium	EG020Y-T	1	mg/kg	----	2000	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	3000	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	400000	120	90	610	200	80		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	720	<0.2	<0.2	<0.2	<0.2	<0.2		



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit		EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860		
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	<5 --	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3		
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	<2 --	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	1500	13.9	4.6	2.1	1.1	8.0		
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	10000	120	80	120	740	170		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	6C	5A	5B	5C	4A
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit	EP2503279-006 MU	EP2503279-007 MU			EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU		
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860		
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	<5 --	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3		
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	<2 --	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	1500	13.9	4.6	2.1	1.1	8.0		
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	10000	120	80	120	740	170		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit	EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-006 MU	EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	100000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860	
Arsenic	EG005T	5	mg/kg	----	5000	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	1000	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	100000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3	
Molybdenum	EG005T	2	mg/kg	----	10000	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	30000	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	1800	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	100000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5	
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	1000	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	15000	13.9	4.6	2.1	1.1	8.0	
Selenium	EG020Y-T	1	mg/kg	----	500	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	750	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	5000	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	100000	120	80	120	740	170	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	180	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	EP080	0.5	mg/kg	----	5180	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	EP080	0.5	mg/kg	----	10800	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	18000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 4 - Table 4 Concentration limit (CL4) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	6C	5A	5B	5C	4A
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit	EP2503279-006 MU			EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU	
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	200000	2050 ± 280	1180 ± 160	2020 ± 280	1120 ± 150	6240 ± 860	
Arsenic	EG005T	5	mg/kg	----	20000	<5 --	<5 --	<5 --	<5 --	<5 --	
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	<10 --	<10 --	
Beryllium	EG005T	1	mg/kg	----	4000	<1	<1	<1	<1	<1	
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	<50 --	<50 --	
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	<2 --	<2 --	<2 --	
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --	
Manganese	EG005T	5	mg/kg	----	200000	36 ± 6	54 ± 8	23 ± 4	28 ± 4	21 ± 3	
Molybdenum	EG005T	2	mg/kg	----	40000	<2	<2	<2	<2	<2	
Nickel	EG005T	2	mg/kg	----	120000	<2 --	<2 --	<2 --	<2 --	<2 --	
Silver	EG005T	2	mg/kg	----	7200	<2	<2	<2	<2	<2	
Vanadium	EG005T	5	mg/kg	----	200000	30 ± 2	18 ± 2	37 ± 3	22 ± 2	59 ± 5	
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5 --	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	4000	<0.1	<0.1	<0.1	<0.1	<0.1	
Lead	EG020X-T	0.1	mg/kg	----	60000	13.9	4.6	2.1	1.1	8.0	
Selenium	EG020Y-T	1	mg/kg	----	2000	<1	<1	<1	<1	<1	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	3000	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	<0.5	<0.5	<0.5	<0.5	<0.5	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	400000	120	80	120	740	170	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	<10	<10	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	720	<0.2	<0.2	<0.2	<0.2	<0.2	



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	4B	4C	3A	3B	3C
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit	EP2503279-011 MU	EP2503279-012 MU			EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU		
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350		
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	<5 --	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3		
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	<2 --	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	1500	6.6	5.5	9.7	5.0	8.3		
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	10000	70	80	380	90	270		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	4B	4C	3A	3B	3C
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit	EP2503279-011 MU	EP2503279-012 MU			EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU		
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	50000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350		
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	<5 --	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	50000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3		
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	<2 --	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	50000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6		
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	1500	6.6	5.5	9.7	5.0	8.3		
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	10000	70	80	380	90	270		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit				EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit		EP2503279-011 MU			EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	100000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350		
Arsenic	EG005T	5	mg/kg	----	5000	<5 --	<5 --	<5 --	<5 --	<5 --		
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	<10 --	<10 --		
Beryllium	EG005T	1	mg/kg	----	1000	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	<50 --	<50 --		
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	<2 --	<2 --	<2 --		
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --		
Manganese	EG005T	5	mg/kg	----	100000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3		
Molybdenum	EG005T	2	mg/kg	----	10000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	30000	<2 --	<2 --	<2 --	<2 --	<2 --		
Silver	EG005T	2	mg/kg	----	1800	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	100000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6		
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	<5 --	<5 --		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	1000	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	15000	6.6	5.5	9.7	5.0	8.3		
Selenium	EG020Y-T	1	mg/kg	----	500	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	750	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	5000	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	100000	70	80	380	90	270		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	180	<0.2	<0.2	<0.2	<0.2	<0.2		
Toluene	EP080	0.5	mg/kg	----	5180	<0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	EP080	0.5	mg/kg	----	10800	<0.5	<0.5	<0.5	<0.5	<0.5		



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	4B	4C	3A	3B	3C
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-011 MU			EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	18000	<0.5	<0.5	<0.5	<0.5	<0.5	



Class 4 - Table 4 Concentration limit (CL4) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	4B	4C	3A	3B	3C
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit	EP2503279-011 MU	EP2503279-012 MU			EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU		
EG005(ED093)T: Total Metals by ICP-AES												
Aluminium	EG005T	50	mg/kg	----	200000	5430 ± 750	4810 ± 660	6410 ± 880	3550 ± 490	9780 ± 1350		
Arsenic	EG005T	5	mg/kg	----	20000	<5 --	<5 --	<5 --	<5 --	<5		
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	<10 --	<10		
Beryllium	EG005T	1	mg/kg	----	4000	<1	<1	<1	<1	<1		
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	<50 --	<50		
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	<2 --	<2 --	<2		
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5		
Manganese	EG005T	5	mg/kg	----	200000	17 ± 3	17 ± 3	14 ± 2	7 ± 1	23 ± 3		
Molybdenum	EG005T	2	mg/kg	----	40000	<2	<2	<2	<2	<2		
Nickel	EG005T	2	mg/kg	----	120000	<2 --	<2 --	<2 --	<2 --	<2		
Silver	EG005T	2	mg/kg	----	7200	<2	<2	<2	<2	<2		
Vanadium	EG005T	5	mg/kg	----	200000	55 ± 5	39 ± 3	79 ± 7	38 ± 3	71 ± 6		
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	<5 --	<5		
EG020T: Total Metals by ICP-MS												
Cadmium	EG020Y-T	0.1	mg/kg	----	4000	<0.1	<0.1	<0.1	<0.1	<0.1		
Lead	EG020X-T	0.1	mg/kg	----	60000	6.6	5.5	9.7	5.0	8.3		
Selenium	EG020Y-T	1	mg/kg	----	2000	<1	<1	<1	<1	<1		
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	3000	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1		
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	<0.5	<0.5	<0.5	<0.5	<0.5		
EK040T-P: Total Fluoride by Auto Analyser												
Fluoride	EK040T-P	40	mg/kg	----	400000	70	80	380	90	270		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	<0.5	<0.5		
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	<0.5	<0.5		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	<10	<10		
EP080: BTEXN												
Benzene	EP080	0.2	mg/kg	----	720	<0.2	<0.2	<0.2	<0.2	<0.2		



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	-----	-----
Compound	Method	LOR	Unit				EP2503279-016 MU	EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	50000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	50000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	50000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	1500	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	10000	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	----	----	
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	----	----	
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	----	----	



Class 1 - Table 4 Concentration limit (CL1) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	----	----	
Compound	Method	LOR	Unit	EP2503279-016 MU			EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	----	----	



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	-----	-----
Compound	Method	LOR	Unit				EP2503279-016 MU	EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	50000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	500	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	50000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	100	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	50000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	50000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	50000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	1000	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	3000	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	180	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	50000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	50000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	100	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	1500	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	50	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	10000	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	5	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	100	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	2800	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	18	<0.2	<0.2	<0.2	----	----	
Toluene	EP080	0.5	mg/kg	----	518	<0.5	<0.5	<0.5	----	----	
Ethylbenzene	EP080	0.5	mg/kg	----	1080	<0.5	<0.5	<0.5	----	----	



Class 2 - Table 4 Concentration limit (CL2) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	----	----	
Compound	Method	LOR	Unit	EP2503279-016 MU			EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	1800	<0.5	<0.5	<0.5	----	----	



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				Sampling date/time			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	-----	-----
Compound	Method	LOR	Unit				EP2503279-016 MU	EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	100000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	5000	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	100000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	1000	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	100000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	100000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	100000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	10000	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	30000	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	1800	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	100000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	100000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	1000	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	15000	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	500	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	750	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	5000	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	100000	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	50	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	1000	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	28000	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	180	<0.2	<0.2	<0.2	----	----	
Toluene	EP080	0.5	mg/kg	----	5180	<0.5	<0.5	<0.5	----	----	
Ethylbenzene	EP080	0.5	mg/kg	----	10800	<0.5	<0.5	<0.5	----	----	



Class 3 - Table 4 Concentration limit (CL3) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	----	----	
Compound	Method	LOR	Unit	EP2503279-016 MU			EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU	
EP080: BTEXN - Continued											
Total Xylenes	EP080	0.5	mg/kg	----	18000	<0.5	<0.5	<0.5	----	----	



Class 4 - Table 4 Concentration limit (CL4) values for waste classification: WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID	Lower Limit	Upper Limit	1A	QC01	QC03	----	----
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	----	----	
Compound	Method	LOR	Unit	EP2503279-016 MU			EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU	
EG005(ED093)T: Total Metals by ICP-AES											
Aluminium	EG005T	50	mg/kg	----	200000	630 ± 90	980 ± 130	9830 ± 1360	----	----	
Arsenic	EG005T	5	mg/kg	----	20000	<5 --	<5 --	<5 --	----	----	
Barium	EG005T	10	mg/kg	----	200000	<10 --	<10 --	<10 --	----	----	
Beryllium	EG005T	1	mg/kg	----	4000	<1	<1	<1	----	----	
Boron	EG005T	50	mg/kg	----	200000	<50 --	<50 --	<50 --	----	----	
Cobalt	EG005T	2	mg/kg	----	200000	<2 --	<2 --	<2 --	----	----	
Copper	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	----	----	
Manganese	EG005T	5	mg/kg	----	200000	24 ± 4	28 ± 4	25 ± 4	----	----	
Molybdenum	EG005T	2	mg/kg	----	40000	<2	<2	<2	----	----	
Nickel	EG005T	2	mg/kg	----	120000	<2 --	<2 --	<2 --	----	----	
Silver	EG005T	2	mg/kg	----	7200	<2	<2	<2	----	----	
Vanadium	EG005T	5	mg/kg	----	200000	<5 --	5 ± 0.4	74 ± 6	----	----	
Zinc	EG005T	5	mg/kg	----	200000	<5 --	<5 --	<5 --	----	----	
EG020T: Total Metals by ICP-MS											
Cadmium	EG020Y-T	0.1	mg/kg	----	4000	<0.1	<0.1	<0.1	----	----	
Lead	EG020X-T	0.1	mg/kg	----	60000	1.3	1.0	10.6	----	----	
Selenium	EG020Y-T	1	mg/kg	----	2000	<1	<1	<1	----	----	
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	3000	<0.1 --	<0.1 --	<0.1 --	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	<0.5	<0.5	<0.5	----	----	
EK040T-P: Total Fluoride by Auto Analyser											
Fluoride	EK040T-P	40	mg/kg	----	400000	110	250	80	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	----	200	<0.5	<0.5	<0.5	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	----	4000	<0.5	<0.5	<0.5	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	10	mg/kg	----	112000	<10	<10	<10	----	----	
EP080: BTEXN											
Benzene	EP080	0.2	mg/kg	----	720	<0.2	<0.2	<0.2	----	----	

Sub-Matrix: **ACETIC ACID LEACHATE**

Sub-Matrix: ACETIC ACID LEACHATE				Sample ID	Lower Limit	Upper Limit	6C	5A	4A	4C	3A
Sampling date/time				24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	
Compound	Method	LOR	Unit	EP2503279-006 MU			EP2503279-007 MU	EP2503279-010 MU	EP2503279-012 MU	EP2503279-013 MU	
EG005(ED093)C: Leachable Metals by ICPAES											
Lead	EG005C	0.1	mg/L	----	----	<0.1	--	<0.1	--	<0.1	--
Nickel	EG005C	0.1	mg/L	----	----	<0.1	--	<0.1	--	<0.1	--



No Guideline Evaluation Required

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit			EP2503279-001 MU	EP2503279-002 MU	EP2503279-003 MU	EP2503279-004 MU	EP2503279-005 MU		
EA002: pH 1:5 (Soils)												
pH Value	EA002	0.1	pH Unit	----	----	9.4 ± 0.09	9.5 ± 0.09	9.2 ± 0.09	7.9 ± 0.08	6.8 ± 0.07		
EA055: Moisture Content (Dried @ 105-110°C)												
Moisture Content	EA055	1.0	%	----	----	7.8 ± 0.7	8.2 ± 0.8	9.2 ± 0.9	9.2 ± 0.9	9.9 ± 0.9		
ED040S: Soluble Major Anions												
Sulfate as SO4 2-	ED040S	10	mg/kg	----	----	30 ± 3	10 ± 1	90 ± 9	<10 --	10 ± 1		
ED045G: Chloride by Discrete Analyser												
Chloride	ED045G	10	mg/kg	----	----	410 ± 30	40 ± 3	<10 --	<10 --	<10 --		
EK055: Ammonia as N												
Ammonia as N	EK055	20	mg/kg	----	----	<20	<20	<20	<20	<20		
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N (Sol.)	EK057G	0.1	mg/kg	----	----	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N (Sol.)	EK058G	0.1	mg/kg	----	----	1.4	0.2	0.1	<0.1	0.1		
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N (Sol.)	EK059G	0.1	mg/kg	----	----	1.4 ± 0.08	0.2 ± 0.03	0.1 ± 0.03	<0.1 --	0.1 ± 0.03		
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N	EK061G	20	mg/kg	----	----	<20	<20	80	20	40		
EK062: Total Nitrogen as N (TKN + NOx)												
^ Total Nitrogen as N	EK062G	20	mg/kg	----	----	<20	<20	80	20	40		
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P	EK067G	2	mg/kg	----	----	105	87	178	138	125		
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)												
After HCl pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
Extraction Fluid pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
Final pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
Initial pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Naphthalene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Acenaphthylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Acenaphthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Fluorene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Phenanthrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		



No Guideline Evaluation Required

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID								
				Sampling date/time		Lower Limit	Upper Limit	7A	7B	7C	6A	6B
								24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit									
EP2503279-001 MU												
EP2503279-002 MU												
EP2503279-003 MU												
EP2503279-004 MU												
EP2503279-005 MU												
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued												
Fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benz(a)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Chrysene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(b+j)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(k)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Dibenz(a,h)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(g,h,i)perylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Benzo(a)pyrene TEQ (zero)	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Benzo(a)pyrene TEQ (half LOR)	EP075(SIM)	0.5	mg/kg	----	----	0.6	0.6	0.6	0.6	0.6		
^ Benzo(a)pyrene TEQ (LOR)	EP075(SIM)	0.5	mg/kg	----	----	1.2	1.2	1.2	1.2	1.2		
EP080/071: Total Petroleum Hydrocarbons												
C10 - C14 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
C15 - C28 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
C29 - C36 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
^ C10 - C36 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	EP080	10	mg/kg	----	----	<10	<10	<10	<10	<10		
^ C6 - C10 Fraction minus BTEX (F1)	EP080	10	mg/kg	----	----	<10	<10	<10	<10	<10		
>C10 - C16 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
>C16 - C34 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
>C34 - C40 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
^ >C10 - C40 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
^ >C10 - C16 Fraction minus Naphthalene (F2)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
EP080: BTEXN												
meta- & para-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
ortho-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Sum of BTEX	EP080	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	<0.2	<0.2		
Naphthalene	EP080	1	mg/kg	----	----	<1	<1	<1	<1	<1		



No Guideline Evaluation Required

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	6C	5A	5B	5C	4A
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit			EP2503279-006 MU	EP2503279-007 MU	EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU		
EA002: pH 1:5 (Soils)												
pH Value	EA002	0.1	pH Unit	----	----	5.8 ± 0.06	5.2 ± 0.05	5.2 ± 0.05	5.2 ± 0.05	5.6 ± 0.06		
EA055: Moisture Content (Dried @ 105-110°C)												
Moisture Content	EA055	1.0	%	----	----	10.5 ± 1.0	11.7 ± 1.1	16.9 ± 1.6	13.8 ± 1.3	15.3 ± 1.4		
ED040S: Soluble Major Anions												
Sulfate as SO4 2-	ED040S	10	mg/kg	----	----	10 ± 1	10 ± 1	20 ± 2	<10 --	40 ± 4		
ED045G: Chloride by Discrete Analyser												
Chloride	ED045G	10	mg/kg	----	----	<10 --	<10 --	<10 --	<10 --	<10 --		
EK055: Ammonia as N												
Ammonia as N	EK055	20	mg/kg	----	----	<20	<20	<20	<20	<20		
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N (Sol.)	EK057G	0.1	mg/kg	----	----	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N (Sol.)	EK058G	0.1	mg/kg	----	----	0.1	0.1	<0.1	0.1	0.1		
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N (Sol.)	EK059G	0.1	mg/kg	----	----	0.1 ± 0.03	0.1 ± 0.03	<0.1 --	0.1 ± 0.03	0.1 ± 0.03		
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N	EK061G	20	mg/kg	----	----	40	<20	<20	<20	100		
EK062: Total Nitrogen as N (TKN + NOx)												
^ Total Nitrogen as N	EK062G	20	mg/kg	----	----	40	<20	<20	<20	100		
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P	EK067G	2	mg/kg	----	----	311	239	227	226	95		
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)												
Initial pH	EN60a-G	0.1	pH Unit	----	----	6.1	5.4	----	----	5.6		
After HCl pH	EN60a-G	0.1	pH Unit	----	----	1.1	1.2	----	----	1.1		
Extraction Fluid pH	EN60a-G	0.1	pH Unit	----	----	5.0	5.0	----	----	5.0		
Final pH	EN60a-G	0.1	pH Unit	----	----	5.1	5.1	----	----	5.1		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Naphthalene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Acenaphthylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Acenaphthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Fluorene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Phenanthrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	6C	5A	5B	5C	4A
Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00		
Compound	Method	LOR	Unit	EP2503279-006 MU	EP2503279-007 MU			EP2503279-008 MU	EP2503279-009 MU	EP2503279-010 MU		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued												
Fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benz(a)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Chrysene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(b+j)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(k)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Dibenz(a,h)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(g,h,i)perylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Benzo(a)pyrene TEQ (zero)	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Benzo(a)pyrene TEQ (half LOR)	EP075(SIM)	0.5	mg/kg	----	----	0.6	0.6	0.6	0.6	0.6		
^ Benzo(a)pyrene TEQ (LOR)	EP075(SIM)	0.5	mg/kg	----	----	1.2	1.2	1.2	1.2	1.2		
EP080/071: Total Petroleum Hydrocarbons												
C10 - C14 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
C15 - C28 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
C29 - C36 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
^ C10 - C36 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	EP080	10	mg/kg	----	----	<10	<10	<10	<10	<10		
^ C6 - C10 Fraction minus BTEX (F1)	EP080	10	mg/kg	----	----	<10	<10	<10	<10	<10		
>C10 - C16 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
>C16 - C34 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
>C34 - C40 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
^ >C10 - C40 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
^ >C10 - C16 Fraction minus Naphthalene (F2)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
EP080: BTEXN												
meta- & para-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
ortho-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Sum of BTEX	EP080	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	<0.2	<0.2		
Naphthalene	EP080	1	mg/kg	----	----	<1	<1	<1	<1	<1		



No Guideline Evaluation Required

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit					EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EA002: pH 1:5 (Soils)												
pH Value	EA002	0.1	pH Unit	----	----	6.3 ± 0.06	6.3 ± 0.06	5.5 ± 0.06	4.5 ± 0.04	5.7 ± 0.06		
EA055: Moisture Content (Dried @ 105-110°C)												
Moisture Content	EA055	1.0	%	----	----	11.0 ± 1.0	10.0 ± 0.9	17.8 ± 1.7	14.8 ± 1.4	14.8 ± 1.4		
ED040S: Soluble Major Anions												
Sulfate as SO4 2-	ED040S	10	mg/kg	----	----	<10 --	<10 --	20 ± 2	10 ± 1	10 ± 1		
ED045G: Chloride by Discrete Analyser												
Chloride	ED045G	10	mg/kg	----	----	<10 --	<10 --	<10 --	<10 --	<10 --		
EK055: Ammonia as N												
Ammonia as N	EK055	20	mg/kg	----	----	<20	<20	<20	<20	<20		
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N (Sol.)	EK057G	0.1	mg/kg	----	----	<0.1 --	<0.1 --	<0.1 --	<0.1 --	<0.1 --		
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N (Sol.)	EK058G	0.1	mg/kg	----	----	0.2	0.3	0.1	0.4	0.2		
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N (Sol.)	EK059G	0.1	mg/kg	----	----	0.2 ± 0.03	0.3 ± 0.04	0.1 ± 0.03	0.4 ± 0.04	0.2 ± 0.03		
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N	EK061G	20	mg/kg	----	----	100	140	90	50	120		
EK062: Total Nitrogen as N (TKN + NOx)												
^ Total Nitrogen as N	EK062G	20	mg/kg	----	----	100	140	90	50	120		
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P	EK067G	2	mg/kg	----	----	88	85	74	59	97		
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)												
Initial pH	EN60a-G	0.1	pH Unit	----	----	----	6.3	5.6	----	----		
After HCl pH	EN60a-G	0.1	pH Unit	----	----	----	1.1	1.1	----	----		
Extraction Fluid pH	EN60a-G	0.1	pH Unit	----	----	----	5.0	5.0	----	----		
Final pH	EN60a-G	0.1	pH Unit	----	----	----	5.1	5.1	----	----		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Naphthalene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Acenaphthylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Acenaphthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Fluorene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Phenanthrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		



No Guideline Evaluation Required

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	4B	4C	3A	3B	3C
				Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00
Compound	Method	LOR	Unit					EP2503279-011 MU	EP2503279-012 MU	EP2503279-013 MU	EP2503279-014 MU	EP2503279-015 MU
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued												
Fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benz(a)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Chrysene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(b+j)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(k)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Dibenz(a,h)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
Benzo(g,h,i)perylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Benzo(a)pyrene TEQ (zero)	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Benzo(a)pyrene TEQ (half LOR)	EP075(SIM)	0.5	mg/kg	----	----	0.6	0.6	0.6	0.6	0.6		
^ Benzo(a)pyrene TEQ (LOR)	EP075(SIM)	0.5	mg/kg	----	----	1.2	1.2	1.2	1.2	1.2		
EP080/071: Total Petroleum Hydrocarbons												
C10 - C14 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
C15 - C28 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
C29 - C36 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
^ C10 - C36 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	EP080	10	mg/kg	----	----	<10	<10	<10	<10	<10		
^ C6 - C10 Fraction minus BTEX (F1)	EP080	10	mg/kg	----	----	<10	<10	<10	<10	<10		
>C10 - C16 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
>C16 - C34 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
>C34 - C40 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	<100	<100		
^ >C10 - C40 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
^ >C10 - C16 Fraction minus Naphthalene (F2)	EP071	50	mg/kg	----	----	<50	<50	<50	<50	<50		
EP080: BTEXN												
meta- & para-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
ortho-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	<0.5	<0.5		
^ Sum of BTEX	EP080	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	<0.2	<0.2		
Naphthalene	EP080	1	mg/kg	----	----	<1	<1	<1	<1	<1		



No Guideline Evaluation Required

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID		Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				Sampling date/time				24-Feb-2025 15:00	24-Feb-2025 15:00	24-Feb-2025 15:00	----	----
Compound	Method	LOR	Unit					EP2503279-016 MU	EP2503279-017 MU	EP2503279-018 MU	----- MU	----- MU
EA002: pH 1:5 (Soils)												
pH Value	EA002	0.1	pH Unit	----	----	9.2 ± 0.09	9.4 ± 0.09	8.1 ± 0.08	----	----		
EA055: Moisture Content (Dried @ 105-110°C)												
Moisture Content	EA055	1.0	%	----	----	5.4 ± 0.5	8.1 ± 0.8	16.0 ± 1.5	----	----		
ED040S: Soluble Major Anions												
Sulfate as SO4 2-	ED040S	10	mg/kg	----	----	20 ± 2	10 ± 1	10 ± 1	----	----		
ED045G: Chloride by Discrete Analyser												
Chloride	ED045G	10	mg/kg	----	----	<10 --	40 ± 4	<10 --	----	----		
EK055: Ammonia as N												
Ammonia as N	EK055	20	mg/kg	----	----	<20	<20	<20	----	----		
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N (Sol.)	EK057G	0.1	mg/kg	----	----	<0.1 --	<0.1 --	<0.1 --	----	----		
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N (Sol.)	EK058G	0.1	mg/kg	----	----	0.1	0.2	0.2	----	----		
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N (Sol.)	EK059G	0.1	mg/kg	----	----	0.1 ± 0.03	0.2 ± 0.03	0.2 ± 0.03	----	----		
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N	EK061G	20	mg/kg	----	----	<20	<20	100	----	----		
EK062: Total Nitrogen as N (TKN + NOx)												
^ Total Nitrogen as N	EK062G	20	mg/kg	----	----	<20	<20	100	----	----		
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P	EK067G	2	mg/kg	----	----	78	91	95	----	----		
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)												
After HCl pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
Extraction Fluid pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
Final pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
Initial pH	EN60a-G	0.1	pH Unit	----	----	----	----	----	----	----		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Naphthalene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Acenaphthylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Acenaphthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Fluorene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Phenanthrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		



No Guideline Evaluation Required

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Sample ID Sampling date/time		Lower Limit	Upper Limit	1A	QC01	QC03	----	----
				24-Feb-2025 15:00	24-Feb-2025 15:00			24-Feb-2025 15:00	----	----		
Compound	Method	LOR	Unit	EP2503279-016 MU	EP2503279-017 MU			EP2503279-018 MU	----- MU	----- MU		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued												
Fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Benz(a)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Chrysene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Benzo(b+j)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Benzo(k)fluoranthene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Indeno(1.2.3.cd)pyrene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Dibenz(a,h)anthracene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
Benzo(g,h,i)perylene	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
^ Benzo(a)pyrene TEQ (zero)	EP075(SIM)	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
^ Benzo(a)pyrene TEQ (half LOR)	EP075(SIM)	0.5	mg/kg	----	----	0.6	0.6	0.6	----	----		
^ Benzo(a)pyrene TEQ (LOR)	EP075(SIM)	0.5	mg/kg	----	----	1.2	1.2	1.2	----	----		
EP080/071: Total Petroleum Hydrocarbons												
C10 - C14 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	----	----		
C15 - C28 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	----	----		
C29 - C36 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	----	----		
^ C10 - C36 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	----	----		
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	EP080	10	mg/kg	----	----	<10	<10	<10	----	----		
^ C6 - C10 Fraction minus BTEX (F1)	EP080	10	mg/kg	----	----	<10	<10	<10	----	----		
>C10 - C16 Fraction	EP071	50	mg/kg	----	----	<50	<50	<50	----	----		
>C16 - C34 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	----	----		
>C34 - C40 Fraction	EP071	100	mg/kg	----	----	<100	<100	<100	----	----		
^ >C10 - C40 Fraction (sum)	EP071	50	mg/kg	----	----	<50	<50	<50	----	----		
^ >C10 - C16 Fraction minus Naphthalene (F2)	EP071	50	mg/kg	----	----	<50	<50	<50	----	----		
EP080: BTEXN												
meta- & para-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
ortho-Xylene	EP080	0.5	mg/kg	----	----	<0.5	<0.5	<0.5	----	----		
^ Sum of BTEX	EP080	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	----	----		
Naphthalene	EP080	1	mg/kg	----	----	<1	<1	<1	----	----		



No Guideline Evaluation Required

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	Lower Limit	Upper Limit	RB01	----	----	----	----
				Sampling date/time			24-Feb-2025 15:00	----	----	----	----
Compound	Method	LOR	Unit				EP2503279-019 MU	----- MU	----- MU	----- MU	----- MU
ED041G: Sulfate (Turbidimetric) as S by DA											
Sulfate as S - Turbidimetric	ED041G	1	mg/L	----	----	<1	----	----	----	----	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	ED041G	1	mg/L	----	----	<1	--	----	----	----	----
ED045G: Chloride by Discrete Analyser											
Chloride	ED045G	1	mg/L	----	----	<1	--	----	----	----	----
EG020T: Total Metals by ICP-MS											
Aluminium	EG020A-T	0.01	mg/L	----	----	<0.01	--	----	----	----	----
Arsenic	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Boron	EG020A-T	0.05	mg/L	----	----	<0.05	--	----	----	----	----
Barium	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Beryllium	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Cadmium	EG020A-T	0.0001	mg/L	----	----	<0.0001		----	----	----	----
Cobalt	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Chromium	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Copper	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Manganese	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Nickel	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Lead	EG020A-T	0.001	mg/L	----	----	<0.001	--	----	----	----	----
Selenium	EG020A-T	0.01	mg/L	----	----	<0.01	--	----	----	----	----
Vanadium	EG020A-T	0.01	mg/L	----	----	<0.01	--	----	----	----	----
Zinc	EG020A-T	0.005	mg/L	----	----	<0.005	--	----	----	----	----
Molybdenum	EG020A-T	0.001	mg/L	----	----	<0.001		----	----	----	----
Silver	EG020B-T	0.001	mg/L	----	----	<0.001		----	----	----	----
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.0001	mg/L	----	----	<0.0001	--	----	----	----	----
EG050T: Total Hexavalent Chromium											
Hexavalent Chromium	EG050G-T	0.01	mg/L	----	----	<0.01	--	----	----	----	----
EK040P: Fluoride by PC Titrator											
Fluoride	EK040P	0.1	mg/L	----	----	<0.1		----	----	----	----
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	EK055G	0.01	mg/L	----	----	<0.01	--	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	EK057G	0.01	mg/L	----	----	<0.01	--	----	----	----	----



No Guideline Evaluation Required

Sub-Matrix: WATER

Sub-Matrix: WATER				Sample ID	Lower Limit	Upper Limit	RB01	----	----	----	----
				Sampling date/time			24-Feb-2025 15:00	-----	-----	-----	-----
Compound	Method	LOR	Unit				EP2503279-019 MU	----- MU	----- MU	----- MU	----- MU
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	EK058G	0.01	mg/L	----	----	<0.01	----	----	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N	EK059G	0.01	mg/L	----	----	<0.01	--	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N	EK061G	0.1	mg/L	----	----	<0.1		----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
^ Total Nitrogen as N	EK062G	0.1	mg/L	----	----	<0.1		----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P	EK067G	0.01	mg/L	----	----	<0.01		----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons											
Naphthalene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Acenaphthylene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Acenaphthene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Fluorene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Phenanthrene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Anthracene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Fluoranthene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Pyrene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Benz(a)anthracene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Chrysene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Benzo(b+j)fluoranthene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Benzo(k)fluoranthene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Benzo(a)pyrene	EP075(SIM)	0.5	µg/L	----	----	<0.5		----	----	----	----
Indeno(1.2.3.cd)pyrene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Dibenz(a,h)anthracene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
Benzo(g,h,i)perylene	EP075(SIM)	1.0	µg/L	----	----	<1.0		----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	µg/L	----	----	<0.5		----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	EP075(SIM)	0.5	µg/L	----	----	<0.5		----	----	----	----
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP080	20	µg/L	----	----	<20		----	----	----	----
C10 - C14 Fraction	EP071	50	µg/L	----	----	<50		----	----	----	----
C15 - C28 Fraction	EP071	100	µg/L	----	----	<100		----	----	----	----



No Guideline Evaluation Required

Sub-Matrix: **WATER**

Sub-Matrix: WATER				Sample ID	Lower Limit	Upper Limit	RB01	----	----	----	----
				Sampling date/time			24-Feb-2025 15:00	----	----	----	----
Compound	Method	LOR	Unit				EP2503279-019 MU	----- MU	----- MU	----- MU	----- MU
EP080/071: Total Petroleum Hydrocarbons - Continued											
C29 - C36 Fraction	EP071	50	µg/L	----	----	<50	----	----	----	----	
^ C10 - C36 Fraction (sum)	EP071	50	µg/L	----	----	<50	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	EP080	20	µg/L	----	----	<20	----	----	----	----	
^ C6 - C10 Fraction minus BTEX (F1)	EP080	20	µg/L	----	----	<20	----	----	----	----	
>C10 - C16 Fraction	EP071	100	µg/L	----	----	<100	----	----	----	----	
>C16 - C34 Fraction	EP071	100	µg/L	----	----	<100	----	----	----	----	
>C34 - C40 Fraction	EP071	100	µg/L	----	----	<100	----	----	----	----	
^ >C10 - C40 Fraction (sum)	EP071	100	µg/L	----	----	<100	----	----	----	----	
^ >C10 - C16 Fraction minus Naphthalene (F2)	EP071	100	µg/L	----	----	<100	----	----	----	----	
EP080: BTEXN											
Benzene	EP080	1	µg/L	----	----	<1	----	----	----	----	
Toluene	EP080	2	µg/L	----	----	<2	----	----	----	----	
Ethylbenzene	EP080	2	µg/L	----	----	<2	----	----	----	----	
meta- & para-Xylene	EP080	2	µg/L	----	----	<2	----	----	----	----	
ortho-Xylene	EP080	2	µg/L	----	----	<2	----	----	----	----	
^ Total Xylenes	EP080	2	µg/L	----	----	<2	----	----	----	----	
^ Sum of BTEX	EP080	1	µg/L	----	----	<1	----	----	----	----	
Naphthalene	EP080	5	µg/L	----	----	<5	----	----	----	----	



**Summary of non-compliances against the
 WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)**

Sample: EP2503279003 7C

Fluoride	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	610 mg/kg	< 300 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 300 mg/kg
Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	3.8 mg/kg	< 2 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 2 mg/kg

Sample: EP2503279004 6A

Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	12.2 mg/kg	< 2 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 2 mg/kg

Sample: EP2503279005 6B

Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	10.6 mg/kg	< 2 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 2 mg/kg

Sample: EP2503279006 6C

Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	13.9 mg/kg	< 2 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 2 mg/kg

Sample: EP2503279007 5A

Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	4.6 mg/kg	< 2 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 2 mg/kg

Sample: EP2503279008 5B

Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	2.1 mg/kg	< 2 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 2 mg/kg

Sample: EP2503279009 5C

Fluoride	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	740 mg/kg	< 300 mg/kg
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 300 mg/kg

Sample: EP2503279010 4A

Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate	8.0 mg/kg	< 2 mg/kg
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Summary of non-compliances against the WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)				Limits
		Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate		< 2 mg/kg
Sample: EP2503279011 4B				
Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate	6.6 mg/kg	< 2 mg/kg < 2 mg/kg
Sample: EP2503279012 4C				
Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate	5.5 mg/kg	< 2 mg/kg < 2 mg/kg
Sample: EP2503279013 3A				
Fluoride	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate	380 mg/kg	< 300 mg/kg < 300 mg/kg
Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate	9.7 mg/kg	< 2 mg/kg < 2 mg/kg
Sample: EP2503279014 3B				
Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate	5.0 mg/kg	< 2 mg/kg < 2 mg/kg
Sample: EP2503279015 3C				
Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate	8.3 mg/kg	< 2 mg/kg < 2 mg/kg
Sample: EP2503279018 QC03				
Lead	No summary description available for this compound in this guideline.	Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate	10.6 mg/kg	< 2 mg/kg < 2 mg/kg



Guideline values - WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Limits

Class I - Table 3 Contaminant threshold (CT1) values for waste not requiring leachate

Aluminium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Arsenic:	No overview description available for this compound in this guideline.	< 14 mg/kg
Barium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Benzene:	No overview description available for this compound in this guideline.	< 0.2 mg/kg
Benzo(a)pyrene:	No overview description available for this compound in this guideline.	< 5 mg/kg
Beryllium:	No overview description available for this compound in this guideline.	< 2 mg/kg
Boron:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
C6 - C9 Fraction:	No overview description available for this compound in this guideline.	< 2,800 mg/kg
Cadmium:	No overview description available for this compound in this guideline.	< 0.4 mg/kg
Cobalt:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Copper:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Ethylbenzene:	No overview description available for this compound in this guideline.	< 60 mg/kg
Fluoride:	No overview description available for this compound in this guideline.	< 300 mg/kg
Hexavalent Chromium:	No overview description available for this compound in this guideline.	< 10 mg/kg
Lead:	No overview description available for this compound in this guideline.	< 2 mg/kg
Manganese:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Mercury:	No overview description available for this compound in this guideline.	< 0.2 mg/kg
Molybdenum:	No overview description available for this compound in this guideline.	< 10 mg/kg
Nickel:	No overview description available for this compound in this guideline.	< 4 mg/kg
Selenium:	No overview description available for this compound in this guideline.	< 2 mg/kg
Silver:	No overview description available for this compound in this guideline.	< 20 mg/kg
Sum of polycyclic aromatic hydrocarbons:	No overview description available for this compound in this guideline.	< 100 mg/kg
Toluene:	No overview description available for this compound in this guideline.	< 160 mg/kg
Vanadium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Zinc:	No overview description available for this compound in this guideline.	< 50,000 mg/kg

Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate

Aluminium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Arsenic:	No overview description available for this compound in this guideline.	< 14 mg/kg
Barium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Benzene:	No overview description available for this compound in this guideline.	< 0.2 mg/kg
Benzo(a)pyrene:	No overview description available for this compound in this guideline.	< 5 mg/kg



Guideline values - WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Limits

Class II - Table 3 Contaminant threshold (CT2) values for waste not requiring leachate

Beryllium:	No overview description available for this compound in this guideline.	< 2 mg/kg
Boron:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
C6 - C9 Fraction:	No overview description available for this compound in this guideline.	< 2,800 mg/kg
Cadmium:	No overview description available for this compound in this guideline.	< 0.4 mg/kg
Cobalt:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Copper:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Ethylbenzene:	No overview description available for this compound in this guideline.	< 60 mg/kg
Fluoride:	No overview description available for this compound in this guideline.	< 300 mg/kg
Hexavalent Chromium:	No overview description available for this compound in this guideline.	< 10 mg/kg
Lead:	No overview description available for this compound in this guideline.	< 2 mg/kg
Manganese:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Mercury:	No overview description available for this compound in this guideline.	< 0.2 mg/kg
Molybdenum:	No overview description available for this compound in this guideline.	< 10 mg/kg
Nickel:	No overview description available for this compound in this guideline.	< 4 mg/kg
Selenium:	No overview description available for this compound in this guideline.	< 2 mg/kg
Silver:	No overview description available for this compound in this guideline.	< 20 mg/kg
Sum of polycyclic aromatic hydrocarbons:	No overview description available for this compound in this guideline.	< 100 mg/kg
Toluene:	No overview description available for this compound in this guideline.	< 160 mg/kg
Vanadium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Zinc:	No overview description available for this compound in this guideline.	< 50,000 mg/kg

Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Aluminium:	No overview description available for this compound in this guideline.	< 100,000 mg/kg
Arsenic:	No overview description available for this compound in this guideline.	< 140 mg/kg
Barium:	No overview description available for this compound in this guideline.	< 100,000 mg/kg
Benzene:	No overview description available for this compound in this guideline.	< 2 mg/kg
Benzo(a)pyrene:	No overview description available for this compound in this guideline.	< 50 mg/kg
Beryllium:	No overview description available for this compound in this guideline.	< 20 mg/kg
Boron:	No overview description available for this compound in this guideline.	< 100,000 mg/kg
C6 - C9 Fraction:	No overview description available for this compound in this guideline.	< 28,000 mg/kg
Cadmium:	No overview description available for this compound in this guideline.	< 4 mg/kg
Cobalt:	No overview description available for this compound in this guideline.	< 100,000 mg/kg



Guideline values - WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Limits

Class III - Table 3 Contaminant threshold (CT3) values for waste not requiring leachate

Copper:	No overview description available for this compound in this guideline.	< 100,000 mg/kg
Ethylbenzene:	No overview description available for this compound in this guideline.	< 600 mg/kg
Fluoride:	No overview description available for this compound in this guideline.	< 3,000 mg/kg
Hexavalent Chromium:	No overview description available for this compound in this guideline.	< 100 mg/kg
Lead:	No overview description available for this compound in this guideline.	< 20 mg/kg
Manganese:	No overview description available for this compound in this guideline.	< 100,000 mg/kg
Mercury:	No overview description available for this compound in this guideline.	< 2 mg/kg
Molybdenum:	No overview description available for this compound in this guideline.	< 100 mg/kg
Nickel:	No overview description available for this compound in this guideline.	< 40 mg/kg
Selenium:	No overview description available for this compound in this guideline.	< 20 mg/kg
Silver:	No overview description available for this compound in this guideline.	< 200 mg/kg
Sum of polycyclic aromatic hydrocarbons:	No overview description available for this compound in this guideline.	< 1,000 mg/kg
Toluene:	No overview description available for this compound in this guideline.	< 1,600 mg/kg
Total Xylenes:	No overview description available for this compound in this guideline.	< 1,200 mg/kg
Vanadium:	No overview description available for this compound in this guideline.	< 100,000 mg/kg
Zinc:	No overview description available for this compound in this guideline.	< 100,000 mg/kg

Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Aluminium:	No overview description available for this compound in this guideline.	< 200,000 mg/kg
Arsenic:	No overview description available for this compound in this guideline.	< 1,400 mg/kg
Barium:	No overview description available for this compound in this guideline.	< 200,000 mg/kg
Benzene:	No overview description available for this compound in this guideline.	< 20 mg/kg
Benzo(a)pyrene:	No overview description available for this compound in this guideline.	< 200 mg/kg
Beryllium:	No overview description available for this compound in this guideline.	< 200 mg/kg
Boron:	No overview description available for this compound in this guideline.	< 200,000 mg/kg
C6 - C9 Fraction:	No overview description available for this compound in this guideline.	< 112,000 mg/kg
Cadmium:	No overview description available for this compound in this guideline.	< 40 mg/kg
Cobalt:	No overview description available for this compound in this guideline.	< 200,000 mg/kg
Copper:	No overview description available for this compound in this guideline.	< 200,000 mg/kg
Ethylbenzene:	No overview description available for this compound in this guideline.	< 6,000 mg/kg
Fluoride:	No overview description available for this compound in this guideline.	< 30,000 mg/kg
Hexavalent Chromium:	No overview description available for this compound in this guideline.	< 1,000 mg/kg



Guideline values - WA DWER Landfill Waste Classification and Waste Definitions 1996 (As amended December 2019)

Limits

Class IV - Table 3 Contaminant threshold (CT4) values for waste not requiring leachate

Lead:	No overview description available for this compound in this guideline.	< 200 mg/kg
Manganese:	No overview description available for this compound in this guideline.	< 200,000 mg/kg
Mercury:	No overview description available for this compound in this guideline.	< 20 mg/kg
Molybdenum:	No overview description available for this compound in this guideline.	< 1,000 mg/kg
Nickel:	No overview description available for this compound in this guideline.	< 400 mg/kg
Selenium:	No overview description available for this compound in this guideline.	< 200 mg/kg
Silver:	No overview description available for this compound in this guideline.	< 2,000 mg/kg
Sum of polycyclic aromatic hydrocarbons:	No overview description available for this compound in this guideline.	< 4,000 mg/kg
Toluene:	No overview description available for this compound in this guideline.	< 16,000 mg/kg
Total Xylenes:	No overview description available for this compound in this guideline.	< 12,000 mg/kg
Vanadium:	No overview description available for this compound in this guideline.	< 200,000 mg/kg
Zinc:	No overview description available for this compound in this guideline.	< 200,000 mg/kg

WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Aluminium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Arsenic:	No overview description available for this compound in this guideline.	< 500 mg/kg
Barium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Benzene:	No overview description available for this compound in this guideline.	< 18 mg/kg
Benzo(a)pyrene:	No overview description available for this compound in this guideline.	< 5 mg/kg
Beryllium:	No overview description available for this compound in this guideline.	< 100 mg/kg
Boron:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
C6 - C9 Fraction:	No overview description available for this compound in this guideline.	< 2,800 mg/kg
Cadmium:	No overview description available for this compound in this guideline.	< 100 mg/kg
Cobalt:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Copper:	No overview description available for this compound in this guideline.	< 50,000 mg/kg



Guideline values - WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

WA DWER Landfill Waste Classification and Waste Definitions 1996 (as amended December 2019)

Limits

Ethylbenzene:	No overview description available for this compound in this guideline.	< 1,080 mg/kg
Fluoride:	No overview description available for this compound in this guideline.	< 10,000 mg/kg
Hexavalent Chromium:	No overview description available for this compound in this guideline.	< 500 mg/kg
Lead:	No overview description available for this compound in this guideline.	< 1,500 mg/kg
Manganese:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Mercury:	No overview description available for this compound in this guideline.	< 75 mg/kg
Molybdenum:	No overview description available for this compound in this guideline.	< 1,000 mg/kg
Nickel:	No overview description available for this compound in this guideline.	< 3,000 mg/kg
Selenium:	No overview description available for this compound in this guideline.	< 50 mg/kg
Silver:	No overview description available for this compound in this guideline.	< 180 mg/kg
Sum of polycyclic aromatic hydrocarbons:	No overview description available for this compound in this guideline.	< 100 mg/kg
Toluene:	No overview description available for this compound in this guideline.	< 518 mg/kg
Total Xylenes:	No overview description available for this compound in this guideline.	< 1,800 mg/kg
Vanadium:	No overview description available for this compound in this guideline.	< 50,000 mg/kg
Zinc:	No overview description available for this compound in this guideline.	< 50,000 mg/kg



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	57	119
2-Chlorophenol-D4	93951-73-6	52	130
2.4.6-Tribromophenol	118-79-6	40	132
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	53	139
Anthracene-d10	1719-06-8	68	124
4-Terphenyl-d14	1718-51-0	66	132
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	132
Toluene-D8	2037-26-5	66	125
4-Bromofluorobenzene	460-00-4	60	124

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	67
2-Chlorophenol-D4	93951-73-6	29	120
2.4.6-Tribromophenol	118-79-6	10	131
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	34	131
Anthracene-d10	1719-06-8	43	126
4-Terphenyl-d14	1718-51-0	41	142
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	61	141
Toluene-D8	2037-26-5	73	126
4-Bromofluorobenzene	460-00-4	60	125



QA/QC Compliance Assessment to assist with Quality Review

Work Order : EP2503279

Page : 1 of 19

Client : GHD PTY LTD

Laboratory : Environmental Division Perth

Contact : Charlie Rolfe

Telephone : +61-8-9406 1301

Project : 12662246

Date Samples Received : 05-Mar-2025

Site : ----

Issue Date : 14-Mar-2025

Sampler : RM

No. of samples received : 19

Order number : 12662246

No. of samples analysed : 19

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- **NO** Laboratory Control outliers occur.
- Matrix Spike outliers exist - please see following pages for full details.
- For all regular sample matrices, where applicable to the methodology, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers exist - please see following pages for full details.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: WATER

Outliers : Analysis Holding Time Compliance

Matrix: SOIL

Method		Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA002: pH 1:5 (Soils)							
Soil Glass Jar - Unpreserved		07-Mar-2025	03-Mar-2025	4	----	----	----
7A,	7B,						
7C,	6A,						
6B,	6C,						
5A,	5B,						
5C,	4A,						
4B,	4C,						
3A,	3B,						
3C,	1A,						
QC01,	QC03						
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved		----	----	----	11-Mar-2025	10-Mar-2025	1
7A,	7B,						
7C,	6A,						
6B,	6C,						
5A,	5B,						
5C,	4A,						
4B,	4C,						
3A,	3B,						
3C,	1A,						
QC01,	QC03						
EK057G: Nitrite as N by Discrete Analyser							



Matrix: **SOIL**

Method		Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EK057G: Nitrite as N by Discrete Analyser - Analysis Holding Time Compliance							
Soil Glass Jar - Unpreserved		07-Mar-2025	03-Mar-2025	4	----	----	----
7A,	7B,						
7C,	6A,						
6B,	6C,						
5A,	5B,						
5C,	4A,						
4B,	4C,						
3A,	3B,						
3C,	1A,						
QC01,	QC03						

Matrix: **WATER**

Method	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EG050T: Total Hexavalent Chromium						
Black Opaque Plastic Bottle - NaOH RB01	----	----	----	06-Mar-2025	25-Feb-2025	9
EK057G: Nitrite as N by Discrete Analyser						
Clear Plastic Bottle - Natural RB01	----	----	----	07-Mar-2025	26-Feb-2025	9
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons						
Amber Glass Bottle - Unpreserved RB01	10-Mar-2025	03-Mar-2025	7	----	----	----
EP080/071: Total Petroleum Hydrocarbons						
Amber Glass Bottle - Unpreserved RB01	10-Mar-2025	03-Mar-2025	7	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions						
Amber Glass Bottle - Unpreserved RB01	10-Mar-2025	03-Mar-2025	7	----	----	----

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	13	7.69	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	15	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
TRH - Semivolatile Fraction	EP071	0	15	0.00	5.00	NEPM 2013 B3 & ALS QC Standard



Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA002: pH 1:5 (Soils)								
Soil Glass Jar - Unpreserved (EA002)		24-Feb-2025	07-Mar-2025	03-Mar-2025	✖	07-Mar-2025	07-Mar-2025	✔
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)		24-Feb-2025	----	----	----	11-Mar-2025	10-Mar-2025	✖
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
ED040S: Soluble Major Anions								
Soil Glass Jar - Unpreserved (ED040S)		24-Feb-2025	07-Mar-2025	24-Mar-2025	✔	12-Mar-2025	04-Apr-2025	✔
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED045G: Chloride by Discrete Analyser								
Soil Glass Jar - Unpreserved (ED045G)		24-Feb-2025	07-Mar-2025	24-Mar-2025	✓	07-Mar-2025	04-Apr-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)		24-Feb-2025	10-Mar-2025	23-Aug-2025	✓	14-Mar-2025	23-Aug-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
EG020T: Total Metals by ICP-MS								
Soil Glass Jar - Unpreserved (EG020X-T)		24-Feb-2025	10-Mar-2025	23-Aug-2025	✓	11-Mar-2025	23-Aug-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)		24-Feb-2025	10-Mar-2025	24-Mar-2025	✓	11-Mar-2025	24-Mar-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G)		24-Feb-2025	12-Mar-2025	24-Mar-2025	✓	12-Mar-2025	19-Mar-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
EK040T-P: Total Fluoride by Auto Analyser								
Soil Glass Jar - Unpreserved (EK040T-P)		24-Feb-2025	11-Mar-2025	24-Mar-2025	✓	13-Mar-2025	24-Mar-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK055: Ammonia as N								
Soil Glass Jar - Unpreserved (EK055)		24-Feb-2025	----	----	----	12-Mar-2025	24-Mar-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
EK057G: Nitrite as N by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK057G)		24-Feb-2025	07-Mar-2025	03-Mar-2025	✖	07-Mar-2025	09-Mar-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK059G)		24-Feb-2025	07-Mar-2025	24-Mar-2025	✓	07-Mar-2025	09-Mar-2025	✓
7A,	7B,							
7C,	6A,							
6B,	6C,							
5A,	5B,							
5C,	4A,							
4B,	4C,							
3A,	3B,							
3C,	1A,							
QC01,	QC03							

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Soil Glass Jar - Unpreserved (EK061G)	24-Feb-2025	10-Mar-2025	24-Mar-2025	✓	13-Mar-2025	07-Apr-2025	✓
7A, 7C, 6B, 5A, 5C, 4B, 3A, 3C, QC01, 7B, 6A, 6C, 5B, 4A, 4C, 3B, 1A, QC03							
EK067G: Total Phosphorus as P by Discrete Analyser							
Soil Glass Jar - Unpreserved (EK067G)	24-Feb-2025	10-Mar-2025	24-Mar-2025	✓	13-Mar-2025	07-Apr-2025	✓
7A, 7C, 6B, 5A, 5C, 4B, 3A, 3C, QC01, 7B, 6A, 6C, 5B, 4A, 4C, 3B, 1A, QC03							
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-G)	24-Feb-2025	06-Mar-2025	23-Aug-2025	✓	---	---	---
6C, 4A, 3A, 5A, 4C,							
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))	24-Feb-2025	10-Mar-2025	10-Mar-2025	✓	11-Mar-2025	19-Apr-2025	✓
7A, 7C, 6B, 5A, 5C, 4B, 3A, 3C, QC01, 7B, 6A, 6C, 5B, 4A, 4C, 3B, 1A, QC03							

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080) 7A, 7C, 6B, 5A, 5C, 4B, 3A, 3C, QC01,	7B, 6A, 6C, 5B, 4A, 4C, 3B, 1A, QC03	24-Feb-2025	07-Mar-2025	10-Mar-2025	✓	10-Mar-2025	10-Mar-2025	✓
Soil Glass Jar - Unpreserved (EP071) 7A, 7C, 6B, 5A, 5C, 4B, 3A, 3C, QC01,	7B, 6A, 6C, 5B, 4A, 4C, 3B, 1A, QC03	24-Feb-2025	10-Mar-2025	10-Mar-2025	✓	12-Mar-2025	19-Apr-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080) 7A, 7C, 6B, 5A, 5C, 4B, 3A, 3C, QC01,	7B, 6A, 6C, 5B, 4A, 4C, 3B, 1A, QC03	24-Feb-2025	07-Mar-2025	10-Mar-2025	✓	10-Mar-2025	10-Mar-2025	✓
Soil Glass Jar - Unpreserved (EP071) 7A, 7C, 6B, 5A, 5C, 4B, 3A, 3C, QC01,	7B, 6A, 6C, 5B, 4A, 4C, 3B, 1A, QC03	24-Feb-2025	10-Mar-2025	10-Mar-2025	✓	12-Mar-2025	19-Apr-2025	✓

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Matrix: **WATER** Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED041G: Sulfate (Turbidimetric) as S by DA							
Clear Plastic Bottle - Natural (ED041G) RB01	24-Feb-2025	----	----	----	07-Mar-2025	24-Mar-2025	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G) RB01	24-Feb-2025	----	----	----	07-Mar-2025	24-Mar-2025	✓
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G) RB01	24-Feb-2025	----	----	----	07-Mar-2025	24-Mar-2025	✓
EG005(ED093)C: Leachable Metals by ICPAES							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG005C) 6C, 4A, 3A	06-Mar-2025	13-Mar-2025	02-Sep-2025	✓	14-Mar-2025	02-Sep-2025	✓
EG020T: Total Metals by ICP-MS							
Clear HDPE (U-T ORC) - Unfiltered; Lab-acidified (EG020B-T) RB01	24-Feb-2025	11-Mar-2025	23-Aug-2025	✓	11-Mar-2025	23-Aug-2025	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear HDPE (U-T ORC) - Unfiltered; Lab-acidified (EG035T) RB01	24-Feb-2025	----	----	----	11-Mar-2025	24-Mar-2025	✓
EG050T: Total Hexavalent Chromium							
Black Opaque Plastic Bottle - NaOH (EG050G-T) RB01	24-Feb-2025	----	----	----	06-Mar-2025	25-Feb-2025	✗
EK040P: Fluoride by PC Titrator							
Clear Plastic Bottle - Natural (EK040P) RB01	24-Feb-2025	----	----	----	13-Mar-2025	24-Mar-2025	✓



Matrix: **WATER**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G) RB01	24-Feb-2025	----	----	----	10-Mar-2025	24-Mar-2025	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G) RB01	24-Feb-2025	----	----	----	07-Mar-2025	26-Feb-2025	✗
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G) RB01	24-Feb-2025	----	----	----	06-Mar-2025	24-Mar-2025	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G) RB01	24-Feb-2025	13-Mar-2025	24-Mar-2025	✓	13-Mar-2025	24-Mar-2025	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G) RB01	24-Feb-2025	13-Mar-2025	24-Mar-2025	✓	13-Mar-2025	24-Mar-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM)) RB01	24-Feb-2025	10-Mar-2025	03-Mar-2025	✗	11-Mar-2025	19-Apr-2025	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071) RB01	24-Feb-2025	10-Mar-2025	03-Mar-2025	✗	11-Mar-2025	19-Apr-2025	✓
Amber VOC Vial - Sulfuric Acid (EP080) RB01	24-Feb-2025	07-Mar-2025	10-Mar-2025	✓	08-Mar-2025	10-Mar-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) RB01	24-Feb-2025	10-Mar-2025	03-Mar-2025	✗	11-Mar-2025	19-Apr-2025	✓
Amber VOC Vial - Sulfuric Acid (EP080) RB01	24-Feb-2025	07-Mar-2025	10-Mar-2025	✓	08-Mar-2025	10-Mar-2025	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) RB01	24-Feb-2025	07-Mar-2025	10-Mar-2025	✓	08-Mar-2025	10-Mar-2025	✓



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: **✖** = Quality Control frequency not within specification ; **✓** = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Buchi Ammonia	EK055	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Anions - Soluble	ED040S	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride by Auto Analyser	EK040T-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite X	EG020X-T	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite Y	EG020Y-T	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Buchi Ammonia	EK055	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Anions - Soluble	ED040S	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride by Auto Analyser	EK040T-P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite X	EG020X-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite Y	EG020Y-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard



Matrix: **SOIL**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification .

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Control Samples (LCS) - Continued							
TRH - Semivolatile Fraction	EP071	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
ASLP for Non & Semivolatile Analytes - Glass Leaching Vessel	EN60a-G	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Buchi Ammonia	EK055	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Anions - Soluble	ED040S	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride by Auto Analyser	EK040T-P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite X	EG020X-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite Y	EG020Y-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Buchi Ammonia	EK055	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride by Auto Analyser	EK040T-P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite X	EG020X-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite Y	EG020Y-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



Matrix: **WATER**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Total	EG050G-T	1	1	100.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Leachable Metals by ICPAES	EG005C	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	13	7.69	10.00	✗	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite B	EG020B-T	1	2	50.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	15	0.00	10.00	✗	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	8	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Total	EG050G-T	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Leachable Metals by ICPAES	EG005C	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite B	EG020B-T	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Total	EG050G-T	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Leachable Metals by ICPAES	EG005C	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



Matrix: **WATER**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification .

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Method Blanks (MB) - Continued							
Nitrite as N by Discrete Analyser	EK057G	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite B	EG020B-T	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Total	EG050G-T	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Leachable Metals by ICPAES	EG005C	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	15	0.00	5.00	✗	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
pH (1:5)	EA002	SOIL	In house: Referenced to Rayment and Lyons 4A1 and APHA 4500H+. pH is determined on soil samples after a 1:5 soil/water leach. This method is compliant with NEPM Schedule B(3).
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Major Anions - Soluble	ED040S	SOIL	In house: Soluble Anions are determined off a 1:5 soil / water extract by ICPAES.
Chloride Soluble By Discrete Analyser	ED045G	SOIL	In house: Referenced to APHA 4500 Cl - G. The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocyanate forms highly-coloured ferric thiocyanate which is measured at 480 nm. Analysis is performed on a 1:5 soil / water leachate.
Leachable Metals by ICPAES	EG005C	SOIL	In house: referenced to APHA 3120; USEPA SW 846 - 6010: The ICPAES technique ionises leachate sample atoms emitting a characteristic spectrum. This spectrum is then compared against matrix matched standards for quantification. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-MS - Suite X	EG020X-T	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Metals by ICP-MS - Suite Y	EG020Y-T	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using diphenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3).
Total Fluoride by Auto Analyser	EK040T-P	SOIL	In-house: Total fluoride is determined by an auto analyser ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution.
Buchi Ammonia	EK055	SOIL	In house: Referenced to APHA 4500-NH ₃ B&G, H Samples are steam distilled (Buchi) prior to analysis and quantified using titration, FIA or Discrete Analyser.



Analytical Methods	Method	Matrix	Method Descriptions
Nitrite as N - Soluble by Discrete Analyser	EK057G	SOIL	In house: Referenced to APHA 4500-NO3- B. Nitrite in a water extract is determined by direct colourimetry by Discrete Analyser.
Nitrate as N - Soluble by Discrete Analyser	EK058G	SOIL	In house: Referenced to APHA 4500-NO3- F. Nitrate in the 1:5 soil:water extract is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined separately by direct colourimetry and result for Nitrate calculated as the difference between the two results.
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	SOIL	In house: Thermo Scientific Method D08727 and NEMI (National Environmental Method Index) Method ID: 9171. This method covers the determination of total oxidised nitrogen (NOx-N) and nitrate (NO3-N) by calculation, Combined oxidised Nitrogen (NO2+NO3) in a water extract is determined by direct colourimetry by Discrete Analyser.
TKN as N By Discrete Analyser	EK061G	SOIL	In house: Referenced to APHA 4500-Norg-D Soil samples are digested using Kjeldahl digestion followed by determination by Discrete Analyser.
Total Nitrogen as N (TKN + NOx) By Discrete Analyser	EK062G	SOIL	In house: Referenced to APHA 4500 Norg/NO3- Total Nitrogen is determined as the sum of TKN and Oxidised Nitrogen, each determined separately as N.
Total Phosphorus By Discrete Analyser	EK067G	SOIL	In house: Referenced to APHA 4500 P-B&F This procedure involves sulfuric acid digestion and quantification using Discrete Analyser.
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G. The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocyanate forms highly-coloured ferric thiocyanate which is measured at 480 nm.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Metals by ICP-MS - Suite B	EG020B-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.



Analytical Methods	Method	Matrix	Method Descriptions
Total Mercury by FIMS	EG035T	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
Hexavalent Chromium by Discrete Analyser - Total	EG050G-T	WATER	In house: Referenced to APHA 3500 Cr-A & B. Hexavalent chromium is determined directly on water sample by Discrete Analyser as received by pH adjustment and colour development using dephenylcarbazine. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3).
Fluoride by Auto Titrator	EK040P	WATER	In house: Referenced to APHA 4500-F C: CDTA is added to the sample to provide a uniform ionic strength background, adjust pH, and break up complexes. Fluoride concentration is determined by either manual or automatic ISE measurement. This method is compliant with NEPM Schedule B(3)
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH ₃ G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO ₂ - B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO ₃ - F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined separately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NO _x) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO ₃ - F. Combined oxidised Nitrogen (NO ₂ +NO ₃) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO ₃ -. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
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Preparation Methods	Method	Matrix	Method Descriptions
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	In house: Referenced to USEPA SW846, Method 3060A.
Total Fluoride	EK040T-PR	SOIL	In house: Samples are fused with Sodium Carbonate / Potassium Carbonate flux.
TKN/TP Digestion	EK061/EK067	SOIL	In house: Referenced to APHA 4500 Norg- D; APHA 4500 P - H. Macro Kjeldahl digestion.
Digestion for Total Recoverable Metals in TCLP Leachate	EN25C	SOIL	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
1:5 solid / water leach for soluble analytes	EN34	SOIL	10 g of soil is mixed with 50 mL of reagent grade water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
ASLP for Non & Semivolatile Analytes - Glass Leaching Vessel	EN60a-G	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.



QUALITY CONTROL REPORT

Work Order	: EP2503279	Page	: 1 of 18
Client	: GHD PTY LTD	Laboratory	: Environmental Division Perth
Contact	: Charlie Rolfe	Contact	: Angel Tam
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12662246	Date Samples Received	: 05-Mar-2025
Order number	: 12662246	Date Analysis Commenced	: 06-Mar-2025
C-O-C number	: ----	Issue Date	: 14-Mar-2025
Sampler	: RM		
Site	: ----		
Quote number	: EP25GHDSE0009		
No. of samples received	: 19		
No. of samples analysed	: 19		



Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
Daniel Fisher	Inorganics Analyst	Perth Inorganics, Wangara, WA
David Viner	SENIOR LAB TECH	Perth Organics, Wangara, WA
Jarwis Nheu	Non-Metals Team Leader	Melbourne Inorganics, Springvale, VIC



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

RPD = Relative Percentage Difference

= Indicates failed QC

* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6426032)									
EP2503279-001	7A	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	<10	<10	0.0	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	42	40	6.4	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	5	5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Aluminium	7429-90-5	50	mg/kg	1040	1020	2.3	0% - 20%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EP2503279-011	4B	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	<10	<10	0.0	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6426032) - continued									
EP2503279-011	4B	EG005T: Manganese	7439-96-5	5	mg/kg	17	17	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	55	43	23.9	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Aluminium	7429-90-5	50	mg/kg	5430	5240	3.6	0% - 20%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EK040T-P: Total Fluoride by Auto Analyser (QC Lot: 6428132)									
EP2503279-001	7A	EK040T-P: Fluoride	16984-48-8	40	mg/kg	120	100	19.0	No Limit
EP2503279-011	4B	EK040T-P: Fluoride	16984-48-8	40	mg/kg	70	110	40.0	No Limit
EA002: pH 1:5 (Soils) (QC Lot: 6422942)									
EP2503279-009	5C	EA002: pH Value	----	0.1	pH Unit	5.2	4.7	9.1	0% - 20%
EP2503196-002	Anonymous	EA002: pH Value	----	0.1	pH Unit	9.2	9.2	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6428805)									
EP2503279-001	7A	EA055: Moisture Content	----	0.1 (1.0)*	%	7.8	7.9	0.0	No Limit
EP2503279-011	4B	EA055: Moisture Content	----	0.1 (1.0)*	%	11.0	10.9	1.4	0% - 50%
ED040S: Soluble Major Anions (QC Lot: 6422945)									
EP2503279-001	7A	ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	30	30	0.0	No Limit
EP2503279-011	4B	ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	<10	0.0	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 6422948)									
EP2503279-001	7A	ED045G: Chloride	16887-00-6	10	mg/kg	410	410	0.0	0% - 20%
EP2503279-011	4B	ED045G: Chloride	16887-00-6	10	mg/kg	<10	<10	0.0	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 6426030)									
EP2503279-001	7A	EG020Y-T: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020Y-T: Selenium	7782-49-2	1	mg/kg	<1	<1	0.0	No Limit
EP2503279-011	4B	EG020Y-T: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020Y-T: Selenium	7782-49-2	1	mg/kg	<1	<1	0.0	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 6426031)									
EP2503279-001	7A	EG020X-T: Lead	7439-92-1	0.1	mg/kg	1.1	1.0	0.0	0% - 50%
EP2503279-011	4B	EG020X-T: Lead	7439-92-1	0.1	mg/kg	6.6	5.4	20.0	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6426029)									
EP2503279-001	7A	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP2503279-011	4B	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 6426273)									
EP2503279-001	7A	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP2503279-011	4B	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EK055: Ammonia as N (QC Lot: 6426373)									
EP2503279-001	7A	EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	<20	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EK055: Ammonia as N (QC Lot: 6426373) - continued									
EP2503279-010	4A	EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	<20	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 6422947)									
EP2503279-001	7A	EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP2503279-011	4B	EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 6422946)									
EP2503279-001	7A	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	1.4	1.6	0.0	0% - 50%
EP2503279-011	4B	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	0.2	0.2	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 6426985)									
EP2503279-001	7A	EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	<20	<20	0.0	No Limit
EP2503279-011	4B	EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	100	100	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 6426986)									
EP2503279-001	7A	EK067G: Total Phosphorus as P	----	2	mg/kg	105	112	6.3	0% - 20%
EP2503279-011	4B	EK067G: Total Phosphorus as P	----	2	mg/kg	88	94	5.7	0% - 20%
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6426469)									
EP2503279-001	7A	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP2503279-011	4B	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6426469) - continued									
EP2503279-011	4B	EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6423078)									
EP2503279-001	7A	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP2503279-011	4B	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6426470)									
EP2503279-001	7A	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP2503279-011	4B	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6423078)									
EP2503279-001	7A	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP2503279-011	4B	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6426470)									
EP2503279-001	7A	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP2503279-011	4B	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEXN (QC Lot: 6423078)									
EP2503279-001	7A	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC Lot: 6423078) - continued									
EP2503279-001	7A	EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP2503279-011	4B	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)C: Leachable Metals by ICPAES (QC Lot: 6429771)									
EP2503279-006	6C	EG005C: Lead	7439-92-1	0.1	mg/L	<0.1	<0.1	0.0	No Limit
		EG005C: Nickel	7440-02-0	0.1	mg/L	<0.1	<0.1	0.0	No Limit
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6422363)									
EP2503328-002	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	67	65	4.0	0% - 20%
EP2503328-003	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	69	69	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6422365)									
EP2503328-003	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	197	198	0.9	0% - 20%
EG020T: Total Metals by ICP-MS (QC Lot: 6428745)									
EP2503000-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Barium	7440-39-3	0.001	mg/L	0.008	0.009	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.245	0.248	1.2	0% - 20%
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.006	0.007	0.0	No Limit
		EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Molybdenum	7439-98-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.114	0.119	4.7	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Boron	7440-42-8	0.05	mg/L	0.27	0.28	5.2	No Limit
EP2503193-035	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 6428745) - continued									
EP2503193-035	Anonymous	EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Barium	7440-39-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Molybdenum	7439-98-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Boron	7440-42-8	0.05	mg/L	<0.05	<0.05	0.0	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 6428746)									
EP2503193-035	Anonymous	EG020B-T: Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6428772)									
EP2503148-001	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EP2503193-036	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EG050T: Total Hexavalent Chromium (QC Lot: 6422414)									
EP2503279-019	RB01	EG050G-T: Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK040P: Fluoride by PC Titrator (QC Lot: 6432110)									
EP2503237-003	Anonymous	EK040P: Fluoride	16984-48-8	0.1	mg/L	0.5	0.5	0.0	No Limit
EP2503237-013	Anonymous	EK040P: Fluoride	16984-48-8	0.1	mg/L	0.6	0.6	0.0	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 6422409)									
EP2503272-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.02	0.02	0.0	No Limit
EP2503316-004	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.01	0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 6422364)									
EP2503328-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP2503328-003	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 6422410)									
EP2503272-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.02	0.02	0.0	No Limit
EP2503316-004	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 6429811)									
EP2502829-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1 (0.5)*	mg/L	55.9	49.5	12.2	0% - 20%



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 6429811) - continued									
EP2503340-002	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1 (0.2)*	mg/L	1.2	1.1	9.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 6429810)									
EP2502829-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01 (0.05)*	mg/L	0.20	0.06	99.8	No Limit
EP2503340-002	Anonymous	EK067G: Total Phosphorus as P	----	0.01 (0.02)*	mg/L	0.05	0.04	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6426374)									
EP2503181-003	Anonymous	EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	1	µg/L	<1.0	<1.0	0.0	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	<1.0	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6423257)									
EP2503247-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP2503279-019	RB01	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6423257)									
EP2503247-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP2503279-019	RB01	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 6423257)									
EP2503247-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC Lot: 6423257) - continued									
EP2503247-001	Anonymous	EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
EP2503279-019	RB01	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
		106-42-3							
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6426032)								
EG005T: Aluminium	7429-90-5	50	mg/kg	<50	13480 mg/kg	98.6	70.0	130
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	77.39 mg/kg	98.9	70.0	130
EG005T: Barium	7440-39-3	10	mg/kg	<10	85.98 mg/kg	103	70.0	130
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	----	----	----	----
EG005T: Boron	7440-42-8	50	mg/kg	<50	----	----	----	----
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	10.47 mg/kg	92.6	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	46.13 mg/kg	96.2	70.0	130
EG005T: Manganese	7439-96-5	5	mg/kg	<5	531.08 mg/kg	108	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	1.29 mg/kg	89.1	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	14.48 mg/kg	91.8	70.0	130
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.82 mg/kg	83.3	70.0	130
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	55.58 mg/kg	96.4	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	190.4 mg/kg	90.9	70.0	130
EK040T-P: Total Fluoride by Auto Analyser (QCLot: 6428132)								
EK040T-P: Fluoride	16984-48-8	40	mg/kg	<40	334 mg/kg	102	93.1	107
EN60: ASLP Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel) (QCLot: 6421300)								
EN60a-G: Extraction Fluid pH	----	0.1	pH Unit	5.0	----	----	----	----
EN60a-G: Final pH	----	0.1	pH Unit	5.1	----	----	----	----
EA002: pH 1:5 (Soils) (QCLot: 6422942)								
EA002: pH Value	----	----	pH Unit	----	4 pH Unit	101	98.6	102
				----	7 pH Unit	100	98.6	102
ED040S: Soluble Major Anions (QCLot: 6422945)								
ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	750 mg/kg	110	91.7	116
ED045G: Chloride by Discrete Analyser (QCLot: 6422948)								
ED045G: Chloride	16887-00-6	10	mg/kg	<10	50 mg/kg	93.3	88.0	112
				<10	5000 mg/kg	92.7	88.0	112
EG020T: Total Metals by ICP-MS (QCLot: 6426030)								
EG020Y-T: Selenium	7782-49-2	1	mg/kg	<1	----	----	----	----
EG020Y-T: Cadmium	7440-43-9	0.1	mg/kg	<0.1	1.59 mg/kg	99.1	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 6426031)								



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG020T: Total Metals by ICP-MS (QCLot: 6426031) - continued								
EG020X-T: Lead	7439-92-1	0.1	mg/kg	<0.1	58.42 mg/kg	107	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6426029)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.115 mg/kg	70.0	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 6426273)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	81.6	70.0	120
				<0.5	20 mg/kg	103	70.0	120
EK055: Ammonia as N (QCLot: 6426373)								
EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	50 mg/kg	97.6	76.1	110
EK057G: Nitrite as N by Discrete Analyser (QCLot: 6422947)								
EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	2.5 mg/kg	101	90.6	108
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6422946)								
EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	2.5 mg/kg	98.9	88.5	110
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6426985)								
EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	<20	1000 mg/kg	82.9	70.0	110
				<20	100 mg/kg	98.8	70.0	128
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6426986)								
EK067G: Total Phosphorus as P	----	2	mg/kg	<2	440 mg/kg	87.8	70.0	110
				<2	44 mg/kg	89.7	73.9	120
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6426469)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	105	71.0	123
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	93.4	69.0	129
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	94.5	65.0	125
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	112	71.0	125
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	107	66.0	124
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	108	60.0	112
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	121	67.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	126	65.0	127
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	90.8	57.0	125
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	101	57.0	131
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	3 mg/kg	94.2	65.0	125
	205-82-3							
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	117	69.0	127
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	97.3	63.0	121
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	102	61.0	121



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6426469) - continued								
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	96.4	52.0	128
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	114	65.0	125
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6423078)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	35 mg/kg	83.8	66.0	122
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6426470)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	1666 mg/kg	103	70.0	111
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	2937 mg/kg	99.5	71.9	109
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	477 mg/kg	91.2	63.8	118
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6423078)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	78.8	66.0	122
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6426470)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	2315 mg/kg	100	72.8	110
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	2594 mg/kg	99.5	67.8	114
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	157 mg/kg	92.0	50.3	123
EP080: BTEXN (QCLot: 6423078)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	81.4	72.0	122
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	83.7	75.0	119
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	84.9	73.0	121
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4 mg/kg	85.0	74.0	122
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	90.5	75.0	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	108	64.0	126

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit			LCS	Low	High
EG005(ED093)C: Leachable Metals by ICPAES (QCLot: 6429771)								
EG005C: Lead	7439-92-1	0.1	mg/L	<0.1	1 mg/L	104	89.5	110
EG005C: Nickel	7440-02-0	0.1	mg/L	<0.1	1 mg/L	104	88.1	108
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6422363)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	104	89.9	112
				<1	500 mg/L	104	89.9	112
ED045G: Chloride by Discrete Analyser (QCLot: 6422365)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	97.6	88.6	113
				<1	1000 mg/L	102	88.6	113



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EG020T: Total Metals by ICP-MS (QCLot: 6428745)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	109	91.6	114
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	107	92.6	113
EG020A-T: Beryllium	7440-41-7	0.001	mg/L	<0.001	0.1 mg/L	116	82.2	127
EG020A-T: Barium	7440-39-3	0.001	mg/L	<0.001	0.1 mg/L	108	91.0	112
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	106	91.8	111
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	109	90.9	109
EG020A-T: Cobalt	7440-48-4	0.001	mg/L	<0.001	0.1 mg/L	108	90.5	110
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	110	90.8	110
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	107	92.3	108
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	104	90.3	109
EG020A-T: Molybdenum	7439-98-7	0.001	mg/L	<0.001	0.1 mg/L	115	98.8	121
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	110	89.3	110
EG020A-T: Selenium	7782-49-2	0.01	mg/L	<0.01	0.1 mg/L	106	85.7	110
EG020A-T: Vanadium	7440-62-2	0.01	mg/L	<0.01	0.1 mg/L	108	92.0	111
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	106	90.7	113
EG020A-T: Boron	7440-42-8	0.05	mg/L	<0.05	0.5 mg/L	113	79.6	130
EG020T: Total Metals by ICP-MS (QCLot: 6428746)								
EG020B-T: Silver	7440-22-4	0.001	mg/L	<0.001	0.02 mg/L	107	92.5	124
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6428772)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.005 mg/L	93.0	83.7	120
EG050T: Total Hexavalent Chromium (QCLot: 6422414)								
EG050G-T: Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	0.5 mg/L	105	93.2	108
EK040P: Fluoride by PC Titrator (QCLot: 6432110)								
EK040P: Fluoride	16984-48-8	0.1	mg/L	<0.1	5 mg/L	108	86.0	116
EK055G: Ammonia as N by Discrete Analyser (QCLot: 6422409)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	98.3	86.2	111
EK057G: Nitrite as N by Discrete Analyser (QCLot: 6422364)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	97.9	88.7	113
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6422410)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	108	90.5	110
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6429811)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	92.2	80.0	115
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6429810)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	89.3	70.0	110



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6426374)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	10 µg/L	92.7	41.9	99.1
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	10 µg/L	96.6	36.1	113
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	10 µg/L	89.0	35.8	102
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	10 µg/L	94.9	33.5	113
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	10 µg/L	94.4	36.5	115
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	10 µg/L	94.3	46.4	109
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	10 µg/L	97.8	40.4	124
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	10 µg/L	96.2	40.2	123
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	10 µg/L	101	40.2	126
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	10 µg/L	96.3	45.6	121
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	10 µg/L	106	43.2	123
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	10 µg/L	93.5	47.3	121
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	10 µg/L	101	44.8	123
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	10 µg/L	102	38.8	120
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	1	µg/L	<1.0	10 µg/L	100	39.4	119
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	10 µg/L	102	40.1	123
EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6423257)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	360 µg/L	92.6	73.6	113
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6426375)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	6382 µg/L	75.4	39.3	103
EP071: C15 - C28 Fraction	----	100	µg/L	<100	10210 µg/L	81.8	47.2	122
EP071: C29 - C36 Fraction	----	50	µg/L	<50	1761 µg/L	84.6	42.5	119
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6423257)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	450 µg/L	90.4	73.9	115
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6426375)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	8358 µg/L	78.9	47.0	100
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	9121 µg/L	78.6	46.2	116
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	567 µg/L	103	24.7	137
EP080: BTEXN (QCLot: 6423257)								
EP080: Benzene	71-43-2	1	µg/L	<1	20 µg/L	91.0	84.1	114
EP080: Toluene	108-88-3	2	µg/L	<2	20 µg/L	102	81.0	115
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	20 µg/L	99.9	84.4	113

Matrix Spike (MS) Report

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6426032)							
EP2503279-001	7A	EG005T: Arsenic	7440-38-2	50 mg/kg	100	70.0	130
		EG005T: Barium	7440-39-3	50 mg/kg	99.5	70.0	130
		EG005T: Beryllium	7440-41-7	50 mg/kg	106	70.0	130
		EG005T: Cobalt	7440-48-4	50 mg/kg	100	70.0	130
		EG005T: Copper	7440-50-8	50 mg/kg	97.2	70.0	130
		EG005T: Manganese	7439-96-5	50 mg/kg	107	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	100	70.0	130
		EG005T: Vanadium	7440-62-2	50 mg/kg	96.9	70.0	130
		EG005T: Zinc	7440-66-6	50 mg/kg	99.6	70.0	130
EK040T-P: Total Fluoride by Auto Analyser (QCLot: 6428132)							
EP2503279-002	7B	EK040T-P: Fluoride	16984-48-8	400 mg/kg	72.2	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 6422948)							
EP2503279-002	7B	ED045G: Chloride	16887-00-6	1000 mg/kg	107	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 6426030)							
EP2503279-001	7A	EG020Y-T: Cadmium	7440-43-9	12.5 mg/kg	99.5	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 6426031)							
EP2503279-001	7A	EG020X-T: Lead	7439-92-1	50 mg/kg	98.1	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6426029)							
EP2503279-001	7A	EG035T: Mercury	7439-97-6	1 mg/kg	74.9	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 6426273)							
EP2503279-001	7A	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	98.9	70.0	130
EP2503279-001	7A	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	111	70.0	130
EK055: Ammonia as N (QCLot: 6426373)							



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6422363) - continued							
EP2503328-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	124	70.4	130
ED045G: Chloride by Discrete Analyser (QCLot: 6422365)							
EP2503328-001	Anonymous	ED045G: Chloride	16887-00-6	200 mg/L	111	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 6428745)							
EP2503000-002	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	101	70.0	130
		EG020A-T: Beryllium	7440-41-7	1 mg/L	113	70.0	130
		EG020A-T: Barium	7440-39-3	1 mg/L	104	70.0	130
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	102	70.0	130
		EG020A-T: Chromium	7440-47-3	1 mg/L	102	70.0	130
		EG020A-T: Cobalt	7440-48-4	1 mg/L	102	70.0	130
		EG020A-T: Copper	7440-50-8	1 mg/L	103	70.0	130
		EG020A-T: Lead	7439-92-1	1 mg/L	101	70.0	130
		EG020A-T: Manganese	7439-96-5	1 mg/L	101	70.0	130
		EG020A-T: Nickel	7440-02-0	1 mg/L	101	70.0	130
		EG020A-T: Vanadium	7440-62-2	1 mg/L	102	70.0	130
		EG020A-T: Zinc	7440-66-6	1 mg/L	100	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6428772)							
EP2503148-002	Anonymous	EG035T: Mercury	7439-97-6	0.005 mg/L	# 58.7	70.0	130
EG050T: Total Hexavalent Chromium (QCLot: 6422414)							
EP2503279-019	RB01	EG050G-T: Hexavalent Chromium	18540-29-9	0.5 mg/L	110	70.0	130
EK040P: Fluoride by PC Titrator (QCLot: 6432110)							
EP2503237-004	Anonymous	EK040P: Fluoride	16984-48-8	4.9 mg/L	112	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 6422409)							
EP2503227-001	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	111	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 6422364)							
EP2503328-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	98.2	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6422410)							
EP2503227-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	112	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6429811)							
EP2503243-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	25 mg/L	95.3	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6429810)							
EP2503243-001	Anonymous	EK067G: Total Phosphorus as P	----	5 mg/L	103	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6426374)							
EP2503181-002	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 µg/L	65.7	44.0	124
		EP075(SIM): Pvrene	129-00-0	10 µg/L	83.3	61.6	121



Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6423257)							
EP2503247-002	Anonymous	EP080: C6 - C9 Fraction	----	240 µg/L	81.6	77.0	137
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6423257)							
EP2503247-002	Anonymous	EP080: C6 - C10 Fraction	C6_C10	290 µg/L	93.3	77.0	137
EP080: BTEXN (QCLot: 6423257)							
EP2503247-002	Anonymous	EP080: Benzene	71-43-2	20 µg/L	97.9	77.0	122
		EP080: Toluene	108-88-3	20 µg/L	97.4	73.5	126

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Eurofins ARL Pty Ltd

Eurofins Environment Testing Australia Pty Ltd

ABN: 91 05 0159 898

ABN: 50 005 085 521

Perth	Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle	Auckland	Auckland (Focus)	Christchurch	Tauranga
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Sample Receipt Advice

Company name:
Contact name:
Project name:
Project ID:
Turnaround time:
Date/Time received
Eurofins reference

GHD Pty Ltd WA
- ALL GHD lab reports
Not provided
1266246
5 Day
Feb 27, 2025 3:55 PM
1193218

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 17 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- N/A Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

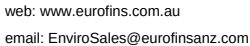
Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Natalie Hill on phone : or by email: Natalie.Hill@eurofinsanz.com

Results will be delivered electronically via email to - ALL GHD lab reports - ghdlabreports@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd WA email address.



ABN: 91 05 0159 898

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Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name:
Project ID: 1266246

Order No.: 1266246
Report #: 1193218
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Feb 27, 2025 3:55 PM
Due: Mar 7, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

[illegible]

GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004



NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: **Charlie Rolfe**

Report **1193218-S**

Project name

Project ID **1266246**

Received Date **Feb 27, 2025**

Client Sample ID			QC02	QC04
Sample Matrix			Soil	Soil
Eurofins Sample No.			L25-Fe0074019	L25-Fe0074020
Date Sampled			Feb 24, 2025	Feb 24, 2025
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	130	78
TRH C10-C36 (Total)	50	mg/kg	130	78
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	110	< 100
TRH >C34-C40	100	mg/kg	190	130
TRH >C10-C40 (total)*	100	mg/kg	300	130
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
BTEX				
4-Bromofluorobenzene (surr.)	1	%	68	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			QC02	QC04
Sample Matrix			Soil	Soil
Eurofins Sample No.			L25-Fe0074019	L25-Fe0074020
Date Sampled			Feb 24, 2025	Feb 24, 2025
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	144	91
p-Terphenyl-d14 (surr.)	1	%	140	86
Ammonia-N	10	mg/kg	< 10	< 10
Chloride	10	mg/kg	< 10	< 10
Fluoride	0.5	mg/kg	1.6	1.5
Nitrate-N	1	mg/kg	1.6	< 1
Nitrite-N	1	mg/kg	< 1	< 1
NOx-N	1	mg/kg	1.7	< 1
Sulfate	10	mg/kg	11	12
Total Kjeldahl Nitrogen	10	mg/kg	57	180
Total Nitrogen	10	mg/kg	59	180
Phosphorus	1	mg/kg	57	64
Heavy Metals				
Arsenic	2	mg/kg	2.3	13
Barium	10	mg/kg	< 10	< 10
Beryllium	2	mg/kg	< 2	< 2
Boron	10	mg/kg	< 10	< 10
Cadmium	0.1	mg/kg	< 0.1	< 0.1
Chromium	1	mg/kg	15	97
Cobalt	5	mg/kg	< 5	< 5
Copper	1	mg/kg	< 1	3.5
Lead	1	mg/kg	10	11
Manganese	5	mg/kg	40	25
Mercury	0.02	mg/kg	< 0.02	< 0.02
Molybdenum	5	mg/kg	< 5	< 5
Nickel	1	mg/kg	6.0	3.0
Selenium	2	mg/kg	< 2	< 2
Vanadium	10	mg/kg	21	110
Zinc	5	mg/kg	5.5	< 5
Sample Properties				
% Moisture	1	%	10	15

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Welshpool	Mar 01, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Welshpool	Mar 01, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Welshpool	Mar 01, 2025	14 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Welshpool	Mar 01, 2025	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Welshpool	Mar 01, 2025	14 Days
Ammonia-N - Method: ARL304 - Ammonia in Soil and Sediment by Discrete Analyser	Welshpool	Mar 01, 2025	7 Days
Chloride - Method: ARL306 - Chloride in Soil and Sediment by Discrete Analyser	Welshpool	Mar 01, 2025	14 Days
Fluoride - Method: ARL No. 321 - Fluoride in Water by Discrete Analyser	Welshpool	Mar 24, 2025	28 Days
Nitrate-N - Method: ARL314 - NOx in Soil and Sediment by Discrete Analyser	Welshpool	Mar 01, 2025	7 Days
Nitrite-N - Method: ARL312 - Nitrite in Soil and Sediment by Discrete Analyser	Welshpool	Mar 01, 2025	7 Days
Sulfate - Method: ARL302 - Sulfate in Soil and Sediment by Discrete Analyser	Welshpool	Mar 01, 2025	28 Days
Phosphorus - Method: ARL401/403 - Metals in Soil and Sediment by ICPOES/MS	Welshpool	Mar 01, 2025	7 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Welshpool	Mar 01, 2025	28 Days
Heavy Metals - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Welshpool	Mar 01, 2025	28 Days
NOx-N - Method: ARL314 - NOx in Soil and Sediment by Discrete Analyser	Welshpool	Mar 06, 2025	7 Days
Total Kjeldahl Nitrogen - Method: ARL118 - Total Phosphorus and TKN in Soil and Biosolids	Welshpool	Mar 06, 2025	7 Days
Total Nitrogen - Method: ARL No. 330 - Persulfate Method for Simultaneous Determination of TN & TP	Welshpool	Mar 06, 2025	7 Days
% Moisture - Method: ARL135 Moisture in Solids	Welshpool	Feb 28, 2025	14 Days



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IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Order No.: 1266246
Report #: 1193218
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Feb 27, 2025 3:55 PM
Due: Mar 7, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Project Name:
Project ID: 1266246

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						Ammonia (as N)	Barium	Beryllium	Boron	Chloride	Cobalt	Fluoride	Manganese	Molybdenum	Nitrate-N	Nitrite-N	Phosphorus	Selenium	Sulfate	Vanadium	Metals M8	Organic Nitrogen Set (as N)	Moisture Set	Eurofins Suite B4	Total Nitrogen
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254												X										X			
External Laboratory																									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID																				
1	QCO2	Feb 24, 2025		Soil	L25-Fe0074019	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	QC04	Feb 24, 2025		Soil	L25-Fe0074020	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Test Counts						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Ammonia-N	mg/kg	< 10			10	Pass	
Nitrate-N	mg/kg	< 1			1	Pass	
Nitrite-N	mg/kg	< 1			1	Pass	
NOx-N	mg/kg	< 1			1	Pass	
Sulfate	mg/kg	< 10			10	Pass	
Phosphorus	mg/kg	< 1			1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 10			10	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Boron	mg/kg	< 10			10	Pass	
Cadmium	mg/kg	< 0.1			0.1	Pass	
Chromium	mg/kg	< 1			1	Pass	
Cobalt	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 1			1	Pass	
Lead	mg/kg	< 1			1	Pass	
Manganese	mg/kg	< 5			5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury	mg/kg	< 0.02			0.02	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 1			1	Pass	
Selenium	mg/kg	< 2			2	Pass	
Vanadium	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Chloride	mg/kg	< 10			10	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	79			70-130	Pass	
TRH C6-C10	%	76			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	85			70-130	Pass	
Toluene	%	76			70-130	Pass	
Ethylbenzene	%	84			70-130	Pass	
m&p-Xylenes	%	78			70-130	Pass	
o-Xylene	%	78			70-130	Pass	
Xylenes - Total*	%	78			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	82			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	93			70-130	Pass	
Acenaphthylene	%	92			70-130	Pass	
Anthracene	%	97			70-130	Pass	
Benz(a)anthracene	%	93			70-130	Pass	
Benzo(a)pyrene	%	86			70-130	Pass	
Benzo(b&j)fluoranthene	%	87			70-130	Pass	
Benzo(g,h,i)perylene	%	103			70-130	Pass	
Benzo(k)fluoranthene	%	96			70-130	Pass	
Chrysene	%	96			70-130	Pass	
Dibenz(a,h)anthracene	%	94			70-130	Pass	
Fluoranthene	%	102			70-130	Pass	
Fluorene	%	92			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	91			70-130	Pass	
Naphthalene	%	93			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	101			70-130	Pass	
LCS - % Recovery							
Phosphorus	%	83			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	110			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Barium			%	116			80-120	Pass	
Beryllium			%	119			80-120	Pass	
Boron			%	107			80-120	Pass	
Cadmium			%	99			80-120	Pass	
Chromium			%	87			80-120	Pass	
Cobalt			%	86			80-120	Pass	
Copper			%	83			80-120	Pass	
Lead			%	98			80-120	Pass	
Manganese			%	92			80-120	Pass	
Mercury			%	115			80-120	Pass	
Molybdenum			%	99			80-120	Pass	
Nickel			%	93			80-120	Pass	
Selenium			%	108			80-120	Pass	
Vanadium			%	85			80-120	Pass	
Zinc			%	94			80-120	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons									
TRH C10-C14			%	111			70-130	Pass	
TRH >C10-C16			%	110			70-130	Pass	
CRM - % Recovery									
Sulfate			%	107			80-120	Pass	
Phosphorus			%	92			80-120	Pass	
CRM - % Recovery									
Total Recoverable Hydrocarbons									
TRH >C10-C16			%	109			70-130	Pass	
TRH >C34-C40			%	97			70-130	Pass	
CRM - % Recovery									
Polycyclic Aromatic Hydrocarbons									
Acenaphthene			%	100			80-120	Pass	
Acenaphthylene			%	109			80-120	Pass	
Anthracene			%	101			80-120	Pass	
Benz(a)anthracene			%	100			70-130	Pass	
Benzo(a)pyrene			%	88			80-120	Pass	
Benzo(b&j)fluoranthene			%	119			80-120	Pass	
Benzo(g,h,i)perylene			%	112			80-120	Pass	
Benzo(k)fluoranthene			%	83			80-120	Pass	
Dibenz(a,h)anthracene			%	103			80-120	Pass	
Fluoranthene			%	112			80-120	Pass	
Fluorene			%	102			80-120	Pass	
Indeno(1,2,3-cd)pyrene			%	92			80-120	Pass	
Naphthalene			%	122			70-130	Pass	
Phenanthrene			%	108			80-120	Pass	
Pyrene			%	114			80-120	Pass	
CRM - % Recovery									
Chloride			%	106			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	L25-Fe0074381	NCP	%	75			70-130	Pass	
TRH C10-C14	L25-Fe0070204	NCP	%	84			70-130	Pass	
TRH C6-C10	L25-Fe0074381	NCP	%	88			70-130	Pass	
TRH >C10-C16	L25-Fe0070204	NCP	%	84			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzene	L25-Fe0074381	NCP	%	80			70-130	Pass	
Toluene	L25-Fe0074381	NCP	%	87			70-130	Pass	
Ethylbenzene	L25-Fe0074381	NCP	%	81			70-130	Pass	
m&p-Xylenes	L25-Fe0074381	NCP	%	83			70-130	Pass	
o-Xylene	L25-Fe0074381	NCP	%	76			70-130	Pass	
Xylenes - Total*	L25-Fe0074381	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	L25-Fe0074381	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	L25-Ma0011097	NCP	%	79			70-130	Pass	
Acenaphthylene	L25-Ma0011097	NCP	%	80			70-130	Pass	
Anthracene	L25-Ma0011097	NCP	%	98			70-130	Pass	
Benz(a)anthracene	L25-Ma0011097	NCP	%	85			70-130	Pass	
Benzo(a)pyrene	L25-Ma0011097	NCP	%	81			70-130	Pass	
Benzo(b&j)fluoranthene	L25-Ma0011097	NCP	%	102			70-130	Pass	
Benzo(g,h,i)perylene	L25-Ma0011097	NCP	%	99			70-130	Pass	
Benzo(k)fluoranthene	L25-Ma0011097	NCP	%	91			70-130	Pass	
Chrysene	L25-Ma0011097	NCP	%	88			70-130	Pass	
Dibenz(a,h)anthracene	L25-Ma0011097	NCP	%	100			70-130	Pass	
Fluoranthene	L25-Ma0011097	NCP	%	100			70-130	Pass	
Fluorene	L25-Ma0011097	NCP	%	86			70-130	Pass	
Indeno(1,2,3-cd)pyrene	L25-Ma0011097	NCP	%	88			70-130	Pass	
Naphthalene	L25-Ma0011097	NCP	%	83			70-130	Pass	
Phenanthrene	L25-Ma0011097	NCP	%	101			70-130	Pass	
Pyrene	L25-Ma0011097	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	L25-Fe0074020	CP	%	114			75-125	Pass	
Barium	L25-Fe0074020	CP	%	120			75-125	Pass	
Beryllium	L25-Fe0074020	CP	%	116			75-125	Pass	
Boron	L25-Fe0074020	CP	%	120			75-125	Pass	
Cadmium	L25-Fe0074020	CP	%	117			75-125	Pass	
Chromium	L25-Fe0074020	CP	%	102			75-125	Pass	
Cobalt	L25-Fe0074020	CP	%	104			75-125	Pass	
Copper	L25-Fe0074020	CP	%	101			75-125	Pass	
Lead	L25-Fe0074020	CP	%	115			75-125	Pass	
Manganese	L25-Fe0074020	CP	%	111			75-125	Pass	
Molybdenum	L25-Fe0074020	CP	%	114			75-125	Pass	
Nickel	L25-Fe0074020	CP	%	115			75-125	Pass	
Selenium	L25-Fe0074020	CP	%	112			75-125	Pass	
Vanadium	L25-Fe0074020	CP	%	111			75-125	Pass	
Zinc	L25-Fe0074020	CP	%	114			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	L25-Fe0070518	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	L25-Fe0074388	NCP	mg/kg	33	39	16	30%	Pass	
TRH C15-C28	L25-Fe0074388	NCP	mg/kg	7900	7900	1.0	30%	Pass	
TRH C29-C36	L25-Fe0074388	NCP	mg/kg	7300	8100	10	30%	Pass	
TRH C6-C10	L25-Fe0070518	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	L25-Fe0074388	NCP	mg/kg	250	290	12	30%	Pass	
TRH >C16-C34	L25-Fe0074388	NCP	mg/kg	13000	14000	4.0	30%	Pass	
TRH >C34-C40	L25-Fe0074388	NCP	mg/kg	4800	5900	20	30%	Pass	

Duplicate								
BTX				Result 1	Result 2	RPD		
Benzene	L25-Fe0070518	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	L25-Fe0070518	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	L25-Fe0070518	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	L25-Fe0070518	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	L25-Fe0070518	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	L25-Fe0070518	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	L25-Fe0070518	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	L25-Ma0011098	NCP	mg/kg	< 50	< 50	<1	30%	Pass
Benzo(b&j)fluoranthene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	L25-Ma0011098	NCP	mg/kg	< 50	< 50	<1	30%	Pass
Benzo(k)fluoranthene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	L25-Ma0011098	NCP	mg/kg	< 50	< 50	<1	30%	Pass
Fluoranthene	L25-Ma0011098	NCP	mg/kg	< 50	< 50	<1	30%	Pass
Fluorene	L25-Ma0014268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	L25-Ma0011098	NCP	mg/kg	< 50	< 50	<1	30%	Pass
Naphthalene	L25-Ma0011098	NCP	mg/kg	160	180	12	30%	Pass
Phenanthrene	L25-Ma0011098	NCP	mg/kg	< 50	< 50	<1	30%	Pass
Pyrene	L25-Ma0011098	NCP	mg/kg	< 50	< 50	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	L25-Ma0028841	NCP	mg/kg	13	12	3.0	30%	Pass
Barium	L25-Ma0028841	NCP	mg/kg	71	70	2.0	30%	Pass
Beryllium	L25-Ma0028841	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Boron	L25-Ma0028841	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Cadmium	L25-Ma0028841	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Chromium	L25-Ma0028841	NCP	mg/kg	58	59	2.0	30%	Pass
Cobalt	L25-Ma0028841	NCP	mg/kg	14	14	2.0	30%	Pass
Copper	L25-Ma0028841	NCP	mg/kg	15	15	2.0	30%	Pass
Lead	L25-Ma0028841	NCP	mg/kg	23	24	2.0	30%	Pass
Manganese	L25-Ma0028841	NCP	mg/kg	320	330	3.0	30%	Pass
Mercury	L25-Ma0028841	NCP	mg/kg	< 0.02	< 0.02	<1	30%	Pass
Molybdenum	L25-Ma0028841	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	L25-Ma0028841	NCP	mg/kg	12	12	2.0	30%	Pass
Selenium	L25-Ma0028841	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Vanadium	L25-Ma0028841	NCP	mg/kg	110	110	2.0	30%	Pass
Zinc	L25-Ma0028841	NCP	mg/kg	42	43	2.0	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	L25-Fe0074019	CP	%	10	9.5	6.0	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

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Douglas Todd	Senior Analyst-Sample Properties
Kim Rodgers	Senior Analyst-Metal
Luke Holt	Senior Analyst-Inorganic
Patrick Patfield	Senior Analyst-Organic
Patrick Patfield	Senior Analyst-Volatile
Sam Becker	Senior Analyst-Inorganic



Kim Rodgers
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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Attachment 4

QA/QC assessment

1. QA/QC Evaluation

The quality assurance (QA) and quality control (QC) procedures were undertaken in general accordance with the following guideline documents:

- ASC NEPM (NEPC 2013)

QA involves all the actions, procedures, checks and decisions undertaken to ensure the representativeness and integrity of samples, and the accuracy and reliability of analytical results (NEPC 2013). QC involves protocols to monitor and measure the effectiveness of QA procedures.

1.1 Field work program

Field QA/QC procedures and compliance during the investigation are summarised in Table 1.1, with exceptions detailed in the following subsections.

Table 1.1 Summary of field work QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information/ data acceptable?
Equipment calibration	Where relevant, all field equipment is to be calibrated by the equipment supplier and certification provided.	N/A	N/A
Sampling methods	All sampling methods outlined in Preliminary contaminant survey of reclamation fill technical memo (2024)	Yes	Yes
Record keeping	Detailed records of field activities were maintained with the use of borehole logging electronic-based applications, groundwater sampling sheets, and quality control sample registers.	N/A	N/A
CoC documentation	The CoC documentation was completed for each batch of samples, identifying the names of the samplers, the type of sample, the collection date, the analyses to be performed, sample preservation methods, and time the samples were relinquished to the courier.	Yes	Yes
Sample labelling	Samples were properly labelled, showing reference number, sample ID, date of collection, sampler name and preservation techniques.	Yes	Yes
Sample containers	Samples were collected in appropriate laboratory-supplied containers with suitable preservation methods (where required).	Yes	Yes
Sample storage and transport	Samples were stored in a chilled esky immediately after sampling prior to submission to the laboratory. Samples were kept in a chilled esky during delivery with CoC documentation. Samples were received at the laboratory within recommended temperature range (6 ± 2 °C).	Yes, with exceptions	See Table 1.2
Decontamination	Reusable field equipment (e.g., interface meter) were appropriately decontaminated using Liquinox between each sampling location.	Yes	Yes
Rinsate blanks	Rinsate samples were collected by the sampler on each day following decontamination of reusable sampling equipment. Analysis of rinsate blanks reported concentrations below laboratory LOR indicating equipment was decontaminated appropriately.	Yes	Yes

QA/QC element	Requirement	Requirement adhered to?	Information/data acceptable?
Transport blanks	Transport blanks were prepared by the laboratory and submitted with each batch of samples (at a frequency of at least one transport blank per esky) to estimate potential cross-contamination between samples and contamination introduced during transport of samples to the laboratory. Analysis of transport blanks reported concentrations below laboratory LOR indicating no cross-contamination occurred within the eskies.	N/A	N/A
Field blanks	Field blanks were collected by the sampler on each day to estimate potential contamination of a sample during the collection procedure. Analysis of field blanks reported concentrations below laboratory LOR indicating no cross-contamination occurred during sampling.	N/A	N/A
Duplicate samples	Blind and split duplicate samples were collected for analysis by the primary and secondary laboratories, respectively (at a frequency of at least one pair per 20 primary sample). RPDs calculated for the duplicate samples were at or below 30%.	Yes, with exceptions	See Table 1.6

1.1.1 Sample containers, storage, and transport

All samples were collected in appropriate laboratory-supplied containers with suitable preservation methods (where applicable).

To aid sample integrity, all samples were promptly placed into a chilled esky (with double-bagged ice or ice bricks) following the completion of sampling. Eskies were delivered to the primary laboratory (ALS Environmental) and secondary laboratory (Eurofins | ARL) as soon as practicable via direct sample drop off.

Sample receipts noted the samples were higher than the recommended temperature ($6^{\circ}\text{C} \pm 2^{\circ}\text{C}$). However, the receipts noted the presence of ice bricks or an attempt to chill samples. It is considered that every effort was made to keep samples chilled, on-site and during transport.

The temperatures of the samples upon receipt are summarised in Table 1.2.

Table 1.2 Summary of sample receipt temperatures

Lab Report Number	Sample Type	Temperature ($^{\circ}\text{C}$)	Earliest Sample Date	Lab Received Date	Comments
EP2503279	Soil/water	19.8	24/02/2025	5/03/2025	-
1193218	Soil	17.0	24/02/2025	27/02/2025	-

1.1.2 Quality assurance – blank samples

The QA samples collected during the investigation were:

- **Rinsate blanks:** Rinsate blank samples are water samples collected from decontaminated, re-used field equipment and were used primarily to assess whether the decontamination procedure was effective and if cross-contamination has led to positive results in subsequent samples. Rinsate samples were collected by pouring laboratory supplied rinsate water over reusable sampling equipment (e.g., interface probe) and collecting it in laboratory supplied containers. Rinsate samples were then transferred to a chilled cooler for sample preservation prior to and during transport to the testing laboratory.

QA sampling frequency is summarised in Table 1.3.

Table 1.3 Summary of QA sample frequency

Field program	Sample Type	Required rate	No. collected/No. expected
Soil / Groundwater	Rinsate Blank	1 per day of sampling from one piece of reusable equipment	1/1

The blanks collected and analysed as part of the investigation are summarised in Table 1.4. All analyte concentrations for the rinsate blank are provided in Attachment 1 and were below the laboratory LOR.

Table 1.4 Summary of blank samples collected

Sample Type	Lab Report	Sample ID	Below LOR?
Rinsate	EP2407893	RIN040624	No (See Table 1.8)

The field blank results indicate that the primary samples were not influenced by any atmospheric contamination.

1.1.3 Quality control – duplicate samples

The groundwater and soil QC samples collected during the investigation were:

- **Blind duplicates:** Blind duplicate samples were used to identify the variation in the analyte concentration between samples from the same sampling point and the repeatability of the laboratory's analysis.
- **Split duplicates:** Split duplicate samples were used to provide an indication of the repeatability of the results between laboratories.

Field duplicate samples (blind and split) were collected in replicate bottles and jars during sampling. The required analyses were performed by ALS Laboratory group (primary laboratory) and Eurofins | ARL (secondary laboratory), both of whom are NATA accredited.

1.1.3.1 Sample collection frequency

Based on the scope of works, one pair of duplicates (blind and split) was required to be collected and analysed per 20 primary samples. The frequency of duplicates collected for this assessment is summarised in Table 1.5.

Table 1.5 Duplicate sampling frequency summary

Matrix	Rate	Number of duplicate samples/ expected number
Soil	1 duplicate pair per 20 primary samples	2/1

1.1.3.2 Relative percentage difference calculations

RPD calculations are used to assess how closely primary, blind duplicate and split duplicate sample results match. RPDs are a quantitative measure of the accuracy of the analytical results and are calculated in accordance with the procedure described in AS 4482.1 – 2005 (Standards Australia 2005). According to AS 4482.1 – 2005, typical RPDs are expected to range between 30% and 50%; however, this may be higher for organics and for low concentrations of analytes.

In accordance with the ASC NEPM (NEPC 2013), GHD has adopted a conservative RPD criteria of 30% for RPD assessments where the primary and/or duplicate sample concentrations were greater than or equal to the laboratory LOR, which is considered sufficient for this assessment.

Soil investigation

RPDs were calculated for two duplicate (blind & split) and primary pairs (Attachment 2). 33 of these exceeded the adopted 30% RPD acceptable limit where the primary and/or duplicate sample concentrations were greater than ten times the laboratory LOR. These exceedances are detailed in Table 1.6.

Table 1.6 *Summary of soil RPD exceedances*

Primary sample ID	QA/QC Field ID (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Split Concentration
3C	QC03 (Duplicate)	pH (Lab)	35	5.7	8.1	-
		Fluoride	109	270	80	-
	QC04 (Split)		198	270	-	1.5
		Nitrogen (Total)	40	120	-	180
		Kjeldahl Nitrogen Total	40	120	-	180
		Phosphorus (Total)	41	97	-	64
		Arsenic	89	<5	-	13
		Nickel	40	<2	-	3.0
		Vanadium	43	71	-	110
		>C10-C40 (Sum of Total)	89	<50	-	130
		C10-C36 (Sum of Total)	44	<50	-	78
6B	QC01 (Duplicate)	pH (Lab)	32	6.8	9.4	-
		Chloride	120	<10	40	-
		Fluoride	103	80	250	-
		Nitrate (as N)	67	0.1	0.2	-
		Nitrogen (Total Oxidised) (as N)	67	0.1	0.2	-
		Nitrogen (Total)	67	40	<20	-
		Kjeldahl Nitrogen Total	67	40	<20	-
		Phosphorus (Total)	31	125	91	-
		Aluminium	74	2,120	980	-
		Lead	166	10.6	1.0	-
		Vanadium	138	27	5	-
	QC02 (Split)	Fluoride	192	80	-	1.6
		Nitrate (as N)	176	0.1	-	1.6
		Nitrogen (Total Oxidised) (as N)	178	0.1	-	1.7
		Nitrogen (Total)	38	40	-	59
		Kjeldahl Nitrogen Total	35	40	-	57
		Phosphorus (Total)	75	125	-	57
		Manganese	39	27	-	40
		Nickel	100	<2	-	6.0
		F4 (>C34-C40 Fraction)	62	<100	-	190
		>C10-C40 (Sum of Total)	143	<50	-	300

Primary sample ID	QA/QC Field ID (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Split Concentration
		C10-C36 (Sum of Total)	89	<50	-	130

The soil exceedances of the RPD threshold of 30% were observed for hydrocarbons, metals, nutrients, chloride, fluoride and pH. It is noted that 20 of the 33 RPD non-compliances are from split duplicate samples, indicating the high RPD may be attributed to variability between sample preparation methods between the primary and secondary laboratories. Additionally, the differences observed in concentrations can also result from sample heterogeneity.

1.2 Laboratory program

Laboratory QA/QC procedures and compliance during the investigation are summarised in Table 1.7, with exceptions detailed in the following subsections.

Table 1.7 Summary of laboratory QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information/data acceptable?
NATA accreditation	Analysis of CoPC performed under NATA accreditation or equivalent government-endorsed provider of accreditation.	Yes	Yes, ALS and Eurofins are NATA accredited laboratories.
Holding times	Laboratory to complete sample extraction and analysis of CoPC within method specifications.	Yes, with exceptions	See Table 1.9
Analytical methods	Sample analyses are to use appropriate methods for each CoPC with regard to Schedule B(3) of the ASC NEPM and in accordance with the laboratory's NATA accreditation.	Yes	Yes
Laboratory LORs	Laboratory LORs are below adopted assessment criteria.	Yes, with exceptions	See Table 1.8.
Laboratory QC results	No method blank, laboratory duplicates, laboratory controls, matrix spike or surrogate spike recovery outliers were identified. Sufficient quantities of laboratory QC analysis were undertaken.	Yes, with exceptions	See Table 1.11.

1.2.1 Laboratory LORs

All laboratory LOR were below the adopted assessment criteria with the following exceptions detailed in Table 1.8. As a result of the exceedances listed in Table 1.8, where concentrations of these analytes are detected below the LOR, it cannot be concluded whether any concentrations were above these guidelines. Attempts were made to ensure that the requested laboratory LOR were sufficiently low to enable comparison with the adopted assessment criteria during the planning phase of the investigation. As such, the lowest LOR practicable were generally achieved. It is considered that, in general, due to the lack of detections of other analytes within similar chemical groupings and most other contaminants of concern, it is unlikely that there were exceedances of the assessment criteria or potential for false negative reporting.

Table 1.8 Laboratory LOR guideline exceedances

Matrix	Chemical Group	Analyte	Guideline exceeded	Guideline value	LOR
Soil	Metals	Silver	National Assessment Guidelines for Dredging 2009	1 mg/kg	<2 mg/kg
			ANZECC 2000 ISQG - Low		
	TRH - NEPM 2013	TRH F2 (>C10-C16 minus Naphthalene)	NEPM 2013 Table 1B(6) ESLs for Areas	25 mg/kg	<50 mg/kg

Matrix	Chemical Group	Analyte	Guideline exceeded	Guideline value	LOR
	PAHs	TRH >C10-C16 Fraction	of Ecological Significance, Coarse Soil >=0m, <2m		
		Acenaphthene	ANZECC 2000 ISQG - Low	0.016 mg/kg	<0.5 mg/kg
		Acenaphthylene		0.044 mg/kg	
		Anthracene		0.085 mg/kg	
		Benz(a)anthracene		0.261 mg/kg	
		Benzo(a)pyrene		0.43 mg/kg	
		Chrysene		0.384 mg/kg	
		Dibenz(a,h)anthracene	ANZECC 2000 ISQG - Low	0.063 mg/kg	
			ANZECC 2000 ISQG - High	0.063 mg/kg	
		Fluorene	ANZECC 2000 ISQG - Low	0.019 mg/kg	
		Naphthalene		0.16 mg/kg	
		Phenanthrene		0.24 mg/kg	

1.2.2 Holding time – outliers

All primary and secondary samples were analysed within laboratory holding times, with the exception of the exceedances summarised in Table 1.9.

Moisture and pH do not relate to specific CoPC for the site. GHD is satisfied that every effort was made for samples to be received at the laboratory to meet holding times.

Table 1.9 Holding time – outliers

Lab Report	Sample ID	Analytes	Sample date	Date extracted	Due for extraction	Date analysed	Due for analysis
EP2503279	7A, 7B, 7C, 6A, 6B, 6C, 5A, 5B, 5C, 4A, 4B, 4C, 3A, 3B, 3C, 1A, QC01, QC03	pH (1:5)	24/02/25	03/03/2025	07/03/2025	-	-
		Moisture Content		-	-	10/03/2025	11/03/2025
		Nitrite as N		07/03/2025	03/03/2025	-	-
	RB01	Total Hexavalent Chromium		-	-	06/03/2025	25/03/2025
		Nitrite		-	-	07/03/2025	26/03/2025
		Polynuclear Aromatic Hydrocarbons		10/03/2025	03/03/2025	-	-
		TPH		10/03/2025	03/03/2025	-	-
		TRH		10/03/2025	03/03/2025	-	-

1.2.3 Laboratory quality control procedures

Laboratory QC samples incorporated in the analytical process included:

- **Laboratory blind duplicates:** A laboratory blind duplicate provides data on the analytical precision and reproducibility of the analytical result. The laboratory blind duplicate is created by sub-sampling from one of the primary samples submitted for analysis. Laboratory blind duplicates are analysed at a rate equivalent to one in ten per analytical batch, or one sample per batch if less than 10 samples are analysed in a batch.
- **LCS:** The LCS analysis of either a reference material or a control matrix fortified with analytes representative of the analyte class. The purpose of LCS is to monitor method precision and accuracy independent of the sample matrix. Typically, the percentage recovery of the LCS is compared to the dynamic recovery limit based on the statistical analysis of the processed LCS analysis.
- **Matrix spikes:** Matrix spike sample analysis is the analysis of one or more replicate portions of samples from the batch, after fortifying the additional portion(s) with known quantities of the analyte(s) of interest. The percentage recovery of target analyte(s) from matrix spike samples is used to determine the bias of the method in the specific sample matrix.
- **Surrogate spikes:** Surrogate spikes provide a means of checking that no gross errors have occurred during any stage of the analytical method leading to significant analyte loss. Surrogate recoveries are similar to the analyte of interest in terms of chemical composition, extractability, and chromatographic conditions (retention time), but which are not normally found in environmental samples. Surrogate compounds are spiked into blanks, standards and samples submitted for organic analyses by gas-chromatographic techniques prior to sample extraction.
- **Method blanks:** Method or analysis blank sample analysis is the analysis of a sample that is as free as possible of the analytes of interest but has been prepared the same as the samples under investigation. The analysis is to ascertain if laboratory reagents, glassware and other laboratory consumables contribute to the observed concentration of analytes in the process batch. If below the maximum acceptable method blank (20% of the practical quantisation limit), the contribution is subtracted from the gross analytical signal for each analysis before calculating the sample analyte concentration. The method blank should return analyte concentrations as 'not detected'.

1.2.4 Laboratory quality control results

Laboratory quality control results were compared against criteria set by ALS Environmental and Eurofins | ARL, which are largely based on the *ASC NEPM* (NEPC 2013) and US EPA (2006) methods. The individual testing laboratories conducted an assessment of the laboratory QC program internally; however, the results were also independently reviewed and assessed by GHD. All laboratory quality control measures were within the adopted acceptance criteria with the exception of those described in the subsection below.

The exceptions were limited and comprised a very small proportion of the large number of quality control measures completed for the investigation. Based on this, the exceptions described in the subsection below are not considered to significantly influence data quality.

1.2.4.1 QC sample frequency – outliers

All laboratory QC samples were tested with the expected frequency, with the exception of those summarised in Table 1.10. These outliers only represent a small portion of the internal lab QC program conducted. Therefore, these minor non-compliances are not considered to have materially affected the conclusions of this report.

Table 1.10 QC sample frequency – outliers

Lab Report	QC sample type	Method	Actual rate/ expected rate (%)
EP2503279	Laboratory Duplicates (DUP)	PAH/Phenols (GC/MS – SIM)	7.69/10
		TRH - Semivolatile Fraction	0/10
	Matrix Spikes (MS)	TRH - Semivolatile Fraction	0/5

1.2.4.2 Laboratory control – outliers

All laboratory control samples were of an acceptable recovery.

1.2.4.3 Duplicate – outliers

Duplicate samples were analysed and reported acceptable RPDs.

1.2.4.4 Matrix spike – outliers

All matrix spikes were of an acceptable recovery excepting those summarised in Table 1.11. One matrix spike outlier occurred which was recorded as 'anonymous' and not collected at the property and is likely not representative of the conditions encountered at the property.

In general, the outliers reported reflect a small proportion of the wider, substantial laboratory QC program conducted. As such, they are not considered to have adversely impacted the interpretability of the results.

Table 1.11 Matrix spike – outliers

Matrix	Lab Report	Sample ID	Analyte	Comment
Water	EP2503279	EP2503148--002	Mercury	Recovery less than lower data quality objective

1.2.4.5 Surrogate recovery – outliers

All laboratory surrogates were of an acceptable recovery.

1.3 Data quality indicator evaluation

An evaluation of the DQIs set for this assessment was undertaken subsequent to field works and laboratory analysis, this evaluation is presented in Table 1.12.

Table 1.12 Data quality indicator evaluation

DQI	Evaluation Criteria	Acceptable?
Completeness	All locations that were proposed to be sampled were sampled where possible.	Yes, with exceptions.
	All field documentation is complete and correct, including chain of custody documentation for samples.	Yes
	Field forms and documentation capture all relevant important information.	Yes
	Samples were analysed within appropriate holding times.	Yes, with exceptions.
	Appropriate laboratory limits of reporting for comparison to relevant assessment criteria.	Yes, with exceptions.
Comparability	Standardised operating procedure for soil and groundwater sampling were adhered to and is in line with relevant guidelines.	Yes, technical memo provided with sampling guidance.
	Field staff were experienced in the sampling of soil and groundwater were appropriately trained.	Yes.
	Consistent laboratory use with consistent analytical methods used.	Yes.
	Climatic conditions consistent and considered representative of region.	Yes.
Representativeness	Samples were collected in a uniform and consistent manner, therefore representative of the media in the field.	Yes.
Precision	Sufficient quantities of field blind and split duplicates were collected to enable comparison within and between laboratories.	Yes.

DQI	Evaluation Criteria	Acceptable?
	Sufficient quantities of internal laboratory duplicates were analysed to enable comparison within laboratories.	Yes.
	Relative percentage difference calculations show that a large majority of duplicate sample concentrations are within defined difference limits.	Yes.
	Field equipment was calibrated by equipment supplier	N/A.
Accuracy	Sufficient quantities of field blanks, and transport blanks were collected and analysed, with no results indicating cross-contamination.	Yes.
	Sufficient quantities of internal laboratory method blanks, surrogate spikes and laboratory control samples were analysed to determine laboratory accuracy, with the large majority of samples within defined limits.	Yes, with exceptions.

1.4 Conclusion

Based on the results of the evaluation of the QA/QC data described in the previous sections, the reported QA/QC non-compliances are not considered to significantly influence the reliability of the analytical data. It is further considered that:

- The field and laboratory quality assurance measures implemented are considered to provide a reasonable level of confidence that the data collected and reported is appropriately complete, comparable and representative.
- The field and laboratory quality control measures implemented are considered to provide a reasonable level of confidence that the data collected and reported is appropriately accurate and precise.

Systematic errors have not been identified. Whilst there are QA/QC outliers when considering the dataset as a whole the outliers do not impact the outcome of the assessment.

The overall review of the QA/QC results indicates that the data collected for the investigation is considered to be of acceptable quality upon which to provide an adequate and reliable assessment of the property.

Attachments

Attachment 1

Blanks – Analytical Results Summary



		Date	24 Feb 2025
			Field ID
			Sample Type
			Lab Report Number
			Matrix Type
	Unit	LOR	Water
NA			
Sulfate as S - Turbidimetric (filtered)	mg/L	1	<1
Major Ions			
Chloride	mg/L	1	<1
Sulfate (filtered)	mg/L	1	<1
Fluoride	mg/L	0.1	<0.1
Nutrients			
Ammonia as N	mg/L	0.01	<0.01
Nitrate (as N)	mg/L	0.01	<0.01
Nitrite (as N)	mg/L	0.01	<0.01
Nitrogen (Total Oxidised) (as N)	mg/L	0.01	<0.01
Nitrogen (Total)	mg/L	0.1	<0.1
Kjeldahl Nitrogen Total	mg/L	0.1	<0.1
Phosphorus (Total)	mg/L	0.01	<0.01
Metals			
Aluminium	mg/L	0.01	<0.01
Arsenic	mg/L	0.001	<0.001
Barium	mg/L	0.001	<0.001
Beryllium	mg/L	0.001	<0.001
Boron	mg/L	0.05	<0.05
Cadmium	mg/L	0.0001	<0.0001
Chromium (III+VI)	mg/L	0.001	<0.001
Chromium (hexavalent)	mg/L	0.01	<0.01
Cobalt	mg/L	0.001	<0.001
Copper	mg/L	0.001	<0.001
Lead	mg/L	0.001	<0.001
Manganese	mg/L	0.001	<0.001
Mercury	mg/L	0.0001	<0.0001
Molybdenum	mg/L	0.001	<0.001
Nickel	mg/L	0.001	<0.001
Selenium	mg/L	0.01	<0.01
Silver	mg/L	0.001	<0.001
Vanadium	mg/L	0.01	<0.01
Zinc	mg/L	0.005	<0.005
BTEXN			
Naphthalene (value used in F2 calc)	µg/L	5	<5
Benzene	µg/L	1	<1
Toluene	µg/L	2	<2
Ethylbenzene	µg/L	2	<2
Xylene (o)	µg/L	2	<2
Xylene (m & p)	µg/L	2	<2
Xylene Total	µg/L	2	<2
BTEX (Sum of Total) - Lab Calc	µg/L	1	<1
TRH - NEPM 2013			
F1 (C6-C10 minus BTEX)	µg/L	20	<20
C6-C10 Fraction	µg/L	20	<20
F2 (>C10-C16 minus Naphthalene)	µg/L	100	<100
>C10-C16 Fraction	µg/L	100	<100
F3 (>C16-C34 Fraction)	µg/L	100	<100
F4 (>C34-C40 Fraction)	µg/L	100	<100
>C10-C40 (Sum of Total)	µg/L	100	<100
TRH - NEPM 1999			
C6-C9 Fraction	µg/L	20	<20
C10-C14 Fraction	µg/L	50	<50
C15-C28 Fraction	µg/L	100	<100
C29-C36 Fraction	µg/L	50	<50
C10-C36 (Sum of Total)	µg/L	50	<50
PAHs - standard 16			
Acenaphthene	µg/L	1	<1.0
Acenaphthylene	µg/L	1	<1.0
Anthracene	µg/L	1	<1.0
Benz(a)anthracene	µg/L	1	<1.0
Benzo(a)pyrene	µg/L	0.5	<0.5
Benzo[b+j]fluoranthene	µg/L	1	<1.0
Benzo(k)fluoranthene	µg/L	1	<1.0
Benzo(g,h,i)perylene	µg/L	1	<1.0
Chrysene	µg/L	1	<1.0
Dibenz(a,h)anthracene	µg/L	1	<1.0
Fluoranthene	µg/L	1	<1.0
Fluorene	µg/L	1	<1.0
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1.0
Naphthalene	µg/L	1	<1.0
Phenanthrene	µg/L	1	<1.0
Pyrene	µg/L	1	<1.0
PAHs (Sum of total) - Lab calc	µg/L	0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	µg/L	0.5	<0.5

Attachment 2

RPD Calculations



Table 4-2
Blank Results

Location Code Date Field ID Sample Type Lab Report Number Matrix Type			3C	3C	RPD	3C	3C	RPD	6B	6B	RPD	6B	6B	RPD
			24 Feb 2025	24 Feb 2025		24 Feb 2025	24 Feb 2025		24 Feb 2025	24 Feb 2025		24 Feb 2025		
			3C	QC03		3C	QC04		6B	QC01		6B	QC02	
			Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D	
			EP2503279	EP2503279		EP2503279	1193218		EP2503279	EP2503279		EP2503279	1193218	
			Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
	Unit	EQL												
Inorganics														
% Moisture	%	1	-	-	-	-	15	-	-	-	-	-	10	-
Moisture (%)	%	1	14.8	16.0	8	14.8	-	-	9.9	8.1	20	9.9	-	-
pH (Lab)	pH units	0.1	5.7	8.1	35	5.7	-	-	6.8	9.4	32	6.8	-	-
Major Ions														
Chloride	mg/kg	10	<10	<10	0	<10	<10	0	<10	40	120	<10	<10	0
Sulfate	mg/kg	10	-	-	-	-	12	-	-	-	-	-	11	-
Sulfate (filtered)	mg/kg	10	10	10	0	10	-	-	10	10	0	10	-	-
Fluoride	mg/kg	0.5	270	80	109	270	1.5	198	80	250	103	80	1.6	192
Nutrients														
Ammonia as N	mg/kg	10	<20	<20	0	<20	<10	0	<20	<20	0	<20	<10	0
Nitrate (as N)	mg/kg	0.1	0.2	0.2	0	0.2	<1	0	0.1	0.2	67	0.1	1.6	176
Nitrite (as N)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	<0.1	<0.1	0	<0.1	<1	0
Nitrogen (Total Oxidised) (as N)	mg/kg	0.1	0.2	0.2	0	0.2	<1	0	0.1	0.2	67	0.1	1.7	178
Nitrogen (Total)	mg/kg	10	120	100	18	120	180	40	40	<20	67	40	59	38
Kjeldahl Nitrogen Total	mg/kg	10	120	100	18	120	180	40	40	<20	67	40	57	35
Phosphorus (Total)	mg/kg	1	97	95	2	97	64	41	125	91	31	125	57	75
Metals														
Aluminium	mg/kg	50	9,780	9,830	1	9,780	-	-	2,120	980	74	2,120	-	-
Arsenic	mg/kg	2	<5	<5	0	<5	13	89	<5	<5	0	<5	2.3	0
Barium	mg/kg	10	<10	<10	0	<10	<10	0	<10	<10	0	<10	<10	0
Beryllium	mg/kg	1	<1	<1	0	<1	<2	0	<1	<1	0	<1	<2	0
Boron	mg/kg	10	<50	<50	0	<50	<10	0	<50	<50	0	<50	<10	0
Cadmium	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Chromium (III+VI)	mg/kg	1	-	-	-	-	97	-	-	-	-	-	15	-
Chromium (hexavalent)	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Cobalt	mg/kg	2	<2	<2	0	<2	<5	0	<2	<2	0	<2	<5	0
Copper	mg/kg	1	<5	<5	0	<5	3.5	0	<5	<5	0	<5	<1	0
Lead	mg/kg	0.1	8.3	10.6	24	8.3	11	28	10.6	1.0	166	10.6	10	6
Manganese	mg/kg	5	23	25	8	23	25	8	27	28	4	27	40	39
Mercury	mg/kg	0.02	<0.1	<0.1	0	<0.1	<0.02	0	<0.1	<0.1	0	<0.1	<0.02	0
Molybdenum	mg/kg	2	<2	<2	0	<2	<5	0	<2	<2	0	<2	<5	0
Nickel	mg/kg	1	<2	<2	0	<2	3.0	40	<2	<2	0	<2	6.0	100
Selenium	mg/kg	1	<1	<1	0	<1	<2	0	<1	<1	0	<1	<2	0
Silver	mg/kg	2	<2	<2	0	<2	-	-	<2	<2	0	<2	-	-
Vanadium	mg/kg	5	71	74	4	71	110	43	27	5	138	27	21	25
Zinc	mg/kg	5	<5	<5	0	<5	<5	0	<5	<5	0	<5	5.5	10
BTEXN														
Napthalene (value used in F2 calc)	mg/kg	0.5	<1	<1	0	<1	<0.5	0	<1	<1	0	<1	<0.5	0
Benzene	mg/kg	0.1	<0.2	<0.2	0	<0.2	<0.1	0	<0.2	<0.2	0	<0.2	<0.1	0
Toluene	mg/kg	0.1	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0
Ethylbenzene	mg/kg	0.1	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0
Xylene (o)	mg/kg	0.1	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0
Xylene (m & p)	mg/kg	0.2	<0.5	<0.5	0	<0.5	<0.2	0	<0.5	<0.5	0	<0.5	<0.2	0
Xylene Total	mg/kg	0.3	<0.5	<0.5	0	<0.5	<0.3	0	<0.5	<0.5	0	<0.5	<0.3	0
BTEX (Sum of Total) - Lab Calc	mg/kg	0.2	<0.2	<0.2	0	<0.2	-	-	<0.2	<0.2	0	<0.2	-	-
TRH - NEPM 2013														
F1 (C6-C10 minus BTEX)	mg/kg	10	<10	<10	0	<10	<20	0	<10	<10	0	<10	<20	0
C6-C10 Fraction	mg/kg	10	<10	<10	0	<10	<20	0	<10	<10	0	<10	<20	0
F2 (>C10-C16 minus Napthalene)	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
>C10-C16 Fraction	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
F3 (>C16-C34 Fraction)	mg/kg	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	110	10
F4 (>C34-C40 Fraction)	mg/kg	100	<100	<100	0	<100	130	26	<100	<100	0	<100	190	62
>C10-C40 (Sum of Total)	mg/kg	50	<50	<50	0	<50	130	89	<50	<50	0	<50	300	143
TRH - NEPM 1999														
C6-C9 Fraction	mg/kg	10	<10	<10	0	<10	<20	0	<10	<10	0	<10	<20	0
C10-C14 Fraction	mg/kg	20	<50	<50	0	<50	<20	0	<50	<50	0	<50	<20	0
C15-C28 Fraction	mg/kg	50	<100	<100	0	<100	<50	0	<100	<100	0	<100	<50	0
C29-C36 Fraction	mg/kg	50	<100	<100	0	<100	78	0	<100	<100	0	<100	130	26
C10-C36 (Sum of Total)	mg/kg	50	<50	<50	0	<50	78	44	<50	<50	0	<50	130	89
PAHs - standard 16														



Table 4-2
Blank Results

Location Code Date Field ID Sample Type Lab Report Number Matrix Type			3C	3C	RPD	3C	3C	RPD	6B	6B	RPD	6B	6B	RPD
			24 Feb 2025	24 Feb 2025		24 Feb 2025	24 Feb 2025		24 Feb 2025	24 Feb 2025		24 Feb 2025		
			3C	QC03		3C	QC04		6B	QC01		6B	QC02	
			Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D	
			EP2503279	EP2503279		EP2503279	1193218		EP2503279	EP2503279		EP2503279	1193218	
			Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
	Unit	EQL												
Acenaphthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Acenaphthylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benz(a)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(a)pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo[b+j]fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Chrysene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Fluorene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Naphthalene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Phenanthrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
PAHs (Sum of total) - Lab calc	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5	0.6	0.6	0	0.6	0.6	0	0.6	0.6	0	0.6	0.6	0
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory