

Silvan High Security Fence - Preliminary Soil Contamination Ground Assessment

Version: 0

Melbourne Water Corporation

Silvan High Security Fence
28 February 2024





Silvan High Security Fence - Preliminary Soil Contamination Ground Assessment

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1. Introduction

Jacobs Group Pty Ltd (Jacobs) has been engaged by Melbourne Water Corporation (MWC) to undertake a Preliminary Soil Contamination Ground Assessment of Silvan Reservoir, located adjacent to Monbulk Rd, Silvan and approximately 40km east of Melbourne's Central Business District (CBD). The assessment will assist with informing the Silvan High Security Fence project, which involves replacement of approximately 15km of the currently inadequate peripheral fencing surrounding the Silvan Reservoir.

Jacobs have previously completed a Contaminated Land Desktop Assessment (Jacobs, 2023b) including a site walkover along the current fence surrounding the Silvan Reservoir, to assess the potential for encountering soil contamination, identify areas of potential concern for soil contamination, and identify data gaps associated with these areas. Furthermore, contaminants of potential concern (CoPCs) were identified, and a soil investigation of the proposed project area was recommended. This report is a Preliminary Soil Contamination Ground Assessment based on the recommendations of the Contaminated Land Desktop Assessment (Jacobs, 2023b).

Further detail surrounding the background and concept design of the project are outlined in Section 1.3.

1.1 Objectives

The aim of this Preliminary Soil Contamination Ground Assessment is to provide a preliminary assessment of soil disposal and management considerations in accordance with relevant State and National guidance. The specific objectives of the assessment are informed by the recommendations of the desktop assessment (Jacobs, 2023b) and include:

- Understand the potential risk of harm to human health and the environment from contaminated land, including potential risks associated with encountering acid sulfate soil.
- Provide an indicative soil waste classification.
- Evaluate the potential corrosivity risk to subsurface building materials.

1.2 Scope of Work

To meet the objectives of the assessment, the following scope of work has been completed:

- Fieldwork preliminaries including review of available underground utility plans and preparation of a Field Work pack (FWP), a Safe Work Method Statement (SWMS), and a sampling plan based on the desktop assessment recommendations (Jacobs, 2023b).
- Mobilisation for undertaking the ground assessment, occurring between 16 to 17 January 2024.
- 15 boreholes were advanced across the project area using a hand auger, up to 1 metre below ground level (mbgl) or prior refusal.
- Soil samples were collected from 0.1m, 0.5m and 1.0mbgl (or at the base of the borehole where early refusal was encountered).
- Two quality assurance / quality control (QA/QC) samples (inter- and intra-laboratory duplicate pairs) were collected and analysed.
- Submission of two primary samples per borehole (including one surface and one subsurface sample) and QA/QC samples to NATA accredited laboratories for analysis for CoPCs identified in the desktop assessment (see Section 3.2).
- Evaluate analytical results in accordance with assessment objectives (see Section 1.1) and the regulatory framework outlined in Section 2 and Appendix B.

- Reporting findings in the form of a factual report (this report).

1.3 Concept Design

The location of the new fence is proposed to be generally situated adjacent to the existing fence line (as shown in Appendix A). A recent options assessment has further specified that the new fence will be positioned to the inside of 'Road 2', which runs parallel to the existing fence line. The existing external fence is to be left intact. Sample locations for this grounds assessment (shown in Appendix A) were planned based on these considerations.

The concept design of the proposed fence line is understood to consist of the following key parameters:

- Construction of 15 km high security fencing surrounding the Silvan Reservoir and catchment area.
- Fence attributes:
 - Equipped with Perimeter Intrusion Detection System (PIDS).
 - Minimum attribution of 358-wire mesh fencing.
 - Minimum height of 3 m.
 - Founded on concrete plinth – anti-dig / anti-climb functionality.
- Potential construction of access tracks along lengths of the alignment, and access tracks to the corridor from adjacent public roads.
- Construction of shallow foundations comprising piles socketed within soil / rock and shallow footings and / or pad footing foundations.

2. Regulatory Framework

The key legislative document governing environmental compliance for individuals and businesses in Victoria is the Environment Protection Act 2017 ('the EP Act'). A principal feature of the EP Act is the 'General Environmental Duty' (GED) to prevent harm to human health and the environment, as well as additional duties related to the management and reporting of contaminated land and waste. A summary of the regulatory framework relevant to the project and for compliance with obligations under the EP Act has been provided in Appendix B.

With consideration of the regulatory framework outlined in Appendix B, as well as the objectives of the project, key considerations that form the basis for this contaminated land assessment include:

1. Potential risks of harm to human health (including onsite workers) due to contaminated soil and groundwater.
2. Potential risks of harm to ecological health due to contaminated soil and groundwater.
3. Potential risks of harm to the durability of buildings and structures due to contaminated soil and groundwater.
4. Potential for restricted reuse or disposal of excavated spoil and excess water due to contamination.

Relevant regulatory guidelines and associated adopted screening criteria considered suitable for evaluating the key considerations above are detailed in Appendix B. The adopted screening criteria was utilised for the evaluation of analytical results considering the project objectives (see Section 5).

3. Desktop Assessment Summary

A desktop assessment was completed by Jacobs in November 2023 (Jacobs, 2023). The findings of the desktop assessment are provided in Section 3.1 and Section 3.2 below.

3.1 Site Setting and History

Key findings related to the site setting and history are outlined in Table 3-1 and Table 3-2 respectively below.

Table 3-1. Site Setting

Feature	Detail
Surrounding Land Use	<ul style="list-style-type: none"> ▪ Project area zoned within Public Use – Service and Utility zone. ▪ Dandenong Ranges National Park located to the north and west of the project area. ▪ Low-density residential, industrial/commercial, and agricultural areas to the south and east of the project area.
Topography	<ul style="list-style-type: none"> ▪ Elevation ranges between 207 and 508 metres Australian Height Datum (mAHD), with the highest elevation being the southwest portion of the project area. Silvan Reservoir is generally positioned topographically downgradient from the surrounding area.
Geological Setting	<ul style="list-style-type: none"> ▪ The following geological units were identified within 1km of the project area: <ul style="list-style-type: none"> - Monbulk Volcanic Group (Nuo) - Hornfels Humevale Siltstone (Dxh) - Ferny Creek Rhyodacite (Djf) - Generic Humevale Siltstone (Dxh) - Generic Yellingbo Porphyry (Djy) - Generic Colluvium (Qc1) ▪ Acid Sulfate Soils considered low to extremely low probability of occurrence across the project area and surrounding, with the exception of a high probability of occurrence within the Silvan Reservoir and areas immediately adjacent.
Hydrogeology	<ul style="list-style-type: none"> ▪ Fractured or fissured extensive aquifers of low to moderate productivity. ▪ Groundwater salinity estimated to be less than 500 mg/L within 1km of the project area. ▪ Depth to water table surrounding the majority of the project area ranges from 20 to 50 mbgl. ▪ 3 registered groundwater bores within project area (2 for observation and 1 for domestic use), and 24 additional bores located within 100m of project area.
Surface Water	<ul style="list-style-type: none"> ▪ Silvan Reservoir is surrounded by the project area and topographically downgradient from the project area. ▪ Other surface water features located within a 1km radius of the project area include: <ul style="list-style-type: none"> - Stoney Creek, Emerald Creek, and Nathania Springs Creek to the south. - Stringybark Creek to the northeast. - Olinda Creek and Lyrebird Gully Creek to the northwest. - Ferndale Creek to the east.

Table 3-2. Site History Review

Feature	Detail
Aerial Image Summary	<p>Most of the land contained within the project area, as well as the land immediately west of the project area, has generally been covered by dense forest since at least 1946.</p> <p>Various small developments have occurred in the forested area surrounding Silvan Reservoir, including earthworks close to the dam wall, development of an access road, construction of several small buildings around the reservoir, and conversion of large parcels of surrounding forested land to agricultural, low density residential and industrial land.</p>
Historical Database Review	<ul style="list-style-type: none"> ▪ Two Pollution Abatement Notices and two EPA Licensed Activities were identified within 1km of project area (Treatment plant at Silvan Glades Retirement Village, and waste acceptance at Olinda Depot). ▪ One previous EPA Environmental Audit (53V Audit, 8004360) was identified but determined to not be relevant to the assessment.

Feature	Detail
	<ul style="list-style-type: none"> No current EPA Priority Sites, EPA Works Approvals, Waste Management Facilities, EPA registered landfills, Former Gasworks, or Historical Mining Activities were identified within 1km of the project area. One National Liquid Fuel Facility identified within 1km of project area (Shell petrol station). Several historical businesses were identified within 150m of project area, including nurseries/agricultural contractors, television repair services, builders, motor garages, painters/decorators, and glass house construction.
Site Walkover	<p>No direct visual or olfactory indicators of contamination were identified within or adjacent to the project area.</p> <p>Key features identified included:</p> <ul style="list-style-type: none"> Intermittent land clearing and logging activities across areas surrounding project area. An inferred electrical transformer (60m east of the Monbulk Rd and Old Emerald Rd intersection). A water treatment facility (30m northeast of the current fence line and the Monbulk Rd and Old Emerald Rd intersection). Chemicals appear to be stored and used within this facility (including sodium fluoride and sodium hypochlorite). Suitable controls (including bunding, drainage, infrastructure, concrete hardstand) are installed within the facility.

3.2 Key Findings and Recommendations

Table 3-3. Potential contaminants and sources

Potential Sources of Contamination	Potential Contaminants
Sewage / wastewater treatment plant	Nutrients, metals, per- and polyfluoroalkyl substances (PFAS), phenols and pathogens
Petrol station / motor garage	Petroleum hydrocarbons, chlorinated hydrocarbons (VCHs), monocyclic aromatic hydrocarbons (MAHs), polycyclic aromatic hydrocarbons (PAHs) and metals
Current and historical land development activities	Asbestos, hydrocarbons, metals, and nutrients
Paint businesses	Metals, hydrocarbons, and polychlorinated biphenyls (PCBs)
Long-term agricultural land use	Asbestos, pesticides / herbicides, nutrients and metals
Nurseries	Metals, organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), petroleum hydrocarbons and MAHs
Acid Sulfate Soils	pH and metals
Timber logging	Hydrocarbons and metals
Inferred electrical transformer	PCBs, metals, hydrocarbons and PFAS
Water treatment facility	Sodium hypochlorite, Sodium fluoride and hydrocarbons

The desktop assessment provided the following recommendations related to potential contaminated land within the context of the project:

- A soil sampling investigation (hand auguring) is recommended to further assess the potential risks of harm to human health and the environment, options for offsite spoil disposal, as well as potential corrosivity risks to subsurface infrastructure.
- While test locations should generally be evenly distributed across the project area, the locations of potential source areas identified in the desktop assessment should be considered when determining the sample design.
- The soil investigation should consider the contaminants of potential concern (CoPCs) identified in the desktop assessment.
- A groundwater field investigation is not recommended at this stage, based on the general indicative groundwater depth and the low likelihood of encountering groundwater during project works.

4. Field Investigation Methodology

The field investigation was completed by Jacobs field consultants in accordance with Jacobs devised scope and procedures, on 16 and 17 January, 2024.

The following works were successfully completed as part of the field investigation:

- A total of 15 soil boreholes were augered to a target depth of 1 mbgl or refusal.
- Representative soil samples were collected from both the surface and subsoil layers of each augered borehole.
- The physical characteristics of all augered soils were logged in accordance with Unified Soil Classification System, noting the visual and olfactory presence of any waste inclusions or additional signs of contamination.
- Two inter- and intra-laboratory samples were also collected alongside soil primary samples for QA/QC purposes.
- All soil samples were dispatched on ice under a chain of custody to a National Association of Testing Authorities (NATA) accredited laboratory for analysis within recommended holding times.

The following deviations from the original proposed scope are noted:

- Three boreholes were terminated early due to auger refusal. BH02 and BH03 encountered refusal at 0.8 mbgl, and BH13 encountered refusal at 0.65 mbgl. The rest of the boreholes were terminated at the target depth of 1.0 mbgl.

Borehole locations are presented in Appendix A.

During sampling it was ensured the sample material was collected directly from the auger. The auger was decontaminated between sample locations. Soil samples collected were handled using disposable nitrile gloves. Each sample was collected in laboratory supplied jars and then placed into an insulated cooler with ice for transport to the laboratory.

4.1 Analytical Schedule

All samples were analysed by Australian Laboratory Services Pty Ltd (ALS, primary laboratory) and Eurofins Environment Testing Pty Ltd (Eurofins, secondary laboratory), which are both NATA accredited. Selected samples were analysed in accordance with CoPCs outlined in Section 2.

A summary of the soil samples collected (location and depth) and the laboratory analysis undertaken are detailed in Table 4-1 below. The laboratory analysis was designed with consideration of the desktop assessment recommendations, as summarised in Section 3.2.

Table 4-1. Analytical schedule summary

Location	Depth (mbgl)	Analytical Schedule
BH01	0.1	Corrosion Suite ¹ and EPA1828.2 Full Solid Suite excl. Anions ²
	1.0	8 metals ³ and SPOCAS ⁴
BH02	0.1	Nutrient Suite ⁵ and TRH ⁶ (C6-C40) / BTEXN ⁷ / PAH ⁸ / OC ⁹ / OP ⁹ / PCB ¹⁰ / 8 Metals
	0.5	EPA1828.2 Full Solid Suite excl. Anions
BH03	0.1	8 Metals and TRH (C6-C40) / BTEXN / PAH
	0.5	8 Metals and Corrosion Suite
BH04	0.1	TRH (C6-C40) / BTEXN / PAH / OC / OP / PCB / 8 Metals
	1.0	8 Metals, Nutrients, TRH (C6-C40) / BTEXN / PAH, and SPOCAS

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Location	Depth (mbgl)	Analytical Schedule
BH05	0.1	Nutrients
	0.5	8 Metals and Nutrients
BH06	0.1	8 Metals and TRH (C6-C40) / BTEXN / PAH
	0.5	8 Metals, Nutrients and TRH (C6-C40) / BTEXN / PAH
BH07	0.1	8 Metals and TRH (C6-C40) / BTEXN / PAH
	1.0	SPOCAS, Corrosion Suite, and EPA1828.2 Full Solid Suite excl. Anions
BH08	0.1	8 Metals, Nutrients, PFAS – Short Suite ¹¹ , and TRH (C6-C40) / BTEXN / PAH
	0.5	8 Metals
BH09	0.1	PFAS – Short Suite and TRH (C6-C40) / BTEXN / PAH / OCP / OPP / PCB / 8 Metals
	0.5	8 Metals, TRH (C6-C40) / BTEXN / PAH, and SPOCAS
BH10	0.1	PFAS – Short Suite and EPA1828.2 Full Solid Suite excl. Anions
	0.5	TRH (C6-C40) / BTEXN / PAH / OCP / OPP / PCB / 8 Metals and Cation/Anion Suite ¹²
BH11	0.1	TRH (C6-C40) / BTEXN / PAH / OCP / OPP / PCB / 8 Metals
	0.5	8 Metals, Nutrients, and TRH (C6-C40) / BTEXN / PAH
BH12	0.1	EPA1828.2 Full Solid Suite excl. Anions
	0.5	8 Metals and TRH (C6-C40) / BTEXN / PAH
BH13	0.1	8 Metals and TRH (C6-C40) / BTEXN / PAH
	0.5	8 Metals
BH14	0.1	EPA1828.2 Full Solid Suite excl. Anions
	0.5	8 Metals and TRH (C6-C40) / BTEXN / SPOCAS / Corrosion Suite
BH15	0.1	8 Metals and TRH (C6-C40) / BTEXN / PAH
	1.0	8 Metals

Notes:

¹ Corrosion Suite: Corrosion assessment for concrete and steel piles in soil per Australian Standard AS2159-2009.

² EPA1828.2 Full Solid Suite excl. Anions: Antimony, arsenic, barium, beryllium, boron, cadmium, chromium (VI), copper, lead, mercury, molybdenum, nickel, selenium, silver, tributyltin oxide, zinc, TRH C6-C9, TRH C10-C36, Bis(2-ethylhexyl) phthalate (DEHP), 2,4-dinitrotoluene, ethylene diamine tetra acetic acid (EDTA), formaldehyde, methyl ethyl ketone, benzene, toluene, ethylbenzene, xylenes (total), styrene, nitrobenzene, polycyclic aromatic hydrocarbons (PAH total), benzo(a)pyrene, 2 chlorophenol, 2,4-dichlorophenol, 2,4,5-trichlorophenol, 2,4,6-trichlorophenol, phenols (total, non-halogenated), cresol (total), polychlorinated biphenyls, hexachlorobutadiene, vinyl chloride, carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,1-dichloroethane, 1-2-dichloroethane, dichloromethane (methylene chloride), 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethene, tetrachloroethene, trichlorobenzene (total), aldrin + dieldrin, DDT + DDD + DDE, 2,4 -D, chlordane, heptachlor and other organochlorine pesticides (OCPs).

³ 8 Metals: Arsenic, cadmium, chromium, copper, lead, nickel, zinc, aluminium, iron, selenium, and mercury.

⁴ SPOCAS: Acid sulfate soils – acid base accounting, acidity trail, calcium values, limiting rate, magnesium values, pH, sulfur trail.

⁵ Nutrients Suite: Ammonia, nitrite, nitrate, nitrogen, total Kjeldahl nitrogen, and phosphorus.

⁶ TRH: Total recoverable hydrocarbons.

⁷ BTEXN: Benzene, toluene, ethylbenzene, xylene, naphthalene.

⁸ PAH: Polycyclic aromatic hydrocarbons.

⁹ OCP/OPP: Organochlorine / organophosphorus pesticides.

¹⁰ PCB: Polychlorinated biphenyls.

¹¹ PFAS: Perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluoro-n-pentanoic acid (PFPeA), perfluorohexanoic acid (PFHxA), perfluorohexanesulfonic acid (PFHxS), perfluoroheptanoic acid (PFHpA), perfluorobutanesulfonic acid (PFBS), perfluorobutanoic acid (PFBA), and sum (PFHxS + PFOS).

¹² Cation/Anion Suite: Calcium, magnesium, sodium, potassium, and sulfate as SO₄.

4.2 Quality Assurance / Quality Control

The QA/QC program was undertaken in accordance with Australian Standard AS4482.1-2005 *Guide to the investigation and sampling of sites with potentially contaminated soil*. AS4482.1-2005 has been recently withdrawn under the Aged Standards Review process, however, is considered the State of Knowledge in the absence of any superseding regulatory guidance. Overall, the QAQC program is considered to be adequate considering the scope and nature of the overall assessment program undertaken. The data is considered sufficiently reliable for the purpose for which it has been obtained and used.

All reasonable effort was made to limit potential smearing, cross contamination or loss of volatile contaminants during sampling. The selective and targeted nature of this (or any other investigation program) where limited sampling is conducted, means that there is a degree of uncertainty in the conclusions drawn from the data obtained.

Assessment of the data quality is summarised in Table 4-2 below.

Table 4-2. Investigation data validation

Feature	Assessment
QA/QC field samples	Two duplicate and triplicate samples were collected in the field, which satisfies the minimum sampling requirements under AS4482.1-2005. Most relative percentage difference (RPD) values reported below the acceptable criteria, with the exception of QC12 which reported RPD exceedances for zinc. This is considered to be attributable to the heterogenous nature of the soil and is not considered to impact the quality of the assessment.
Sample preservation	The selection of appropriate sample containers, preservation procedures, storage requirements and holding times were in accordance with those recommended within Australian Standards (AS/NZS 5667.1:1998; AS 4482.1 and AS 4482.2). During sampling, soil jars were filled to minimise headspace.
Sample temperature	The samples were delivered to the primary laboratory in one batch (laboratory work order EM2400571) and to the secondary laboratory in a separate batch (laboratory work order 1060723). All samples were received intact with ice present, reported with a temperature of 4.3°C.
Samples delivered to laboratory with holding time	No laboratory holding time outliers were reported.
Laboratory QA/QC	The following results were recorded: <ul style="list-style-type: none"> ▪ No Method Blank value outliers ▪ No Duplicate outliers ▪ Matrix Spike outliers ¹ ▪ No laboratory Control outliers ▪ Surrogate recovery outliers exist ² ▪ No analysis holding time outliers ▪ No Quality Control Sample Frequency outliers

Notes:

¹ Matrix spike recoveries for ethylenediaminetetraacetic acid (EDTA) and hexavalent chromium were less than lower data quality objective. This is not expected to impact results given concentrations for both of these analytes are well below the adopted screening criteria and therefore not likely to impact findings of the investigation.

² Regular sample surrogate recoveries for organophosphorus pesticide surrogate were greater than upper data quality objective. This is not expected to impact results given the concentrations of this analyte was well below the adopted screening criteria and therefore not likely to impact findings of the investigation.

Based on the data validation results described in Table 4-2, the data collected during soil sampling and laboratory analysis is considered suitable for meeting the objectives of this assessment.

5. Results

5.1 Field Observations

Key photographs of the site investigation are provided in Appendix C. A summary of general field observations is provided in Table 5-1 below.

Table 5-1. Field observations summary

Feature	Description
Site Layout & Topography	<p>The site consists of a large forested area, an existing security fence and numerous dirt access roads (including Track 2) surrounding the Silvan Reservoir. The site can be accessed through gates at the north of the reservoir, adjacent to Melbourne Water offices. Additional anthropogenic infrastructure (including a water treatment facility and an inferred electrical transformer) are located proximate to the southern portion of the reservoir.</p> <p>The project area is currently proposed to be situated on the inside of Track 2, towards the reservoir.</p> <p>The elevation ranges from 207-508m AHD, with the highest elevation to the west of the reservoir, within the Dandenong Ranges National Park. Silvan Reservoir is generally positioned topographically downgradient from the surrounding area (including Track 2).</p>
Surface Condition	<p>The majority of the site is covered by densely vegetated forest. Track 2 generally consists of compacted silty clayey gravel, except for a section along the eastern portion of the site which has been recently overlain with asphalt.</p>
Evidence of Contamination	<p>Fill material was identified in three of the boreholes augured (BH09, BH13 and BH14). No anthropogenic material (aside from traces of fill gravel) was identified in any of the soils augured.</p> <p>Several potential sources of contamination (as previously identified in the desktop assessment and summarised in Section 3.2) are identified proximate to the project area, including an inferred electrical transformer, a water treatment facility, scattered logging debris and a service station.</p> <p>No potentially asbestos containing material was identified during the investigation.</p>
Additional Observations	<p>Groundwater was not encountered during the subsurface investigation.</p> <p>Aside from Silvan Reservoir, no additional surface water features were identified in the vicinity of the project area.</p>

The topsoil was recorded as dark brown red to dark brown silty clay with low to high plasticity and traces of sand, gravels and rootlets, to a depth of 0.05 – 0.45m bgl. The soil consistency was generally recorded between soft to firm. The soil moisture was generally recorded as dry to slightly moist.

Fill was recorded at locations BH09, BH13 and BH14 and recovered as dark brown to brown grey silty to sandy clays with low to medium plasticity and with gravels and rootlets to a depth of 0.20 – 0.45m bgl. The soil consistency was generally recorded between soft to firm. The soil moisture was generally recorded as slightly moist to moist.

The subsoil was largely recorded as brown red to brown silty clays to clays with medium plasticity and with sands and gravels to a depth of 0.65 – 1.0 m bgl. The soil consistency was generally recorded between firm to very stiff. The soil moisture was generally recorded as slightly moist to moist. No staining or odour was observed at any of the locations.

The lithology of the site is presented in Table 5-2 below. Detailed borehole logs for all locations can be found in Appendix D.

Table 5-2. Site lithology

Domain	Depth (mbgl)		Description	Additional observations
	Start	End		
Natural topsoil	0.0	0.05 – 0.45	Silty CLAY, dark brown red - dark brown, low - high plasticity, trace sands and gravels, with rootlets, dry - slightly moist, soft to firm	<ul style="list-style-type: none"> No staining or odours
Fill	0.0	0.20 – 0.45	FILL: Sandy CLAY – silty CLAY/clayey SILT, dark brown – brown grey, low - medium plasticity, with gravel, trace rootlets, slightly moist - moist, soft - firm	<ul style="list-style-type: none"> No staining or odours Observed in BH09, BH13 and BH14 only
Natural subsoil	0.05 - 0.45	0.65 -1.0	Silty CLAY - CLAY, brown red - brown, medium plasticity, with sand, silts and gravels, slightly moist - moist, firm to very stiff	<ul style="list-style-type: none"> No staining or odours Brown orange / orange grey mottling at BH05 Brown orange red mottling at BH06 Red mottling at BH08 Yellow and orange mottling at BH14

5.2 Analytical Results

Analytical results have been screened against the adopted screening criteria detailed in Appendix B and within the context of the assessment objectives outlined in Section 1.1. Soil analytical results are presented in Appendix E and laboratory documentation is provided in Appendix F.

Sample locations are presented in Appendix A.

A summary of the analytical results is provided as follows:

- Detectable concentrations of metals, inorganics, and TRHs (for BH13_0.1 only) were reported in soils collected from the site. No detectable concentrations of PFAS were reported. All results reported concentrations below the adopted human health and ecological guidelines (refer to Section 5.2.1).
- All sample concentrations were reported below Fill Material upper limits provided under EPA Publication 1828.2 (2021) *Waste disposal criteria for off-site disposal* and EPA Consultation Paper (2023) *Classifying waste and waste soils containing PFAS*. The findings indicate a preliminary soil waste classification of Fill Material (refer to Section 5.2.2).
- Two samples (BH07_1.0 and BH09_0.5) reported results above EPA Publication 655.1 (2009) criteria and are therefore classified as acid sulfate soils. Both samples were collected from the south-eastern portion of the project area, close to Silvan Reservoir (<100m) and within areas of 'high probability' of encountering acid sulfate soil (as identified in the desktop assessment). All other samples reported results below the criteria (refer to Section 5.2.3).
- The soil is classified as ranging 'non-aggressive' to 'moderately aggressive' for concrete piles and non-aggressive for steel piles in accordance with AS 2159-2009 (refer to Section 5.2.4).

5.2.1 Human Health and Ecological Screening

To assess the potential risk of harm to human health and the environment from contaminated land, the results were compared against the human health and ecological guidelines described in Appendix B. Results are presented in Table 1 of Appendix E and laboratory documentation is provided in Appendix F.

The results are summarised as follows:

- All soil results reported below the adopted human health (HILs) and ecological (EILs) guideline values.
- Select samples screened for PFAS analytes did not report any detectable concentrations of PFAS.
- Detectable concentrations below the adopted screening criteria were reported in both fill and natural soils for metals (arsenic, barium, chromium, copper, lead, nickel and zinc), inorganics (nitrite + nitrate as N, chloride, electrical conductivity, fluoride, total Kjeldahl nitrogen, nitrate, nitrite, nitrogen and sulfate), physiochemical parameters (resistivity, moisture, pH and pH (CaCl2), and TRHs (only at BH13_0.1).

5.2.2 Offsite Soil Disposal

To evaluate offsite disposal options and provide an indicative soil waste classification, the soil sample results were compared against EPA Publication 1828.2 (2021) *Waste disposal criteria for off-site disposal*, as well as the EPA Consultation Paper (2023) *Classifying waste and waste soils containing PFAS* (as discussed in Appendix B). Results are presented in Table 2 of Appendix E and laboratory documentation is provided in Appendix F.

All soil results reported concentrations below the Fill Material upper limits. On this basis, no leachability analysis was completed. The analytical results indicate a preliminary soil waste classification of Fill Material. It is noted that this classification is preliminary only and soils scheduled for offsite disposal will need to be sampled and analysed in accordance with EPA 1828.2 sampling density requirements and spoil volumes.

PFAS was not detected in this assessment and therefore does not require any further PFAS-related management controls. Regardless, it is noted that recently issued EPA Consultation Paper (2023) outlines EPA's most recent position on categories of waste soil containing PFAS, their likely uses and recommended management options. A flowchart of this position is provided in Figure 5-1 below (from EPA Consultation Paper 2023).

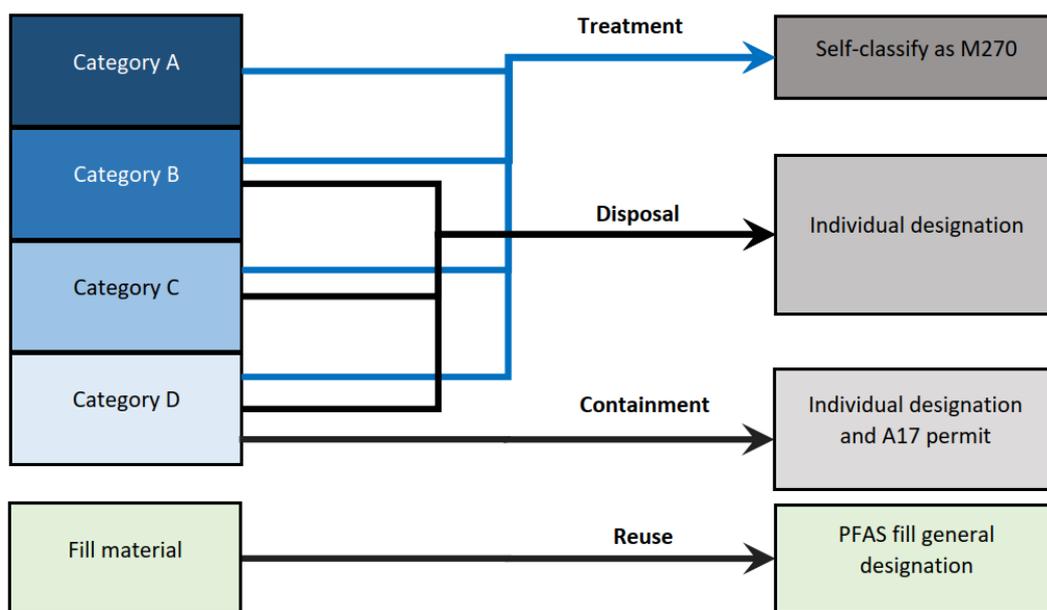


Figure 5-1. Categories of waste soil containing PFAS and their likely uses (snipped from EPA Consultation Paper 2023)

5.2.3 Acid Sulfate Soils

Five samples collected from separate boreholes (BH01, BH04, BH07, BH09 and BH14) underwent initial screening for potential presence of acid sulfate soils in accordance with EPA Publication 655.1 (EPA 2009). Results are presented in Table 1 of Appendix E and laboratory documentation is provided in Appendix F.

The following samples reported exceedances of texture-based action criteria (for 'medium to heavy clays and silty clays') and are indicative of acid sulfate soils:

- BH07_1.0 (63 mol H⁺/t, 0.10 %S)
- BH09_0.5 (82 mol H⁺/t, 0.13 %S).

It is noted that both of these samples were collected from the south-eastern portion of the project area and within 100m of the Silvan Reservoir. No visual or olfactory indicators of acid sulfate soils were reported during the field investigation for any samples collected.

5.2.4 Buildings and Structures

Samples were further analysed for Corrosion on Steel and Concrete Piles suite for assessment of potential impacts to buildings and structures, in accordance with criteria outlined under Appendix B. Results are presented in Table 1 of Appendix E and laboratory documentation is provided in Appendix F.

The results are presented as follows:

- Soils are classified as ranging from 'non-aggressive' to 'moderately aggressive' for concrete piles in accordance with AS 2159-2009, based on a pH (CaCl₂) range of 4.1 (BH05_0.1) to 5.9 (BH01_0.1).
- Soils are classified as being 'non-aggressive' for steel piles in accordance with AS 2159-2009.

6. Conclusion

The preliminary soil contamination ground assessment undertaken at Silvan Reservoir assessed the potential risk of harm to human health and the environment from contaminated land associated with the proposed fence replacement/upgrades, provided an indicative soil waste classification, and evaluated the potential corrosivity risk to subsurface building materials.

6.1 Assessment Findings and Recommendations

The assessment results have reported the following findings and recommendations related to the project:

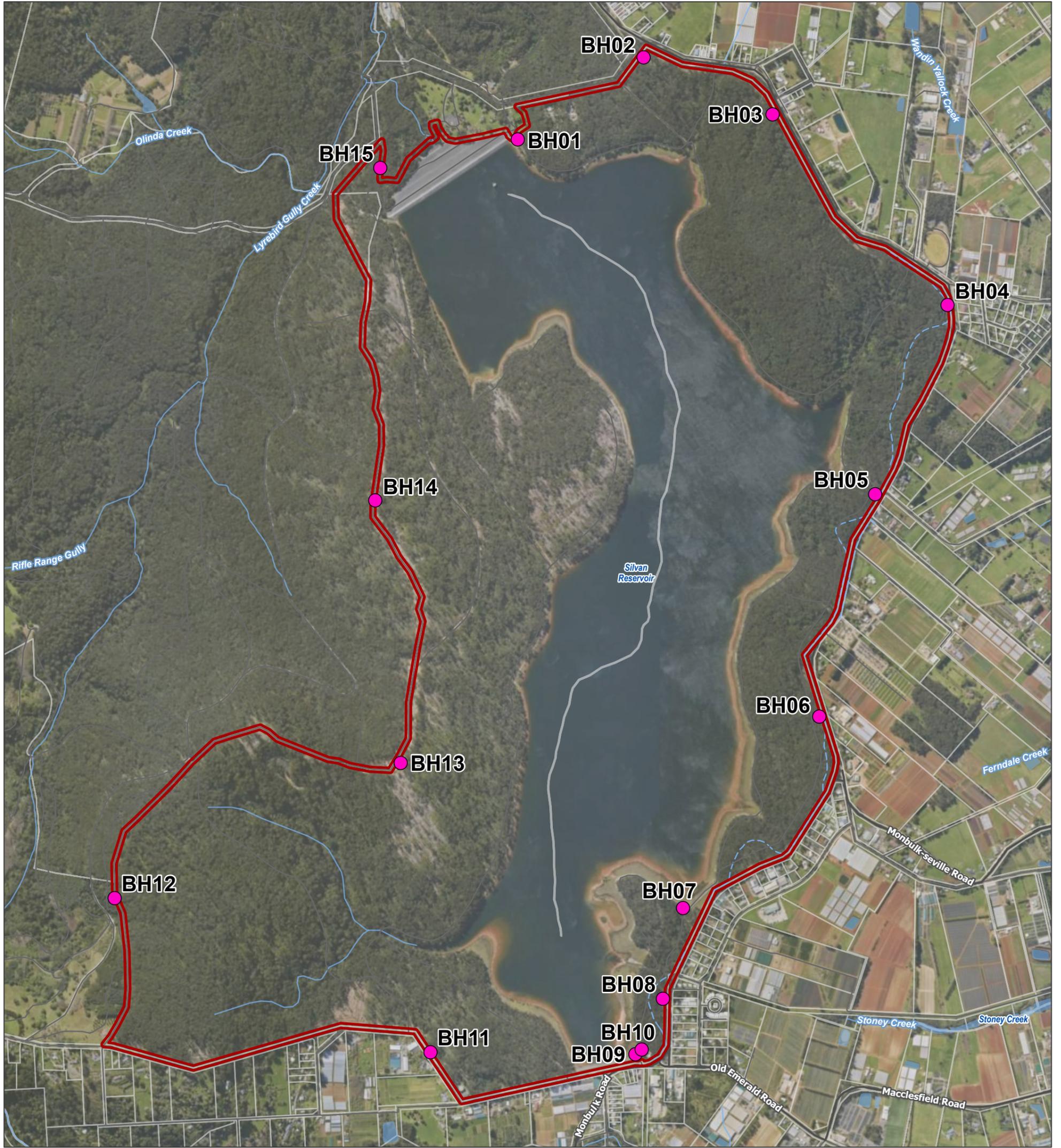
- The analytical results indicate onsite soil contaminants present a negligible risk of harm to human health and the environment and are likely to not impact future onsite soil reuse.
- The results however indicate the presence of acid sulfate soils in areas situated close (<100m) of the Silvan Reservoir. Excavation and exposure of acid sulfate soils to the atmosphere can generate sulfuric acid, which may present a risk of harm to human health, the environment and construction materials. On this basis, excavation of soils expected to contain acid sulfate soil should be managed in accordance with relevant EPA guidance (including but not necessarily limited to EPA Publication 655.1). Controls for managing acid sulfate soils should be captured in the project's Construction Environmental Management Plan (CEMP).
- Soils are preliminarily classified as Fill Material for understanding likely offsite disposal options. It is noted that this classification is preliminary only and further sampling of soils will need to be undertaken prior to disposal in accordance with EPA 1828.2 sampling density requirements and spoil volumes.
- Although the detected contaminant concentrations reported in this investigation are not present at levels considered to pose a risk of harm to human and ecological health, it is possible that contamination may be present in other areas of the project not subjected to soil sampling and analysis. Any excavation works undertaken as part of the project should be undertaken in accordance with an appropriate unexpected finds protocol that is captured in the project's CEMP.

7. References

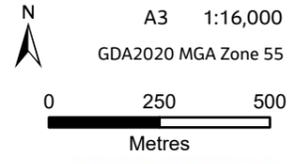
- Australian Standards (2009), AS 2159—2009: Piling-Design and Installation.
- Australian Standards (2005), AS 4482.1-2005: Guide to the investigation and sampling of sites with potential contaminated soil, Part 1: Non-volatile and semi-volatile compounds.
- EPA Victoria (2023), Consultation Paper: Classifying waste and waste soils containing PFAS.
- EPA Victoria (2021), Publication 1828.2: Waste Disposal Categories – Characteristics and Thresholds.
- EPA Victoria (2009), Publication 655.1: Acid sulfate soil and rock.
- Jacobs 2023a, Y10337 – Silvan High Security Fence – Functional Investigations, 12 May 2023.
- Jacobs 2023b, Silvan High Security Fence Contaminated Land Desktop Assessment, 24 November 2023.
- Heads of EPAs (HEPA) Australia and New Zealand and the Australian Government Department of the Environment and Energy (DoEE), PFAS National Environmental Management Plan, Version 2.0, January 2020.
- National Environment Protection Council (NEPC) (2013), National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) (NEPM).
- Victorian Government (2020), *Environment Protection Act 2017 (Vic)*.
- Victorian Government (2021), *Environment Protection Regulations 2021 (Vic)*.
- Victorian Government (2021), *Environment Reference Standards 2021 (Vic)*.

Appendix A. Figures

Figure 1: Sampling Locations



- LEGEND**
- Hand Auger
 - Project Area
 - Major Road
 - Minor Road
 - Channel / Drains
 - River / Streams
 - Waterbody
 - Cadastre



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Data Sources: Geosciences Australia (2006); Geodata Topo 250k Series 3; Vicmap Data © State of Victoria 2023; Jacobs 2024. Imagery Sources: ESRI Online Imagery Services, © Aerometrex MetroMap 2024

Appendix B. Regulatory Framework

The key legislative document governing environmental compliance for individuals and businesses in Victoria is the Environment Protection Act 2017 ('the EP Act'). A principal feature of the EP Act is the 'General Environmental Duty' (GED) to prevent harm to human health and the environment, as well as additional duties related to the management of contaminated land and waste.

The framework for assessing environmental conditions for meeting obligations under the EP Act 2017 require evaluation of the potential impacts to applicable 'Environmental Values' (EVs), as listed under the Environment Reference Standard 2021 (ERS). EVs applicable to a given site are based on the applicable 'land use category' under the ERS (2021), and assessment of the EVs should be in accordance with National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended in 2013) ('NEPM 2013').

With consideration of the land use zoning of the project area (Public Use – Service and Utility) and the project objectives, an '**Industrial**' land use *category* is considered suitable for the purposes of identifying EVs applicable to the project area. Note, a more conservative land use *setting* (as defined under the NEPM 1999) has been adopted for deriving the adopted screening criteria, as discussed later in this section.

EVs for land applicable to the 'Industrial' land use category include:

- **Human health** – defined under the ERS as "*land quality that is suitable for the specific land use and safe for the human use of that land*".
- **Land dependant ecosystems and species** – defined under the ERS as "*land quality that is suitable to protect soil health and the integrity and biodiversity of natural ecosystems, modified ecosystems and highly modified ecosystems*".
- **Buildings and structures** – defined under the ERS as "*Land quality that is not corrosive to buildings, structures, property and materials.*"

While not an Environmental Value, the EP Act 2017 imposes additional duties related to the management of industrial waste (including soil) in Victoria. The duties include, among other things, assessing industrial waste (including soil) for determining whether it is also a priority waste or reportable priority waste.

Based on relevant contaminated land regulations and the objectives of the project, key considerations that form the basis for this contaminated land assessment include:

1. *Potential impacts to human health (including onsite workers) due to contaminated soil and water.*
2. *Potential impacts to ecological health due to contaminated soil and water.*
3. *Potential impacts to the durability of buildings and structures due to contaminated soil and water.*
4. *Potential for restricted reuse or disposal of excavated spoil and excess water due to contamination.*

The adopted screening criteria for assessing key project considerations are provided in Table A-1 below and are informed by the applicable Environmental Values, 'land use setting' as defined under NEPM 1999, and the objectives of the project.

Screening criteria considered suitable for the assessment and protection of human health and the environment are generally selected in accordance with the most appropriate 'land use setting', as defined under NEPM 1999. While this may correlate with the 'land use category' defined under the ERS (2021), NEPM 1999 does not provide a land use setting specifically applicable for short-duration exposures to contaminants in soils for construction workers (considered the most relevant potential receptors related to the project). Therefore, Jacobs adopted **HIL C (public open space)** as a conservative measure for the purpose of screening for potential health risks to construction workers. Similarly, criteria relevant to '**urban residential and public open space**' land use was adopted as the ecological investigation limits (EILs).

Table A-1. Adopted assessment criteria.

Project Considerations	Adopted Screening Criteria
Environmental Values under the ERS	
Human Health	<ul style="list-style-type: none"> ▪ National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended in 2013) <ul style="list-style-type: none"> - Health-based investigation levels (HILs): HIL-C (public open space) ▪ Heads of EPAs (HEPA) Australia and New Zealand and the Australian Government Department of the Environment and Energy (DoEE), PFAS National Environmental Management Plan, Version 2.0, January 2020 <ul style="list-style-type: none"> - Human health investigation levels for soil: HIL-C (public open space) ▪ EPA Publication 655.1 (2009). Acid sulfate soil and rock <ul style="list-style-type: none"> - Table 3 (Texture based action criteria for classification of acid sulfate soil)
Ecological Health	<ul style="list-style-type: none"> ▪ National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended in 2013) <ul style="list-style-type: none"> - Default ecological investigation levels (EILs): urban residential / public open space (aged soils) ▪ Heads of EPAs (HEPA) Australia and New Zealand and the Australian Government Department of the Environment and Energy (DoEE), PFAS National Environmental Management Plan, Version 2.0, January 2020 <ul style="list-style-type: none"> - Ecological guideline values for soil: direct exposure - Ecological guideline values for soil: indirect exposure
Buildings and Structures	<ul style="list-style-type: none"> ▪ Australian Standard AS 2159-2009 – Piling Design and Installation <ul style="list-style-type: none"> - Table 6.4.2: Exposure classification for concrete piles – piles in soil - Table 6.5.2: Exposure classification for steel piles – piles in soil
Additional Project Considerations	
Soil Waste Disposal	<ul style="list-style-type: none"> ▪ EPA Publication 1828.2 (2021), Waste disposal categories – characteristics and thresholds <ul style="list-style-type: none"> - Table 2 – waste disposal contamination concentrations and leachable concentrations. - Table 3 – fill material contamination total concentration upper limit. ▪ Heads of EPAs (HEPA) Australia and New Zealand and the Australian Government Department of the Environment and Energy (DoEE), PFAS National Environmental Management Plan, Version 2.0, January 2020 <ul style="list-style-type: none"> - Landfill acceptance criteria: unlined landfill - Landfill acceptance criteria: clay/single composite lined landfill ▪ EPA Consultation Paper (2023), Classifying waste and waste soils containing PFAS. ^[1] <ul style="list-style-type: none"> - Table A: Proposed additions to EPA Publication 1828.2, Table 2, Waste disposal categories - Table B: Proposed additions to EPA Publication 1828.2, Table 3, Waste disposal categories
Notes:	
<p>^[1] Designated contaminant upper limits prescribed under EPA Consultation Paper (2023) are intended to be incorporated into the EPA 1828.2 soil waste classification in the future. Screening of analytical PFAS results against these guideline values are therefore considered applicable in the context of the preliminary offsite soil disposal assessment. However, it is noted that this guidance is only a draft at the time of writing this report.</p>	

Appendix C. Site Photographs



Existing fence and Road 2 (taken from BH11).

The new fence is proposed to be installed on the inside of Road 2 toward the Silvan Reservoir, with the existing fence remaining on the outside.



View from BH09 facing west toward the Silvan Reservoir.

Analytical results indicate acid sulfate soils exist around BH09. BH09 is located ~75m from the reservoir, which is classified as having a 'high probability' of encountering acid sulfate soils (Jacobs 2022b).



View from BH05, facing toward Silvan Reservoir.

Evidence of land clearing activities is frequently observed across the extent of the project area.



BH12 soil profile.

The majority of soils across the project area were reported as naturally-sourced silty CLAY. Very little fill material was encountered across the course of the ground assessment.

Appendix D. Borelogs

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.82654234, 145.40878767
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH01_0.1			CLAY, dark brown, high plasticity, with silt, with rootlets.	SM	S	No staining, no odour.
0.1							
0.15							
0.2							
0.25							
0.3							
0.35				CLAY, brown, medium plasticity, with sand, with silt.	SM	St	No staining, no odour.
0.4							
0.45	BH01_0.5						
0.5							
0.55							
0.6							
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH01_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.82349581, 145.41490353
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	0.8	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05				Silty CLAY, dark brown, medium plasticity.	SM	St	No staining, No odour
0.1	BH02_0.1			Silty CLAY, brown red, medium plasticity.	SM	St-VS	No staining, No odour
0.15							
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH02_0.5						
0.5							
0.55							
0.6							
0.65							
0.7							
0.75							
0.8				Termination Depth at: 0.8 m. Auger refusal.			
0.85							
0.9							
0.95							

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.82575251, 145.42105601
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	0.8	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05				Silty CLAY, dark brown red, medium plasticity, with roots.	SM	F	No staining, no odour.
0.1	BH03_0.1			Silty CLAY, brown red, medium plasticity.	SM	VSt	No staining, no odour.
0.15							
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH03_0.5						
0.5							
0.55							
0.6							
0.65							
0.7							
0.75	BH0_0.8						
0.8				Termination Depth at: 0.8 m. Auger refusal.			
0.85							
0.9							
0.95							

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.83313374, 145.4293118
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH04_0.1			Silty CLAY, dark brown red, medium plasticity, trace sand, trace roots.	SM	St	No staining, No odour
0.1				Silty CLAY, brown red, medium plasticity.	SM	VSt	No staining, No odour
0.15							
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH04_0.5						
0.5							
0.55							
0.6							
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH04_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.84030182, 145.42567879
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	17 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05				Silty CLAY, brown, medium plasticity, trace gravel, trace sand.	SM	F	No staining, No odour
0.1	BH05_0.1			Silty CLAY, brown orange and orange and grey mottling, medium plasticity, with gravel.	SM	St	No staining, No odour
0.15							
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH05_0.5						
0.5							
0.55							
0.6				Silty CLAY, brown red, medium plasticity.	SM	F	No staining, No odour
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH05_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.86129349, 145.40384344
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	17 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05				Silty CLAY, dark brown, medium plasticity, trace organics, trace sand.	M	F	No staining, No odour
0.1	BH06_0.1			Silty CLAY, brown red, medium plasticity.	SM	F	No staining, No odour
0.45	BH06_0.5			Silty CLAY, brown orange red mottling, medium plasticity.	SM	F	No staining, No odour
0.95	BH06_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSst	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.85595875, 145.41610373
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	17 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH07_0.1			Silty CLAY, dark brown, medium plasticity, with roots, trace sand, trace gravel.	SM	F	No staining, No odour
0.1							
0.15				Silty CLAY, brown orange, medium plasticity, trace sand, trace roots.	SM	F	No staining, No odour
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH07_0.5						
0.5							
0.55							
0.6							
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH07_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.85940631, 145.4150607
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	17 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05				Silty CLAY, brown orange, medium plasticity.	SM	F	No staining, No odour
0.1	BH08_0.1			Silty CLAY, brown orange, medium plasticity.	SM	St	No staining, No odour
0.15							
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH08_0.5						
0.5				Silty CLAY, brown orange with red mottling, medium plasticity.	SM	VSt	No staining, No odour
0.55							
0.6							
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH08_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.8615036, 145.41369335
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	17 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH09_0.1			FILL: Sandy CLAY, dark brown, medium plasticity, with gravel, trace rootlets.	M	F	No staining, No odour
0.1							
0.15							
0.2				Silty CLAY, brown, medium plasticity.	SM	F	No staining, No odour
0.25							
0.3							
0.35							
0.4							
0.45	BH09_0.5						
0.5							
0.55							
0.6							
0.65							
0.7				Silty CLAY, brown orange, medium plasticity.	SM	F	No staining, No odour
0.75							
0.8							
0.85							
0.9							
0.95	BH09_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.86132774, 145.41400122
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	17 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH10_0.1			Silty CLAY, brown orange, medium plasticity, trace sand.	SM	F-St	No staining, No odour
0.1							
0.15							
0.2							
0.25							
0.3				Silty CLAY, brown orange, medium plasticity.	SM	F	No staining, No odour
0.35							
0.4							
0.45	BH10_0.5						
0.5							
0.55							
0.6							
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH10_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.86129349, 145.40384344
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	17 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH11_0.1			Silty CLAY, dark brown, medium plasticity, with roots, trace sand.	M	F	No staining, No odour
0.1				Silty CLAY, brown, medium plasticity.	SM	F	No staining, No odour
0.15							
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH11_0.5						
0.5							
0.55							
0.6							
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH11_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.85521016, 145.38878434
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

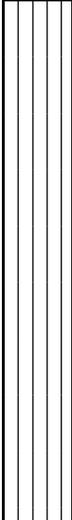
COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH12_0.1			Clayey SILT, dark brown, low plasticity.	SM	F	No staining, No odour
0.1							
0.15	BH12_0.5			Silty CLAY, orange brown, medium plasticity, trace gravel.	SM	St	No staining, No odour
0.2							
0.25							
0.3							
0.35							
0.4							
0.45							
0.5							
0.55							
0.6							
0.65	BH12_1.0						
0.7							
0.75							
0.8							
0.85							
0.9							
0.95							
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.85024246, 145.40264952
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	0.7	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

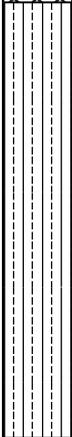
COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH13_0.1			FILL: Silty CLAY, brown grey, medium plasticity, with gravel, trace sand.	SM	S	No staining, No odour, Mulch
0.1							
0.15							
0.2							
0.25				Clayey SILT, orange brown, medium plasticity.	SM-M	VSt	No staining, No odour, Sandstone gravels
0.3							
0.35							
0.4							
0.45	BH13_0.5						
0.5							
0.55							
0.6							
0.65				Termination Depth at: 0.65 m. Auger refusal.			
0.7							
0.75							
0.8							
0.85							
0.9							
0.95							

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.84021339, 145.40164118
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH14_0.1			FILL: Clayey SILT, brown, low plasticity, with gravel.	D-SM	F	No staining, No odour
0.1				Clayey SILT, brown, low plasticity, with gravel.	D-SM		No staining, No odour
0.45	BH14_0.5			Silty CLAY, brown red and yellow and orange mottling, high plasticity, with gravel.	SM	St	No staining, No odour
0.95	BH14_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION	DENSITY (N-value)	CONSISTENCY (Su)
PID	Photo Ionisation Detector (ppm)	D Dry	VL (very loose) <10	VS (very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M Moist	L (loose) 10-20	S (soft) 12-25
GROUNDWATER SYMBOLS		W Wet	MD (medium dense) 20-30	F (firm) 25-50
	Water level (static)	SM Slightly Moist	D (dense) 30-50	St (stiff) 50-100
	Water level (drilling)		VD (very dense) >50	VSt (very stiff) 100-200
			CO (compact) 50/150mm	H (hard) >200 kPa

PROJECT NUMBER	IA5000PB	DRILLING COMPANY	N/A	COORDINATES	-37.82753907, 145.40215599
PROJECT NAME	Silvan Reservoir Fence	DRILLER	Jacobs	COORD SYS	
DRILLING DATE	16 Jan 2024	DRILL RIG	N/A	RL (mAHD)	
LOGGED BY	Jordan Prestidge	DRILLING METHOD	Hand Auger	WELL ID	
CHECKED BY	Jordan Prestidge	TOTAL DEPTH (m)	1.0	WELL TOC (mAHD)	
		DIAMETER (mm)	70		

COMMENTS

Depth (m)	Sample ID	Water	Graphic Log	Material Description	Moisture	Consistency	Additional Observations
0.05	BH15_0.1			Clayey SILT, brown red, low plasticity, trace gravel.	SM	F	No staining, No odour
0.1							
0.15							
0.2							
0.25							
0.3							
0.35							
0.4							
0.45	BH15_0.5			Silty CLAY, orange brown, high plasticity.	SM	F-St	No staining, No odour
0.5							
0.55							
0.6							
0.65							
0.7							
0.75							
0.8							
0.85							
0.9							
0.95	BH15_1.0						
1				Termination Depth at: 1.0 m. Target depth.			

FIELD DATA ABBREVIATIONS		MOISTURE CONDITION		DENSITY (N-value)		CONSISTENCY (Su)	
PID	Photo Ionisation Detector (ppm)	D	Dry	VL	(very loose) <10	VS	(very soft) <12 kPa
QA/QC	Quality Assurance/Quality Control	M	Moist	L	(loose) 10-20	S	(soft) 12-25
GROUNDWATER SYMBOLS		W	Wet	MD	(medium dense) 20-30	F	(firm) 25-50
	Water level (static)	SM	Slightly Moist	D	(dense) 30-50	St	(stiff) 50-100
	Water level (drilling)			VD	(very dense) >50	VSt	(very stiff) 100-200
				CO	(compact) 50/150mm	H	(hard) >200 kPa

Appendix E. Analytical Results Tables

	Acid Sulphate Soils	Acid Sulphate Soils - Calcium Values	NA		Metals														
	% S	% S	moles H+/t	Phosphorus total (as P)	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Copper	Lead	Magnesium (filtered)	Mercury	Molybdenum	Nickel	Selenium
EQL	0.02	0.02	10	2	5	5	10	1	50	1	0.5	2	5	5	10	0.1	2	2	5
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil						300 ^{#2}		90	20,000	90	300	300 ^{#3}	17,000	600 ^{#4}		80 ^{#5}		1,200	700
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)						100 ^{#9}							190 ^{#10}	1,100 ^{#11}				270 ^{#12}	
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	% S	moles H+/t	Phosphorus total (as P)	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Copper	Lead	Magnesium (filtered)	Mercury	Molybdenum	Nickel	Selenium
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	<5	<5	90	<1	<50	<1	<0.5	-	26	66	-	<0.1	<2	24	<5
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	<0.020	48	-	<5	<5	-	-	-	<1	-	178	65	6	-	<0.1	-	57	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	280	-	<5	-	-	-	<1	-	63	8	19	-	<0.1	-	15	-
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	<5	<5	80	<1	<50	<1	<0.5	-	8	14	-	<0.1	<2	16	<5
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	198	11	17	-	<0.1	-	17	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	165	11	15	-	<0.1	-	16	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	179	16	16	-	<0.1	-	23	-
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	<0.020	42	178	-	<5	-	-	-	<1	-	195	17	17	-	<0.1	-	26	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	1,180	<5	<5	40	<1	<50	<5 ^{#16}	<0.5	-	54	8	-	<0.1	<2	44	<5
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	832	-	<5	-	-	-	<5 ^{#16}	-	172	51	<5	-	<0.1	-	41	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	75	14	14	-	<0.1	-	19	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	180	-	<5	-	-	-	<1	-	88	16	14	-	<0.1	-	25	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	60	9	13	-	<0.1	-	14	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<0.020	63	-	<5	<5	70	<1	<50	<1	<0.5	-	10	14	-	<0.1	<2	13	<5
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	118	-	<5	-	-	-	<1	-	45	<5	11	-	<0.1	-	8	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	49	<5	11	-	<0.1	-	8	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	25	8	24	-	<0.1	-	5	-
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	<0.020	82	-	-	<5	-	-	-	<1	-	53	6	12	-	<0.1	-	12	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	<5	<5	50	<1	<50	<1	<0.5	-	6	13	-	<0.1	<2	11	<5
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	<5	-	-	-	<1	-	53	6	12	<10	<0.1	-	10	-
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	6	-	-	-	<1	-	50	8	15	-	<0.1	-	12	-
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	172	-	5	-	-	-	<1	-	56	6	12	-	<0.1	-	11	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	<5	6	40	<1	<50	<1	<0.5	-	15	18	-	<0.1	<2	13	<5
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	7	-	-	-	<1	-	60	15	17	-	<0.1	-	13	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	7	-	-	-	<1	-	21	18	8	-	<0.1	-	34	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	8	-	-	-	<1	-	108	12	25	-	<0.1	-	24	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	<5	<5	70	<1	<50	<1	<0.5	-	6	18	-	<0.1	<2	13	<5
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	<0.020	38	-	-	<5	-	-	-	<1	-	71	10	16	-	<0.1	-	19	-
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	6	-	-	-	<1	-	58	13	23	-	<0.1	-	16	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	6	-	-	-	<1	-	69	5	15	-	<0.1	-	12	-

Comments

- #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
- #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).
- #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
- #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.
- #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.
- #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)P)
- #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & naphthalene (should meet relevant HSL)
- #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken
- #9 Refer Table 1B(5)

	Acid Sulphate Soils	Acid Sulphate Soils - Calcium Values	NA		Metals														
	s-Net Acidity without ANCE	sulfidic - Acid Reacted Calcium	a-Net Acidity without ANCE	Phosphorus total (as P)	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Copper	Lead	Magnesium (filtered)	Mercury	Molybdenum	Nickel	Selenium
	% S	% S	moles H+/t	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.02	10	2	5	5	10	1	50	1	0.5	2	5	5	10	0.1	2	2	5
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil						300 ^{#2}		90	20,000	90	300	300 ^{#3}	17,000	600 ^{#4}		80 ^{#5}		1,200	700
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)						100 ^{#9}							190 ^{#10}	1,100 ^{#11}				270 ^{#12}	
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils		Inorganics																	
	% S	Silver	Zinc	Nitrite + Nitrate as N (soluble)	Ammonia as N	Calcium (filtered)	Chloride	Cyanide (amenable)	Cyanide Total	Ethylenediaminetetraacetic acid	Electrical conductivity (lab)	Fluoride	Kjeldahl Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 2- (filtered)	
EQL	0.02	2	5	0.1	20	10	10	1	1	10	1	40	20	0.1	0.1	20	10	10	10	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																				
PFAS NEMP 2020 Table 2 Public open space (HIL C)																				
PFAS NEMP 2020 Table 3 Ecological direct exposure																				
PFAS NEMP 2020 Table 3 Ecological indirect exposure																				
NEPM 2013 Table 1A(1) HIL C Soil			30,000																	
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)			590 ^{#13}																	
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																				1,000

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	Silver	Zinc	Nitrite + Nitrate as N (soluble)	Ammonia as N	Calcium (filtered)	Chloride	Cyanide (amenable)	Cyanide Total	Ethylenediaminetetraacetic acid	Electrical conductivity (lab)	Fluoride	Kjeldahl Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 2- (filtered)
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<2	96	-	-	-	10	<1	<1	<10	33	110	-	-	-	-	-	-	<10
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	59	0.5	<20	-	-	-	-	-	-	-	1,720	0.3	0.2	1,720	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<2	<5	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	<5	-	-	-	<10	-	-	-	27	-	-	-	-	-	-	-	30
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	6	0.4	<20	-	-	-	-	-	-	-	450	0.4	<0.1	450	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<2	36	0.1	<20	-	-	<1	<1	<10	-	<40	280	0.1	<0.1	280	-	-	-
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	33	<0.1	<20	-	-	-	-	-	-	-	150	<0.1	<0.1	150	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	<5	0.1	<20	-	-	-	-	-	-	-	610	0.1	<0.1	610	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<2	5	-	-	-	60	<1	<1	<10	40	60	-	-	-	-	-	-	<10
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	<5	0.1	<20	-	-	-	-	-	-	-	450	0.1	<0.1	450	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<2	11	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	<5	-	-	<10	60	-	-	-	-	-	-	-	-	-	<10	50	10
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	<5	0.2	<20	-	-	-	-	-	-	-	1,230	0.2	<0.1	1,230	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<2	6	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<2	7	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	6	-	-	-	<10	-	-	-	16	-	-	-	-	-	-	-	10
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
 #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils		Inorganics																	
	s-Net Acidity without ANCE	Silver	Zinc	Nitrite + Nitrate as N (soluble)	Ammonia as N	Calcium (filtered)	Chloride	Cyanide (amenable)	Cyanide Total	Ethylenediaminetetraacetic acid	Electrical conductivity (lab)	Fluoride	Kjeldahl Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 2- (filtered)	
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	uS/cm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	0.02	2	5	0.1	20	10	10	1	1	10	1	40	20	0.1	0.1	20	10	10	10	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																				
PFAS NEMP 2020 Table 2 Public open space (HIL C)																				
PFAS NEMP 2020 Table 3 Ecological direct exposure																				
PFAS NEMP 2020 Table 3 Ecological indirect exposure																				
NEPM 2013 Table 1A(1) HIL C Soil			30,000																	
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)			590 ^{#13}																	
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																				1,000

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Physiochemical parameters				TRH - NEPM 2013 Fractions							TPH - NEPM 1999 Fractions							
	% S-Net Acidity without ANCE	Resistivity	Moisture Content	pH (Lab)	pH (CaCl2)	TRH >C6 - C10	TRH >C10 - C16	TRH >C16 - C34	TRH >C34 - C40	TRH >C10 - C40 (Sum of total)	TRH >C6 - C10 less BTEX (F1)	TRH >C10 - C16 less Naphthalene (F2)	TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29-C36	TPH C10 - C36 (Sum of total)	Naphthalene (value used in F2 calc)	Acenaphthene	
	% S	OHM.M	%	pH Units	pH Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.01	0.1	0.1	0.1	10	50	100	100	50	10	50	10	50	100	100	50	1	0.5	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																				
PFAS NEMP 2020 Table 2 Public open space (HIL C)																				
PFAS NEMP 2020 Table 3 Ecological direct exposure																				
PFAS NEMP 2020 Table 3 Ecological indirect exposure																				
NEPM 2013 Table 1A(1) HIL C Soil																				
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																				
AS2159-2009 Piling – Design and Installation (Buildings & Structures)				5.5-14	5.5-14															

Location Code	Field ID	Date	Depth (mbgl)	Lab Report																		
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	303	27.1	6.6	5.9	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	31.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	29.5	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	-	25.5	-	4.3	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	24.5	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	370	20.2	5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	30.9	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	30.4	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	-	33.5	-	4.1	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	34.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	28.0	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	27.1	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	25.3	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	250	26.4	4.8	4.4	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	23.8	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	26.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	19.8	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	28.4	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	-	22.7	-	4.2	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	24.1	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	31.5	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	31.2	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	-	31.2	-	4.5	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	22.6	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	25.8	-	-	<10	<50	180	<100	180	<10	<50	<100	160	160	<1	<0.5	
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	24.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	-	22.1	-	4.6	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	625	23.4	5.4	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	20.5	-	-	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<1	<0.5	
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	23.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
 #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

Acid Sulphate Soils	Physiochemical parameters				TRH - NEPM 2013 Fractions							TPH - NEPM 1999 Fractions							
	s-Net Acidity without ANCE	Resistivity	Moisture Content	pH (Lab)	pH (CaCl2)	TRH >C6 - C10	TRH >C10 - C16	TRH >C16 - C34	TRH >C34 - C40	TRH >C10 - C40 (Sum of total)	TRH >C6 - C10 less BTEX (F1)	TRH >C10 - C16 less Naphthalene (F2)	TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29-C36	TPH C10 - C36 (Sum of total)	Naphthalene (value used in F2 calc)	Acenaphthene
% S	OHM.M	%	pH Units	pH Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.01	0.1	0.1	0.1	10	50	100	100	50	10	50	10	50	100	100	50	1	0.5
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil																			
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																			
AS2159-2009 Piling – Design and Installation (Buildings & Structures)				5.5-14	5.5-14														

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Polycyclic aromatic hydrocarbons (PAHs)																		
	% S	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (zero)	Benzo(a)pyrene TEQ calc (PQL)	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	
EQL	0.02	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																				
PFAS NEMP 2020 Table 2 Public open space (HIL C)																				
PFAS NEMP 2020 Table 3 Ecological direct exposure																				
PFAS NEMP 2020 Table 3 Ecological indirect exposure																				
NEPM 2013 Table 1A(1) HIL C Soil										3 ^{#6}	3 ^{#6}	3 ^{#6}								
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																				
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																				

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (zero)	Benzo(a)pyrene TEQ calc (PQL)	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	<1.0	-	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	<0.5	<1.0	-	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	<1.0	-	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<0.5	<0.5	<0.5	<1.0	-	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	<1.0	-	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	<1.0	-	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	<1.0	-	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
 #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils	Polycyclic aromatic hydrocarbons (PAHs)																		
	% S	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(b+j+k)fluoranthene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (zero)	Benzo(a)pyrene TEQ calc (PQL)	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	
EQL	0.02	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																				
PFAS NEMP 2020 Table 2 Public open space (HIL C)																				
PFAS NEMP 2020 Table 3 Ecological direct exposure																				
PFAS NEMP 2020 Table 3 Ecological indirect exposure																				
NEPM 2013 Table 1A(1) HIL C Soil										3 ^{#6}	3 ^{#6}	3 ^{#6}								
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																				
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																				

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils		Monocyclic Aromatic Hydrocarbons (MAHs)									Chlorinated Hydrocarbons							
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
	Net Acidity without Sulfate	Naphthalene	PAHs (Sum of total)	Sum of monocyclic aromatic hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2-dichloroethane	Carbon tetrachloride	Chloroform
EQL	0.02	0.5	0.5	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.2	0.01	0.01	0.02	0.04	0.01	0.02	0.01	0.02
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil			300 ^{#7}																
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)		170 ^{#9}																	
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	mg/kg																	
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	<0.5	<0.5	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
 #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils		Monocyclic Aromatic Hydrocarbons (MAHs)								Chlorinated Hydrocarbons								
	s-Net Acidity without ANCE	Naphthalene	PAHs (Sum of total)	Sum of monocyclic aromatic hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethene	1,2-dichloroethane	Carbon tetrachloride	Chloroform
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.5	0.5	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.2	0.01	0.01	0.02	0.04	0.01	0.02	0.01	0.02
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil			300 ^{#7}																
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)		170 ^{#9}																	
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Carbons							Halogenated Benzenes									Solvents	Volatile Organic Compounds (VOCs)
	% S	cis-1,2-dichloroethene	trans-1,2-dichloroethene	Dichloromethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3,5-Trichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Trichlorobenzene (total)	Methyl Ethyl Ketone	Styrene	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	0.02	0.01	0.02	0.4	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.03	0.01	1	0.5	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil														10					
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																			
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	cis-1,2-dichloroethene	trans-1,2-dichloroethene	Dichloromethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3,5-Trichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Trichlorobenzene (total)	Methyl Ethyl Ketone	Styrene
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.03	<0.01	<1	<0.5
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.03	<0.01	<1	<0.5
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.03	<0.01	<1	<0.5
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.03	<0.01	<1	<0.5
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.03	<0.01	<1	<0.5
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.03	<0.01	<1	<0.5
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.03	<0.01	<1	<0.5
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
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 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
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 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils	Carbons							Halogenated Benzenes								Solvents	Volatile Organic Compounds (VOCs)
	% S	cis-1,2-dichloroethene	trans-1,2-dichloroethene	Dichloromethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3,5-Trichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Trichlorobenzene (total)	Methyl Ethyl Ketone	Styrene
EQL	0.02	0.01	0.02	0.4	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.03	0.01	1	0.5
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																		
PFAS NEMP 2020 Table 2 Public open space (HIL C)																		
PFAS NEMP 2020 Table 3 Ecological direct exposure																		
PFAS NEMP 2020 Table 3 Ecological indirect exposure																		
NEPM 2013 Table 1A(1) HIL C Soil														10				
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																		
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																		

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Semi Volatile Organic Compounds (SVOCs)	Per- and Poly-fluoroalkyl Substances (PFAS)									(n:2) Fluorotelomer Sulfonic Acids								
	% S	Formaldehyde	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorooheptanoic acid (PFHpA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Sum (PFHxS + PFOS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	2	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.001	0.0002	0.5	0.5	0.0005	0.0005	0.05	0.05	0.03	1	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																				
PFAS NEMP 2020 Table 2 Public open space (HIL C)				10						1										
PFAS NEMP 2020 Table 3 Ecological direct exposure			1	10																
PFAS NEMP 2020 Table 3 Ecological indirect exposure			0.01																	
NEPM 2013 Table 1A(1) HIL C Soil																				
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																				
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																				

Location Code	Field ID	Date	Depth (mbgl)	Lab Report																			
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<2	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.03	<1		
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<2	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.03	<1		
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<2	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.03	<1		
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<2	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.03	<1		
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.5	<0.5	<0.0005	<0.0005	-	-	
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.5	<0.5	<0.0005	<0.0005	-	-	
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<2	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.5	<0.5	<0.0005	<0.0005	<0.05	<0.05	<0.03	<1
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<2	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.03	<1		
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<2	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.03	<1		
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
 #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils	Semi Volatile Organic Compounds (SVOCs)	Per- and Poly-fluoroalkyl Substances (PFAS)								(n:2) Fluorotelomer Sulfonic Acids								
	s-Net Acidity without ANCE	Formaldehyde	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptanoic acid (PFHpA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Sum (PFHxS + PFOS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	2	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.001	0.0002	0.5	0.5	0.0005	0.0005	0.05	0.05	0.03	1
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)				10						1									
PFAS NEMP 2020 Table 3 Ecological direct exposure			1	10															
PFAS NEMP 2020 Table 3 Ecological indirect exposure			0.01																
NEPM 2013 Table 1A(1) HIL C Soil																			
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																			
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Phenols											Phthalates						
	% S	2,4-dinitrophenol	2-chlorophenol	2-methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-nitrophenol	3&4-Methylphenol (m&p-cresol)	Cresol Total	Dinoseb	Phenol	Bis(2-ethylhexyl) phthalate	Vic EPA IWRG 621 Other OCP (Total)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC
EQL	0.02	5	0.03	1	1	5	5	5	1	1	5	1	0.5	0.03	0.05	0.03	0.03	0.03	0.03
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil									4,000		40,000							10	
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																			
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	2,4-dinitrophenol	2-chlorophenol	2-methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-nitrophenol	3&4-Methylphenol (m&p-cresol)	Cresol Total	Dinoseb	Phenol	Bis(2-ethylhexyl) phthalate	Vic EPA IWRG 621 Other OCP (Total)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
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 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils	Phenols											Phthalates						
	s-Net Acidity without ANCE	2,4-dinitrophenol	2-chlorophenol	2-methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-nitrophenol	3&4-Methylphenol (m&p-cresol)	Cresol Total	Dinoseb	Phenol	Bis(2-ethylhexyl) phthalate	Vic EPA IWRG 621 Other OCP (Total)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	5	0.03	1	1	5	5	5	1	1	5	1	0.5	0.03	0.05	0.03	0.03	0.03	0.03
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil									4,000		40,000							10	
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																			
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
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- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Organochlorine Pesticides (OCPs)																	
	% S	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide
EQL	0.02	0.03	0.03	0.03	0.03	0.05	0.05	0.05	0.03	0.05	0.03	0.03	0.03	0.03	0.03	0.05	0.03	0.03	0.03
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil		70						400		340				20					10
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)							180 ⁹⁹												
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
 #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
 #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils	Organochlorine Pesticides (OCPs)																	
	s-Net Acidity without ANCE	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.03	0.03	0.03	0.03	0.05	0.05	0.05	0.03	0.05	0.03	0.03	0.03	0.03	0.03	0.05	0.03	0.03	0.03
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																			
PFAS NEMP 2020 Table 2 Public open space (HIL C)																			
PFAS NEMP 2020 Table 3 Ecological direct exposure																			
PFAS NEMP 2020 Table 3 Ecological indirect exposure																			
NEPM 2013 Table 1A(1) HIL C Soil		70					400			340				20				10	
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)						180 ⁹⁹													
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																			

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils		Organophosphorous Pesticides (OPPs)																				
	s-Net Acidity without ANCE	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Demeton-S-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Methyl parathion	Monocrotophos	Parathion				
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
EQL	0.02	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.2	
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																							
PFAS NEMP 2020 Table 2 Public open space (HIL C)																							
PFAS NEMP 2020 Table 3 Ecological direct exposure																							
PFAS NEMP 2020 Table 3 Ecological indirect exposure																							
NEPM 2013 Table 1A(1) HIL C Soil		400					250																
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																							
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																							

Location Code	Field ID	Date	Depth (mbgl)	Lab Report																			
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
 #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
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 #9 Refer Table 1B(5)

	Acid Sulphate Soils		Organophosphorous Pesticides (OPPs)																	
	s-Net Acidity without ANCE		Methoxychlor	Azinophos methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Demeton-S-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Methyl parathion	Monocrotophos	Parathion
	% S		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02		0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.2
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																				
PFAS NEMP 2020 Table 2 Public open space (HIL C)																				
PFAS NEMP 2020 Table 3 Ecological direct exposure																				
PFAS NEMP 2020 Table 3 Ecological indirect exposure																				
NEPM 2013 Table 1A(1) HIL C Soil			400					250												
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																				
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																				

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
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- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
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- #16 Reported Analyte LOR is higher than Requested Analyte LOR
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Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
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- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils		Polychlorinated Biphenyls (PCBs)		Herbicides	Organotins	Explosives		Acid Sulfate Soils - Acid Base Accounting		Acid Sulfate Soils - Acidity Trail					Acid Sulfate Soils - ANC		Acid
	s-Net Acidity without ANCE	Phospho-ethyl	Prothiofos	PCBs (Sum of total)	Hedonal	Tributyltin oxide (TBTO)	2,4-Dinitrotoluene	Nitrobenzene	Net Acidity (acidity units)	Net Acidity (sulfur units)	Titrateable Peroxide Acidity (23G)	Titrateable Sulfidic Acidity (sulfur units)	Titrateable Actual Acidity (sulfur units)	Titrateable Peroxide Acidity (sulfur units)	Titrateable Actual Acidity	Titrateable Sulfidic Acidity	ANC Fineness Factor	Acid Reacted Calcium
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mole H+/t	%S	mole H+/t	% pyrite S	%S	%S	mole H+/t	moles H+/t	-	% Ca
EQL	0.02	0.05	0.05	0.1	0.001	0.01	1	0.5	10	0.02	2	0.02	0.02	0.02	2	2	0.5	0.02
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3									18 ^{#1}	0.03 ^{#1}								
PFAS NEMP 2020 Table 2 Public open space (HIL C)																		
PFAS NEMP 2020 Table 3 Ecological direct exposure																		
PFAS NEMP 2020 Table 3 Ecological indirect exposure																		
NEPM 2013 Table 1A(1) HIL C Soil				1 ^{#8}	1,300													
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																		
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																		

Location Code	Field ID	Date	Depth (mbgl)	Lab Report																		
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	<0.1	<0.001	<0.01	<1.0	<0.5	-	-	-	-	-	-	-	-	-	
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-	48	0.08	127	0.137	0.067	0.204	42	86	1.5	<0.020
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	<0.1	<0.001	<0.01	<1.0	<0.5	-	-	-	-	-	-	-	-	-	
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	-	-	-	-	-	-	42	0.07	79	0.064	0.062	0.126	39	40	1.5	<0.020
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	<0.1	<0.001	<0.01	<1.0	<0.5	-	-	-	-	-	-	-	-	-	
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	-	-	<0.1	<0.001	<0.01	<1.0	<0.5	63	0.10	96	0.060	0.095	0.155	59	37	1.5	<0.020
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	-	-	-	-	-	-	-	82	0.13	160	0.134	0.122	0.256	76	84	1.5	<0.020
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	<0.1	<0.001	<0.01	<1.0	<0.5	-	-	-	-	-	-	-	-	-	
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	<0.1	<0.001	<0.01	<1.0	<0.5	-	-	-	-	-	-	-	-	-	
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	<0.1	<0.001	<0.01	<1.0	<0.5	-	-	-	-	-	-	-	-	-	
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	-	-	-	-	-	-	38	0.06	65	0.044	0.060	0.105	38	28	1.5	<0.020
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Comments
 #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
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 #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
 #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
 #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
 #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
 #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
 #9 Refer Table 1B(5)

	Acid Sulphate Soils		Polychlorinated Biphenyls (PCBs)	Herbicides	Organotins	Explosives			Acid Sulfate Soils - Acid Base Accounting		Acid Sulfate Soils - Acidity Trail						Acid Sulfate Soils - ANC	
	s-Net Acidity without ANCE	Phospho-ethyl				Prothiofos	PCBs (Sum of total)	Hedonal	Tributyltin oxide (TBTO)	2,4-Dinitrotoluene	Nitrobenzene	Net Acidity (acidity units)	Net Acidity (sulfur units)	Titrateable Peroxide Acidity (23G)	Titrateable Sulfidic Acidity (sulfur units)	Titrateable Actual Acidity (sulfur units)	Titrateable Peroxide Acidity (sulfur units)	Titrateable Actual Acidity
	% S	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mole H+/t	%S	mole H+/t	% pyrite S	%S	%S	mole H+/t	moles H+/t	-	% Ca
EQL	0.02	0.05	0.05	0.1	0.001	0.01	1	0.5	10	0.02	2	0.02	0.02	0.02	2	2	0.5	0.02
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3									18 ^{#1}	0.03 ^{#1}								
PFAS NEMP 2020 Table 2 Public open space (HIL C)																		
PFAS NEMP 2020 Table 3 Ecological direct exposure																		
PFAS NEMP 2020 Table 3 Ecological indirect exposure																		
NEPM 2013 Table 1A(1) HIL C Soil				1 ^{#8}	1,300													
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																		
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																		

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Acid Sulfate Soils - Calcium Values			Acid Sulfate Soils - CRS	Acid Sulfate Soils - Liming Rate		Acid Sulfate Soils - Magnesium Values					Acid Sulfate Soils - pH	Acid Sulfate Soils - Sulfur Trail				Acid
	% S	Acidity - Acid Reacted Calcium	Calcium in Peroxide	KCl Extractable Calcium	pH (KCl)	Liming Rate	Liming Rate excluding ANC	Acid Reacted Magnesium	Acid Reacted Magnesium (acidity units)	KCl Extractable Magnesium	Magnesium in Peroxide	Acid Reacted Magnesium (sulfur units)	pH-OX	Peroxide Oxidisable Sulfur (acidity units)	KCl Extractable Sulfur	Peroxide Oxidisable Sulfur	Peroxide Sulfur	HCl Extractable Sulfur
	% S	mole H+/t	%	%	pH units	kg CaCO3/t	kg CaCO3/t	% Mg	mole H+/t	%	%	%S	pH units	mole H+/t	%	%	%	%S
EQL	0.02	10	0.02	0.02	0.1	1	1	0.02	10	0.02	0.02	0.02	0.1	10	0.02	0.02	0.02	0.02
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																		
PFAS NEMP 2020 Table 2 Public open space (HIL C)																		
PFAS NEMP 2020 Table 3 Ecological direct exposure																		
PFAS NEMP 2020 Table 3 Ecological indirect exposure																		
NEPM 2013 Table 1A(1) HIL C Soil																		
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																		
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																		

Location Code	Field ID	Date	Depth (mbgl)	Lab Report	% S	Acidity - Acid Reacted Calcium	Calcium in Peroxide	KCl Extractable Calcium	pH (KCl)	Liming Rate	Liming Rate excluding ANC	Acid Reacted Magnesium	Acid Reacted Magnesium (acidity units)	KCl Extractable Magnesium	Magnesium in Peroxide	Acid Reacted Magnesium (sulfur units)	pH-OX	Peroxide Oxidisable Sulfur (acidity units)	KCl Extractable Sulfur	Peroxide Oxidisable Sulfur	Peroxide Sulfur	HCl Extractable Sulfur
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	<10	0.068	0.067	4.6	4	4	<0.020	<10	0.042	0.042	<0.020	3.9	<10	0.060	<0.020	0.070	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	<10	0.024	0.024	4.8	3	3	<0.020	<10	0.069	0.069	<0.020	4.8	<10	0.023	<0.020	0.027	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<10	<0.020	<0.020	4.4	5	5	<0.020	<10	0.057	0.058	<0.020	4.8	<10	0.030	<0.020	0.036	0.030
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	<10	<0.020	<0.020	4.4	6	6	<0.020	<10	0.032	0.032	<0.020	3.9	<10	<0.020	<0.020	0.028	0.021
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	<10	<0.020	<0.020	4.6	3	3	<0.020	<10	0.049	0.049	<0.020	4.8	<10	<0.020	<0.020	<0.020	-
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

- #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
- #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
- #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
- #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
- #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
- #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
- #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
- #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
- #9 Refer Table 1B(5)

	Acid Sulphate Soils	Acid Sulfate Soils - Calcium Values			Acid Sulfate Soils - CRS	Acid Sulfate Soils - Liming Rate		Acid Sulfate Soils - Magnesium Values				Acid Sulfate Soils - pH	Acid Sulfate Soils - Sulfur Trail			Acid		
	s-Net Acidity without ANCE	Acidity - Acid Reacted Calcium	Calcium in Peroxide	KCl Extractable Calcium	pH (KCl)	Liming Rate	Liming Rate excluding ANC	Acid Reacted Magnesium	Acid Reacted Magnesium (acidity units)	KCl Extractable Magnesium	Magnesium in Peroxide	Acid Reacted Magnesium (sulfur units)	pH-OX	Peroxide Oxidisable Sulfur (acidity units)	KCl Extractable Sulfur	Peroxide Oxidisable Sulfur	Peroxide Sulfur	HCl Extractable Sulfur
	% S	mole H+/t	%	%	pH units	kg CaCO3/t	kg CaCO3/t	% Mg	mole H+/t	%	%	%S	pH units	mole H+/t	%	%	%	%S
EQL	0.02	10	0.02	0.02	0.1	1	1	0.02	10	0.02	0.02	0.02	0.1	10	0.02	0.02	0.02	0.02
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3																		
PFAS NEMP 2020 Table 2 Public open space (HIL C)																		
PFAS NEMP 2020 Table 3 Ecological direct exposure																		
PFAS NEMP 2020 Table 3 Ecological indirect exposure																		
NEPM 2013 Table 1A(1) HIL C Soil																		
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)																		
AS2159-2009 Piling – Design and Installation (Buildings & Structures)																		

Location Code Field ID Date Depth (mbgl) Lab Report

- #10 Assumed pH=6, refer Table 1B(2)
- #11 Refer Table 1B(4)
- #12 Assumed CEC=20cmol/kg, refer Table 1B(3)
- #13 Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)
- #14 Mild
- #15 Non Aggressive
- #16 Reported Analyte LOR is higher than Requested Analyte LOR
- #17 Moderate

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils	Sulfate Soils - Retained Acidity			Exposure Classification			
	s-Net Acidity without ANCE	Net Acid Soluble Sulfur	Net Acid Soluble Sulfur (acidity units)	Net Acid Soluble Sulfur (sulfur units)	Concrete Piles Soil Condition A	Concrete Piles Soil Condition B	Steel Piles Soil Condition A	Steel Piles Soil Condition B
	% S	%S	mole H+/t	%S	-	-	-	-
EQL	0.02	0.02	10	0.02	-	-	-	-
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3								
PFAS NEMP 2020 Table 2 Public open space (HIL C)								
PFAS NEMP 2020 Table 3 Ecological direct exposure								
PFAS NEMP 2020 Table 3 Ecological indirect exposure								
NEPM 2013 Table 1A(1) HIL C Soil								
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)								
AS2159-2009 Piling – Design and Installation (Buildings & Structures)								

Location Code	Field ID	Date	Depth (mbgl)	Lab Report								
BH01	BH01_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	1 ^{#14}	1 ^{#15}	1 ^{#15}	1 ^{#15}
BH01	BH01_1.0	16 Jan 2024	1	EM2400571	0.08	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH03	BH03_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	1 ^{#14}	1 ^{#15}	1 ^{#15}	1 ^{#15}
BH04	BH04_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	EM2400571	0.07	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH05	BH05_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	EM2400571	0.10	<0.020	<10	<0.020	1 ^{#17}	1 ^{#14}	1 ^{#15}	1 ^{#15}
BH08	BH08_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	EM2400571	0.13	<0.020	<10	<0.020	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH10	BH10_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH12	BH12_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	EM2400571	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH14	BH14_0.5	16 Jan 2024	0.5	EM2400571	0.06	-	-	-	1 ^{#17}	1 ^{#14}	1 ^{#15}	1 ^{#15}
BH15	BH15_0.1	16 Jan 2024	0.1	EM2400571	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	EM2400571	-	-	-	-	-	-	-	-

Comments

- #1 Sands to loamy sands, sandy loams to light clays and medium to heavy clays and silty clays
- #2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and shc
- #3 In the absence of HILs for chromium (total), chromium VI HILs were adopted
- #4 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bi
- #5 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be
- #6 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)
- #7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider
- #8 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a
- #9 Refer Table 1B(5)

IA5000PB

Jacobs Group (Australia) Pty Ltd

	Acid Sulphate Soils	Sulfate Soils - Retained Acidity			Exposure Classification			
	s-Net Acidity without ANCE	Net Acid Soluble Sulfur	Net Acid Soluble Sulfur (acidity units)	Net Acid Soluble Sulfur (sulfur units)	Concrete Piles Soil Condition A	Concrete Piles Soil Condition B	Steel Piles Soil Condition A	Steel Piles Soil Condition B
	% S	%S	mole H+/t	%S	-	-	-	-
EQL	0.02	0.02	10	0.02				
EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3								
PFAS NEMP 2020 Table 2 Public open space (HIL C)								
PFAS NEMP 2020 Table 3 Ecological direct exposure								
PFAS NEMP 2020 Table 3 Ecological indirect exposure								
NEPM 2013 Table 1A(1) HIL C Soil								
NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)								
AS2159-2009 Piling – Design and Installation (Buildings & Structures)								

Location Code	Field ID	Date	Depth (mbgl)	Lab Report
#10	Assumed pH=6, refer Table 1B(2)			
#11	Refer Table 1B(4)			
#12	Assumed CEC=20cmol/kg, refer Table 1B(3)			
#13	Assumed CEC=20cmol/kg and pH=6.5, refer Table 1B(1)			
#14	Mild			
#15	Non Aggressive			
#16	Reported Analyte LOR is higher than Requested Analyte LOR			
#17	Moderate			

Environmental Standards

- EPA Victoria, July 2009, EPA Vic 655.1 (2009) Net Acidity Criteria (>1000 tonnes) Appendix 3, Table 3
- HEPA, January 2020, PFAS NEMP 2020 Table 2 Public open space (HIL C)
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological direct exposure
- HEPA, January 2020, PFAS NEMP 2020 Table 3 Ecological indirect exposure
- NEPM, April 2013, NEPM 2013 Table 1A(1) HIL C Soil
- NEPM, April 2013, NEPM 2013 Table 1B(1-5) EIL Urb Res Default (Aged)
- Aus Standards, April 2009, AS2159-2009 Piling – Design and Installation (Buildings & Structures)

	Acid Sulphate Soils		Acid Sulphate Soils - Calcium Values		NA		Metals														
	s-Net Acidity without ANCE	sulfidic - Acid Reacted Calcium_	a-Net Acidity without ANCE	Phosphorus total (as P)	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Copper	Lead	Magnesium (filtered)	Mercury	Molybdenum	Nickel	Selenium	Silver	
	% S	% S	moles H+/t	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.02	10	2	5	5	10	1	50	1	0.5	2	5	5	10	0.1	2	2	5	2	
EPA Vic IWRG1828.2 Category B upper limit					300	2,000	25,000	400	60,000	400	2,000		20,000	6,000		300	4,000	12,000	40,000	720	
EPA Vic IWRG1828.2 Category C upper limit					75	500	6,250	100	15,000	100	500		5,000	1,500		75	1,000	3,000	10,000	180	
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit					75	500	6,250	100	15,000	100	500		5,000	1,500		75	1,000	3,000	10,000	180	
EPA Vic IWRG1828.2 Fill material upper limit						20				3	1		100	300		1	40	60	10	10	
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill Acceptance Criteria																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location	Field ID	Date	Depth (m bgl)	s-Net Acidity without ANCE	sulfidic - Acid Reacted Calcium_	a-Net Acidity without ANCE	Phosphorus total (as P)	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Copper	Lead	Magnesium (filtered)	Mercury	Molybdenum	Nickel	Selenium	Silver
BH01	BH01_0.1	16 Jan 2024	0.1	-	-	-	-	<5	<5	90	<1	<50	<1	<0.5	-	26	66	-	<0.1	<2	24	<5	<2
BH01	BH01_1.0	16 Jan 2024	1	0.08	<0.020	48	-	-	<5	-	-	-	<1	-	178	65	6	-	<0.1	-	57	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	-	-	-	280	-	<5	-	-	-	<1	-	63	8	19	-	<0.1	-	15	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	-	-	-	-	<5	<5	80	<1	<50	<1	<0.5	-	8	14	-	<0.1	<2	16	<5	<2
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	<5	-	-	-	<1	-	198	11	17	-	<0.1	-	17	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	<5	-	-	-	<1	-	165	11	15	-	<0.1	-	16	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	-	-	-	-	-	<5	-	-	-	<1	-	179	16	16	-	<0.1	-	23	-	-
BH04	BH04_1.0	16 Jan 2024	1	0.07	<0.020	42	178	-	<5	-	-	-	<1	-	195	17	17	-	<0.1	-	26	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	-	-	-	1,180	<5	<5	40	<1	<50	<5 ^{#3}	<0.5	-	54	8	-	<0.1	<2	44	<5	<2
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	832	-	<5	-	-	-	<5 ^{#3}	-	172	51	<5	-	<0.1	-	41	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	<5	-	-	-	<1	-	75	14	14	-	<0.1	-	19	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	180	-	<5	-	-	-	<1	-	88	16	14	-	<0.1	-	25	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	<5	-	-	-	<1	-	60	9	13	-	<0.1	-	14	-	-
BH07	BH07_1.0	17 Jan 2024	1	0.10	<0.020	63	-	<5	<5	70	<1	<50	<1	<0.5	-	10	14	-	<0.1	<2	13	<5	<2
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	118	-	<5	-	-	-	<1	-	45	<5	11	-	<0.1	-	8	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	<5	-	-	-	<1	-	49	<5	11	-	<0.1	-	8	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	-	-	-	-	-	<5	-	-	-	<1	-	25	8	24	-	<0.1	-	5	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	0.13	<0.020	82	-	-	<5	-	-	-	<1	-	53	6	12	-	<0.1	-	12	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	-	-	-	-	<5	<5	50	<1	<50	<1	<0.5	-	6	13	-	<0.1	<2	11	<5	<2
BH10	BH10_0.5	17 Jan 2024	0.5	-	-	-	-	-	<5	-	-	-	<1	-	53	6	12	<10	<0.1	-	10	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	-	-	-	-	-	<5	6	-	-	<1	-	50	8	15	-	<0.1	-	12	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	172	-	<5	5	-	-	<1	-	56	6	12	-	<0.1	-	11	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	-	-	-	-	<5	6	40	<1	<50	<1	<0.5	-	15	18	-	<0.1	<2	13	<5	<2
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	7	-	-	-	<1	-	60	15	17	-	<0.1	-	13	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	7	-	-	-	<1	-	21	18	8	-	<0.1	-	34	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	8	-	-	-	<1	-	108	12	25	-	<0.1	-	24	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	-	-	-	-	<5	<5	70	<1	<50	<1	<0.5	-	6	18	-	<0.1	<2	13	<5	<2
BH14	BH14_0.5	16 Jan 2024	0.5	0.06	<0.020	38	-	-	<5	-	-	-	<1	-	71	10	16	-	<0.1	-	19	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	6	-	-	-	<1	-	58	13	23	-	<0.1	-	16	-	-
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	6	-	-	-	<1	-	69	5	15	-	<0.1	-	12	-	-

Comments

- #1 Please refer to IWRG1828.2 Table 2 for a list of sum constituents.
- #2 Leachable Concentration based on NSW - Waste Classification Guidelines Part 1: Classifying waste, 2014. Maximum values for leachable concentration when used together with specific contaminant concentration
- #3 Total concentration. Drinking water x10
- #4 Total concentration of 50 mg/kg (low content limit). Human health/industrial x10
- #5 Total concentration of 50 mg/kg (low content limit). Human health/industrial x1
- #6 Total concentration. Human health/industrial x1

	Acid Sulphate Soils	Acid Sulphate Soils - Calcium Values	NA		Metals																
	pH-Net Acidity without ANCE	sulfidic - Acid Reacted Calcium_	a-Net Acidity without ANCE	Phosphorus total (as P)	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Copper	Lead	Magnesium (filtered)	Mercury	Molybdenum	Nickel	Selenium	Silver	
	% S	% S	moles H+/t	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.02	10	2	5	5	10	1	50	1	0.5	2	5	5	10	0.1	2	2	5	2	
EPA Vic IWRG1828.2 Category B upper limit					300	2,000	25,000	400	60,000	400	2,000		20,000	6,000		300	4,000	12,000	40,000	720	
EPA Vic IWRG1828.2 Category C upper limit					75	500	6,250	100	15,000	100	500		5,000	1,500		75	1,000	3,000	10,000	180	
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit					75	500	6,250	100	15,000	100	500		5,000	1,500		75	1,000	3,000	10,000	180	
EPA Vic IWRG1828.2 Fill material upper limit						20				3	1		100	300		1	40	60	10	10	
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill Acceptance Criteria																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location Field ID Date Depth (m bgl)

#7 Mild

#8 Non Aggressive

#9 Reported Analyte LOR is higher than Requested Analyte LOR

#10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit

HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill Acceptance Criteria

HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Inorganics																	Physiochemical parameters				
	Zinc	Nitrite + Nitrate as N (soluble)	Ammonia as N	Calcium (filtered)	Chloride	Cyanide (amenable)	Cyanide Total	Ethylenediaminetetraacetic acid	Electrical conductivity (lab)	Fluoride	Kjeldahl Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 2- (filtered)	Resistivity	Moisture Content	pH (Lab)	pH (CaCl2)	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	uS/cm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	OHM.M	%	pH Units	pH Units	
EQL	5	0.1	20	10	10	1	1	10	1	40	20	0.1	0.1	20	10	10	10	0.01	0.1	0.1	0.1	
EPA Vic IWRG1828.2 Category B upper limit	140,000					1,200	10,000	4,000		40,000											2-12.5	
EPA Vic IWRG1828.2 Category C upper limit	35,000					300	2,500	1,000		10,000												
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	35,000					300	2,500	1,000		10,000											4-10	
EPA Vic IWRG1828.2 Fill material upper limit	200					50				450											4-10	
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill Upper Limit																						
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																						
EPA Consultation Paper (2023) PFAS Category B Upper Limit																						
EPA Consultation Paper (2023) PFAS Category C Upper Limit																						
EPA Consultation Paper (2023) PFAS Category D Upper Limit																						
EPA Consultation Paper (2023) PFAS Fill Upper Limit																						

Location	Field ID	Date	Depth (m bgl)	Zinc	Nitrite + Nitrate as N (soluble)	Ammonia as N	Calcium (filtered)	Chloride	Cyanide (amenable)	Cyanide Total	Ethylenediaminetetraacetic acid	Electrical conductivity (lab)	Fluoride	Kjeldahl Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 2- (filtered)	Resistivity	Moisture Content	pH (Lab)	pH (CaCl2)
BH01	BH01_0.1	16 Jan 2024	0.1	96	-	-	-	10	<1	<1	<10	33	110	-	-	-	-	-	-	<10	303	27.1	6.6	5.9
BH01	BH01_1.0	16 Jan 2024	1	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31.8	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	59	0.5	<20	-	-	-	-	-	-	-	1,720	0.3	0.2	1,720	-	-	-	-	29.5	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	<5	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-	-	25.5	-	4.3
BH03	BH03_0.1	16 Jan 2024	0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.5	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	<5	-	-	-	<10	-	-	-	27	-	-	-	-	-	-	-	30	370	20.2	5.6	-
BH04	BH04_0.1	16 Jan 2024	0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30.9	-	-
BH04	BH04_1.0	16 Jan 2024	1	6	0.4	<20	-	-	-	-	-	-	-	450	0.4	<0.1	450	-	-	-	-	30.4	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	36	0.1	<20	-	-	<1	<1	<10	-	<40	280	0.1	<0.1	280	-	-	-	-	33.5	-	4.1
BH05	BH05_0.5	17 Jan 2024	0.5	33	<0.1	<20	-	-	-	-	-	-	-	150	<0.1	<0.1	150	-	-	-	-	34.2	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.0	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	<5	0.1	<20	-	-	-	-	-	-	-	610	0.1	<0.1	610	-	-	-	-	27.1	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.3	-	-
BH07	BH07_1.0	17 Jan 2024	1	5	-	-	-	60	<1	<1	<10	40	60	-	-	-	-	-	-	<10	250	26.4	4.8	4.4
BH08	BH08_0.1	17 Jan 2024	0.1	<5	0.1	<20	-	-	-	-	-	-	-	450	0.1	<0.1	450	-	-	-	-	23.8	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.3	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.8	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.4	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	11	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-	-	22.7	-	4.2
BH10	BH10_0.5	17 Jan 2024	0.5	<5	-	-	<10	60	-	-	-	-	-	-	-	-	-	<10	50	10	-	24.1	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31.5	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	<5	0.2	<20	-	-	-	-	-	-	-	1,230	0.2	<0.1	1,230	-	-	-	-	31.2	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	6	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-	-	31.2	-	4.5
BH12	BH12_0.5	16 Jan 2024	0.5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.6	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.8	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.6	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	7	-	-	-	-	<1	<1	<10	-	<40	-	-	-	-	-	-	-	-	22.1	-	4.6
BH14	BH14_0.5	16 Jan 2024	0.5	6	-	-	-	<10	-	-	-	16	-	-	-	-	-	-	-	10	625	23.4	5.4	-
BH15	BH15_0.1	16 Jan 2024	0.1	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.5	-	-
BH15	BH15_1.0	16 Jan 2024	1	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.9	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

	Inorganics																Physiochemical parameters				
	Zinc	Nitrite + Nitrate as N (soluble)	Ammonia as N	Calcium (filtered)	Chloride	Cyanide (amenable)	Cyanide Total	Ethylenediaminetetraacetic acid	Electrical conductivity (lab)	Fluoride	Kjeldahl Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 2- (filtered)	Resistivity	Moisture Content	pH (Lab)	pH (CaCl2)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	uS/cm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	OHM.M	%	pH Units	pH Units
EQL	5	0.1	20	10	10	1	1	10	1	40	20	0.1	0.1	20	10	10	10	0.01	0.1	0.1	0.1
EPA Vic IWRG1828.2 Category B upper limit	140,000					1,200	10,000	4,000		40,000											2-12.5
EPA Vic IWRG1828.2 Category C upper limit	35,000					300	2,500	1,000		10,000											
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	35,000					300	2,500	1,000		10,000											4-10
EPA Vic IWRG1828.2 Fill material upper limit	200						50			450											4-10
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location Field ID Date Depth (m bgl)
 #7 Mild
 #8 Non Aggressive
 #9 Reported Analyte LOR is higher than Requested Analyte
 #10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	TRH - NEPM 2013 Fractions							TPH - NEPM 1999 Fractions														
	TRH >C6 - C10	TRH >C10 - C16	TRH >C16 - C34	TRH >C34 - C40	TRH >C10 - C40 (Sum of total)	TRH >C6 - C10 less BTEX (F1)	TRH >C10 - C16 less Naphthalene (F2)	TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29-C36	TPH C10 - C36 (Sum of total)	Naphthalene (value used in F2 calc)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(b+h,i)fluoranthene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	10	50	100	100	50	10	50	10	50	100	100	50	1	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	
EPA Vic IWRG1828.2 Category B upper limit								2,600				40,000										
EPA Vic IWRG1828.2 Category C upper limit								650				10,000										
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit								325				5,000										
EPA Vic IWRG1828.2 Fill material upper limit								100				1,000										
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill Upper Limit																						
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																						
EPA Consultation Paper (2023) PFAS Category B Upper Limit																						
EPA Consultation Paper (2023) PFAS Category C Upper Limit																						
EPA Consultation Paper (2023) PFAS Category D Upper Limit																						
EPA Consultation Paper (2023) PFAS Fill Upper Limit																						

Location	Field ID	Date	Depth (m bgl)	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	-	-	<0.5
BH01	BH01_0.1	16 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	-	-	<0.5
BH01	BH01_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH02	BH02_0.5	16 Jan 2024	0.5	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH03	BH03_0.1	16 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH04	BH04_1.0	16 Jan 2024	1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH05	BH05_0.1	17 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	-	-	<0.5
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH06	BH06_0.5	17 Jan 2024	0.5	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH07	BH07_0.1	17 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH07	BH07_1.0	17 Jan 2024	1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	-	-	<0.5
BH08	BH08_0.1	17 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH09	BH09_0.5	17 Jan 2024	0.5	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH10	BH10_0.1	17 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	-	-	<0.5
BH10	BH10_0.5	17 Jan 2024	0.5	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH11	BH11_0.1	17 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH11	BH11_0.5	17 Jan 2024	0.5	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH12	BH12_0.1	16 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	-	-	<0.5
BH12	BH12_0.5	16 Jan 2024	0.5	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH13	BH13_0.1	16 Jan 2024	0.1	<10	<50	180	<100	180	<10	<50	<10	<50	<100	160	160	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	-	-	<0.5
BH14	BH14_0.5	16 Jan 2024	0.5	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH15	BH15_0.1	16 Jan 2024	0.1	<10	<50	<100	<100	<50	<10	<50	<10	<50	<100	<100	<50	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

	TRH - NEPM 2013 Fractions							TPH - NEPM 1999 Fractions													
	TRH >C6 - C10	TRH >C10 - C16	TRH >C16 - C34	TRH >C34 - C40	TRH >C10 - C40 (Sum of total)	TRH >C6 - C10 less BTEX (F1)	TRH >C10 - C16 less Naphthalene (F2)	TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29-C36	TPH C10 - C36 (Sum of total)	Naphthalene (value used in F2 calc)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(b+h)fluoranthene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	10	50	100	100	50	10	50	10	50	100	100	50	1	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5
EPA Vic IWRG1828.2 Category B upper limit								2,600				40,000									
EPA Vic IWRG1828.2 Category C upper limit								650				10,000									
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit								325				5,000									
EPA Vic IWRG1828.2 Fill material upper limit								100				1,000									
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location Field ID Date Depth (m bgl)
 #7 Mild
 #8 Non Aggressive
 #9 Reported Analyte LOR is higher than Requested Analyte
 #10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Polycyclic aromatic hydrocarbons (PAHs)													Monocyclic Aromatic Hydrocarbons (MAHs)								
	Benzo(a) pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (zero)	Benzo(a)pyrene TEQ calc(PQL)	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Naphthalene	PAHs (Sum of total)	Sum of monocyclic aromatic hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.2
EPA Vic IWRG1828.2 Category B upper limit	160												400 ^{#1}	16	12,800	4,800					9,600	
EPA Vic IWRG1828.2 Category C upper limit	40												100 ^{#1}	4	3,200	1,200					2,400	
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	20												50 ^{#1}	4	3,200	1,200					2,400	
EPA Vic IWRG1828.2 Fill material upper limit	1													1								
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																						
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																						
EPA Consultation Paper (2023) PFAS Category B Upper Limit																						
EPA Consultation Paper (2023) PFAS Category C Upper Limit																						
EPA Consultation Paper (2023) PFAS Category D Upper Limit																						
EPA Consultation Paper (2023) PFAS Fill Upper Limit																						

Location	Field ID	Date	Depth (m bgl)	Benzo(a) pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (zero)	Benzo(a)pyrene TEQ calc(PQL)	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Naphthalene	PAHs (Sum of total)	Sum of monocyclic aromatic hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX
BH01	BH01_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH01	BH01_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH02	BH02_0.5	16 Jan 2024	0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	-
BH03	BH03_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH04	BH04_1.0	16 Jan 2024	1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH05	BH05_0.1	17 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH06	BH06_0.5	17 Jan 2024	0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH07	BH07_0.1	17 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH07	BH07_1.0	17 Jan 2024	1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH08	BH08_0.1	17 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH09	BH09_0.5	17 Jan 2024	0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH10	BH10_0.1	17 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH10	BH10_0.5	17 Jan 2024	0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH11	BH11_0.1	17 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH11	BH11_0.5	17 Jan 2024	0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH12	BH12_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH12	BH12_0.5	16 Jan 2024	0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH13	BH13_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH14	BH14_0.5	16 Jan 2024	0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH15	BH15_0.1	16 Jan 2024	0.1	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

	Polycyclic aromatic hydrocarbons (PAHs)												Monocyclic Aromatic Hydrocarbons (MAHs)								
	Benzo(a) pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (zero)	Benzo(a)pyrene TEQ calc(PQL)	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Naphthalene	PAHs (Sum of total)	Sum of monocyclic aromatic hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.2
EPA Vic IWRG1828.2 Category B upper limit	160												400 ^{#1}	16	12,800	4,800				9,600	
EPA Vic IWRG1828.2 Category C upper limit	40												100 ^{#1}	4	3,200	1,200				2,400	
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	20												50 ^{#1}	4	3,200	1,200				2,400	
EPA Vic IWRG1828.2 Fill material upper limit	1													1							
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location Field ID Date Depth (m bgl)
 #7 Mild
 #8 Non Aggressive
 #9 Reported Analyte LOR is higher than Requested Analyte
 #10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Chlorinated Hydrocarbons															Halogenated Benzenes					
	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethene	1,2-dichloroethane	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	trans-1,2-dichloroethene	Dichloromethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3,5-Trichlorobenzene	1,4-dichlorobenzene	Chlorobenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.01	0.01	0.02	0.04	0.01	0.02	0.01	0.02	0.01	0.02	0.4	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.02
EPA Vic IWRG1828.2 Category B upper limit	1,600	4,800	210	190	480	48	48	960			64	11	80	800	4.8			24,000		640	4,800
EPA Vic IWRG1828.2 Category C upper limit	400	1,200	52	48	120	12	12	240			16	2.8	20	200	1.2			6,000		160	1,200
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	400	1,200	52	48	120	12	12	240			16	2.8	20	200	1.2			6,000		160	1,200
EPA Vic IWRG1828.2 Fill material upper limit																					
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location	Field ID	Date	Depth (m bgl)	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethene	1,2-dichloroethane	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	trans-1,2-dichloroethene	Dichloromethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3,5-Trichlorobenzene	1,4-dichlorobenzene	Chlorobenzene
BH01	BH01_0.1	16 Jan 2024	0.1	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02
BH01	BH01_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02
BH10	BH10_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.4	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02
BH14	BH14_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

	Chlorinated Hydrocarbons														Halogenated Benzenes						
	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethene	1,2-dichloroethane	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	trans-1,2-dichloroethene	Dichloromethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3,5-Trichlorobenzene	1,4-dichlorobenzene	Chlorobenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.01	0.01	0.02	0.04	0.01	0.02	0.01	0.02	0.01	0.02	0.4	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.02
EPA Vic IWRG1828.2 Category B upper limit	1,600	4,800	210	190	480	48	48	960			64	11	80	800	4.8			24,000		640	4,800
EPA Vic IWRG1828.2 Category C upper limit	400	1,200	52	48	120	12	12	240			16	2.8	20	200	1.2			6,000		160	1,200
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	400	1,200	52	48	120	12	12	240			16	2.8	20	200	1.2			6,000		160	1,200
EPA Vic IWRG1828.2 Fill material upper limit																					
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location Field ID Date Depth (m bgl)
 #7 Mild
 #8 Non Aggressive
 #9 Reported Analyte LOR is higher than Requested Analyte
 #10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill
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 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Solvents			Volatile Organic Compounds (VOCs)	Semi Volatile Organic Compounds (SVOCs)	Per- and Poly-fluoroalkyl Substances (PFAS)									(n:2) Fluorotelomer Sulfonic Acids							
	Hexachlorobenzene	Trichlorobenzene (total)	Methyl Ethyl Ketone	Styrene	Formaldehyde	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptanoic acid (PFHpA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Sum (PFHxS + PFOS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	2,4,5-trichlorophenol	2,4,6-trichlorophenol		
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.03	0.01	1	0.5	2	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.001	0.0002	0.5	0.5	0.0005	0.0005	0.05	0.05		
EPA Vic IWRG1828.2 Category B upper limit		480	32,000	480	8,000															64,000	320	
EPA Vic IWRG1828.2 Category C upper limit		120	8,000	120	2,000															16,000	80	
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit		120	8,000	120	2,000															16,000	80	
EPA Vic IWRG1828.2 Fill material upper limit																						
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																						
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																						
EPA Consultation Paper (2023) PFAS Category B Upper Limit																						
EPA Consultation Paper (2023) PFAS Category C Upper Limit																						
EPA Consultation Paper (2023) PFAS Category D Upper Limit																						
EPA Consultation Paper (2023) PFAS Fill Upper Limit																						

Location	Field ID	Date	Depth (m bgl)	Hexachlorobenzene	Trichlorobenzene (total)	Methyl Ethyl Ketone	Styrene	Formaldehyde	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptanoic acid (PFHpA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Sum (PFHxS + PFOS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	
BH01	BH01_0.1	16 Jan 2024	0.1	<0.03	<0.01	<1	<0.5	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05
BH01	BH01_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	<0.03	<0.01	<1	<0.5	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	<0.03	<0.01	<1	<0.5	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	<0.03	<0.01	<1	<0.5	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.5	<0.5	<0.0005	<0.0005	-	-	
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	<0.05	-	-	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.5	<0.5	<0.0005	<0.0005	-	-	
BH09	BH09_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	<0.03	<0.01	<1	<0.5	<2	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.5	<0.5	<0.0005	<0.0005	<0.05	<0.05	
BH10	BH10_0.5	17 Jan 2024	0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	<0.03	<0.01	<1	<0.5	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	<0.03	<0.01	<1	<0.5	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05
BH14	BH14_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

	Solvents			Volatile Organic Compounds (VOCs)	Semi Volatile Organic Compounds (SVOCs)	Per- and Poly-fluoroalkyl Substances (PFAS)									(n:2) Fluorotelomer Sulfonic Acids					
	Hexachlorobenzene	Trichlorobenzene (total)	Methyl Ethyl Ketone	Styrene	Formaldehyde	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptanoic acid (PFHpA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Sum (PFHxS + PFOS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	2,4,5-trichlorophenol	2,4,6-trichlorophenol
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.03	0.01	1	0.5	2	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.001	0.0002	0.5	0.5	0.0005	0.0005	0.05	0.05
EPA Vic IWRG1828.2 Category B upper limit		480	32,000	480	8,000														64,000	320
EPA Vic IWRG1828.2 Category C upper limit		120	8,000	120	2,000														16,000	80
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit		120	8,000	120	2,000														16,000	80
EPA Vic IWRG1828.2 Fill material upper limit																				
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill							50 ^{#3}							50 ^{#4}						
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria							50 ^{#5}							20 ^{#6}						
EPA Consultation Paper (2023) PFAS Category B Upper Limit							50							50						
EPA Consultation Paper (2023) PFAS Category C Upper Limit							50							20						
EPA Consultation Paper (2023) PFAS Category D Upper Limit							10							1						
EPA Consultation Paper (2023) PFAS Fill Upper Limit						< 0.002	< 0.001				< 0.001									

Location Field ID Date Depth (m bgl)

#7 Mild

#8 Non Aggressive

#9 Reported Analyte LOR is higher than Requested Analyte

#10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit

HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill

HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Phenols													Phthalates							
	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2-chlorophenol	2-methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-nitrophenol	3&4-Methylphenol (m&p-cresol)	Cresol Total	Dinoseb	Phenol	Bis(2-ethylhexyl)phthalate	Vic EPA IWRG 621 Other OCP (Total)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.03	1	5	0.03	1	1	5	5	5	1	1	5	1	0.5	0.03	0.05	0.03	0.03	0.03	0.03	0.03
EPA Vic IWRG1828.2 Category B upper limit	3,200		5	4,800						32,000			160						4.8		16
EPA Vic IWRG1828.2 Category C upper limit	800			1,200						8,000			40						1.2		4
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	800			1,200						8,000			40						1.2		4
EPA Vic IWRG1828.2 Fill material upper limit																					
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location	Field ID	Date	Depth (m bgl)	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2-chlorophenol	2-methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-nitrophenol	3&4-Methylphenol (m&p-cresol)	Cresol Total	Dinoseb	Phenol	Bis(2-ethylhexyl)phthalate	Vic EPA IWRG 621 Other OCP (Total)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	
BH01	BH01_0.1	16 Jan 2024	0.1	<0.03	<1	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	
BH01	BH01_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH02	BH02_0.5	16 Jan 2024	0.5	<0.03	<1	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH04	BH04_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	<0.03	<1	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	<0.03	<1	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH09	BH09_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	<0.03	<1	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
BH10	BH10_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH11	BH11_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	<0.03	<1	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	<0.03	<1	<5	<0.03	<1	<1	<5	<5	<5	<1	<1	<5	<1	<0.5	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
BH14	BH14_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

	Phenols												Phthalates								
	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2-chlorophenol	2-methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-nitrophenol	3&4-Methylphenol (m&p-cresol)	Cresol Total	Dinoseb	Phenol	Bis(2-ethylhexyl) phthalate	Vic EPA IWRG 621 Other OCP (Total)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.03	1	5	0.03	1	1	5	5	5	1	1	5	1	0.5	0.03	0.05	0.03	0.03	0.03	0.03	0.03
EPA Vic IWRG1828.2 Category B upper limit	3,200			4,800						32,000				160					4.8		16
EPA Vic IWRG1828.2 Category C upper limit	800			1,200						8,000				40					1.2		4
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	800			1,200						8,000				40					1.2		4
EPA Vic IWRG1828.2 Fill material upper limit																					
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location Field ID Date Depth (m bgl)

#7 Mild

#8 Non Aggressive

#9 Reported Analyte LOR is higher than Requested Analyte

#10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit

HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill

HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

Organochlorine Pesticides (OCs)																						
	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinphos methyl	Bromophos-ethyl	Carbophenothion	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	0.03	0.03	0.03	0.05	0.05	0.05	0.03	0.05	0.03	0.03	0.03	0.03	0.03	0.05	0.03	0.03	0.03	0.03	0.05	0.05	0.05	
EPA Vic IWRG1828.2 Category B upper limit						50											4.8					
EPA Vic IWRG1828.2 Category C upper limit						50											1.2					
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit						50											1.2					
EPA Vic IWRG1828.2 Fill material upper limit																						
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																						
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																						
EPA Consultation Paper (2023) PFAS Category B Upper Limit																						
EPA Consultation Paper (2023) PFAS Category C Upper Limit																						
EPA Consultation Paper (2023) PFAS Category D Upper Limit																						
EPA Consultation Paper (2023) PFAS Fill Upper Limit																						

Location	Field ID	Date	Depth (m bgl)	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinphos methyl	Bromophos-ethyl	Carbophenothion	
BH01	BH01_0.1	16 Jan 2024	0.1	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03	<0.03	-	-	-	
BH01	BH01_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH02	BH02_0.1	16 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05
BH02	BH02_0.5	16 Jan 2024	0.5	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03	<0.03	-	-	-	
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH04	BH04_0.1	16 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05
BH04	BH04_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH05	BH05_0.1	17 Jan 2024	0.1	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	-
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH07	BH07_1.0	17 Jan 2024	1	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	-
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH09	BH09_0.1	17 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05
BH09	BH09_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH10	BH10_0.1	17 Jan 2024	0.1	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	-
BH10	BH10_0.5	17 Jan 2024	0.5	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05
BH11	BH11_0.1	17 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH12	BH12_0.1	16 Jan 2024	0.1	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	-
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH14	BH14_0.1	16 Jan 2024	0.1	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	-
BH14	BH14_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

Organochlorine Pesticides (OCPs)																					
	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Carbophenothion
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.03	0.03	0.03	0.05	0.05	0.05	0.03	0.05	0.03	0.03	0.03	0.03	0.03	0.05	0.03	0.03	0.03	0.03	0.05	0.05	0.05
EPA Vic IWRG1828.2 Category B upper limit						50										4.8					
EPA Vic IWRG1828.2 Category C upper limit						50										1.2					
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit						50										1.2					
EPA Vic IWRG1828.2 Fill material upper limit																					
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location Field ID Date Depth (m bgl)
 #7 Mild
 #8 Non Aggressive
 #9 Reported Analyte LOR is higher than Requested Analyte
 #10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Organophosphorous Pesticides (OPPs)																Polychlorinated Biphenyls (PCBs)	Herbicides	Organotins	Explic
	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Demeton-S-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Methyl parathion	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos	PCBs (Sum of total)	Hedonal	Tributyltin oxide (TBTO)	2,4-Dinitrotoluene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.2	0.05	0.05	0.1	0.001	0.01	1
EPA Vic IWRG1828.2 Category B upper limit																	#2	480	10	21
EPA Vic IWRG1828.2 Category C upper limit																	50	120	2.5	5.2
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit																	2	120	2.5	5.2
EPA Vic IWRG1828.2 Fill material upper limit																	2			
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																				
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																				
EPA Consultation Paper (2023) PFAS Category B Upper Limit																				
EPA Consultation Paper (2023) PFAS Category C Upper Limit																				
EPA Consultation Paper (2023) PFAS Category D Upper Limit																				
EPA Consultation Paper (2023) PFAS Fill Upper Limit																				

Location	Field ID	Date	Depth (m bgl)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Demeton-S-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Methyl parathion	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos	PCBs (Sum of total)	Hedonal	Tributyltin oxide (TBTO)	2,4-Dinitrotoluene
BH01	BH01_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.001	<0.01	<1.0
BH01	BH01_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.05	<0.1	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.001	<0.01	<1.0
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_0.1	16 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.05	<0.1	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.001	<0.01	<1.0
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.001	<0.01	<1.0
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.05	<0.1	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.001	<0.01	<1.0
BH10	BH10_0.5	17 Jan 2024	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.05	<0.1	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.05	<0.1	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.001	<0.01	<1.0
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.001	<0.01	<1.0
BH14	BH14_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). Hu
 #5 Total concentration of 50 mg/kg (low content limit). Hu
 #6 Total concentration. Human health/industrial x1

	Organophosphorous Pesticides (OPPs)															Polychlorinated Biphenyls (PCBs)	Herbicides	Organotins	Explic	
	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Demeton-S-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Methyl parathion	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos	PCBs (Sum of total)	Hedonal	Tributyltin oxide (TBTO)	2,4-Dinitrotoluene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.2	0.05	0.05	0.1	0.001	0.01	1
EPA Vic IWRG1828.2 Category B upper limit																	#2	480	10	21
EPA Vic IWRG1828.2 Category C upper limit																	50	120	2.5	5.2
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit																	2	120	2.5	5.2
EPA Vic IWRG1828.2 Fill material upper limit																	2			
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																				
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																				
EPA Consultation Paper (2023) PFAS Category B Upper Limit																				
EPA Consultation Paper (2023) PFAS Category C Upper Limit																				
EPA Consultation Paper (2023) PFAS Category D Upper Limit																				
EPA Consultation Paper (2023) PFAS Fill Upper Limit																				

Location Field ID Date Depth (m bgl)

#7 Mild

#8 Non Aggressive

#9 Reported Analyte LOR is higher than Requested Analyte

#10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit

HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill

HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit

EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

Locations	Acid Sulfate Soils - Acid Base Accounting			Acid Sulfate Soils - Acidity Trail							Acid Sulfate Soils - ANC	Acid Sulfate Soils - Calcium Values				Acid Sulfate Soils - CRS	Acid Sulfate Soils - Liming Rate		Acid Sulfate Soils - Magnesium		
	Nitrobenzene	Net Acidity (acidity units)	Net Acidity (sulfur units)	Titrateable Peroxide Acidity (23G)	Titrateable Sulfidic Acidity (sulfur units)	Titrateable Actual Acidity (sulfur units)	Titrateable Peroxide Acidity (sulfur units)	Titrateable Actual Acidity	Titrateable Sulfidic Acidity	ANC Fineness Factor	Acid Reacted Calcium	Acidity - Acid Reacted Calcium	Calcium in Peroxide	KCl Extractable Calcium	pH (KCl)	Liming Rate	Liming Rate excluding ANC	Acid Reacted Magnesium	Acid Reacted Magnesium (acidity units)	KCl Extractable Magnesium	
	mg/kg	mole H+/t	%S	mole H+/t	% pyrite S	%S	%S	mole H+/t	moles H+/t	-	% Ca	mole H+/t	%	%	pH units	kg CaCO3/t	kg CaCO3/t	% Mg	mole H+/t	%	
EQL	0.5	10	0.02	2	0.02	0.02	0.02	2	2	0.5	0.02	10	0.02	0.02	0.1	1	1	0.02	10	0.02	
EPA Vic IWRG1828.2 Category B upper limit	320																				
EPA Vic IWRG1828.2 Category C upper limit	80																				
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	80																				
EPA Vic IWRG1828.2 Fill material upper limit																					
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																					
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																					
EPA Consultation Paper (2023) PFAS Category B Upper Limit																					
EPA Consultation Paper (2023) PFAS Category C Upper Limit																					
EPA Consultation Paper (2023) PFAS Category D Upper Limit																					
EPA Consultation Paper (2023) PFAS Fill Upper Limit																					

Location	Field ID	Date	Depth (m bgl)	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH01	BH01_0.1	16 Jan 2024	0.1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH01	BH01_1.0	16 Jan 2024	1	-	48	0.08	127	0.137	0.067	0.204	42	86	1.5	<0.020	<10	0.068	0.067	4.6	4	4	<0.020	<10	0.042
BH02	BH02_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH02	BH02_0.5	16 Jan 2024	0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH04	BH04_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH04	BH04_1.0	16 Jan 2024	1	-	42	0.07	79	0.064	0.062	0.126	39	40	1.5	<0.020	<10	0.024	0.024	4.8	3	3	<0.020	<10	0.069
BH05	BH05_0.1	17 Jan 2024	0.1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH07	BH07_1.0	17 Jan 2024	1	<0.5	63	0.10	96	0.060	0.095	0.155	59	37	1.5	<0.020	<10	<0.020	<0.020	4.4	5	5	<0.020	<10	0.057
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH09	BH09_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH09	BH09_0.5	17 Jan 2024	0.5	-	82	0.13	160	0.134	0.122	0.256	76	84	1.5	<0.020	<10	<0.020	<0.020	4.4	6	6	<0.020	<10	0.032
BH10	BH10_0.1	17 Jan 2024	0.1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH10	BH10_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH11	BH11_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH12	BH12_0.1	16 Jan 2024	0.1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH14	BH14_0.1	16 Jan 2024	0.1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH14	BH14_0.5	16 Jan 2024	0.5	-	38	0.06	65	0.044	0.060	0.105	38	28	1.5	<0.020	<10	<0.020	<0.020	4.6	3	3	<0.020	<10	0.049
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). H
 #5 Total concentration of 50 mg/kg (low content limit). H
 #6 Total concentration. Human health/industrial x1

Locations	Acid Sulfate Soils - Acid Base Accounting			Acid Sulfate Soils - Acidity Trail						Acid Sulfate Soils - ANC	Acid Sulfate Soils - Calcium Values				Acid Sulfate Soils - CRS	Acid Sulfate Soils - Liming Rate		Acid Sulfate Soils - Magnesium		
	Nitrobenzene	Net Acidity (acidity units)	Net Acidity (sulfur units)	Titrateable Peroxide Acidity (23G)	Titrateable Sulfidic Acidity (sulfur units)	Titrateable Actual Acidity (sulfur units)	Titrateable Peroxide Acidity (sulfur units)	Titrateable Actual Acidity	Titrateable Sulfidic Acidity	ANC Fineness Factor	Acid Reacted Calcium	Acidity - Acid Reacted Calcium	Calcium in Peroxide	KCl Extractable Calcium	pH (KCl)	Liming Rate	Liming Rate excluding ANC	Acid Reacted Magnesium	Acid Reacted Magnesium (acidity units)	KCl Extractable Magnesium
	mg/kg	mole H+/t	%S	mole H+/t	% pyrite S	%S	%S	mole H+/t	moles H+/t	-	% Ca	mole H+/t	%	%	pH units	kg CaCO3/t	kg CaCO3/t	% Mg	mole H+/t	%
EQL	0.5	10	0.02	2	0.02	0.02	0.02	2	2	0.5	0.02	10	0.02	0.02	0.1	1	1	0.02	10	0.02
EPA Vic IWRG1828.2 Category B upper limit	320																			
EPA Vic IWRG1828.2 Category C upper limit	80																			
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit	80																			
EPA Vic IWRG1828.2 Fill material upper limit																				
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill																				
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria																				
EPA Consultation Paper (2023) PFAS Category B Upper Limit																				
EPA Consultation Paper (2023) PFAS Category C Upper Limit																				
EPA Consultation Paper (2023) PFAS Category D Upper Limit																				
EPA Consultation Paper (2023) PFAS Fill Upper Limit																				

Location Field ID Date Depth (m bgl)

#7 Mild
#8 Non Aggressive
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Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit
EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit
EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit
EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit
HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill
HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria
EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit
EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit
EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit
EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Sulfur Values		Acid Sulfate Soils - pH	Acid Sulfate Soils - Sulfur Trail			Acid Sulfate Soils - Retained Acidity				Exposure Classification				
	Magnesium in Peroxide	Acid Reacted Magnesium (sulfur units)	pH-OX	Peroxide Oxidisable Sulfur (acidity units)	KCl Extractable Sulfur	Peroxide Oxidisable Sulfur	Peroxide Sulfur	HCl Extractable Sulfur	Net Acid Soluble Sulfur	Net Acid Soluble Sulfur (acidity units)	Net Acid Soluble Sulfur (sulfur units)	Concrete Piles Soil Condition A	Concrete Piles Soil Condition B	Steel Piles Soil Condition A	Steel Piles Soil Condition B
	%	%S	pH units	mole H+/t	%	%	%	%S	%S	mole H+/t	%S	-	-	-	-
EQL	0.02	0.02	0.1	10	0.02	0.02	0.02	0.02	0.02	10	0.02	-	-	-	-
EPA Vic IWRG1828.2 Category B upper limit															
EPA Vic IWRG1828.2 Category C upper limit															
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit															
EPA Vic IWRG1828.2 Fill material upper limit															
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill															
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria															
EPA Consultation Paper (2023) PFAS Category B Upper Limit															
EPA Consultation Paper (2023) PFAS Category C Upper Limit															
EPA Consultation Paper (2023) PFAS Category D Upper Limit															
EPA Consultation Paper (2023) PFAS Fill Upper Limit															

Location	Field ID	Date	Depth (m bgl)														
BH01	BH01_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	1 ^{#7}	1 ^{#8}	1 ^{#8}	1 ^{#8}
BH01	BH01_1.0	16 Jan 2024	1	0.042	<0.020	3.9	<10	0.060	<0.020	0.070	-	-	-	-	-	-	-
BH02	BH02_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	1 ^{#7}	1 ^{#8}	1 ^{#8}	1 ^{#8}
BH04	BH04_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	BH04_1.0	16 Jan 2024	1	0.069	<0.020	4.8	<10	0.023	<0.020	0.027	-	-	-	-	-	-	-
BH05	BH05_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	BH07_1.0	17 Jan 2024	1	0.058	<0.020	4.8	<10	0.030	<0.020	0.036	0.030	<0.020	<10	<0.020	1 ^{#10}	1 ^{#7}	1 ^{#8}
BH08	BH08_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	BH08_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.5	17 Jan 2024	0.5	0.032	<0.020	3.9	<10	<0.020	<0.020	0.028	0.021	<0.020	<10	<0.020	-	-	-
BH10	BH10_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.1	17 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11	BH11_0.5	17 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	BH13_0.5	16 Jan 2024	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.5	16 Jan 2024	0.5	0.049	<0.020	4.8	<10	<0.020	<0.020	<0.020	-	-	-	1 ^{#10}	1 ^{#7}	1 ^{#8}	1 ^{#8}
BH15	BH15_0.1	16 Jan 2024	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15_1.0	16 Jan 2024	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments
 #1 Please refer to IWRG1828.2 Table 2 for a list of sum con
 #2 Leachable Concentration based on NSW - Waste Classi
 #3 Total concentration. Drinking water x10
 #4 Total concentration of 50 mg/kg (low content limit). H₂
 #5 Total concentration of 50 mg/kg (low content limit). H₂
 #6 Total concentration. Human health/industrial x1

	sium Values		Acid Sulfate Soils - pH	Acid Sulfate Soils - Sulfur Trail			Acid Sulfate Soils - Retained Acidity				Exposure Classification				
	Magnesium in Peroxide	Acid Reacted Magnesium (sulfur units)	pH-OX	Peroxide Oxidisable Sulfur (acidity units)	KCl Extractable Sulfur	Peroxide Oxidisable Sulfur	Peroxide Sulfur	HCl Extractable Sulfur	Net Acid Soluble Sulfur	Net Acid Soluble Sulfur (acidity units)	Net Acid Soluble Sulfur (sulfur units)	Concrete Piles Soil Condition A	Concrete Piles Soil Condition B	Steel Piles Soil Condition A	Steel Piles Soil Condition B
	%	%S	pH units	mole H+/t	%	%S	%	%S	%S	mole H+/t	%S	-	-	-	-
EQL	0.02	0.02	0.1	10	0.02	0.02	0.02	0.02	0.02	10	0.02	-	-	-	-
EPA Vic IWRG1828.2 Category B upper limit															
EPA Vic IWRG1828.2 Category C upper limit															
EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit															
EPA Vic IWRG1828.2 Fill material upper limit															
PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill															
PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria															
EPA Consultation Paper (2023) PFAS Category B Upper Limit															
EPA Consultation Paper (2023) PFAS Category C Upper Limit															
EPA Consultation Paper (2023) PFAS Category D Upper Limit															
EPA Consultation Paper (2023) PFAS Fill Upper Limit															

Location Field ID Date Depth (m bgl)

#7 Mild
 #8 Non Aggressive
 #9 Reported Analyte LOR is higher than Requested Analyte
 #10 Moderate

Environmental Standards

EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category B upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category C upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Category D / Industrial Waste upper limit
 EPA Victoria, July 2021, EPA Vic IWRG1828.2 Fill material upper limit
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Clay/Single Composite Lined Landfill
 HEPA, January 2020, PFAS NEMP 2020 Table 7 Unlined Landfill Acceptance Criteria
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category B Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category C Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Category D Upper Limit
 EPA Victoria, 2023, EPA Consultation Paper (2023) PFAS Fill Upper Limit

	Unit	EQL	Field ID		RPD	RPD		RPD	Soil
			BH14_0.5	QC01		BH14_0.5	QC11		
			Date	Date		Date	Date		
			Lab Report Number	Lab Report Number		Lab Report Number	Lab Report Number		
Sample Type	Sample Type	Sample Type	Sample Type	Sample Type	Sample Type	Sample Type	Sample Type	Sample Type	
Matrix Type	Matrix Type	Matrix Type	Matrix Type	Matrix Type	Matrix Type	Matrix Type	Matrix Type	Matrix Type	
Acid Sulphate Soils									
s-Net Acidity without ANCE	% S	0.02	0.06	-	-	0.06	-	-	-
Acid Sulphate Soils - Calcium Values									
sulfidic - Acid Reacted Calcium_	% S	0.02	<0.020	-	-	<0.020	-	-	-
NA									
a-Net Acidity without ANCE	moles H+/t	10	38	-	-	38	-	-	-
Metals									
Arsenic	mg/kg	2	<5	5	0	<5	3.7	0	<5
Cadmium	mg/kg	0.4	<1	<1	0	<1	<0.4	0	<1
Chromium (III+VI)	mg/kg	2	71	76	7	71	86	19	75
Copper	mg/kg	5	10	10	0	10	12	18	14
Lead	mg/kg	5	16	16	0	16	19	17	14
Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1
Nickel	mg/kg	2	19	18	5	19	25	27	19
Zinc	mg/kg	5	6	6	0	6	10	50	<5
Inorganics									
Chloride	mg/kg	10	<10	-	-	<10	-	-	-
Electrical conductivity (lab)	uS/cm	1	16	-	-	16	-	-	-
Sulfate as SO4 2- (filtered)	mg/kg	10	10	-	-	10	-	-	-
Physiochemical parameters									
Resistivity	OHM.M	0.01	625	-	-	625	-	-	-
Moisture Content	%	1	23.4	20.3	14	23.4	-	-	28.0
Moisture Content (dried @ 103°C)	%	1	-	-	-	-	21	-	-
pH (Lab)	pH Units	0.1	5.4	-	-	5.4	-	-	-
TRH - NEPM 2013 Fractions									
TRH >C6 - C10	mg/kg	10	<10	<10	0	<10	<20	0	<10
TRH >C10 - C16	mg/kg	50	<50	<50	0	<50	<50	0	<50
TRH >C16 - C34	mg/kg	100	<100	<100	0	<100	<100	0	<100
TRH >C34 - C40	mg/kg	100	<100	<100	0	<100	<100	0	<100
TRH >C10 - C40 (Sum of total)	mg/kg	50	<50	<50	0	<50	<100	0	<50
TRH >C6 - C10 less BTEX (F1)	mg/kg	10	<10	<10	0	<10	<20	0	<10
TRH >C10 - C16 less Naphthalene (F2)	mg/kg	50	<50	<50	0	<50	<50	0	<50
TPH - NEPM 1999 Fractions									
TPH C6 - C9	mg/kg	10	<10	<10	0	<10	<20	0	<10
TPH C10 - C14	mg/kg	20	<50	<50	0	<50	<20	0	<50
TPH C15 - C28	mg/kg	50	<100	<100	0	<100	<50	0	<100
TPH C29-C36	mg/kg	50	<100	<100	0	<100	<50	0	<100
TPH C10 - C36 (Sum of total)	mg/kg	50	<50	<50	0	<50	<50	0	<50
Polycyclic aromatic hydrocarbons (PAHs)									
Naphthalene (value used in F2 calc)	mg/kg	0.5	<1	<1	0	<1	<0.5	0	<1
Acenaphthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Acenaphthylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Benzo(a)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Benzo(b+j)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Benzo(a) pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5	0.6	0.6	0	0.6	0.6	0	0.6
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.5	1.2	1.2	0	1.2	1.2	0	1.2
Chrysene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Fluorene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Phenanthrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Naphthalene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
PAHs (Sum of total)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5
Monocyclic Aromatic Hydrocarbons (MAHs)									
Benzene	mg/kg	0.1	<0.2	<0.2	0	<0.2	<0.1	0	<0.2
Toluene	mg/kg	0.1	<0.5	<0.5	0	<0.5	<0.1	0	<0.5
Ethylbenzene	mg/kg	0.1	<0.5	<0.5	0	<0.5	<0.1	0	<0.5
Xylene (m & p)	mg/kg	0.2	<0.5	<0.5	0	<0.5	<0.2	0	<0.5
Xylene (o)	mg/kg	0.1	<0.5	<0.5	0	<0.5	<0.1	0	<0.5
Xylene Total	mg/kg	0.3	<0.5	<0.5	0	<0.5	<0.3	0	<0.5
Total BTEX	mg/kg	0.2	<0.2	<0.2	0	<0.2	-	-	<0.2
Acid Sulfate Soils - Acid Base Accounting									
Net Acidity (acidity units)	mole H+/t	10	38	-	-	38	-	-	-
Net Acidity (sulfur units)	%S	0.02	0.06	-	-	0.06	-	-	-
Acid Sulfate Soils - Acidity Trail									
Titratable Peroxide Acidity (23G)	mole H+/t	2	65	-	-	65	-	-	-
Titratable Sulfidic Acidity (sulfur units)	% pyrite S	0.02	0.044	-	-	0.044	-	-	-
Titratable Actual Acidity (sulfur units)	%S	0.02	0.060	-	-	0.060	-	-	-
Titratable Peroxide Acidity (sulfur units)	%S	0.02	0.105	-	-	0.105	-	-	-
Titratable Actual Acidity	mole H+/t	2	38	-	-	38	-	-	-
Titratable Sulfidic Acidity	moles H+/t	2	28	-	-	28	-	-	-
Acid Sulfate Soils - ANC									
ANC Fineness Factor	-	0.5	1.5	-	-	1.5	-	-	-
Acid Sulfate Soils - Calcium Values									
Acid Reacted Calcium	% Ca	0.02	<0.020	-	-	<0.020	-	-	-
acidity - Acid Reacted Calcium	mole H+/t	10	<10	-	-	<10	-	-	-
Calcium in Peroxide	%	0.02	<0.020	-	-	<0.020	-	-	-
KCl Extractable Calcium	%	0.02	<0.020	-	-	<0.020	-	-	-
Acid Sulfate Soils - CRS									
pH (KCl)	pH units	0.1	4.6	-	-	4.6	-	-	-
Acid Sulfate Soils - Liming Rate									
Liming Rate	kg CaCO3/t	1	3	-	-	3	-	-	-

	Unit	EQL	Field ID	BH14_0.5	QC01		BH14_0.5	QC11		BH06_0.1
			Date	16 Jan 2024	16 Jan 2024		16 Jan 2024	16 Jan 2024		17 Jan 2024
			Lab Report Number	EM2400571	EM2400571		EM2400571	1060723		EM2400571
			Sample Type	Normal	Field_D		Normal	Interlab_D		Normal
			Matrix Type	Soil	Soil	RPD	Soil	Soil	RPD	Soil
Liming Rate excluding ANC	kg CaCO3/t	1	3	-	-	3	-	-	-	
Acid Sulfate Soils - Magnesium Values										
Acid Reacted Magnesium	% Mg	0.02	<0.020	-	-	<0.020	-	-	-	
Acid Reacted Magnesium (acidity units)	mole H+/t	10	<10	-	-	<10	-	-	-	
KCl Extractable Magnesium	%	0.02	0.049	-	-	0.049	-	-	-	
Magnesium in Peroxide	%	0.02	0.049	-	-	0.049	-	-	-	
Acid Reacted Magnesium (sulfur units)	%S	0.02	<0.020	-	-	<0.020	-	-	-	
Acid Sulfate Soils - pH										
pH-OX	pH units	0.1	4.8	-	-	4.8	-	-	-	
Acid Sulfate Soils - Sulfur Trail										
Peroxide Oxidisable Sulfur (acidity units)	mole H+/t	10	<10	-	-	<10	-	-	-	
KCl Extractable Sulfur	%	0.02	<0.020	-	-	<0.020	-	-	-	
Peroxide Oxidisable Sulfur	%	0.02	<0.020	-	-	<0.020	-	-	-	
Peroxide Sulfur	%	0.02	<0.020	-	-	<0.020	-	-	-	
Exposure Classification										
Concrete Piles Soil Condition A	-		1^{#1}	-	-	1^{#1}	-	-	-	
Concrete Piles Soil Condition B	-		1^{#2}	-	-	1^{#2}	-	-	-	
Steel Piles Soil Condition A	-		1^{#3}	-	-	1^{#3}	-	-	-	
Steel Piles Soil Condition B	-		1^{#3}	-	-	1^{#3}	-	-	-	

Comments

- #1 Moderate
- #2 Mild
- #3 Non Aggressive

*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: 80 (1 - 10 x EQL); 50 (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

	Unit	EQL	Field ID				RPD	RPD	
			QC02	Soil	BH06_0.1	QC12			
			17 Jan 2024		17 Jan 2024	17 Jan 2024			
			Lab Report Number		EM2400571	EM2400571			1060723
			Sample Type		Field_D	Normal			Interlab_D
Matrix Type	Soil	Soil	Soil						
Acid Sulphate Soils									
s-Net Acidity without ANCE	% S	0.02	-	-	-	-	-		
Acid Sulphate Soils - Calcium Values									
sulfidic - Acid Reacted Calcium_	% S	0.02	-	-	-	-	-		
NA									
a-Net Acidity without ANCE	moles H+/t	10	-	-	-	-	-		
Metals									
Arsenic	mg/kg	2	<5	0	<5	<2	0		
Cadmium	mg/kg	0.4	<1	0	<1	<0.4	0		
Chromium (III+VI)	mg/kg	2	77	3	75	94	22		
Copper	mg/kg	5	14	0	14	18	25		
Lead	mg/kg	5	14	0	14	16	13		
Mercury	mg/kg	0.1	<0.1	0	<0.1	<0.1	0		
Nickel	mg/kg	2	20	5	19	30	45		
Zinc	mg/kg	5	5	0	<5	13	89		
Inorganics									
Chloride	mg/kg	10	-	-	-	-	-		
Electrical conductivity (lab)	uS/cm	1	-	-	-	-	-		
Sulfate as SO4 2- (filtered)	mg/kg	10	-	-	-	-	-		
Physiochemical parameters									
Resistivity	OHM.M	0.01	-	-	-	-	-		
Moisture Content	%	1	27.4	2	28.0	-	-		
Moisture Content (dried @ 103°C)	%	1	-	-	-	35	-		
pH (Lab)	pH Units	0.1	-	-	-	-	-		
TRH - NEPM 2013 Fractions									
TRH >C6 - C10	mg/kg	10	<10	0	<10	<20	0		
TRH >C10 - C16	mg/kg	50	<50	0	<50	<50	0		
TRH >C16 - C34	mg/kg	100	<100	0	<100	<100	0		
TRH >C34 - C40	mg/kg	100	<100	0	<100	<100	0		
TRH >C10 - C40 (Sum of total)	mg/kg	50	<50	0	<50	<100	0		
TRH >C6 - C10 less BTEX (F1)	mg/kg	10	<10	0	<10	<20	0		
TRH >C10 - C16 less Naphthalene (F2)	mg/kg	50	<50	0	<50	<50	0		
TPH - NEPM 1999 Fractions									
TPH C6 - C9	mg/kg	10	<10	0	<10	<20	0		
TPH C10 - C14	mg/kg	20	<50	0	<50	<20	0		
TPH C15 - C28	mg/kg	50	<100	0	<100	<50	0		
TPH C29-C36	mg/kg	50	<100	0	<100	<50	0		
TPH C10 - C36 (Sum of total)	mg/kg	50	<50	0	<50	<50	0		
Polycyclic aromatic hydrocarbons (PAHs)									
Naphthalene (value used in F2 calc)	mg/kg	0.5	<1	0	<1	<0.5	0		
Acenaphthene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Acenaphthylene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Anthracene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Benzo(a)anthracene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Benzo(k)fluoranthene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Benzo(b+j)fluoranthene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Benzo(a)pyrene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5	0.6	0	0.6	0.6	0		
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.5	1.2	0	1.2	1.2	0		
Chrysene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Fluoranthene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Fluorene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Phenanthrene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Pyrene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Naphthalene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
PAHs (Sum of total)	mg/kg	0.5	<0.5	0	<0.5	<0.5	0		
Monocyclic Aromatic Hydrocarbons (MAHs)									
Benzene	mg/kg	0.1	<0.2	0	<0.2	<0.1	0		
Toluene	mg/kg	0.1	<0.5	0	<0.5	<0.1	0		
Ethylbenzene	mg/kg	0.1	<0.5	0	<0.5	<0.1	0		
Xylene (m & p)	mg/kg	0.2	<0.5	0	<0.5	<0.2	0		
Xylene (o)	mg/kg	0.1	<0.5	0	<0.5	<0.1	0		
Xylene Total	mg/kg	0.3	<0.5	0	<0.5	<0.3	0		
Total BTEX	mg/kg	0.2	<0.2	0	<0.2	-	-		
Acid Sulfate Soils - Acid Base Accounting									
Net Acidity (acidity units)	mole H+/t	10	-	-	-	-	-		
Net Acidity (sulfur units)	%S	0.02	-	-	-	-	-		
Acid Sulfate Soils - Acidity Trail									
Titrateable Peroxide Acidity (23G)	mole H+/t	2	-	-	-	-	-		
Titrateable Sulfidic Acidity (sulfur units)	% pyrite S	0.02	-	-	-	-	-		
Titrateable Actual Acidity (sulfur units)	%S	0.02	-	-	-	-	-		
Titrateable Peroxide Acidity (sulfur units)	%S	0.02	-	-	-	-	-		
Titrateable Actual Acidity	mole H+/t	2	-	-	-	-	-		
Titrateable Sulfidic Acidity	moles H+/t	2	-	-	-	-	-		
Acid Sulfate Soils - ANC									
ANC Fineness Factor	-	0.5	-	-	-	-	-		
Acid Sulfate Soils - Calcium Values									
Acid Reacted Calcium	% Ca	0.02	-	-	-	-	-		
acidity - Acid Reacted Calcium	mole H+/t	10	-	-	-	-	-		
Calcium in Peroxide	%	0.02	-	-	-	-	-		
KCl Extractable Calcium	%	0.02	-	-	-	-	-		
Acid Sulfate Soils - CRS									
pH (KCl)	pH units	0.1	-	-	-	-	-		
Acid Sulfate Soils - Liming Rate									
Liming Rate	kg CaCO3/t	1	-	-	-	-	-		

	Unit	EQL	Field ID	RPD	BH06_0.1	QC12	RPD	
			Date		17 Jan 2024	17 Jan 2024		
			Lab Report Number		EM2400571	EM2400571		1060723
			Sample Type		Field_D	Normal		Interlab_D
			Matrix Type		Soil	Soil		Soil
Liming Rate excluding ANC	kg CaCO3/t	1	-	-	-	-	-	
Acid Sulfate Soils - Magnesium Values								
Acid Reacted Magnesium	% Mg	0.02	-	-	-	-	-	
Acid Reacted Magnesium (acidity units)	mole H+/t	10	-	-	-	-	-	
KCl Extractable Magnesium	%	0.02	-	-	-	-	-	
Magnesium in Peroxide	%	0.02	-	-	-	-	-	
Acid Reacted Magnesium (sulfur units)	%S	0.02	-	-	-	-	-	
Acid Sulfate Soils - pH								
pH-OX	pH units	0.1	-	-	-	-	-	
Acid Sulfate Soils - Sulfur Trail								
Peroxide Oxidisable Sulfur (acidity units)	mole H+/t	10	-	-	-	-	-	
KCl Extractable Sulfur	%	0.02	-	-	-	-	-	
Peroxide Oxidisable Sulfur	%	0.02	-	-	-	-	-	
Peroxide Sulfur	%	0.02	-	-	-	-	-	
Exposure Classification								
Concrete Piles Soil Condition A	-	-	-	-	-	-	-	
Concrete Piles Soil Condition B	-	-	-	-	-	-	-	
Steel Piles Soil Condition A	-	-	-	-	-	-	-	
Steel Piles Soil Condition B	-	-	-	-	-	-	-	

Comments

- #1 Moderate
- #2 Mild
- #3 Non Aggressive

*RPDs have only been considered where a concentration is greater than 1 times the
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for
 ***Interlab Duplicates are matched on a per compound basis as methods vary betw

			Field ID	RB01	RB02
			Date	16 Jan 2024	17 Jan 2024
			Lab Report Number	EM2400571	EM2400571
			Sample Type	Rinsate	Rinsate
			Matrix Type	Water	Water
	Unit	EQL			
Metals					
Arsenic	µg/L	1	<1	<1	
Cadmium	µg/L	0.1	<0.1	<0.1	
Chromium (III+VI)	µg/L	1	<1	<1	
Copper	µg/L	1	<1	<1	
Lead	µg/L	1	<1	<1	
Mercury	µg/L	0.1	<0.1	<0.1	
Nickel	µg/L	1	<1	<1	
Zinc	µg/L	5	<5	<5	

Appendix F. Laboratory Documentation

SAMPLES RECEIVED WITHOUT COC

CLIENT: **JACOBI**

PROJECT / QUOTE: **EA 5000 PB**

CARRIER: **Common**

CONTACT NAME:

CONTACT NUMBER:

SAMPLER NAME: **SPITS**

AWB #:

OF ESKIES: **3**

SECURITY SEAL: Y **(N)** N/A

SAMPLER NUMBER:

TYPE OF ESKIES: **HARD**

ESKY NUMBERS: **Soils**

SAMPLES RECEIVED BY: **MAM Cam**

OF SAMPLES:

DATE/TIME RECEIVED: **17/11/22**

CLIENT SERVICES NOTIFIED BY:

TEMPERATURE:

Environmental Division
Melbourne
Work Order Reference
EM2400571



Telephone : + 61-3-8549 9600

LAB ID	SAMPLE DETAILS			NUMBER OF CONTAINERS	ADDITIONAL INFORMATION / COMMENTS:
	SAMPLE ID	DATE	MATRIX		
1	BH04 - 0.1	16/11			<input type="checkbox"/> MICRO <input type="checkbox"/> BIOSECURITY <input type="checkbox"/> BROKEN CONTAINERS <input type="checkbox"/> COC EMAILED <input type="checkbox"/> ALS COMPASS OTHER INFORMATION:
2	BH03 - 0.1	16/11			
3	BH04 - 0.5	16/11			
4					
5					
				TOTAL	

CORRESPONDENCE (DATE, INITIALS - DETAILS OF CORRESPONDENCE):



HAIN OF USTODY
ALS Laboratory
please tick →

LADELADE 21 Burns Road, Pineside SA 5008
Ph: 08 839 5300 E: admin@alslab.com.au
28 MCGOWAN ST, Burnside SA 5063
Ph: 07 5247 7222 E: burnside@alslab.com.au
250 LINDSAY ST, Adelaide SA 5000
Ph: 08 839 5300 E: adelaide@alslab.com.au

CHICKAT 78 Hobart Road, Adelaide SA 5000
Ph: 07 8344 8177 E: mckay@alslab.com.au
DUNEDIN 2-4 Waverley Road, Dunedin NZ 9111
Ph: 03 4544 9900 E: samples.nz@alslab.com.au
DUNEDIN 27-29 Waverley Road, Dunedin NZ 9111
Ph: 03 4544 9900 E: samples.nz@alslab.com.au

CHERRYCASTLE 5555 Mainland Rd, Auckland NZ 2014
Ph: 02 876 2260 E: samples.nz@alslab.com.au
DUNEDIN 413 Green Place, Dunedin NZ 9011
Ph: 03 4544 9900 E: samples.nz@alslab.com.au
LIPPER 1411 Main Rd, Hobart TAS 6900
Ph: 03 6256 7338 E: samples.tas@alslab.com.au

250 WHEATLEY 277-281 Woodward Road, Queensland QLD 4011
Ph: 07 5544 8888 E: samples.qld@alslab.com.au
250 WHEATLEY 14-18 Deane Court, Brisbane QLD 4011
Ph: 07 5544 8888 E: samples.qld@alslab.com.au
250 WHEATLEY 50 Kewey Street, Wellington NZ 6100
Ph: 03 4544 9900 E: samples.nz@alslab.com.au

CLIENT: Jacobs
OFFICE: LVL 13, 452 Flinders St, Melbourne 3000
PROJECT: IA5000PB
ORDER NUMBER: TBC

TURNAROUND REQUIREMENTS:
 Standard TAT (List due date):
 Non Standard or urgent TAT (List due date):
 ALS QUOTE NO.: Quote no, not provided, refer to email attached

FOR LABORATORY USE ONLY (Circle)
 Custody Seal Intact? Yes No NA
 Free ice / frozen ice bricks present upon receipt? Yes No NA
 Random Sample Temperature on Receipt: C
 Other comment:

PROJECT MANAGER: Jordan Praetidge CONTACT PH: 0450292881
 SAMPLER: Jordan Praetidge / Tee Sviland SAMPLER MOBILE: 0450292881
 COC emailed to ALS? (YES / NO) EDD FORMAT (if default):
 Email Reports to (will default to PM if no other addresses are listed): jordan.praetidge@jacobs.com;
 jacobslabresults@ndal.net; tee.sviland@jacobs.com
 Email Invoice to (will default to PM if no other addresses are listed): jordan.praetidge@jacobs.com

RELINQUISHED BY: Jordan Praetidge
 DATE/TIME: 17/01/23 14:30

RECEIVED BY: [Blank]
 DATE/TIME: [Blank]

RECEIVED BY: [Blank]
 DATE/TIME: [Blank]

COMMENT/SPECIAL HANDLING/STORAGE OR DISPOSAL: Note short holding times for SPOCAS analysis

ALS USE	SAMPLE DETAILS		MATRIX	CONTAINER INFORMATION		ANALYSIS REQUIRED including SMITES (NB: Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)												Additional Information	
	LAB ID	SAMPLE ID		DATE / TIME	TYPE & PRESERVATIVE (to code below)	REFER	TOTAL CONTAINERS	Metals (S-27 IN-2)	Metals (Total Nitrogen, Total Phosphorus) (NT-28)	PFAS - Short Suite (12 Analytes) (EP221)	TRN (OC-24) / (RESON) / PAH (S-7)	TRN (OC-24) / (RESON) / PAH / OC / OP / PCB / PA Metals (S-19)	Sulfide, Cyanide & Arsenic Mercur (S-14) / (S-15) / (S-16) / (S-17)	SPOCAS suite - complete (FA209)	Asbestos (Presence/Absence) (EA000)	Corrosion on Steel & Aluminium (ASTM G31-09) (Corr-Schedule 2)	EPA Method 2 Tables 2 Full (PA, Pb, Cd, Cr, Cu, Ni, Zn, Mn, Fe, Al) (307)		HOLD
	1	BH01_0.1	16/01/2023	SOIL															
	2	BH01_0.5	16/01/2023	SOIL															
	3	BH01_1.0	16/01/2023	SOIL															
	4	BH02_0.1	16/01/2023	SOIL			X											X	
	5	BH02_0.5	16/01/2023	SOIL				X											
	6	BH03_0.1	16/01/2023	SOIL															X
	7	BH03_0.5	16/01/2023	SOIL			X			X									
	8	BH03_0.8	16/01/2023	SOIL			X												
	9	BH04_0.1	16/01/2023	SOIL															X
	10	BH04_0.5	16/01/2023	SOIL							X								
	11	BH04_1.0	16/01/2023	SOIL															X
	12	BH05_0.1	17/01/2023	SOIL			X	X		X				X					X
	13	BH05_0.5	17/01/2023	SOIL				X											
	14	BH05_1.0	17/01/2023	SOIL			X	X											X
	15	BH06_0.1	17/01/2023	SOIL															X
	16	QC02	17/01/2023	SOIL							X								
	17	QC12	17/01/2023	SOIL			X												
	18	BH06_0.5	17/01/2023	SOIL			X			X									
	19	BH06_1.0	17/01/2023	SOIL			X	X		X									
	20	BH07_0.1	17/01/2023	SOIL															X
	21	BH07_0.5	17/01/2023	SOIL			X			X									
	22	BH07_1.0	17/01/2023	SOIL															X
	23	BH08_0.1	17/01/2023	SOIL															
	24	BH08_0.5	17/01/2023	SOIL			X	X	X	X			X		X	X			
	25	BH08_1.0	17/01/2023	SOIL			X												
	26	BH08_0.1	17/01/2023	SOIL															X
	27	BH09_0.5	17/01/2023	SOIL						X		X							
	28	BH09_1.0	17/01/2023	SOIL			X			X			X						
	29	BH10_0.1	17/01/2023	SOIL															X
	30	BH10_0.5	17/01/2023	SOIL															X
	31	BH10_1.0	17/01/2023	SOIL				X		X			X						
	32	BH11_0.1	17/01/2023	SOIL															X
	33	BH11_0.5	17/01/2023	SOIL							X								
	34	BH11_1.0	17/01/2023	SOIL			X	X		X									
	35	BH12_0.1	16/01/2023	SOIL															X
	36	BH12_0.5	16/01/2023	SOIL															X
	37	BH12_1.0	16/01/2023	SOIL			X			X									
	38	BH13_0.1	16/01/2023	SOIL															X
	39	BH13_0.5	16/01/2023	SOIL			X			X									
	40	BH14_0.1	16/01/2023	SOIL			X												
	41	BH14_0.5	16/01/2023	SOIL															X
	42	QC01	16/01/2023	SOIL			X			X			X		X				
	43	QC11	16/01/2023	SOIL			X			X									
	44	BH14_1.0	16/01/2023	SOIL			X			X									
	45	BH15_0.1	16/01/2023	SOIL															X
	46	BH15_0.5	16/01/2023	SOIL			X			X									
	47	BH15_1.0	16/01/2023	SOIL															X
	48	RB01	16/01/2023	WATER			X												
	49	RB02	17/01/2023	WATER			X												
	50	BH02-	16/1/24	Soil															

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; OIC = Nitric Preserved OIC; SH = Sodium Hydroxide Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Antimony Unpreserved Plastic
 V = VOA Vol HCl Preserved; VB = VOA Vol Sulfuric Preserved; VS = VOA Vol Sulfuric Preserved; AV = Air-tight Unpreserved Vol SO = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Separation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass
 T = Zinc Acetate Preserved Bottle; E = EPA Preserved Bottle; ST = Storage Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag

Ranil Weerakkody

From: Prestidge, Jordan <Jordan.Prestidge@jacobs.com>
Sent: Wednesday, 17 January 2024 4:46 PM
To: ALS Enviro Melbourne
Cc: Peter Ravlic; Sviland, Tea
Subject: [EXTERNAL] - COC_Prj # IA5000PB_17.01.23
Attachments: IA5000PB_ALS COC_17.01.23.pdf; IA5000PB_ALS COC_17.01.23.xls

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hi Joshua and ALS team,

Please see attached for the COC related to today's sample drop off from Jacobs for project IA5000PB.

If needed, please also refer to the email below for the preliminary quote provided by your team yesterday. Thanks again for providing this quickly despite the resourcing constraints.

Kind regards,
Jordan

Jordan Prestidge | LLB, BSc | Jacobs | Environmental Scientist
M: +61 450 202 881 | jordan.prestidge@jacobs.com
Level 13, 452 Flinders St | Melbourne, VIC 3000 | Australia

From: ALS Enviro Melbourne <ALSEnviroMelbourne@ALSGlobal.com>
Sent: Tuesday, 16 January 2024 10:49 AM
To: Sviland, Tea <Tea.Sviland@jacobs.com>; ALS Enviro Melbourne <ALSEnviroMelbourne@ALSGlobal.com>
Cc: Peter Ravlic <peter.ravlic@alsglobal.com>; Prestidge, Jordan <Jordan.Prestidge@jacobs.com>
Subject: RE: [EXTERNAL] - RE: IA5000PB Silvan quote and esky request

Hi Tea,

Please find below quick cost summary of the testing. This work would be done under the Jacobs national blanket quote. Let me know if you would need the below formatted as a formal pdf quote and I can do that also. I've included in the cost a couple of admin fees just as a rough estimate.

E. coli & total coliforms (suite code MM868) is still available
We do have cations and anions packages for soils. See below quoted for *soluble* cations and anions. We can also do *total* cations if required. Note we don't do an ionic balance calculation for soils.

I have also attached a zip file containing a few handy documents including a price book with your pricing which includes our most common tests. If you can't find something, they may be in our more complete service catalogue (also attached) but this does not have pricing (available on request). There is also a quick cost calculator spreadsheet which is hopefully a helpful tool to pricing up small jobs/estimating as well as a bottle guide for bottle/preservation requirements.

Please contact me should you need anything further or have any questions.

Shaine Rismedeem

From: Sviland, Tea <Tea.Sviland@jacobs.com>
Sent: Thursday, 18 January 2024 4:11 PM
To: ALS Enviro Melbourne
Cc: Prestidge, Jordan
Subject: RE: [EXTERNAL] - RE: EM2400571-SINKNI-IA5000PB
Attachments: EM2400571_COC_1.pdf; EM2400571_COC.pdf; EM2400571_0_SRN_240118125658.pdf

Hi Dai,

Can you please make the following additional amendments and re-issue the SRN for EM2400571?:

- Please change analysis for sample BH06_0.1 from the TRH (C6-C40) / BTEXN / PAH / OC / OP / PCB / 8 Metals (S-16) to the following analyses: 8 metals + TRH (C6-C40) / BTEXN / PAH (S-7).
- Jordan has already requested to move SPOCAS analysis from BH10_0.5 to BH09_0.5 below. Can you please also move the cation/anion analysis *from* BH09_0.5 *to* BH10_0.5?

Regarding the 'samples received without COC' in COC_1, is this fixed or does it require further clarification? All three samples should be listed in both the COC and the SRN.

Thanks for the help,

Kind regards,

Tea Sviland (she/her) | Jacobs | Graduate Contaminated Land Consultant
M:+61 444 598 599 | tea.sviland@jacobs.com
Level 12, 452 Flinders Street | Melbourne, Victoria 3000 | Australia

Jacobs Challenging today.
Reinventing tomorrow.

From: ALS Enviro Melbourne <ALSEnviroMelbourne@ALSGlobal.com>
Sent: Thursday, 18 January 2024 3:44 PM
To: Prestidge, Jordan <Jordan.Prestidge@jacobs.com>
Cc: Sviland, Tea <Tea.Sviland@jacobs.com>
Subject: RE: [EXTERNAL] - RE: EM2400571-SINKNI-IA5000PB

Jordan,

Will pass notes on if anything will let you know

Thank you.

Kind Regards,



right solutions.
right partner.

Dai Ly
Receptionist -Environmental

Melbourne, Australia

D: +61 3 8549 9600

alsenviromelbourne@alsglobal.com
2-4 Westall Road, Springvale VIC 3171

alsglobal.com

From: Prestidge, Jordan <Jordan.Prestidge@jacobs.com>
Sent: Thursday, January 18, 2024 2:18 PM
To: ALS Enviro Melbourne <ALSEnviroMelbourne@ALSGlobal.com>
Cc: Sviland, Tea <Tea.Sviland@jacobs.com>
Subject: [EXTERNAL] - RE: EM2400571-SINKNI-IA5000PB

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hi Dai,

Thanks for these updates. I've provided responses below in blue.

Thanks,
Jordan

Jordan Prestidge | LLB, BSc | [Jacobs](http://jacobs.com) | Environmental Scientist
M:+61 450 202 881 | jordan.prestidge@jacobs.com
Level 13, 452 Flinders St | Melbourne, VIC 3000 | Australia

From: ALS Enviro Melbourne <ALSEnviroMelbourne@ALSGlobal.com>
Sent: Thursday, 18 January 2024 1:13 PM
To: Prestidge, Jordan <Jordan.Prestidge@jacobs.com>
Subject: [EXTERNAL] FW: EM2400571-SINKNI-IA5000PB

Hi Jordan,

Sample team has advise

There is labelled two soil jars as "BH02_". We assumed this belonged to BH02_0.1 (sample 004) because we did not receive any samples labelled BH02_0.1. Please see pictures attached.

That's right, these are BH02_0.1.

Requested PFAS analysis on BH10_0.5 but did not provide a PFAS container, but analysis can be done from the glass jar if you want to proceed.

So double check that you wanted to do PFAS analysis on sample 030 (BH10_0.5) and not BH10_0.1. Just checking because you provided a PFAS jar for BH10_0.1 but not BH10_0.5. We have not added PFAS yet

The COC must be incorrect sorry, please do PFAS analysis on the sample where a grey PFAS jar was collected (BH10_0.1). Please don't do PFAS analysis on BH10_0.5.

Also no ASS bag provided for sample 030 (BH10_0.5) so removed SPOCAS analysis for now.

Do you want to proceed from a split. Please note, the glass jar that the split will come from has not been frozen. I have incorrectly scheduled SPOCAS analysis at BH10_0.5 where I was supposed to instead schedule it for BH09_0.5. Can you please check that an ASS bag was collected at BH09_0.5, and if yes, please schedule SPOCAS suite for this sample?

Samples not received:

QC12 (sample 17)

QC11 (sample 43)

That's fine, thankyou

Thank you.

Kind Regards,



right solutions.
right partner.

Dai Ly
Receptionist -Environmental

Melbourne, Australia

D: +61 3 8549 9600

alsenviromelbourne@alsglobal.com
2-4 Westall Road, Springvale VIC 3171

alsglobal.com



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EM2400571**

Client	: JACOBS GROUP(AUSTRALIA)PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: JORDAN PRESTIDGE	Contact	: Peter Ravlic
Address	: Level 13, 452 Flinders Street MELBOURNE 3000	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: Jordan.Prestidge@jacobs.com	E-mail	: peter.ravlic@alsglobal.com
Telephone	: ----	Telephone	: +6138549 9645
Facsimile	: ----	Facsimile	: +61-3-8549 9626
Project	: IA5000PB	Page	: 1 of 5
Order number	: TBC	Quote number	: EM2023SINKNI0019 (EN/000)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: JORDAN PRESTIDGE, TEA SVILAND		

Dates

Date Samples Received	: 17-Jan-2024 14:20	Issue Date	: 18-Jan-2024
Client Requested Due Date	: 29-Jan-2024	Scheduled Reporting Date	: 29-Jan-2024

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 3	Temperature	: 4.3°C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 47 / 34

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 direct any queries related to sample condition / numbering / breakages to Client Services.**
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **Analytical work for this work order will be conducted at ALS Springvale and ALS Brisbane.**
- **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.

- No sample container / preservation non-compliance exists.

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	(On Hold) SOIL No analysis requested	SOIL - Corr. Schedule 2 Soil on Steel & Concrete Piles (AS2159-2009)	SOIL - EA029 SPOCAS	SOIL - EA055-103 Moisture Content	SOIL - NT-8S NH3, NO2, NO3, NOX, TKN, TN, TP	SOIL - P-30/1 EPA 1828.2 Table 2 Solid Suite (EM)	SOIL - S02 8 Metals (incl. Digestion)
EM2400571-001	16-Jan-2024 00:00	BH01_0.1		✓		✓		✓	
EM2400571-002	16-Jan-2024 00:00	BH01_0.5	✓						
EM2400571-003	16-Jan-2024 00:00	BH01_1.0			✓	✓			✓
EM2400571-004	16-Jan-2024 00:00	BH02_0.1				✓	✓		
EM2400571-005	16-Jan-2024 00:00	BH02_0.5				✓		✓	
EM2400571-006	16-Jan-2024 00:00	BH03_0.1				✓			✓
EM2400571-007	16-Jan-2024 00:00	BH03_0.5		✓		✓			✓
EM2400571-008	16-Jan-2024 00:00	BH03_0.8	✓						
EM2400571-009	16-Jan-2024 00:00	BH04_0.1				✓			
EM2400571-010	16-Jan-2024 00:00	BH04_0.5	✓						
EM2400571-011	16-Jan-2024 00:00	BH04_1.0			✓	✓	✓		✓
EM2400571-012	17-Jan-2024 00:00	BH05_0.1				✓	✓	✓	
EM2400571-013	17-Jan-2024 00:00	BH05_0.5				✓	✓		✓
EM2400571-014	17-Jan-2024 00:00	BH05_1.0	✓						
EM2400571-015	17-Jan-2024 00:00	BH06_0.1				✓			
EM2400571-016	17-Jan-2024 00:00	QC02				✓			✓
EM2400571-018	17-Jan-2024 00:00	BH06_0.5				✓	✓		✓
EM2400571-019	17-Jan-2024 00:00	BH06_1.0	✓						
EM2400571-020	17-Jan-2024 00:00	BH07_0.1				✓			✓
EM2400571-021	17-Jan-2024 00:00	BH07_0.5	✓						
EM2400571-022	17-Jan-2024 00:00	BH07_1.0		✓	✓	✓		✓	
EM2400571-023	17-Jan-2024 00:00	BH08_0.1				✓	✓		✓
EM2400571-024	17-Jan-2024 00:00	BH08_0.5				✓			✓
EM2400571-025	17-Jan-2024 00:00	BH08_1.0	✓						
EM2400571-026	17-Jan-2024 00:00	BH09_0.1				✓			
EM2400571-027	17-Jan-2024 00:00	BH09_0.5			✓	✓			✓
EM2400571-028	17-Jan-2024 00:00	BH09_1.0	✓						
EM2400571-029	17-Jan-2024 00:00	BH10_0.1				✓		✓	
EM2400571-030	17-Jan-2024 00:00	BH10_0.5				✓			
EM2400571-031	17-Jan-2024 00:00	BH10_1.0	✓						
EM2400571-032	17-Jan-2024 00:00	BH11_0.1				✓			
EM2400571-033	17-Jan-2024 00:00	BH11_0.5				✓	✓		✓
EM2400571-034	17-Jan-2024 00:00	BH11_1.0	✓						
EM2400571-035	16-Jan-2024 00:00	BH12_0.1				✓		✓	
EM2400571-036	16-Jan-2024 00:00	BH12_0.5				✓			✓



			(On Hold) SOIL No analysis requested	SOIL - Corr. Schedule 2 Soil on Steel & Concrete Piles (AS2159-2009)	SOIL - EA029 SPOCAS	SOIL - EA055-103 Moisture Content	SOIL - NT-8S NH3, NO2, NO3, NOX, TKN, TN, TP	SOIL - P-30/1 EPA 1828.2 Table 2 Solid Suite (EM)	SOIL - S-02 8 Metals (incl. Digestion)
EM2400571-037	16-Jan-2024 00:00	BH12_1.0	✓						
EM2400571-038	16-Jan-2024 00:00	BH13_0.1				✓			✓
EM2400571-039	16-Jan-2024 00:00	BH13_0.5				✓			✓
EM2400571-040	16-Jan-2024 00:00	BH14_0.1				✓		✓	
EM2400571-041	16-Jan-2024 00:00	BH14_0.5		✓	✓	✓			✓
EM2400571-042	16-Jan-2024 00:00	QC01				✓			✓
EM2400571-044	16-Jan-2024 00:00	BH14_1.0	✓						
EM2400571-045	16-Jan-2024 00:00	BH15_0.1				✓			✓
EM2400571-046	16-Jan-2024 00:00	BH15_0.5	✓						
EM2400571-047	16-Jan-2024 00:00	BH15_1.0				✓			✓

Matrix: SOIL

Laboratory sample ID Sampling date / time Sample ID

			SOIL - EP231 (solids) PFAS - Short Suite (12 analytes)	SOIL - NT-1S Major Cations (Ca, Mg, Na, K)	SOIL - NT-2S Major Anions (Cl, SO4)	SOIL - S-07 TRH/BTEXN/PAH (SIM)	SOIL - S-16 TRH/BTEXN/PAH/OC/OP/PCB/8Metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
EM2400571-004	16-Jan-2024 00:00	BH02_0.1					✓	
EM2400571-006	16-Jan-2024 00:00	BH03_0.1				✓		
EM2400571-009	16-Jan-2024 00:00	BH04_0.1					✓	
EM2400571-011	16-Jan-2024 00:00	BH04_1.0				✓		
EM2400571-015	17-Jan-2024 00:00	BH06_0.1						✓
EM2400571-016	17-Jan-2024 00:00	QC02				✓		
EM2400571-018	17-Jan-2024 00:00	BH06_0.5				✓		
EM2400571-020	17-Jan-2024 00:00	BH07_0.1				✓		
EM2400571-023	17-Jan-2024 00:00	BH08_0.1	✓			✓		
EM2400571-026	17-Jan-2024 00:00	BH09_0.1	✓				✓	
EM2400571-027	17-Jan-2024 00:00	BH09_0.5				✓		
EM2400571-029	17-Jan-2024 00:00	BH10_0.1	✓					
EM2400571-030	17-Jan-2024 00:00	BH10_0.5		✓	✓		✓	
EM2400571-032	17-Jan-2024 00:00	BH11_0.1					✓	
EM2400571-033	17-Jan-2024 00:00	BH11_0.5				✓		
EM2400571-036	16-Jan-2024 00:00	BH12_0.5				✓		
EM2400571-038	16-Jan-2024 00:00	BH13_0.1				✓		
EM2400571-041	16-Jan-2024 00:00	BH14_0.5				✓		
EM2400571-042	16-Jan-2024 00:00	QC01				✓		



Sample ID	Sampling date / time	Sample ID	SOIL - EP231 (solids)	PFAS - Short Suite (12 analytes)	SOIL - NT-1S	Major Cations (Ca, Mg, Na, K)	SOIL - NT-2S	Major Anions (Cl, SO4)	SOIL - S-07	TRH/BTEXN/PAH (SIM)	SOIL - S-16	TRH/BTEXN/PAH/OC/OP/PCB/8Metals	SOIL - S-26	8 metals/TRH/BTEXN/PAH
EM2400571-045	16-Jan-2024 00:00	BH15_0.1							✓					

Matrix: WATER

Laboratory sample ID	Sampling date / time	Sample ID	WATER - W-02T 8 metals (Total)
EM2400571-048	16-Jan-2024 00:00	RB01	✓
EM2400571-049	17-Jan-2024 00:00	RB02	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.



Requested Deliverables

INVOICES ONLY (JACOBS)

- A4 - AU Tax Invoice (INV) Email auapinvoices@jacobs.com

JACOBS INVOICES

- A4 - AU Tax Invoice (INV) Email auapinvoices@jacobs.com

JORDAN PRESTIDGE

- *AU Certificate of Analysis - NATA (COA) Email Jordan.Prestidge@jacobs.com

- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email Jordan.Prestidge@jacobs.com

- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email Jordan.Prestidge@jacobs.com

- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email Jordan.Prestidge@jacobs.com

- A4 - AU Tax Invoice (INV) Email Jordan.Prestidge@jacobs.com

- Chain of Custody (CoC) (COC) Email Jordan.Prestidge@jacobs.com

- EDI Format - ESDAT (ESDAT) Email Jordan.Prestidge@jacobs.com

- EPA Waste Classification & Categorisation Guideline Report (COA_GL_EPA_WASTE) Email Jordan.Prestidge@jacobs.com

LAB RESULTS esdat

- EDI Format - ESDAT (ESDAT) Email jacobs.labresults@esdat.net

- Electronic SRN for ESdat (ESRN_ESDAT) Email jacobs.labresults@esdat.net

TEA SVILAND

- *AU Certificate of Analysis - NATA (COA) Email tea.sviland@jacobs.com

- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email tea.sviland@jacobs.com

- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email tea.sviland@jacobs.com

- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email tea.sviland@jacobs.com

- Chain of Custody (CoC) (COC) Email tea.sviland@jacobs.com

- EDI Format - ESDAT (ESDAT) Email tea.sviland@jacobs.com

- EPA Waste Classification & Categorisation Guideline Report (COA_GL_EPA_WASTE) Email tea.sviland@jacobs.com

Inter-Laboratory Testing

Analysis conducted by ALS Brisbane, NATA accreditation no. 825, site no. 818 (Chemistry) 18958 (Biology).

(SOIL) EK055: Ammonia as N

(SOIL) EA029-D: Calcium Values

(SOIL) EA029-E: Magnesium Values

(SOIL) EA029-F: Excess Acid Neutralising Capacity

(SOIL) EA029-H: Acid Base Accounting

(SOIL) EA029-G: Retained Acidity

(SOIL) EA029-A: pH Measurements

(SOIL) EA029-C: Sulfur Trail

(SOIL) EA029-B: Acidity Trail



CERTIFICATE OF ANALYSIS

Work Order : EM2400571
Client : JACOBS GROUP(AUSTRALIA)PTY LTD
Contact : JORDAN PRESTIDGE
Address : Level 13, 452 Flinders Street
MELBOURNE 3000
Telephone : ----
Project : IA5000PB
Order number : TBC
C-O-C number : ----
Sampler : JORDAN PRESTIDGE, TEA SVILAND
Site : ----
Quote number : EN/000
No. of samples received : 47
No. of samples analysed : 34

Page : 1 of 84
Laboratory : Environmental Division Melbourne
Contact : Peter Ravlic
Address : 4 Westall Rd Springvale VIC Australia 3171
Telephone : +6138549 9645
Date Samples Received : 17-Jan-2024 14:20
Date Analysis Commenced : 18-Jan-2024
Issue Date : 31-Jan-2024 22:46



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
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Eric Chau	Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Non-Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Layla Hafner	Acid Sulphate Soils - Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Sanjay Parekh	LCMS Coordinator	Melbourne Inorganics, Springvale, VIC
Sanjay Parekh	LCMS Coordinator	Melbourne Organics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, 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.

- EG048G: EM2400571 #5 poor matrix spike recovery for hexavalent chromium due to matrix effects. Confirmed by re-preparation and re-analysis.
- 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.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above 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.
- EP074-UT: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- Corrosion assessment for Concrete and Steel piles in soil per Australian Standard AS2159-2009 uses a combination of soil and groundwater data (Tables 6.4.2 C & 6.5.2 C). In the absence of groundwater data, assessment has been made against soil criteria only. Refer to AS2159-2009 section 6.4 for further interpretation of corrosion assessment. ALS is not NATA accredited for Corrosion Assessment comments
- EA167: Soil Condition A – High permeability soils (e.g. sands and gravels) which are in groundwater
- EA167: Soil Condition B – Low permeability soils (e.g. silts and clays) or all soils above groundwater
- EP236: Tributyl tin is reported as Tributyl tin oxide under the conservative assumption that all of the measured Tributyl tin is present as Tributyl tin oxide.
- ASS: EA029 (SPOCAS): Analysis is performed as per the Acid Sulfate Soils Laboratory Methods Guidelines (2004) and the updated National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT (2018)
- EG005-T : EM2400571 #12 and #13 have been diluted prior to Cadmium analysis due to sample matrix. LOR values have been adjusted accordingly.
- EP095: Poor matrix spike recovery for sample EM2400571_12 due to matrix interferences. Confirmed by re-extraction and re-analysis.
- ASS: EA029 (SPOCAS): Excess ANC not required because pH OX less than 6.5.
- EP068: Sample EM2400571_032 high failing surrogate recovery for DEF deemed acceptable as all target analytes reported less than LOR.
- ASS: EA029 (SPOCAS): Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO₃) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from kg/t dry weight to kg/m³ in-situ soil, multiply reported results x wet bulk density of soil in t/m³.



- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
 - 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: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit	5.9	----	----	4.3	----	
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit	6.6	----	----	----	----	
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm	33	----	----	----	----	
EA029-A: pH Measurements									
pH KCl (23A)	----	0.1	pH Unit	----	4.6	----	----	----	
pH OX (23B)	----	0.1	pH Unit	----	3.9	----	----	----	
EA029-B: Acidity Trail									
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	42	----	----	----	
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	127	----	----	----	
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	86	----	----	----	
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	0.067	----	----	----	
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	0.204	----	----	----	
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	0.137	----	----	----	
EA029-C: Sulfur Trail									
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	0.060	----	----	----	
Peroxide Sulfur (23De)	----	0.020	% S	----	0.070	----	----	----	
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	<0.020	----	----	----	
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	<10	----	----	----	
EA029-D: Calcium Values									
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.067	----	----	----	
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.068	----	----	----	
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	<0.020	----	----	----	
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	<10	----	----	----	
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	<0.020	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EA029-E: Magnesium Values									
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	0.042	----	----	----	
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	0.042	----	----	----	
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	<0.020	----	----	----	
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	<10	----	----	----	
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	<0.020	----	----	----	
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-	----	1.5	----	----	----	
Net Acidity (sulfur units)	----	0.02	% S	----	0.08	----	----	----	
Net Acidity (acidity units)	----	10	mole H+ / t	----	48	----	----	----	
Liming Rate	----	1	kg CaCO3/t	----	4	----	----	----	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	0.08	----	----	----	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	48	----	----	----	
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	4	----	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	27.1	----	----	25.5	----	
Moisture Content	----	1.0	%	----	31.8	29.5	----	24.5	
EA080: Resistivity									
Resistivity at 25°C	----	1	ohm cm	30300	----	----	----	----	
EA167: Corrosion Classification (per AS2159-2009)									
∅ Exposure Classification - Concrete Piles Soil Condition A	----	-	-	Mild	----	----	----	----	
∅ Exposure Classification - Concrete Piles Soil Condition B	----	-	-	Non Aggressive	----	----	----	----	
∅ Exposure Classification - Steel Piles Soil Condition A	----	-	-	Non Aggressive	----	----	----	----	
∅ Exposure Classification - Steel Piles Soil Condition B	----	-	-	Non Aggressive	----	----	----	----	
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	----	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg	10	----	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Antimony	7440-36-0	5	mg/kg	<5	----	----	<5	----	
Barium	7440-39-3	10	mg/kg	90	----	----	80	----	
Beryllium	7440-41-7	1	mg/kg	<1	----	----	<1	----	
Boron	7440-42-8	50	mg/kg	<50	----	----	<50	----	
Molybdenum	7439-98-7	2	mg/kg	<2	----	----	<2	----	
Selenium	7782-49-2	5	mg/kg	<5	----	----	<5	----	
Silver	7440-22-4	2	mg/kg	<2	----	----	<2	----	
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	----	178	63	----	198	
Copper	7440-50-8	5	mg/kg	26	65	8	8	11	
Lead	7439-92-1	5	mg/kg	66	6	19	14	17	
Nickel	7440-02-0	2	mg/kg	24	57	15	16	17	
Zinc	7440-66-6	5	mg/kg	96	38	59	<5	6	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	----	----	<0.5	----	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg	<1	----	----	<1	----	
EK030: Cyanide Amenable to Chlorination									
Cyanide amenable to chlorination	----	1	mg/kg	<1	----	----	<1	----	
EK040T: Fluoride Total									
Fluoride	16984-48-8	40	mg/kg	110	----	----	<40	----	
EK055: Ammonia as N									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EK055: Ammonia as N - Continued									
Ammonia as N	7664-41-7	20	mg/kg	----	----	<20	----	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	----	----	0.2	----	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg	----	----	0.3	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	----	----	0.5	----	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	----	----	1720	----	----	
EK062: Total Nitrogen as N (TKN + NOx)									
[^] Total Nitrogen as N	----	20	mg/kg	----	----	1720	----	----	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	----	----	280	----	----	
EP010: Formaldehyde									
Formaldehyde	50-00-0	2	mg/kg	<2	----	----	<2	----	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	----	<0.1	----	
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	----	<0.05	----	----	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	----	<0.05	----	----	
beta-BHC	319-85-7	0.05	mg/kg	----	----	<0.05	----	----	
gamma-BHC	58-89-9	0.05	mg/kg	----	----	<0.05	----	----	
delta-BHC	319-86-8	0.05	mg/kg	----	----	<0.05	----	----	
Heptachlor	76-44-8	0.05	mg/kg	----	----	<0.05	----	----	
Aldrin	309-00-2	0.05	mg/kg	----	----	<0.05	----	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	----	<0.05	----	----	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	----	<0.05	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
trans-Chlordane	5103-74-2	0.05	mg/kg	----	----	<0.05	----	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	----	<0.05	----	----	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	----	<0.05	----	----	
Dieldrin	60-57-1	0.05	mg/kg	----	----	<0.05	----	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	<0.05	----	----	
Endrin	72-20-8	0.05	mg/kg	----	----	<0.05	----	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	----	<0.05	----	----	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	----	<0.05	----	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	<0.05	----	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	----	<0.05	----	----	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	----	<0.05	----	----	
4,4'-DDT	50-29-3	0.2	mg/kg	----	----	<0.2	----	----	
Endrin ketone	53494-70-5	0.05	mg/kg	----	----	<0.05	----	----	
Methoxychlor	72-43-5	0.2	mg/kg	----	----	<0.2	----	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	----	<0.05	----	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	----	----	<0.05	----	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	----	<0.05	----	----	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	----	<0.05	----	----	
Monocrotophos	6923-22-4	0.2	mg/kg	----	----	<0.2	----	----	
Dimethoate	60-51-5	0.05	mg/kg	----	----	<0.05	----	----	
Diazinon	333-41-5	0.05	mg/kg	----	----	<0.05	----	----	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	----	<0.05	----	----	
Parathion-methyl	298-00-0	0.2	mg/kg	----	----	<0.2	----	----	
Malathion	121-75-5	0.05	mg/kg	----	----	<0.05	----	----	
Fenthion	55-38-9	0.05	mg/kg	----	----	<0.05	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	----	<0.05	----	----	
Parathion	56-38-2	0.2	mg/kg	----	----	<0.2	----	----	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	----	----	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	----	----	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	----	----	
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	----	----	
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	----	----	
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	----	----	
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	----	----	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	<0.2	----	
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	<0.5	----	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	<0.5	----	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	<0.5	----	
Styrene	100-42-5	0.5	mg/kg	<0.5	----	----	<0.5	----	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	<0.5	----	
[^] Sum of monocyclic aromatic hydrocarbons	----	0.2	mg/kg	<0.2	----	----	<0.2	----	
[^] Total Xylenes	----	0.5	mg/kg	<0.5	----	----	<0.5	----	
EP074B: Oxygenated Compounds									
2-Butanone (MEK)	78-93-3	1	mg/kg	<1	----	----	<1	----	
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg	<1	----	----	<1	----	
EP074I: Volatile Halogenated Compounds									
Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	----	----	<0.02	----	
1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	----	----	<0.01	----	
Methylene chloride	75-09-2	0.4	mg/kg	<0.4	----	----	<0.4	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP074I: Volatile Halogenated Compounds - Continued									
trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	----	----	<0.02	----	
cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	----	----	<0.01	----	
Chloroform	67-66-3	0.02	mg/kg	<0.02	----	----	<0.02	----	
1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	----	----	<0.01	----	
Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	----	----	<0.01	----	
1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	----	----	<0.02	----	
Trichloroethene	79-01-6	0.02	mg/kg	<0.02	----	----	<0.02	----	
1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	----	----	<0.04	----	
1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	----	----	<0.01	----	
Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	----	----	<0.02	----	
1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	----	----	<0.02	----	
Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	----	----	<0.02	----	
Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	----	----	<0.02	----	
1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	----	----	<0.02	----	
1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	----	----	<0.02	----	
1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	----	----	<0.01	----	
^ Sum of volatile chlorinated hydrocarbons	----	0.01	mg/kg	<0.01	----	----	<0.01	----	
1,3,5-Trichlorobenzene	108-70-3	0.01	mg/kg	<0.01	----	----	<0.01	----	
1,2,3-Trichlorobenzene	87-61-6	0.01	mg/kg	<0.01	----	----	<0.01	----	
^ Sum of Trichlorobenzenes	----	0.01	mg/kg	<0.01	----	----	<0.01	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	----	----	<0.5	----	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	<0.5	
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	----	----	<0.5	----	<0.5	
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluoranthene	206-44-0	0.5	mg/kg	----	----	<0.5	----	<0.5	
Pyrene	129-00-0	0.5	mg/kg	----	----	<0.5	----	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	<0.5	
Chrysene	218-01-9	0.5	mg/kg	----	----	<0.5	----	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	<0.5	----	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	<0.5	----	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	<0.5	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	<0.5	
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	<0.5	----	<0.5	
[^] Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	<0.5	
[^] Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	0.6	----	0.6	
[^] Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	1.2	----	1.2	
EP075A: Phenolic Compounds (Halogenated)									
2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	----	----	<0.03	----	
2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	----	----	<0.03	----	
2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	----	----	<0.05	----	
2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	----	----	<0.05	----	
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg	<1	----	----	<1	----	
2-Methylphenol	95-48-7	1	mg/kg	<1	----	----	<1	----	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	----	----	<1	----	
2-Nitrophenol	88-75-5	1	mg/kg	<1	----	----	<1	----	
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	----	----	<1	----	
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	----	----	<5	----	
4-Nitrophenol	100-02-7	5	mg/kg	<5	----	----	<5	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP075A: Phenolic Compounds (Non-halogenated) - Continued									
2-Methyl-4.6-dinitrophenol	8071-51-0	5	mg/kg	<5	----	----	<5	----	
Dinoseb	88-85-7	5	mg/kg	<5	----	----	<5	----	
2-Cyclohexyl-4.6-Dinitrophenol	131-89-5	5	mg/kg	<5	----	----	<5	----	
[^] Cresols (Total)	----	1	mg/kg	<1	----	----	<1	----	
[^] Sum of Phenols (non-halogenated)	----	1	mg/kg	<1	----	----	<1	----	
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	----	<0.5	----	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	----	<0.5	----	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	----	<0.5	----	
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	----	<0.5	----	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	----	----	<0.5	----	
Anthracene	120-12-7	0.5	mg/kg	<0.5	----	----	<0.5	----	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	----	----	<0.5	----	
Pyrene	129-00-0	0.5	mg/kg	<0.5	----	----	<0.5	----	
Benzo(a)anthracene	56-55-3	0.5	mg/kg	<0.5	----	----	<0.5	----	
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	----	<0.5	----	
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	----	----	<1.0	----	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	----	----	<0.5	----	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	----	----	<0.5	----	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	----	<0.5	----	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	----	----	<0.5	----	
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	----	<0.5	----	
[^] Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	----	----	<0.5	----	
[^] Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	----	----	0.6	----	
[^] Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	----	----	1.2	----	
EP075C: Phthalate Esters									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP075C: Phthalate Esters - Continued									
bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	<0.5	----	----	<0.5	----	
EP075E: Nitroaromatics and Ketones									
Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	----	----	<0.5	----	
2,4-Dinitrotoluene	121-14-2	1.0	mg/kg	<1.0	----	----	<1.0	----	
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.03	mg/kg	<0.03	----	----	<0.03	----	
Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	----	----	<0.03	----	
beta-BHC	319-85-7	0.03	mg/kg	<0.03	----	----	<0.03	----	
gamma-BHC	58-89-9	0.03	mg/kg	<0.03	----	----	<0.03	----	
delta-BHC	319-86-8	0.03	mg/kg	<0.03	----	----	<0.03	----	
Heptachlor	76-44-8	0.03	mg/kg	<0.03	----	----	<0.03	----	
Aldrin	309-00-2	0.03	mg/kg	<0.03	----	----	<0.03	----	
Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	----	----	<0.03	----	
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	----	----	<0.03	----	
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	----	----	<0.03	----	
Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	----	----	<0.03	----	
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	----	----	<0.05	----	
Dieldrin	60-57-1	0.03	mg/kg	<0.03	----	----	<0.03	----	
Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	----	----	<0.03	----	
Endrin	72-20-8	0.03	mg/kg	<0.03	----	----	<0.03	----	
Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	----	----	<0.03	----	
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	----	----	<0.05	----	
Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	----	----	<0.03	----	
4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	----	----	<0.05	----	
Methoxychlor	72-43-5	0.03	mg/kg	<0.03	----	----	<0.03	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.03	mg/kg	<0.03	----	----	<0.03	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	----	----	<0.05	----	
^ Chlordane	57-74-9	0.03	mg/kg	<0.03	----	----	<0.03	----	
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	----	----	<0.03	----	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	<10	
C6 - C9 Fraction	----	10	mg/kg	<10	----	----	<10	----	
C10 - C14 Fraction	----	50	mg/kg	----	----	<50	----	<50	
C10 - C14 Fraction	----	50	mg/kg	<50	----	----	<50	----	
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	----	----	<10	----	
C15 - C28 Fraction	----	100	mg/kg	----	----	<100	----	<100	
C15 - C28 Fraction	----	100	mg/kg	<100	----	----	<100	----	
C29 - C36 Fraction	----	100	mg/kg	----	----	<100	----	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	----	----	<100	----	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	<50	----	<50	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	<50	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	----	----	<10	----	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	----	----	<10	----	<10	
>C10 - C16 Fraction	----	50	mg/kg	----	----	<50	----	<50	
>C10 - C16 Fraction	----	50	mg/kg	<50	----	----	<50	----	
>C16 - C34 Fraction	----	100	mg/kg	----	----	<100	----	<100	
>C16 - C34 Fraction	----	100	mg/kg	<100	----	----	<100	----	
>C34 - C40 Fraction	----	100	mg/kg	----	----	<100	----	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	<100	----	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	<50	----	<50	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	<50	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	<50	----	<50	
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	----	<50	----	
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	<10	----	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	<0.2	
Toluene	108-88-3	0.5	mg/kg	----	----	<0.5	----	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	----	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	----	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	----	<0.5	
[^] Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	----	<0.2	
[^] Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	<0.5	
Naphthalene	91-20-3	1	mg/kg	----	----	<1	----	<1	
EP095: Ethylenediamine Tetraacetic Acid (EDTA)									
Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg	<10	----	----	<10	----	
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)									
2,4-D	94-75-7	0.001	mg/kg	<0.001	----	----	<0.001	----	
Tributyltin oxide	56-35-9	0.01	mg/kg	<0.01	----	----	<0.01	----	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	95.4	----	----	91.6	----	
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	92.5	----	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	----	100	----	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	----	119	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-001	EM2400571-003	EM2400571-004	EM2400571-005	EM2400571-006	
				Result	Result	Result	Result	Result	
EP074S: VOC Surrogates (Ultra-Trace) - Continued									
1.2-Dichloroethane-D4	17060-07-0	0.1	%	80.6	----	----	83.1	----	
Toluene-D8	2037-26-5	0.1	%	78.2	----	----	85.4	----	
4-Bromofluorobenzene	460-00-4	0.1	%	82.6	----	----	86.4	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	----	----	81.4	----	86.7	
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	88.2	----	92.2	
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	73.9	----	78.2	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	85.0	----	89.0	
Anthracene-d10	1719-06-8	0.5	%	----	----	106	----	112	
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	97.5	----	104	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	87.4	----	----	88.7	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	86.6	----	----	88.0	----	
2.4.6-Tribromophenol	118-79-6	0.025	%	79.8	----	----	82.8	----	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	81.1	----	----	82.6	----	
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%	83.8	----	----	85.1	----	
2-Fluorobiphenyl	321-60-8	0.025	%	95.7	----	----	96.3	----	
Anthracene-d10	1719-06-8	0.025	%	97.3	----	----	94.4	----	
4-Terphenyl-d14	1718-51-0	0.025	%	101	----	----	99.2	----	
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	72.2	----	83.0	
Toluene-D8	2037-26-5	0.2	%	----	----	63.9	----	73.4	
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	79.5	----	92.8	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time					16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit	----	----	----	4.1	----	
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit	5.6	----	----	----	----	
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm	27	----	----	----	----	
EA029-A: pH Measurements									
pH KCl (23A)	----	0.1	pH Unit	----	----	4.8	----	----	
pH OX (23B)	----	0.1	pH Unit	----	----	4.8	----	----	
EA029-B: Acidity Trail									
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	----	39	----	----	
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	79	----	----	
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	40	----	----	
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	0.062	----	----	
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	0.126	----	----	
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	0.064	----	----	
EA029-C: Sulfur Trail									
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	0.023	----	----	
Peroxide Sulfur (23De)	----	0.020	% S	----	----	0.027	----	----	
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	<0.020	----	----	
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	<10	----	----	
EA029-D: Calcium Values									
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	0.024	----	----	
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	0.024	----	----	
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	<0.020	----	----	
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	<10	----	----	
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	<0.020	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
EA029-E: Magnesium Values									
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	0.069	----	----	
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	0.069	----	----	
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	<0.020	----	----	
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	<10	----	----	
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	<0.020	----	----	
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-	----	----	1.5	----	----	
Net Acidity (sulfur units)	----	0.02	% S	----	----	0.07	----	----	
Net Acidity (acidity units)	----	10	mole H+ / t	----	----	42	----	----	
Liming Rate	----	1	kg CaCO3/t	----	----	3	----	----	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	0.07	----	----	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	----	42	----	----	
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	----	3	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	20.2	30.9	30.4	33.5	34.2	
EA080: Resistivity									
Resistivity at 25°C	----	1	ohm cm	37000	----	----	----	----	
EA167: Corrosion Classification (per AS2159-2009)									
∅ Exposure Classification - Concrete Piles Soil Condition A	----	-	-	Mild	----	----	----	----	
∅ Exposure Classification - Concrete Piles Soil Condition B	----	-	-	Non Aggressive	----	----	----	----	
∅ Exposure Classification - Steel Piles Soil Condition A	----	-	-	Non Aggressive	----	----	----	----	
∅ Exposure Classification - Steel Piles Soil Condition B	----	-	-	Non Aggressive	----	----	----	----	
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg	30	----	----	----	----	
ED045G: Chloride by Discrete Analyser									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
ED045G: Chloride by Discrete Analyser - Continued									
Chloride	16887-00-6	10	mg/kg	<10	----	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Antimony	7440-36-0	5	mg/kg	----	----	----	<5	----	
Barium	7440-39-3	10	mg/kg	----	----	----	40	----	
Beryllium	7440-41-7	1	mg/kg	----	----	----	<1	----	
Boron	7440-42-8	50	mg/kg	----	----	----	<50	----	
Molybdenum	7439-98-7	2	mg/kg	----	----	----	<2	----	
Selenium	7782-49-2	5	mg/kg	----	----	----	<5	----	
Silver	7440-22-4	2	mg/kg	----	----	----	<2	----	
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<5	<5	
Chromium	7440-47-3	2	mg/kg	165	179	195	----	172	
Copper	7440-50-8	5	mg/kg	11	16	17	54	51	
Lead	7439-92-1	5	mg/kg	15	16	17	8	<5	
Nickel	7440-02-0	2	mg/kg	16	23	26	44	41	
Zinc	7440-66-6	5	mg/kg	<5	6	6	36	33	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	----	----	----	<0.5	----	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg	----	----	----	<1	----	
EK030: Cyanide Amenable to Chlorination									
Cyanide amenable to chlorination	----	1	mg/kg	----	----	----	<1	----	
EK040T: Fluoride Total									
Fluoride	16984-48-8	40	mg/kg	----	----	----	<40	----	
EK055: Ammonia as N									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
EK055: Ammonia as N - Continued									
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	----	----	0.4	0.1	<0.1	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	----	----	0.4	0.1	<0.1	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	----	----	450	280	150	
EK062: Total Nitrogen as N (TKN + NOx)									
[^] Total Nitrogen as N	----	20	mg/kg	----	----	450	280	150	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	----	----	178	1180	832	
EP010: Formaldehyde									
Formaldehyde	50-00-0	2	mg/kg	----	----	----	<2	----	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	<0.1	----	
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	<0.1	----	----	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	----	----	----	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	----	----	----	
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	----	----	----	
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	----	----	----	
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	----	----	----	
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	----	----	----	
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	----	----	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	----	----	----	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	----	----	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	----	----	----	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	----	----	----	
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	----	----	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	<0.05	----	----	----	
Endrin	72-20-8	0.05	mg/kg	----	<0.05	----	----	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	----	----	----	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	----	----	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	<0.05	----	----	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	----	----	----	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	----	----	
4,4'-DDT	50-29-3	0.2	mg/kg	----	<0.2	----	----	----	
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	----	----	----	
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	----	----	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	----	----	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	----	<0.05	----	----	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	----	----	----	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	----	----	----	
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	----	----	----	
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	----	----	----	
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	----	----	----	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	----	----	----	
Parathion-methyl	298-00-0	0.2	mg/kg	----	<0.2	----	----	----	
Malathion	121-75-5	0.05	mg/kg	----	<0.05	----	----	----	
Fenthion	55-38-9	0.05	mg/kg	----	<0.05	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time					16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00
Compound	CAS Number	LOR	Unit		EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Chlorpyrifos	2921-88-2	0.05	mg/kg		----	<0.05	----	----	----
Parathion	56-38-2	0.2	mg/kg		----	<0.2	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		----	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		----	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		----	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		----	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg		----	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg		----	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg		----	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		----	<0.05	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg		----	----	----	<0.2	----
Toluene	108-88-3	0.5	mg/kg		----	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	----	<0.5	----
Styrene	100-42-5	0.5	mg/kg		----	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	----	<0.5	----
[^] Sum of monocyclic aromatic hydrocarbons	----	0.2	mg/kg		----	----	----	<0.2	----
[^] Total Xylenes	----	0.5	mg/kg		----	----	----	<0.5	----
EP074B: Oxygenated Compounds									
2-Butanone (MEK)	78-93-3	1	mg/kg		----	----	----	<1	----
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg		----	----	----	<1	----
EP074I: Volatile Halogenated Compounds									
Vinyl chloride	75-01-4	0.02	mg/kg		----	----	----	<0.02	----
1,1-Dichloroethene	75-35-4	0.01	mg/kg		----	----	----	<0.01	----
Methylene chloride	75-09-2	0.4	mg/kg		----	----	----	<0.4	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time					16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00
Compound	CAS Number	LOR	Unit		EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013
					Result	Result	Result	Result	Result
EP074I: Volatile Halogenated Compounds - Continued									
trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg		----	----	----	<0.02	----
cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg		----	----	----	<0.01	----
Chloroform	67-66-3	0.02	mg/kg		----	----	----	<0.02	----
1,1,1-Trichloroethane	71-55-6	0.01	mg/kg		----	----	----	<0.01	----
Carbon Tetrachloride	56-23-5	0.01	mg/kg		----	----	----	<0.01	----
1,2-Dichloroethane	107-06-2	0.02	mg/kg		----	----	----	<0.02	----
Trichloroethene	79-01-6	0.02	mg/kg		----	----	----	<0.02	----
1,1,2-Trichloroethane	79-00-5	0.04	mg/kg		----	----	----	<0.04	----
1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg		----	----	----	<0.01	----
Tetrachloroethene	127-18-4	0.02	mg/kg		----	----	----	<0.02	----
1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg		----	----	----	<0.02	----
Hexachlorobutadiene	87-68-3	0.02	mg/kg		----	----	----	<0.02	----
Chlorobenzene	108-90-7	0.02	mg/kg		----	----	----	<0.02	----
1,4-Dichlorobenzene	106-46-7	0.02	mg/kg		----	----	----	<0.02	----
1,2-Dichlorobenzene	95-50-1	0.02	mg/kg		----	----	----	<0.02	----
1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg		----	----	----	<0.01	----
^ Sum of volatile chlorinated hydrocarbons	----	0.01	mg/kg		----	----	----	<0.01	----
1,3,5-Trichlorobenzene	108-70-3	0.01	mg/kg		----	----	----	<0.01	----
1,2,3-Trichlorobenzene	87-61-6	0.01	mg/kg		----	----	----	<0.01	----
^ Sum of Trichlorobenzenes	----	0.01	mg/kg		----	----	----	<0.01	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		----	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time					16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00
Compound	CAS Number	LOR	Unit		EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluoranthene	206-44-0	0.5	mg/kg		----	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		----	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	<0.5	<0.5	----	----
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	<0.5	<0.5	----	----
[^] Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	<0.5	<0.5	----	----
[^] Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	0.6	0.6	----	----
[^] Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	1.2	1.2	----	----
EP075A: Phenolic Compounds (Halogenated)									
2-Chlorophenol	95-57-8	0.03	mg/kg		----	----	----	<0.03	----
2,4-Dichlorophenol	120-83-2	0.03	mg/kg		----	----	----	<0.03	----
2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg		----	----	----	<0.05	----
2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg		----	----	----	<0.05	----
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg		----	----	----	<1	----
2-Methylphenol	95-48-7	1	mg/kg		----	----	----	<1	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	----	<1	----
2-Nitrophenol	88-75-5	1	mg/kg		----	----	----	<1	----
2,4-Dimethylphenol	105-67-9	1	mg/kg		----	----	----	<1	----
2,4-Dinitrophenol	51-28-5	5	mg/kg		----	----	----	<5	----
4-Nitrophenol	100-02-7	5	mg/kg		----	----	----	<5	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
EP075A: Phenolic Compounds (Non-halogenated) - Continued									
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	----	----	----	<5	----	
Dinoseb	88-85-7	5	mg/kg	----	----	----	<5	----	
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	----	----	----	<5	----	
[^] Cresols (Total)	----	1	mg/kg	----	----	----	<1	----	
[^] Sum of Phenols (non-halogenated)	----	1	mg/kg	----	----	----	<1	----	
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	----	----	----	<0.5	----	
Acenaphthene	83-32-9	0.5	mg/kg	----	----	----	<0.5	----	
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	----	<0.5	----	
Fluorene	86-73-7	0.5	mg/kg	----	----	----	<0.5	----	
Phenanthrene	85-01-8	0.5	mg/kg	----	----	----	<0.5	----	
Anthracene	120-12-7	0.5	mg/kg	----	----	----	<0.5	----	
Fluoranthene	206-44-0	0.5	mg/kg	----	----	----	<0.5	----	
Pyrene	129-00-0	0.5	mg/kg	----	----	----	<0.5	----	
Benzo(a)anthracene	56-55-3	0.5	mg/kg	----	----	----	<0.5	----	
Chrysene	218-01-9	0.5	mg/kg	----	----	----	<0.5	----	
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	----	----	----	<1.0	----	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	----	<0.5	----	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	----	<0.5	----	
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	----	----	----	<0.5	----	
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	----	----	----	<0.5	----	
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	----	<0.5	----	
[^] Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	----	<0.5	----	
[^] Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	----	0.6	----	
[^] Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	----	1.2	----	
EP075C: Phthalate Esters									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
EP075C: Phthalate Esters - Continued									
bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	----	----	----	<0.5	----	
EP075E: Nitroaromatics and Ketones									
Nitrobenzene	98-95-3	0.5	mg/kg	----	----	----	<0.5	----	
2,4-Dinitrotoluene	121-14-2	1.0	mg/kg	----	----	----	<1.0	----	
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.03	mg/kg	----	----	----	<0.03	----	
Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	----	----	----	<0.03	----	
beta-BHC	319-85-7	0.03	mg/kg	----	----	----	<0.03	----	
gamma-BHC	58-89-9	0.03	mg/kg	----	----	----	<0.03	----	
delta-BHC	319-86-8	0.03	mg/kg	----	----	----	<0.03	----	
Heptachlor	76-44-8	0.03	mg/kg	----	----	----	<0.03	----	
Aldrin	309-00-2	0.03	mg/kg	----	----	----	<0.03	----	
Heptachlor epoxide	1024-57-3	0.03	mg/kg	----	----	----	<0.03	----	
cis-Chlordane	5103-71-9	0.03	mg/kg	----	----	----	<0.03	----	
trans-Chlordane	5103-74-2	0.03	mg/kg	----	----	----	<0.03	----	
Endosulfan 1	959-98-8	0.03	mg/kg	----	----	----	<0.03	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	----	<0.05	----	
Dieldrin	60-57-1	0.03	mg/kg	----	----	----	<0.03	----	
Endrin aldehyde	7421-93-4	0.03	mg/kg	----	----	----	<0.03	----	
Endrin	72-20-8	0.03	mg/kg	----	----	----	<0.03	----	
Endosulfan 2	33213-65-9	0.03	mg/kg	----	----	----	<0.03	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	----	<0.05	----	
Endosulfan sulfate	1031-07-8	0.03	mg/kg	----	----	----	<0.03	----	
4,4'-DDT	50-29-3	0.05	mg/kg	----	----	----	<0.05	----	
Methoxychlor	72-43-5	0.03	mg/kg	----	----	----	<0.03	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.03	mg/kg	----	----	----	<0.03	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time					16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00
Compound	CAS Number	LOR	Unit		EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013
					Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg		----	----	----	<0.05	----
^ Chlordane	57-74-9	0.03	mg/kg		----	----	----	<0.03	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg		----	----	----	<0.03	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	<10	<10	----	----
C6 - C9 Fraction	----	10	mg/kg		----	----	----	<10	----
C10 - C14 Fraction	----	50	mg/kg		----	<50	<50	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<50	----
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	<10	----
C15 - C28 Fraction	----	100	mg/kg		----	<100	<100	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	----	<100	----
C29 - C36 Fraction	----	100	mg/kg		----	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	----	<100	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	<50	<50	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	<50	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	<10	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	<10	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	<50	<50	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	----	<50	----
>C16 - C34 Fraction	----	100	mg/kg		----	<100	<100	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	----	<100	----
>C34 - C40 Fraction	----	100	mg/kg		----	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	----	<100	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	<50	<50	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	----	<50	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time					16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00
Compound	CAS Number	LOR	Unit		EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	<50	<50	<50	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	----	<50	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	----	----	----	<10	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	----	<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	<0.5	----	----	----
[^] Sum of BTEX	----	0.2	mg/kg	----	<0.2	<0.2	----	----	----
[^] Total Xylenes	----	0.5	mg/kg	----	<0.5	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg	----	<1	<1	----	----	----
EP095: Ethylenediamine Tetraacetic Acid (EDTA)									
Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg	----	----	----	<10	----	----
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)									
2,4-D	94-75-7	0.001	mg/kg	----	----	----	<0.001	----	----
Tributyltin oxide	56-35-9	0.01	mg/kg	----	----	----	<0.01	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	94.2	----	----
Decachlorobiphenyl	2051-24-3	0.1	%	----	98.8	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	107	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	115	----	----	----	----
EP074S: VOC Surrogates (Ultra-Trace)									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-007	EM2400571-009	EM2400571-011	EM2400571-012	EM2400571-013	
				Result	Result	Result	Result	Result	
EP074S: VOC Surrogates (Ultra-Trace) - Continued									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	----	----	----	63.7	----	
Toluene-D8	2037-26-5	0.1	%	----	----	----	60.4	----	
4-Bromofluorobenzene	460-00-4	0.1	%	----	----	----	66.5	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	----	86.2	85.3	----	----	
2-Chlorophenol-D4	93951-73-6	0.5	%	----	90.8	91.6	----	----	
2,4,6-Tribromophenol	118-79-6	0.5	%	----	81.7	81.3	----	----	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	----	85.8	85.0	----	----	
Anthracene-d10	1719-06-8	0.5	%	----	117	117	----	----	
4-Terphenyl-d14	1718-51-0	0.5	%	----	106	105	----	----	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	----	----	----	85.2	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	----	----	----	84.6	----	
2,4,6-Tribromophenol	118-79-6	0.025	%	----	----	----	79.9	----	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	----	----	----	77.5	----	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	----	----	----	82.1	----	
2-Fluorobiphenyl	321-60-8	0.025	%	----	----	----	87.3	----	
Anthracene-d10	1719-06-8	0.025	%	----	----	----	94.1	----	
4-Terphenyl-d14	1718-51-0	0.025	%	----	----	----	98.8	----	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	----	71.9	82.5	----	----	
Toluene-D8	2037-26-5	0.2	%	----	65.1	75.8	----	----	
4-Bromofluorobenzene	460-00-4	0.2	%	----	80.6	92.1	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022
					Result	Result	Result	Result	Result
EA167: Corrosion Classification (per AS2159-2009) - Continued									
∅ Exposure Classification - Steel Piles Soil Condition A	----	-	-	----	----	----	----	----	Non Aggressive
∅ Exposure Classification - Steel Piles Soil Condition B	----	-	-	----	----	----	----	----	Non Aggressive
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg	----	----	----	----	----	<10
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg	----	----	----	----	----	60
EG005(ED093)T: Total Metals by ICP-AES									
Antimony	7440-36-0	5	mg/kg	----	----	----	----	----	<5
Barium	7440-39-3	10	mg/kg	----	----	----	----	----	70
Beryllium	7440-41-7	1	mg/kg	----	----	----	----	----	<1
Boron	7440-42-8	50	mg/kg	----	----	----	----	----	<50
Molybdenum	7439-98-7	2	mg/kg	----	----	----	----	----	<2
Selenium	7782-49-2	5	mg/kg	----	----	----	----	----	<5
Silver	7440-22-4	2	mg/kg	----	----	----	----	----	<2
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	75	77	88	60	----	----
Copper	7440-50-8	5	mg/kg	14	14	16	9	10	10
Lead	7439-92-1	5	mg/kg	14	14	14	13	14	14
Nickel	7440-02-0	2	mg/kg	19	20	25	14	13	13
Zinc	7440-66-6	5	mg/kg	<5	5	<5	6	5	5
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	----	----	----	----	----	<0.5
EK026SF: Total CN by Segmented Flow Analyser									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022
					Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
Styrene	100-42-5	0.5	mg/kg		----	----	----	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	----	----	<0.5
[^] Sum of monocyclic aromatic hydrocarbons	----	0.2	mg/kg		----	----	----	----	<0.2
[^] Total Xylenes	----	0.5	mg/kg		----	----	----	----	<0.5
EP074B: Oxygenated Compounds									
2-Butanone (MEK)	78-93-3	1	mg/kg		----	----	----	----	<1
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg		----	----	----	----	<1
EP074I: Volatile Halogenated Compounds									
Vinyl chloride	75-01-4	0.02	mg/kg		----	----	----	----	<0.02
1.1-Dichloroethene	75-35-4	0.01	mg/kg		----	----	----	----	<0.01
Methylene chloride	75-09-2	0.4	mg/kg		----	----	----	----	<0.4
trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg		----	----	----	----	<0.02
cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg		----	----	----	----	<0.01
Chloroform	67-66-3	0.02	mg/kg		----	----	----	----	<0.02
1.1.1-Trichloroethane	71-55-6	0.01	mg/kg		----	----	----	----	<0.01
Carbon Tetrachloride	56-23-5	0.01	mg/kg		----	----	----	----	<0.01
1.2-Dichloroethane	107-06-2	0.02	mg/kg		----	----	----	----	<0.02
Trichloroethene	79-01-6	0.02	mg/kg		----	----	----	----	<0.02
1.1.2-Trichloroethane	79-00-5	0.04	mg/kg		----	----	----	----	<0.04
1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg		----	----	----	----	<0.01
Tetrachloroethene	127-18-4	0.02	mg/kg		----	----	----	----	<0.02
1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg		----	----	----	----	<0.02
Hexachlorobutadiene	87-68-3	0.02	mg/kg		----	----	----	----	<0.02
Chlorobenzene	108-90-7	0.02	mg/kg		----	----	----	----	<0.02
1.4-Dichlorobenzene	106-46-7	0.02	mg/kg		----	----	----	----	<0.02



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022
					Result	Result	Result	Result	Result
EP074I: Volatile Halogenated Compounds - Continued									
1.2-Dichlorobenzene	95-50-1	0.02	mg/kg		----	----	----	----	<0.02
1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg		----	----	----	----	<0.01
^ Sum of volatile chlorinated hydrocarbons	----	0.01	mg/kg		----	----	----	----	<0.01
1.3.5-Trichlorobenzene	108-70-3	0.01	mg/kg		----	----	----	----	<0.01
1.2.3-Trichlorobenzene	87-61-6	0.01	mg/kg		----	----	----	----	<0.01
^ Sum of Trichlorobenzenes	----	0.01	mg/kg		----	----	----	----	<0.01
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Pyrene	129-00-0	0.5	mg/kg		<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	----
Chrysene	218-01-9	0.5	mg/kg		<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	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<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	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<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	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<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	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<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	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		1.2	1.2	1.2	1.2	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022
					Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated)									
2-Chlorophenol	95-57-8	0.03	mg/kg		----	----	----	----	<0.03
2,4-Dichlorophenol	120-83-2	0.03	mg/kg		----	----	----	----	<0.03
2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg		----	----	----	----	<0.05
2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg		----	----	----	----	<0.05
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg		----	----	----	----	<1
2-Methylphenol	95-48-7	1	mg/kg		----	----	----	----	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	----	----	<1
2-Nitrophenol	88-75-5	1	mg/kg		----	----	----	----	<1
2,4-Dimethylphenol	105-67-9	1	mg/kg		----	----	----	----	<1
2,4-Dinitrophenol	51-28-5	5	mg/kg		----	----	----	----	<5
4-Nitrophenol	100-02-7	5	mg/kg		----	----	----	----	<5
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg		----	----	----	----	<5
Dinoseb	88-85-7	5	mg/kg		----	----	----	----	<5
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg		----	----	----	----	<5
^ Cresols (Total)	----	1	mg/kg		----	----	----	----	<1
^ Sum of Phenols (non-halogenated)	----	1	mg/kg		----	----	----	----	<1
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	----	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		----	----	----	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	----	----	<0.5
Fluorene	86-73-7	0.5	mg/kg		----	----	----	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		----	----	----	----	<0.5
Anthracene	120-12-7	0.5	mg/kg		----	----	----	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		----	----	----	----	<0.5
Pyrene	129-00-0	0.5	mg/kg		----	----	----	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	----	----	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022
					Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
Endosulfan 1	959-98-8	0.03	mg/kg		----	----	----	----	<0.03
4,4'-DDE	72-55-9	0.05	mg/kg		----	----	----	----	<0.05
Dieldrin	60-57-1	0.03	mg/kg		----	----	----	----	<0.03
Endrin aldehyde	7421-93-4	0.03	mg/kg		----	----	----	----	<0.03
Endrin	72-20-8	0.03	mg/kg		----	----	----	----	<0.03
Endosulfan 2	33213-65-9	0.03	mg/kg		----	----	----	----	<0.03
4,4'-DDD	72-54-8	0.05	mg/kg		----	----	----	----	<0.05
Endosulfan sulfate	1031-07-8	0.03	mg/kg		----	----	----	----	<0.03
4,4'-DDT	50-29-3	0.05	mg/kg		----	----	----	----	<0.05
Methoxychlor	72-43-5	0.03	mg/kg		----	----	----	----	<0.03
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.03	mg/kg		----	----	----	----	<0.03
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg		----	----	----	----	<0.05
[^] Chlordane	57-74-9	0.03	mg/kg		----	----	----	----	<0.03
[^] Sum of other organochlorine pesticides	----	0.03	mg/kg		----	----	----	----	<0.03
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	----
C6 - C9 Fraction	----	10	mg/kg		----	----	----	----	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	----
C10 - C14 Fraction	----	50	mg/kg		----	----	----	----	<50
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	----	<10
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	----
C15 - C28 Fraction	----	100	mg/kg		----	----	----	----	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	----
C29 - C36 Fraction	----	100	mg/kg		----	----	----	----	<100
[^] C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	----
[^] C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	----	<50



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	----
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	----	----	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	----	----	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	----	----	<100
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	----
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	----	----	<50
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	----	----	<50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	----	----	----	<10
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg		<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	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
[^] Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	----
[^] Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	----
EP095: Ethylenediamine Tetraacetic Acid (EDTA)									
Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg		----	----	----	----	<10
EP236: Dichlorophenoxyacetic Acid (2.4-D) and Tributyltin Oxide (TBTO)									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022	
				Result	Result	Result	Result	Result	
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO) - Continued									
2,4-D	94-75-7	0.001	mg/kg	----	----	----	----	----	<0.001
Tributyltin oxide	56-35-9	0.01	mg/kg	----	----	----	----	----	<0.01
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	----	----	93.2
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	----	----	----	----	----	81.4
Toluene-D8	2037-26-5	0.1	%	----	----	----	----	----	80.8
4-Bromofluorobenzene	460-00-4	0.1	%	----	----	----	----	----	85.5
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	89.4	83.9	88.6	103	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	95.1	88.7	95.8	111	----	----
2,4,6-Tribromophenol	118-79-6	0.5	%	78.6	75.2	71.7	84.8	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	89.8	84.8	87.6	102	----	----
Anthracene-d10	1719-06-8	0.5	%	117	108	114	117	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	108	100	106	124	----	----
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	----	----	----	----	----	82.0
2-Chlorophenol-D4	93951-73-6	0.025	%	----	----	----	----	----	82.1
2,4,6-Tribromophenol	118-79-6	0.025	%	----	----	----	----	----	61.9
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	----	----	----	----	----	75.8
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	----	----	----	----	----	81.9
2-Fluorobiphenyl	321-60-8	0.025	%	----	----	----	----	----	87.4
Anthracene-d10	1719-06-8	0.025	%	----	----	----	----	----	91.9
4-Terphenyl-d14	1718-51-0	0.025	%	----	----	----	----	----	96.4
EP080S: TPH(V)/BTEX Surrogates									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-015	EM2400571-016	EM2400571-018	EM2400571-020	EM2400571-022	
				Result	Result	Result	Result	Result	
EP080S: TPH(V)/BTEX Surrogates - Continued									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	77.6	83.3	94.8	79.8	----	
Toluene-D8	2037-26-5	0.2	%	71.5	76.7	78.5	72.2	----	
4-Bromofluorobenzene	460-00-4	0.2	%	87.1	92.0	96.9	89.4	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit	----	----	----	----	4.2	----
EA029-A: pH Measurements									
pH KCl (23A)	----	0.1	pH Unit	----	----	----	4.4	----	----
pH OX (23B)	----	0.1	pH Unit	----	----	----	3.9	----	----
EA029-B: Acidity Trail									
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	----	----	76	----	----
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	----	160	----	----
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	----	84	----	----
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	----	0.122	----	----
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	----	0.256	----	----
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	----	0.134	----	----
EA029-C: Sulfur Trail									
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	----	<0.020	----	----
Peroxide Sulfur (23De)	----	0.020	% S	----	----	----	0.028	----	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	----	<0.020	----	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	----	<10	----	----
EA029-D: Calcium Values									
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	----	<0.020	----	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	----	<0.020	----	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	----	<0.020	----	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	----	<10	----	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	----	<0.020	----	----
EA029-E: Magnesium Values									
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	----	0.032	----	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	----	0.032	----	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	----	<0.020	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EA029-E: Magnesium Values - Continued									
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	----	<10	----	
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	----	<0.020	----	
EA029-G: Retained Acidity									
HCl Extractable Sulfur (20Be)	----	0.020	% S	----	----	----	0.021	----	
Net Acid Soluble Sulfur (20Je)	----	0.020	% S	----	----	----	<0.020	----	
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	----	----	----	<10	----	
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S	----	----	----	<0.020	----	
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-	----	----	----	1.5	----	
Net Acidity (sulfur units)	----	0.02	% S	----	----	----	0.13	----	
Net Acidity (acidity units)	----	10	mole H+ / t	----	----	----	82	----	
Liming Rate	----	1	kg CaCO3/t	----	----	----	6	----	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	----	0.13	----	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	----	----	82	----	
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	----	----	6	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	----	----	----	----	22.7	
Moisture Content	----	1.0	%	23.8	26.3	19.8	28.4	----	
EG005(ED093)T: Total Metals by ICP-AES									
Antimony	7440-36-0	5	mg/kg	----	----	----	----	<5	
Barium	7440-39-3	10	mg/kg	----	----	----	----	50	
Beryllium	7440-41-7	1	mg/kg	----	----	----	----	<1	
Boron	7440-42-8	50	mg/kg	----	----	----	----	<50	
Molybdenum	7439-98-7	2	mg/kg	----	----	----	----	<2	
Selenium	7782-49-2	5	mg/kg	----	----	----	----	<5	
Silver	7440-22-4	2	mg/kg	----	----	----	----	<2	
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	45	49	25	53	----	
Copper	7440-50-8	5	mg/kg	<5	<5	8	6	6	
Lead	7439-92-1	5	mg/kg	11	11	24	12	13	
Nickel	7440-02-0	2	mg/kg	8	8	5	12	11	
Zinc	7440-66-6	5	mg/kg	<5	<5	19	5	11	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	----	----	----	----	<0.5	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg	----	----	----	----	<1	
EK030: Cyanide Amenable to Chlorination									
Cyanide amenable to chlorination	----	1	mg/kg	----	----	----	----	<1	
EK040T: Fluoride Total									
Fluoride	16984-48-8	40	mg/kg	----	----	----	----	<40	
EK055: Ammonia as N									
Ammonia as N	7664-41-7	20	mg/kg	<20	----	----	----	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	----	----	----	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg	0.1	----	----	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	0.1	----	----	----	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	450	----	----	----	----	
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg	450	----	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	118	----	----	----	----	----
EP010: Formaldehyde									
Formaldehyde	50-00-0	2	mg/kg	----	----	----	----	<2	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	----	<0.1	
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	----	<0.05	----	----	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	----	<0.05	----	----	
beta-BHC	319-85-7	0.05	mg/kg	----	----	<0.05	----	----	
gamma-BHC	58-89-9	0.05	mg/kg	----	----	<0.05	----	----	
delta-BHC	319-86-8	0.05	mg/kg	----	----	<0.05	----	----	
Heptachlor	76-44-8	0.05	mg/kg	----	----	<0.05	----	----	
Aldrin	309-00-2	0.05	mg/kg	----	----	<0.05	----	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	----	<0.05	----	----	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	----	<0.05	----	----	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	----	<0.05	----	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	----	<0.05	----	----	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	----	<0.05	----	----	
Dieldrin	60-57-1	0.05	mg/kg	----	----	<0.05	----	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	<0.05	----	----	
Endrin	72-20-8	0.05	mg/kg	----	----	<0.05	----	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	----	<0.05	----	----	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	----	<0.05	----	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	<0.05	----	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	----	<0.05	----	----	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	----	<0.05	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
4,4'-DDT	50-29-3	0.2	mg/kg	----	----	<0.2	----	----	
Endrin ketone	53494-70-5	0.05	mg/kg	----	----	<0.05	----	----	
Methoxychlor	72-43-5	0.2	mg/kg	----	----	<0.2	----	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	----	<0.05	----	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	----	----	<0.05	----	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	----	<0.05	----	----	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	----	<0.05	----	----	
Monocrotophos	6923-22-4	0.2	mg/kg	----	----	<0.2	----	----	
Dimethoate	60-51-5	0.05	mg/kg	----	----	<0.05	----	----	
Diazinon	333-41-5	0.05	mg/kg	----	----	<0.05	----	----	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	----	<0.05	----	----	
Parathion-methyl	298-00-0	0.2	mg/kg	----	----	<0.2	----	----	
Malathion	121-75-5	0.05	mg/kg	----	----	<0.05	----	----	
Fenthion	55-38-9	0.05	mg/kg	----	----	<0.05	----	----	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	----	<0.05	----	----	
Parathion	56-38-2	0.2	mg/kg	----	----	<0.2	----	----	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	----	----	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	----	----	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	----	----	
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	----	----	
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	----	----	
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	----	----	
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	----	----	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
Benzene	71-43-2	0.2	mg/kg	----	----	----	----	<0.2	
Toluene	108-88-3	0.5	mg/kg	----	----	----	----	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	----	----	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	----	----	<0.5	
Styrene	100-42-5	0.5	mg/kg	----	----	----	----	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	----	----	<0.5	
[^] Sum of monocyclic aromatic hydrocarbons	----	0.2	mg/kg	----	----	----	----	<0.2	
[^] Total Xylenes	----	0.5	mg/kg	----	----	----	----	<0.5	
EP074B: Oxygenated Compounds									
2-Butanone (MEK)	78-93-3	1	mg/kg	----	----	----	----	<1	
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg	----	----	----	----	<1	
EP074I: Volatile Halogenated Compounds									
Vinyl chloride	75-01-4	0.02	mg/kg	----	----	----	----	<0.02	
1,1-Dichloroethene	75-35-4	0.01	mg/kg	----	----	----	----	<0.01	
Methylene chloride	75-09-2	0.4	mg/kg	----	----	----	----	<0.4	
trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	----	----	----	----	<0.02	
cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	----	----	----	----	<0.01	
Chloroform	67-66-3	0.02	mg/kg	----	----	----	----	<0.02	
1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	----	----	----	----	<0.01	
Carbon Tetrachloride	56-23-5	0.01	mg/kg	----	----	----	----	<0.01	
1,2-Dichloroethane	107-06-2	0.02	mg/kg	----	----	----	----	<0.02	
Trichloroethene	79-01-6	0.02	mg/kg	----	----	----	----	<0.02	
1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	----	----	----	----	<0.04	
1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	----	----	----	----	<0.01	
Tetrachloroethene	127-18-4	0.02	mg/kg	----	----	----	----	<0.02	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP074I: Volatile Halogenated Compounds - Continued									
1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	----	----	----	----	----	<0.02
Hexachlorobutadiene	87-68-3	0.02	mg/kg	----	----	----	----	----	<0.02
Chlorobenzene	108-90-7	0.02	mg/kg	----	----	----	----	----	<0.02
1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	----	----	----	----	----	<0.02
1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	----	----	----	----	----	<0.02
1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	----	----	----	----	----	<0.01
^ Sum of volatile chlorinated hydrocarbons	----	0.01	mg/kg	----	----	----	----	----	<0.01
1.3.5-Trichlorobenzene	108-70-3	0.01	mg/kg	----	----	----	----	----	<0.01
1.2.3-Trichlorobenzene	87-61-6	0.01	mg/kg	----	----	----	----	----	<0.01
^ Sum of Trichlorobenzenes	----	0.01	mg/kg	----	----	----	----	----	<0.01
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	----	----
Benzo(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	----	----
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	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ 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	----	
EP075A: Phenolic Compounds (Halogenated)									
2-Chlorophenol	95-57-8	0.03	mg/kg	----	----	----	----	<0.03	
2,4-Dichlorophenol	120-83-2	0.03	mg/kg	----	----	----	----	<0.03	
2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	----	----	----	----	<0.05	
2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	----	----	----	----	<0.05	
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg	----	----	----	----	<1	
2-Methylphenol	95-48-7	1	mg/kg	----	----	----	----	<1	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	----	----	----	<1	
2-Nitrophenol	88-75-5	1	mg/kg	----	----	----	----	<1	
2,4-Dimethylphenol	105-67-9	1	mg/kg	----	----	----	----	<1	
2,4-Dinitrophenol	51-28-5	5	mg/kg	----	----	----	----	<5	
4-Nitrophenol	100-02-7	5	mg/kg	----	----	----	----	<5	
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	----	----	----	----	<5	
Dinoseb	88-85-7	5	mg/kg	----	----	----	----	<5	
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	----	----	----	----	<5	
^ Cresols (Total)	----	1	mg/kg	----	----	----	----	<1	
^ Sum of Phenols (non-halogenated)	----	1	mg/kg	----	----	----	----	<1	
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	----	----	----	----	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	----	----	----	----	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	----	----	<0.5	
Fluorene	86-73-7	0.5	mg/kg	----	----	----	----	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP075B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg	----	----	----	----	<0.5	
Anthracene	120-12-7	0.5	mg/kg	----	----	----	----	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	----	----	----	----	<0.5	
Pyrene	129-00-0	0.5	mg/kg	----	----	----	----	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	----	----	<0.5	
Chrysene	218-01-9	0.5	mg/kg	----	----	----	----	<0.5	
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	----	----	----	----	<1.0	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	----	----	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	----	----	<0.5	
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	----	----	----	----	<0.5	
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	----	----	----	----	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	----	----	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	----	----	<0.5	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	----	----	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	----	----	1.2	
EP075C: Phthalate Esters									
bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	----	----	----	----	<0.5	
EP075E: Nitroaromatics and Ketones									
Nitrobenzene	98-95-3	0.5	mg/kg	----	----	----	----	<0.5	
2,4-Dinitrotoluene	121-14-2	1.0	mg/kg	----	----	----	----	<1.0	
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.03	mg/kg	----	----	----	----	<0.03	
Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	----	----	----	----	<0.03	
beta-BHC	319-85-7	0.03	mg/kg	----	----	----	----	<0.03	
gamma-BHC	58-89-9	0.03	mg/kg	----	----	----	----	<0.03	
delta-BHC	319-86-8	0.03	mg/kg	----	----	----	----	<0.03	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time					17-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
Heptachlor	76-44-8	0.03	mg/kg	----	----	----	----	<0.03	
Aldrin	309-00-2	0.03	mg/kg	----	----	----	----	<0.03	
Heptachlor epoxide	1024-57-3	0.03	mg/kg	----	----	----	----	<0.03	
cis-Chlordane	5103-71-9	0.03	mg/kg	----	----	----	----	<0.03	
trans-Chlordane	5103-74-2	0.03	mg/kg	----	----	----	----	<0.03	
Endosulfan 1	959-98-8	0.03	mg/kg	----	----	----	----	<0.03	
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	----	----	<0.05	
Dieldrin	60-57-1	0.03	mg/kg	----	----	----	----	<0.03	
Endrin aldehyde	7421-93-4	0.03	mg/kg	----	----	----	----	<0.03	
Endrin	72-20-8	0.03	mg/kg	----	----	----	----	<0.03	
Endosulfan 2	33213-65-9	0.03	mg/kg	----	----	----	----	<0.03	
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	----	----	<0.05	
Endosulfan sulfate	1031-07-8	0.03	mg/kg	----	----	----	----	<0.03	
4,4'-DDT	50-29-3	0.05	mg/kg	----	----	----	----	<0.05	
Methoxychlor	72-43-5	0.03	mg/kg	----	----	----	----	<0.03	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.03	mg/kg	----	----	----	----	<0.03	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg	----	----	----	----	<0.05	
[^] Chlordane	57-74-9	0.03	mg/kg	----	----	----	----	<0.03	
[^] Sum of other organochlorine pesticides	----	0.03	mg/kg	----	----	----	----	<0.03	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	----	<10	<10	----	
C6 - C9 Fraction	----	10	mg/kg	----	----	----	----	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	----	<50	<50	----	
C10 - C14 Fraction	----	50	mg/kg	----	----	----	----	<50	
C6 - C10 Fraction	C6_C10	10	mg/kg	----	----	----	----	<10	
C15 - C28 Fraction	----	100	mg/kg	<100	----	<100	<100	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP080/071: Total Petroleum Hydrocarbons - Continued									
C15 - C28 Fraction	----	100	mg/kg	----	----	----	----	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	----	<100	<100	----	
C29 - C36 Fraction	----	100	mg/kg	----	----	----	----	<100	
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	<50	<50	----	
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	----	----	<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	----	
>C10 - C16 Fraction	----	50	mg/kg	----	----	----	----	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	----	<100	<100	----	
>C16 - C34 Fraction	----	100	mg/kg	----	----	----	----	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	----	<100	<100	----	
>C34 - C40 Fraction	----	100	mg/kg	----	----	----	----	<100	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	<50	<50	----	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	----	----	<50	
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	<50	<50	----	
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	----	----	<50	
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	----	----	----	----	<10	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	----	<0.2	<0.2	----	
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	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP080: BTEXN - Continued									
^ 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	----	
EP095: Ethylenediamine Tetraacetic Acid (EDTA)									
Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg	----	----	----	----	<10	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	----	<0.001	----	<0.001	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	----	<0.0005	----	<0.0005	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	----	<0.0005	----	<0.0005	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	----	<0.0005	----	<0.0005	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	----	<0.0005	----	<0.0005	
EP231P: PFAS Sums									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	
Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	<0.0002	----	<0.0002	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)									
2,4-D	94-75-7	0.001	mg/kg	----	----	----	----	<0.001	
Tributyltin oxide	56-35-9	0.01	mg/kg	----	----	----	----	<0.01	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	----	97.4	
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	98.4	----	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	----	109	----	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	----	119	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	----	----	----	----	86.3	
Toluene-D8	2037-26-5	0.1	%	----	----	----	----	87.2	
4-Bromofluorobenzene	460-00-4	0.1	%	----	----	----	----	89.6	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	87.7	----	88.7	80.3	----	
2-Chlorophenol-D4	93951-73-6	0.5	%	87.0	----	92.4	86.1	----	
2,4,6-Tribromophenol	118-79-6	0.5	%	70.6	----	83.7	69.3	----	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	85.7	----	90.7	80.4	----	
Anthracene-d10	1719-06-8	0.5	%	93.2	----	110	107	----	
4-Terphenyl-d14	1718-51-0	0.5	%	84.4	----	104	97.7	----	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	----	----	----	----	91.9	
2-Chlorophenol-D4	93951-73-6	0.025	%	----	----	----	----	91.0	
2,4,6-Tribromophenol	118-79-6	0.025	%	----	----	----	----	83.7	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	----	----	----	----	82.9	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
Sampling date / time				17-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-023	EM2400571-024	EM2400571-026	EM2400571-027	EM2400571-029	
				Result	Result	Result	Result	Result	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification) - Continued									
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%	----	----	----	----	88.6	
2-Fluorobiphenyl	321-60-8	0.025	%	----	----	----	----	99.4	
Anthracene-d10	1719-06-8	0.025	%	----	----	----	----	97.5	
4-Terphenyl-d14	1718-51-0	0.025	%	----	----	----	----	104	
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%	87.2	----	76.4	80.6	----	
Toluene-D8	2037-26-5	0.2	%	80.7	----	68.9	73.9	----	
4-Bromofluorobenzene	460-00-4	0.2	%	98.6	----	84.2	91.4	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	97.9	----	98.2	----	99.2	
13C8-PFOA	----	0.0002	%	96.6	----	104	----	95.8	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time				17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit	----	----	----	4.5	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	----	----	----	31.2	----	
Moisture Content	----	1.0	%	24.1	31.5	31.2	----	22.6	
ED040S : Soluble Sulfate by ICPAES									
Sulfate as SO4 2-	14808-79-8	10	mg/kg	10	----	----	----	----	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg	60	----	----	----	----	
ED093S: Soluble Major Cations									
Calcium	7440-70-2	10	mg/kg	<10	----	----	----	----	
Magnesium	7439-95-4	10	mg/kg	<10	----	----	----	----	
Sodium	7440-23-5	10	mg/kg	50	----	----	----	----	
Potassium	7440-09-7	10	mg/kg	<10	----	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Antimony	7440-36-0	5	mg/kg	----	----	----	<5	----	
Barium	7440-39-3	10	mg/kg	----	----	----	40	----	
Beryllium	7440-41-7	1	mg/kg	----	----	----	<1	----	
Boron	7440-42-8	50	mg/kg	----	----	----	<50	----	
Molybdenum	7439-98-7	2	mg/kg	----	----	----	<2	----	
Selenium	7782-49-2	5	mg/kg	----	----	----	<5	----	
Silver	7440-22-4	2	mg/kg	----	----	----	<2	----	
Arsenic	7440-38-2	5	mg/kg	<5	6	5	6	7	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	53	50	56	----	60	
Copper	7440-50-8	5	mg/kg	6	8	6	15	15	
Lead	7439-92-1	5	mg/kg	12	15	12	18	17	
Nickel	7440-02-0	2	mg/kg	10	12	11	13	13	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time				17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Zinc	7440-66-6	5	mg/kg	<5	14	<5	6	6	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	----	----	----	<0.5	----	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg	----	----	----	<1	----	
EK030: Cyanide Amenable to Chlorination									
Cyanide amenable to chlorination	----	1	mg/kg	----	----	----	<1	----	
EK040T: Fluoride Total									
Fluoride	16984-48-8	40	mg/kg	----	----	----	<40	----	
EK055: Ammonia as N									
Ammonia as N	7664-41-7	20	mg/kg	----	----	<20	----	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	----	----	<0.1	----	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg	----	----	0.2	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	----	----	0.2	----	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	----	----	1230	----	----	
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg	----	----	1230	----	----	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	----	----	172	----	----	
EP010: Formaldehyde									
Formaldehyde	50-00-0	2	mg/kg	----	----	----	<2	----	
EP066: Polychlorinated Biphenyls (PCB)									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time				17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP066: Polychlorinated Biphenyls (PCB) - Continued									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	<0.1	----	
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	----	----	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	----	----	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	----	----	
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	----	----	
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	----	----	----	
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	----	----	
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	----	----	----	
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	----	----	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	----	----	----	
[^] Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	----	----	----	
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	----	----	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	----	----	----	
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	----	----	----	
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----	
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	----	----	----	
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	----	----	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	----	----	----	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	----	----	----	
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	----	----	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	----	----	----	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	----	----	----	
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	----	----	----	
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	----	----	----	
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	----	----	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time					17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00
Compound	CAS Number	LOR	Unit		EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg		<0.05	<0.05	----	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	----	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	----	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	----	----	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	----	----	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	----	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	----	----	----
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	----	----	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	----	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	----	----	----
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg		----	----	----	<0.2	----
Toluene	108-88-3	0.5	mg/kg		----	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	----	<0.5	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time					17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
Styrene	100-42-5	0.5	mg/kg	----	----	----	<0.5	----	
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	----	<0.5	----	
[^] Sum of monocyclic aromatic hydrocarbons	----	0.2	mg/kg	----	----	----	<0.2	----	
[^] Total Xylenes	----	0.5	mg/kg	----	----	----	<0.5	----	
EP074B: Oxygenated Compounds									
2-Butanone (MEK)	78-93-3	1	mg/kg	----	----	----	<1	----	
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg	----	----	----	<1	----	
EP074I: Volatile Halogenated Compounds									
Vinyl chloride	75-01-4	0.02	mg/kg	----	----	----	<0.02	----	
1.1-Dichloroethene	75-35-4	0.01	mg/kg	----	----	----	<0.01	----	
Methylene chloride	75-09-2	0.4	mg/kg	----	----	----	<0.4	----	
trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	----	----	----	<0.02	----	
cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	----	----	----	<0.01	----	
Chloroform	67-66-3	0.02	mg/kg	----	----	----	<0.02	----	
1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	----	----	----	<0.01	----	
Carbon Tetrachloride	56-23-5	0.01	mg/kg	----	----	----	<0.01	----	
1.2-Dichloroethane	107-06-2	0.02	mg/kg	----	----	----	<0.02	----	
Trichloroethene	79-01-6	0.02	mg/kg	----	----	----	<0.02	----	
1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	----	----	----	<0.04	----	
1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	----	----	----	<0.01	----	
Tetrachloroethene	127-18-4	0.02	mg/kg	----	----	----	<0.02	----	
1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	----	----	----	<0.02	----	
Hexachlorobutadiene	87-68-3	0.02	mg/kg	----	----	----	<0.02	----	
Chlorobenzene	108-90-7	0.02	mg/kg	----	----	----	<0.02	----	
1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	----	----	----	<0.02	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time					17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00
Compound	CAS Number	LOR	Unit		EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036
					Result	Result	Result	Result	Result
EP074I: Volatile Halogenated Compounds - Continued									
1.2-Dichlorobenzene	95-50-1	0.02	mg/kg		----	----	----	<0.02	----
1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg		----	----	----	<0.01	----
[^] Sum of volatile chlorinated hydrocarbons	----	0.01	mg/kg		----	----	----	<0.01	----
1.3.5-Trichlorobenzene	108-70-3	0.01	mg/kg		----	----	----	<0.01	----
1.2.3-Trichlorobenzene	87-61-6	0.01	mg/kg		----	----	----	<0.01	----
[^] Sum of Trichlorobenzenes	----	0.01	mg/kg		----	----	----	<0.01	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	----	<0.5
Pyrene	129-00-0	0.5	mg/kg		<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
Chrysene	218-01-9	0.5	mg/kg		<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
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<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
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<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
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<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
[^] Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<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
[^] Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		1.2	1.2	1.2	----	1.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time					17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP075A: Phenolic Compounds (Halogenated)									
2-Chlorophenol	95-57-8	0.03	mg/kg	----	----	----	<0.03	----	
2,4-Dichlorophenol	120-83-2	0.03	mg/kg	----	----	----	<0.03	----	
2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	----	----	----	<0.05	----	
2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	----	----	----	<0.05	----	
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg	----	----	----	<1	----	
2-Methylphenol	95-48-7	1	mg/kg	----	----	----	<1	----	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	----	----	<1	----	
2-Nitrophenol	88-75-5	1	mg/kg	----	----	----	<1	----	
2,4-Dimethylphenol	105-67-9	1	mg/kg	----	----	----	<1	----	
2,4-Dinitrophenol	51-28-5	5	mg/kg	----	----	----	<5	----	
4-Nitrophenol	100-02-7	5	mg/kg	----	----	----	<5	----	
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	----	----	----	<5	----	
Dinoseb	88-85-7	5	mg/kg	----	----	----	<5	----	
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	----	----	----	<5	----	
^ Cresols (Total)	----	1	mg/kg	----	----	----	<1	----	
^ Sum of Phenols (non-halogenated)	----	1	mg/kg	----	----	----	<1	----	
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	----	----	----	<0.5	----	
Acenaphthene	83-32-9	0.5	mg/kg	----	----	----	<0.5	----	
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	----	<0.5	----	
Fluorene	86-73-7	0.5	mg/kg	----	----	----	<0.5	----	
Phenanthrene	85-01-8	0.5	mg/kg	----	----	----	<0.5	----	
Anthracene	120-12-7	0.5	mg/kg	----	----	----	<0.5	----	
Fluoranthene	206-44-0	0.5	mg/kg	----	----	----	<0.5	----	
Pyrene	129-00-0	0.5	mg/kg	----	----	----	<0.5	----	
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	----	<0.5	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time				17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP075B: Polynuclear Aromatic Hydrocarbons - Continued									
Chrysene	218-01-9	0.5	mg/kg	----	----	----	<0.5	----	
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	----	----	----	<1.0	----	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	----	<0.5	----	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	----	<0.5	----	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	----	<0.5	----	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	----	<0.5	----	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	----	<0.5	----	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	----	<0.5	----	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	----	0.6	----	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	----	1.2	----	
EP075C: Phthalate Esters									
bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	----	----	----	<0.5	----	
EP075E: Nitroaromatics and Ketones									
Nitrobenzene	98-95-3	0.5	mg/kg	----	----	----	<0.5	----	
2,4-Dinitrotoluene	121-14-2	1.0	mg/kg	----	----	----	<1.0	----	
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.03	mg/kg	----	----	----	<0.03	----	
Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	----	----	----	<0.03	----	
beta-BHC	319-85-7	0.03	mg/kg	----	----	----	<0.03	----	
gamma-BHC	58-89-9	0.03	mg/kg	----	----	----	<0.03	----	
delta-BHC	319-86-8	0.03	mg/kg	----	----	----	<0.03	----	
Heptachlor	76-44-8	0.03	mg/kg	----	----	----	<0.03	----	
Aldrin	309-00-2	0.03	mg/kg	----	----	----	<0.03	----	
Heptachlor epoxide	1024-57-3	0.03	mg/kg	----	----	----	<0.03	----	
cis-Chlordane	5103-71-9	0.03	mg/kg	----	----	----	<0.03	----	
trans-Chlordane	5103-74-2	0.03	mg/kg	----	----	----	<0.03	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time					17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
Endosulfan 1	959-98-8	0.03	mg/kg	----	----	----	<0.03	----	
4.4'-DDE	72-55-9	0.05	mg/kg	----	----	----	<0.05	----	
Dieldrin	60-57-1	0.03	mg/kg	----	----	----	<0.03	----	
Endrin aldehyde	7421-93-4	0.03	mg/kg	----	----	----	<0.03	----	
Endrin	72-20-8	0.03	mg/kg	----	----	----	<0.03	----	
Endosulfan 2	33213-65-9	0.03	mg/kg	----	----	----	<0.03	----	
4.4'-DDD	72-54-8	0.05	mg/kg	----	----	----	<0.05	----	
Endosulfan sulfate	1031-07-8	0.03	mg/kg	----	----	----	<0.03	----	
4.4'-DDT	50-29-3	0.05	mg/kg	----	----	----	<0.05	----	
Methoxychlor	72-43-5	0.03	mg/kg	----	----	----	<0.03	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.03	mg/kg	----	----	----	<0.03	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	----	----	----	<0.05	----	
[^] Chlordane	57-74-9	0.03	mg/kg	----	----	----	<0.03	----	
[^] Sum of other organochlorine pesticides	----	0.03	mg/kg	----	----	----	<0.03	----	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	----	<10	
C6 - C9 Fraction	----	10	mg/kg	----	----	----	<10	----	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	<50	
C10 - C14 Fraction	----	50	mg/kg	----	----	----	<50	----	
C6 - C10 Fraction	C6_C10	10	mg/kg	----	----	----	<10	----	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
C15 - C28 Fraction	----	100	mg/kg	----	----	----	<100	----	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
C29 - C36 Fraction	----	100	mg/kg	----	----	----	<100	----	
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	<50	
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	----	<50	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time				17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	----	<10	
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	----	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	<50	
>C10 - C16 Fraction	----	50	mg/kg	----	----	----	<50	----	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
>C16 - C34 Fraction	----	100	mg/kg	----	----	----	<100	----	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
>C34 - C40 Fraction	----	100	mg/kg	----	----	----	<100	----	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	<50	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	----	<50	----	
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	<50	
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	----	<50	----	
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	----	----	----	<10	----	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<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	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
[^] Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2	
[^] Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	<1	
EP095: Ethylenediamine Tetraacetic Acid (EDTA)									
Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg	----	----	----	<10	----	
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time				17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO) - Continued									
2,4-D	94-75-7	0.001	mg/kg	----	----	----	<0.001	----	
Tributyltin oxide	56-35-9	0.01	mg/kg	----	----	----	<0.01	----	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	98.3	----	
Decachlorobiphenyl	2051-24-3	0.1	%	113	117	----	----	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	109	120	----	----	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	70.0	144	----	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	----	----	----	81.5	----	
Toluene-D8	2037-26-5	0.1	%	----	----	----	78.7	----	
4-Bromofluorobenzene	460-00-4	0.1	%	----	----	----	80.7	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	84.8	110	88.7	----	85.0	
2-Chlorophenol-D4	93951-73-6	0.5	%	91.2	116	95.4	----	92.9	
2,4,6-Tribromophenol	118-79-6	0.5	%	69.0	108	83.8	----	77.0	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	84.4	114	89.6	----	85.8	
Anthracene-d10	1719-06-8	0.5	%	113	115	117	----	115	
4-Terphenyl-d14	1718-51-0	0.5	%	103	132	114	----	106	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	----	----	----	87.6	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	----	----	----	85.4	----	
2,4,6-Tribromophenol	118-79-6	0.025	%	----	----	----	79.0	----	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	----	----	----	78.8	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
Sampling date / time				17-Jan-2024 00:00	17-Jan-2024 00:00	17-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-030	EM2400571-032	EM2400571-033	EM2400571-035	EM2400571-036	
				Result	Result	Result	Result	Result	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification) - Continued									
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%	----	----	----	82.3	----	
2-Fluorobiphenyl	321-60-8	0.025	%	----	----	----	97.2	----	
Anthracene-d10	1719-06-8	0.025	%	----	----	----	96.0	----	
4-Terphenyl-d14	1718-51-0	0.025	%	----	----	----	102	----	
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%	78.7	78.4	72.6	----	89.7	
Toluene-D8	2037-26-5	0.2	%	71.7	70.5	64.6	----	81.0	
4-Bromofluorobenzene	460-00-4	0.2	%	90.4	86.5	83.5	----	97.8	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit	----	----	4.6	----	----	
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit	----	----	----	5.4	----	
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm	----	----	----	16	----	
EA029-A: pH Measurements									
pH KCl (23A)	----	0.1	pH Unit	----	----	----	4.6	----	
pH OX (23B)	----	0.1	pH Unit	----	----	----	4.8	----	
EA029-B: Acidity Trail									
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	----	----	38	----	
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	----	65	----	
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	----	28	----	
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	----	0.060	----	
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	----	0.105	----	
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	----	0.044	----	
EA029-C: Sulfur Trail									
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	----	<0.020	----	
Peroxide Sulfur (23De)	----	0.020	% S	----	----	----	<0.020	----	
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	----	<0.020	----	
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	----	<10	----	
EA029-D: Calcium Values									
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	----	<0.020	----	
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	----	<0.020	----	
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	----	<0.020	----	
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	----	<10	----	
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	----	<0.020	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	16-Jan-2024 00:00	
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	
				Result	Result	Result	Result	Result	
EA029-E: Magnesium Values									
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	----	0.049	----	
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	----	0.049	----	
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	----	<0.020	----	
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	----	<10	----	
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	----	<0.020	----	
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-	----	----	----	1.5	----	
Net Acidity (sulfur units)	----	0.02	% S	----	----	----	0.06	----	
Net Acidity (acidity units)	----	10	mole H+ / t	----	----	----	38	----	
Liming Rate	----	1	kg CaCO3/t	----	----	----	3	----	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	----	0.06	----	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	----	----	38	----	
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	----	----	3	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	----	----	22.1	----	----	
Moisture Content	----	1.0	%	25.8	24.6	----	23.4	20.3	
EA080: Resistivity									
Resistivity at 25°C	----	1	ohm cm	----	----	----	62500	----	
EA167: Corrosion Classification (per AS2159-2009)									
∅ Exposure Classification - Concrete Piles Soil Condition A	----	-	-	----	----	----	Moderate	----	
∅ Exposure Classification - Concrete Piles Soil Condition B	----	-	-	----	----	----	Mild	----	
∅ Exposure Classification - Steel Piles Soil Condition A	----	-	-	----	----	----	Non Aggressive	----	
∅ Exposure Classification - Steel Piles Soil Condition B	----	-	-	----	----	----	Non Aggressive	----	
ED040S: Soluble Major Anions									
Sulfate as SO4 2-	14808-79-8	10	mg/kg	----	----	----	10	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	EM2400571-042
				Result	Result	Result	Result	Result	Result
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	10	mg/kg	----	----	----	<10	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Antimony	7440-36-0	5	mg/kg	----	----	<5	----	----	----
Barium	7440-39-3	10	mg/kg	----	----	70	----	----	----
Beryllium	7440-41-7	1	mg/kg	----	----	<1	----	----	----
Boron	7440-42-8	50	mg/kg	----	----	<50	----	----	----
Molybdenum	7439-98-7	2	mg/kg	----	----	<2	----	----	----
Selenium	7782-49-2	5	mg/kg	----	----	<5	----	----	----
Silver	7440-22-4	2	mg/kg	----	----	<2	----	----	----
Arsenic	7440-38-2	5	mg/kg	7	8	<5	<5	5	5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	21	108	----	71	76	76
Copper	7440-50-8	5	mg/kg	18	12	6	10	10	10
Lead	7439-92-1	5	mg/kg	8	25	18	16	16	16
Nickel	7440-02-0	2	mg/kg	34	24	13	19	18	18
Zinc	7440-66-6	5	mg/kg	41	8	7	6	6	6
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	----	----	<0.5	----	----	----
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg	----	----	<1	----	----	----
EK030: Cyanide Amenable to Chlorination									
Cyanide amenable to chlorination	----	1	mg/kg	----	----	<1	----	----	----
EK040T: Fluoride Total									
Fluoride	16984-48-8	40	mg/kg	----	----	<40	----	----	----
EP010: Formaldehyde									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	
				Result	Result	Result	Result	Result	
EP010: Formaldehyde - Continued									
Formaldehyde	50-00-0	2	mg/kg	----	----	<2	----	----	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	----	
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	----	
Toluene	108-88-3	0.5	mg/kg	----	----	<0.5	----	----	
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	----	----	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	----	----	
Styrene	100-42-5	0.5	mg/kg	----	----	<0.5	----	----	
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	----	----	
[^] Sum of monocyclic aromatic hydrocarbons	----	0.2	mg/kg	----	----	<0.2	----	----	
[^] Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	----	
EP074B: Oxygenated Compounds									
2-Butanone (MEK)	78-93-3	1	mg/kg	----	----	<1	----	----	
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg	----	----	<1	----	----	
EP074I: Volatile Halogenated Compounds									
Vinyl chloride	75-01-4	0.02	mg/kg	----	----	<0.02	----	----	
1,1-Dichloroethene	75-35-4	0.01	mg/kg	----	----	<0.01	----	----	
Methylene chloride	75-09-2	0.4	mg/kg	----	----	<0.4	----	----	
trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	----	----	<0.02	----	----	
cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	----	----	<0.01	----	----	
Chloroform	67-66-3	0.02	mg/kg	----	----	<0.02	----	----	
1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	----	----	<0.01	----	----	
Carbon Tetrachloride	56-23-5	0.01	mg/kg	----	----	<0.01	----	----	
1,2-Dichloroethane	107-06-2	0.02	mg/kg	----	----	<0.02	----	----	
Trichloroethene	79-01-6	0.02	mg/kg	----	----	<0.02	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042
					Result	Result	Result	Result	Result
EP074I: Volatile Halogenated Compounds - Continued									
1.1.2-Trichloroethane	79-00-5	0.04	mg/kg		----	----	<0.04	----	----
1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg		----	----	<0.01	----	----
Tetrachloroethene	127-18-4	0.02	mg/kg		----	----	<0.02	----	----
1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg		----	----	<0.02	----	----
Hexachlorobutadiene	87-68-3	0.02	mg/kg		----	----	<0.02	----	----
Chlorobenzene	108-90-7	0.02	mg/kg		----	----	<0.02	----	----
1.4-Dichlorobenzene	106-46-7	0.02	mg/kg		----	----	<0.02	----	----
1.2-Dichlorobenzene	95-50-1	0.02	mg/kg		----	----	<0.02	----	----
1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg		----	----	<0.01	----	----
[^] Sum of volatile chlorinated hydrocarbons	----	0.01	mg/kg		----	----	<0.01	----	----
1.3.5-Trichlorobenzene	108-70-3	0.01	mg/kg		----	----	<0.01	----	----
1.2.3-Trichlorobenzene	87-61-6	0.01	mg/kg		----	----	<0.01	----	----
[^] Sum of Trichlorobenzenes	----	0.01	mg/kg		----	----	<0.01	----	----
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
Benzo(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
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



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
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	
EP075A: Phenolic Compounds (Halogenated)									
2-Chlorophenol	95-57-8	0.03	mg/kg	----	----	<0.03	----	----	
2,4-Dichlorophenol	120-83-2	0.03	mg/kg	----	----	<0.03	----	----	
2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	----	----	<0.05	----	----	
2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	----	----	<0.05	----	----	
EP075A: Phenolic Compounds (Non-halogenated)									
Phenol	108-95-2	1	mg/kg	----	----	<1	----	----	
2-Methylphenol	95-48-7	1	mg/kg	----	----	<1	----	----	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	----	<1	----	----	
2-Nitrophenol	88-75-5	1	mg/kg	----	----	<1	----	----	
2,4-Dimethylphenol	105-67-9	1	mg/kg	----	----	<1	----	----	
2,4-Dinitrophenol	51-28-5	5	mg/kg	----	----	<5	----	----	
4-Nitrophenol	100-02-7	5	mg/kg	----	----	<5	----	----	
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	----	----	<5	----	----	
Dinoseb	88-85-7	5	mg/kg	----	----	<5	----	----	
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	----	----	<5	----	----	
^ Cresols (Total)	----	1	mg/kg	----	----	<1	----	----	
^ Sum of Phenols (non-halogenated)	----	1	mg/kg	----	----	<1	----	----	
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	----	----	<0.5	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	EM2400571-042
				Result	Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	----	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	----	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg	----	----	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg	----	----	<0.5	----	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	----	----	<1.0	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	----	----
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	----	----
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	0.6	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	1.2	----	----	----
EP075C: Phthalate Esters									
bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	----	----	<0.5	----	----	----
EP075E: Nitroaromatics and Ketones									
Nitrobenzene	98-95-3	0.5	mg/kg	----	----	<0.5	----	----	----
2,4-Dinitrotoluene	121-14-2	1.0	mg/kg	----	----	<1.0	----	----	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.03	mg/kg	----	----	<0.03	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	----	----	<0.03	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	EM2400571-042
				Result	Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
beta-BHC	319-85-7	0.03	mg/kg	----	----	<0.03	----	----	----
gamma-BHC	58-89-9	0.03	mg/kg	----	----	<0.03	----	----	----
delta-BHC	319-86-8	0.03	mg/kg	----	----	<0.03	----	----	----
Heptachlor	76-44-8	0.03	mg/kg	----	----	<0.03	----	----	----
Aldrin	309-00-2	0.03	mg/kg	----	----	<0.03	----	----	----
Heptachlor epoxide	1024-57-3	0.03	mg/kg	----	----	<0.03	----	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	----	----	<0.03	----	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	----	----	<0.03	----	----	----
Endosulfan 1	959-98-8	0.03	mg/kg	----	----	<0.03	----	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	<0.05	----	----	----
Dieldrin	60-57-1	0.03	mg/kg	----	----	<0.03	----	----	----
Endrin aldehyde	7421-93-4	0.03	mg/kg	----	----	<0.03	----	----	----
Endrin	72-20-8	0.03	mg/kg	----	----	<0.03	----	----	----
Endosulfan 2	33213-65-9	0.03	mg/kg	----	----	<0.03	----	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	<0.05	----	----	----
Endosulfan sulfate	1031-07-8	0.03	mg/kg	----	----	<0.03	----	----	----
4,4'-DDT	50-29-3	0.05	mg/kg	----	----	<0.05	----	----	----
Methoxychlor	72-43-5	0.03	mg/kg	----	----	<0.03	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.03	mg/kg	----	----	<0.03	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	----	----	<0.05	----	----	----
^ Chlordane	57-74-9	0.03	mg/kg	----	----	<0.03	----	----	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	----	----	<0.03	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	----	----	<10	----	<10
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	----	----	<50	----	<50



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit		EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C10 - C14 Fraction	----	50	mg/kg	----	----	----	<50	----	----
C6 - C10 Fraction	C6_C10	10	mg/kg	----	----	----	<10	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	----	----	----	<100	<100
C15 - C28 Fraction	----	100	mg/kg	----	----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	160	----	----	----	<100	<100
C29 - C36 Fraction	----	100	mg/kg	----	----	----	<100	----	----
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	160	----	----	----	<50	<50
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	----	<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
>C10 - C16 Fraction	----	50	mg/kg	----	----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	180	----	----	----	<100	<100
>C16 - C34 Fraction	----	100	mg/kg	----	----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	----	----	----	<100	----	----
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	180	----	----	----	<50	<50
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	----	<50	----	----
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	----	----	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	----	<50	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	----	----	----	<10	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	----	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time				16-Jan-2024 00:00					
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	
				Result	Result	Result	Result	Result	
EP080: BTEXN - Continued									
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	
EP095: Ethylenediamine Tetraacetic Acid (EDTA)									
Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg	----	----	<10	----	----	
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)									
2,4-D	94-75-7	0.001	mg/kg	----	----	<0.001	----	----	
Tributyltin oxide	56-35-9	0.01	mg/kg	----	----	<0.01	----	----	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	95.7	----	----	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	----	----	72.7	----	----	
Toluene-D8	2037-26-5	0.1	%	----	----	70.2	----	----	
4-Bromofluorobenzene	460-00-4	0.1	%	----	----	75.0	----	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	88.1	----	----	83.9	87.4	
2-Chlorophenol-D4	93951-73-6	0.5	%	93.4	----	----	89.8	92.8	
2,4,6-Tribromophenol	118-79-6	0.5	%	94.0	----	----	74.6	76.5	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	92.4	----	----	83.7	86.0	
Anthracene-d10	1719-06-8	0.5	%	112	----	----	111	113	
4-Terphenyl-d14	1718-51-0	0.5	%	105	----	----	101	104	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	----	----	85.8	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
Sampling date / time					16-Jan-2024 00:00				
Compound	CAS Number	LOR	Unit	EM2400571-038	EM2400571-039	EM2400571-040	EM2400571-041	EM2400571-042	EM2400571-042
				Result	Result	Result	Result	Result	Result
EP075S: Acid Extractable Surrogates (Waste Classification) - Continued									
2-Chlorophenol-D4	93951-73-6	0.025	%	----	----	84.5	----	----	----
2.4.6-Tribromophenol	118-79-6	0.025	%	----	----	85.1	----	----	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	----	----	76.4	----	----	----
1.2-Dichlorobenzene-D4	2199-69-1	0.025	%	----	----	79.9	----	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	----	----	86.8	----	----	----
Anthracene-d10	1719-06-8	0.025	%	----	----	96.2	----	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	----	----	100	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%	73.4	----	----	82.4	80.5	80.5
Toluene-D8	2037-26-5	0.2	%	65.0	----	----	73.8	74.0	74.0
4-Bromofluorobenzene	460-00-4	0.2	%	83.9	----	----	90.9	93.7	93.7



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID		BH15_0.1	BH15_1.0	----	----	----
		Sampling date / time		16-Jan-2024 00:00	16-Jan-2024 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EM2400571-045	EM2400571-047	-----	-----	-----
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	20.5	23.9	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	6	6	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Chromium	7440-47-3	2	mg/kg	58	69	----	----	----
Copper	7440-50-8	5	mg/kg	13	5	----	----	----
Lead	7439-92-1	5	mg/kg	23	15	----	----	----
Nickel	7440-02-0	2	mg/kg	16	12	----	----	----
Zinc	7440-66-6	5	mg/kg	18	<5	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	----	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	----	----	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	----	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	----	----	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	----	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	----	----	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH15_0.1	BH15_1.0	----	----	----
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	EM2400571-045	EM2400571-047	-----	-----	-----	
				Result	Result	----	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	----	----	----	----	
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	----	----	----	
[^] Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	----	----	----	----	
[^] Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	----	----	----	----	
[^] Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	----	----	----	----	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	----	----	----	----	
C10 - C14 Fraction	----	50	mg/kg	<50	----	----	----	----	
C15 - C28 Fraction	----	100	mg/kg	<100	----	----	----	----	
C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----	
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	----	----	----	----	
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
>C10 - C16 Fraction	----	50	mg/kg	<50	----	----	----	----	
>C16 - C34 Fraction	----	100	mg/kg	<100	----	----	----	----	
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----	
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	----	----	----	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	----	
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	----	----	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	----	----	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	----	----	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	----	----	
[^] Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH15_0.1	BH15_1.0	----	----	----
Sampling date / time				16-Jan-2024 00:00	16-Jan-2024 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	EM2400571-045	EM2400571-047	-----	-----	-----	
				Result	Result	----	----	----	
EP080: BTEXN - Continued									
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	----	----	----
Naphthalene	91-20-3	1	mg/kg	<1	----	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	83.7	----	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	87.6	----	----	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	82.0	----	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	85.8	----	----	----	----	----
Anthracene-d10	1719-06-8	0.5	%	108	----	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	101	----	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%	80.6	----	----	----	----	----
Toluene-D8	2037-26-5	0.2	%	74.2	----	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	88.1	----	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RB01	RB02	----	----	----
Sampling date / time				16-Jan-2024 00:00	17-Jan-2024 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	EM2400571-048	EM2400571-049	-----	-----	-----	
				Result	Result	----	----	----	
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	----	----	----	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	----	----	----	
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	----	----	----	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	----	----	----	
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	----	----	----	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	----	----	----	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	----	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	----	----	----	



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	41	122
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	62	128
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	40	139
EP074S: VOC Surrogates (Ultra-Trace)			
1,2-Dichloroethane-D4	17060-07-0	59	119
Toluene-D8	2037-26-5	55	117
4-Bromofluorobenzene	460-00-4	59	123
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	54	125
2-Chlorophenol-D4	93951-73-6	65	123
2,4,6-Tribromophenol	118-79-6	34	122
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	61	125
Anthracene-d10	1719-06-8	62	130
4-Terphenyl-d14	1718-51-0	67	133
EP075S: Acid Extractable Surrogates (Waste Classification)			
Phenol-d6	13127-88-3	63	134
2-Chlorophenol-D4	93951-73-6	60	125
2,4,6-Tribromophenol	118-79-6	54	129
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)			
Nitrobenzene-D5	4165-60-0	63	131
1,2-Dichlorobenzene-D4	2199-69-1	61	124
2-Fluorobiphenyl	321-60-8	69	131
Anthracene-d10	1719-06-8	70	133
4-Terphenyl-d14	1718-51-0	59	141
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	51	125
Toluene-D8	2037-26-5	55	125
4-Bromofluorobenzene	460-00-4	56	124
EP231S: PFAS Surrogate			
13C4-PFOS	----	68	136
13C8-PFOA	----	69	133

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Work Order : EM2400571
Client : JACOBS GROUP(AUSTRALIA)PTY LTD
Project : IA5000PB



Inter-Laboratory Testing

Analysis conducted by ALS Brisbane, NATA accreditation no. 825, site no. 818 (Chemistry) 18958 (Biology).

(SOIL) EK055: Ammonia as N

(SOIL) EA029-D: Calcium Values

(SOIL) EA029-E: Magnesium Values

(SOIL) EA029-F: Excess Acid Neutralising Capacity

(SOIL) EA029-H: Acid Base Accounting

(SOIL) EA029-G: Retained Acidity

(SOIL) EA029-A: pH Measurements

(SOIL) EA029-C: Sulfur Trail

(SOIL) EA029-B: Acidity Trail





Automated Guideline Comparison Report

Work Order	: EM2400571	Page	: 1 of 77
Client	: JACOBS GROUP(AUSTRALIA)PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: JORDAN PRESTIDGE	Address	: 4 Westall Rd Springvale VIC Australia 3171
Address	: Level 13, 452 Flinders Street MELBOURNE 3000	E-mail	: peter.ravlic@alsglobal.com
E-mail	: Jordan.Prestidge@jacobs.com	Telephone	: +6138549 9645
Telephone	: ----	Facsimile	: +61-3-8549 9626
Facsimile	: ----	Date Received	: 17-Jan-2024 14:20
Project	: IA5000PB	Date Analysed	: 18-Jan-2024
Order number	: TBC	Date Issued	: 31-Jan-2024 22:46
C-O-C number	: ----	Quote number	: EN/000
No. of samples received	: 47		
No. of samples analysed	: 34		

General Comments

Only results in the 'Analytical Results' section have been compared to the guideline.

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



Summary of Thresholds Reached or Exceeded

EPA Victoria Publication 1828.2 (2021) Table 3

Table 3: Fill material contamination total concentration upper limit

<i>Client Sample ID</i>	<i>ALS Sample ID</i>	<i>Compound</i>	<i>Method</i>	<i>LOR</i>	<i>Limits</i>	<i>Result</i>
BH05_0.1	EM2400571-012	Cadmium	EG005T	1	< 3 mg/kg	<5 mg/kg



Analytical Results

Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Guideline	Guideline					
				Lower Limit	Upper Limit					
				Sampling date/time		16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EG005(ED093)T: Total Metals by ICP-AES										
Antimony	EG005T	5	mg/kg	----	300	<5 ..	----	----	<5 ..	----
Arsenic	EG005T	5	mg/kg	----	2000	<5 ..	----	----	<5 ..	----
Barium	EG005T	10	mg/kg	----	25000	90 ±9	----	----	80 ±8	----
Beryllium	EG005T	1	mg/kg	----	400	<1 ..	----	----	<1 ..	----
Boron	EG005T	50	mg/kg	----	60000	<50 ..	----	----	<50 ..	----
Cadmium	EG005T	1	mg/kg	----	400	<1 ..	----	----	<1 ..	----
Copper	EG005T	5	mg/kg	----	20000	26 ±3	----	----	8 ±1	----
Lead	EG005T	5	mg/kg	----	6000	66 ±7	----	----	14 ±2	----
Molybdenum	EG005T	2	mg/kg	----	4000	<2 ..	----	----	<2 ..	----
Nickel	EG005T	2	mg/kg	----	12000	24 ±2	----	----	16 ±2	----
Selenium	EG005T	5	mg/kg	----	40000	<5 ..	----	----	<5 ..	----
Silver	EG005T	2	mg/kg	----	720	<2 ..	----	----	<2 ..	----
Zinc	EG005T	5	mg/kg	----	140000	96 ±11	----	----	<5 ..	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	300	<0.1 ..	----	----	<0.1 ..	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	<0.5 ..	----	----	<0.5 ..	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	10000	<1 ..	----	----	<1 ..	----
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	40000	110 ±30	----	----	<40 ..	----
EP010: Formaldehyde										
Formaldehyde	EP010	2	mg/kg	----	8000	<2	----	----	<2	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	16	<0.2 ..	----	----	<0.2 ..	----
Toluene	EP074-UT	0.5	mg/kg	----	12800	<0.5 ..	----	----	<0.5 ..	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	4800	<0.5 ..	----	----	<0.5 ..	----
Styrene	EP074-UT	0.5	mg/kg	----	480	<0.5 ..	----	----	<0.5 ..	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	9600	<0.5 ..	----	----	<0.5 ..	----
EP074B: Oxygenated Compounds										



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time						
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	32000	<1	----	----	<1	----
EP074I: Volatile Halogenated Compounds										
1,1-Dichloroethene	EP074-UT	0.01	mg/kg	----	480	<0.01	..	----	<0.01	..
Methylene chloride	EP074-UT	0.4	mg/kg	----	64	<0.4	..	----	<0.4	..
trans-1,2-Dichloroethene	EP074-UT	0.02	mg/kg	----	960	<0.02	..	----	<0.02	..
cis-1,2-Dichloroethene	EP074-UT	0.01	mg/kg	----	960	<0.01	..	----	<0.01	..
Chloroform	EP074-UT	0.02	mg/kg	----	960	<0.02	..	----	<0.02	..
1,1,1-Trichloroethane	EP074-UT	0.01	mg/kg	----	4800	<0.01	..	----	<0.01	..
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	48	<0.01	..	----	<0.01	..
1,2-Dichloroethane	EP074-UT	0.02	mg/kg	----	48	<0.02	..	----	<0.02	..
Trichloroethene	EP074-UT	0.02	mg/kg	----	80	<0.02	..	----	<0.02	..
1,1,2-Trichloroethane	EP074-UT	0.04	mg/kg	----	190	<0.04	..	----	<0.04	..
1,1,1,2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	1600	<0.01	..	----	<0.01	..
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	800	<0.02	..	----	<0.02	..
1,1,2,2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	210	<0.02	..	----	<0.02	..
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	11	<0.02	..	----	<0.02	..
Chlorobenzene	EP074-UT	0.02	mg/kg	----	4800	<0.02	..	----	<0.02	..
1,4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	640	<0.02	..	----	<0.02	..
1,2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	24000	<0.02	..	----	<0.02	..
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	480	<0.01		----	<0.01	
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	4800	<0.03	..	----	<0.03	..
2,4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	3200	<0.03	..	----	<0.03	..
2,4,5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	64000	<0.05	..	----	<0.05	..
2,4,6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	320	<0.05	..	----	<0.05	..
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	32000	<1		----	<1	
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	2200	<1	..	----	<1	..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	160	<0.5	..	----	<0.5	..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	400	<0.5	..	----	<0.5	..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Guideline	Guideline					
				Lower Limit	Upper Limit					
					Sampling date/time	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	320	<0.5	----	----	<0.5	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	21	<1.0	----	----	<1.0	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	4.8	<0.03 ..	----	----	<0.03 ..	----
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	4.8	<0.03 ..	----	----	<0.03 ..	----
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	<0.05 ..	----	----	<0.05 ..	----
Chlordane	EP075-EM	0.03	mg/kg	----	16	<0.03 ..	----	----	<0.03 ..	----
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	50	<0.03 ..	----	----	<0.03 ..	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	2600	<10 ..	----	----	<10 ..	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<50 ..	----	----	<50 ..	----
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	10	<0.01 ..	----	----	<0.01 ..	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU	
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	<5	--	----	----	<5	--	----
Arsenic	EG005T	5	mg/kg	----	500	<5	--	----	----	<5	--	----
Barium	EG005T	10	mg/kg	----	6250	90	±9	----	----	80	±8	----
Beryllium	EG005T	1	mg/kg	----	100	<1	--	----	----	<1	--	----
Boron	EG005T	50	mg/kg	----	15000	<50	--	----	----	<50	--	----
Cadmium	EG005T	1	mg/kg	----	100	<1	--	----	----	<1	--	----
Copper	EG005T	5	mg/kg	----	5000	26	±3	----	----	8	±1	----
Lead	EG005T	5	mg/kg	----	1500	66	±7	----	----	14	±2	----
Molybdenum	EG005T	2	mg/kg	----	1000	<2	--	----	----	<2	--	----
Nickel	EG005T	2	mg/kg	----	3000	24	±2	----	----	16	±2	----
Selenium	EG005T	5	mg/kg	----	10000	<5	--	----	----	<5	--	----
Silver	EG005T	2	mg/kg	----	180	<2	--	----	----	<2	--	----
Zinc	EG005T	5	mg/kg	----	35000	96	±11	----	----	<5	--	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1	--	----	----	<0.1	--	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	--	----	----	<0.5	--	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	<1	--	----	----	<1	--	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	110	±30	----	----	<40	--	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	<2	--	----	----	<2	--	----
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	50	<0.1	--	----	----	<0.1	--	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2	--	----	----	<0.2	--	----
Toluene	EP074-UT	0.5	mg/kg	----	3200	<0.5	--	----	----	<0.5	--	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	<0.5	--	----	----	<0.5	--	----
Styrene	EP074-UT	0.5	mg/kg	----	120	<0.5	--	----	----	<0.5	--	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	<0.5	--	----	----	<0.5	--	----
EP074B: Oxygenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time						
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	<1	----	----	<1	----
EP074I: Volatile Halogenated Compounds										
1,1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	<0.01	..	----	<0.01	..
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	<0.4	..	----	<0.4	..
trans-1,2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	<0.02	..	----	<0.02	..
cis-1,2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	<0.01	..	----	<0.01	..
Chloroform	EP074-UT	0.02	mg/kg	----	240	<0.02	..	----	<0.02	..
1,1,1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	<0.01	..	----	<0.01	..
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	<0.01	..	----	<0.01	..
1,2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	<0.02	..	----	<0.02	..
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	<0.02	..	----	<0.02	..
1,1,2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	<0.04	..	----	<0.04	..
1,1,1,2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	<0.01	..	----	<0.01	..
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	<0.02	..	----	<0.02	..
1,1,2,2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	<0.02	..	----	<0.02	..
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	<0.02	..	----	<0.02	..
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	<0.02	..	----	<0.02	..
1,4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	<0.02	..	----	<0.02	..
1,2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	<0.02	..	----	<0.02	..
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	<0.01		----	<0.01	
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	<0.03	..	----	<0.03	..
2,4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	<0.03	..	----	<0.03	..
2,4,5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	<0.05	..	----	<0.05	..
2,4,6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	<0.05	..	----	<0.05	..
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	<1		----	<1	
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	<1	..	----	<1	..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	40	<0.5	..	----	<0.5	..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	100	<0.5	..	----	<0.5	..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	<0.5	----	----	<0.5	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	<1.0	----	----	<1.0	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	<0.03 ..	----	----	<0.03 ..	----
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	<0.03 ..	----	----	<0.03 ..	----
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	<0.05 ..	----	----	<0.05 ..	----
Chlordane	EP075-EM	0.03	mg/kg	----	4	<0.03 ..	----	----	<0.03 ..	----
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	<0.03 ..	----	----	<0.03 ..	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	650	<10 ..	----	----	<10 ..	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<50 ..	----	----	<50 ..	----
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	<0.01 ..	----	----	<0.01 ..	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU	
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	<5	--	----	----	<5	--	----
Arsenic	EG005T	5	mg/kg	----	500	<5	--	----	----	<5	--	----
Barium	EG005T	10	mg/kg	----	6250	90	±9	----	----	80	±8	----
Beryllium	EG005T	1	mg/kg	----	100	<1	--	----	----	<1	--	----
Boron	EG005T	50	mg/kg	----	15000	<50	--	----	----	<50	--	----
Cadmium	EG005T	1	mg/kg	----	100	<1	--	----	----	<1	--	----
Copper	EG005T	5	mg/kg	----	5000	26	±3	----	----	8	±1	----
Lead	EG005T	5	mg/kg	----	1500	66	±7	----	----	14	±2	----
Molybdenum	EG005T	2	mg/kg	----	1000	<2	--	----	----	<2	--	----
Nickel	EG005T	2	mg/kg	----	3000	24	±2	----	----	16	±2	----
Selenium	EG005T	5	mg/kg	----	10000	<5	--	----	----	<5	--	----
Silver	EG005T	2	mg/kg	----	180	<2	--	----	----	<2	--	----
Zinc	EG005T	5	mg/kg	----	35000	96	±11	----	----	<5	--	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	<0.1	--	----	----	<0.1	--	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	<0.5	--	----	----	<0.5	--	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	<1	--	----	----	<1	--	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	110	±30	----	----	<40	--	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	<2	--	----	----	<2	--	----
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1	--	----	----	<0.1	--	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2	--	----	----	<0.2	--	----
Toluene	EP074-UT	0.5	mg/kg	----	3200	<0.5	--	----	----	<0.5	--	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	<0.5	--	----	----	<0.5	--	----
Styrene	EP074-UT	0.5	mg/kg	----	120	<0.5	--	----	----	<0.5	--	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	<0.5	--	----	----	<0.5	--	----
EP074B: Oxygenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
								EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EP074B: Oxygenated Compounds - Continued												
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	<1	----	----	<1	----		
EP074I: Volatile Halogenated Compounds												
1,1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	<0.01	..	----	----	<0.01	..	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	<0.4	..	----	----	<0.4	..	----
trans-1,2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	<0.02	..	----	----	<0.02	..	----
cis-1,2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	<0.01	..	----	----	<0.01	..	----
Chloroform	EP074-UT	0.02	mg/kg	----	240	<0.02	..	----	----	<0.02	..	----
1,1,1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	<0.01	..	----	----	<0.01	..	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	<0.01	..	----	----	<0.01	..	----
1,2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	<0.02	..	----	----	<0.02	..	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	<0.02	..	----	----	<0.02	..	----
1,1,2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	<0.04	..	----	----	<0.04	..	----
1,1,1,2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	<0.01	..	----	----	<0.01	..	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	<0.02	..	----	----	<0.02	..	----
1,1,2,2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	<0.02	..	----	----	<0.02	..	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	<0.02	..	----	----	<0.02	..	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	<0.02	..	----	----	<0.02	..	----
1,4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	<0.02	..	----	----	<0.02	..	----
1,2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	<0.02	..	----	----	<0.02	..	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	<0.01		----	----	<0.01		----
EP075A: Phenolic Compounds (Halogenated)												
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	<0.03	..	----	----	<0.03	..	----
2,4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	<0.03	..	----	----	<0.03	..	----
2,4,5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	<0.05	..	----	----	<0.05	..	----
2,4,6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	<0.05	..	----	----	<0.05	..	----
EP075A: Phenolic Compounds (Non-halogenated)												
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	<1		----	----	<1		----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	<1	..	----	----	<1	..	----
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<0.5	..	----	----	<0.5	..	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	50	<0.5	..	----	----	<0.5	..	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time						
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	<0.5	----	----	<0.5	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	<1.0	----	----	<1.0	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	<0.03 ..	----	----	<0.03 ..	----
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	<0.03 ..	----	----	<0.03 ..	----
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	<0.05 ..	----	----	<0.05 ..	----
Chlordane	EP075-EM	0.03	mg/kg	----	4	<0.03 ..	----	----	<0.03 ..	----
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	<0.03 ..	----	----	<0.03 ..	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	325	<10 ..	----	----	<10 ..	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	5000	<50 ..	----	----	<50 ..	----
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	<0.01 ..	----	----	<0.01 ..	----



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time						
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	10	5.9 ± 0.08	----	----	4.3 ± 0.06	----
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	<5 ..	----	----	<5 ..	----
Cadmium	EG005T	1	mg/kg	----	3	<1 ..	----	----	<1 ..	----
Copper	EG005T	5	mg/kg	----	100	26 ± 3	----	----	8 ± 1	----
Lead	EG005T	5	mg/kg	----	300	66 ± 7	----	----	14 ± 2	----
Molybdenum	EG005T	2	mg/kg	----	40	<2 ..	----	----	<2 ..	----
Nickel	EG005T	2	mg/kg	----	60	24 ± 2	----	----	16 ± 2	----
Selenium	EG005T	5	mg/kg	----	10	<5 ..	----	----	<5 ..	----
Silver	EG005T	2	mg/kg	----	10	<2 ..	----	----	<2 ..	----
Zinc	EG005T	5	mg/kg	----	200	96 ± 11	----	----	<5 ..	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 ..	----	----	<0.1 ..	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1	<0.5 ..	----	----	<0.5 ..	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	50	<1 ..	----	----	<1 ..	----
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	450	110 ± 30	----	----	<40 ..	----
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 ..	----	----	<0.1 ..	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	<0.2 ..	----	----	<0.2 ..	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.2	mg/kg	----	7	<0.2 ..	----	----	<0.2 ..	----
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.01	mg/kg	----	1	<0.01 ..	----	----	<0.01 ..	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	60	<1 ..	----	----	<1 ..	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<0.5 ..	----	----	<0.5 ..	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	20	<0.5 ..	----	----	<0.5 ..	----
EP080/071: Total Petroleum Hydrocarbons										



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH01_0.1	BH01_1.0	BH02_0.1	BH02_0.5	BH03_0.1
				Sampling date/time		16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-001 MU	EM2400571-003 MU	EM2400571-004 MU	EM2400571-005 MU	EM2400571-006 MU
EP080/071: Total Petroleum Hydrocarbons - Continued										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	100	<10 --	----	----	<10 --	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<50 --	----	----	<50 --	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
							16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
							EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EG005(ED093T): Total Metals by ICP-AES											
Antimony	EG005T	5	mg/kg	----	300	----	----	----	<5	--	----
Arsenic	EG005T	5	mg/kg	----	2000	----	----	----	<5	--	----
Barium	EG005T	10	mg/kg	----	25000	----	----	----	40	±4	----
Beryllium	EG005T	1	mg/kg	----	400	----	----	----	<1	--	----
Boron	EG005T	50	mg/kg	----	60000	----	----	----	<50	--	----
Cadmium	EG005T	1	mg/kg	----	400	----	----	----	<5	--	----
Copper	EG005T	5	mg/kg	----	20000	----	----	----	54	±7	----
Lead	EG005T	5	mg/kg	----	6000	----	----	----	8	±1	----
Molybdenum	EG005T	2	mg/kg	----	4000	----	----	----	<2	--	----
Nickel	EG005T	2	mg/kg	----	12000	----	----	----	44	±4	----
Selenium	EG005T	5	mg/kg	----	40000	----	----	----	<5	--	----
Silver	EG005T	2	mg/kg	----	720	----	----	----	<2	--	----
Zinc	EG005T	5	mg/kg	----	140000	----	----	----	36	±5	----
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	300	----	----	----	<0.1	--	----
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	----	----	----	<0.5	--	----
EK026SF: Total CN by Segmented Flow Analyser											
Total Cyanide	EK026SF	1	mg/kg	----	10000	----	----	----	<1	--	----
EK040T: Fluoride Total											
Fluoride	EK040T	40	mg/kg	----	40000	----	----	----	<40	--	----
EP010: Formaldehyde											
Formaldehyde	EP010	2	mg/kg	----	8000	----	----	----	<2	--	----
EP074A: Monocyclic Aromatic Hydrocarbons											
Benzene	EP074-UT	0.2	mg/kg	----	16	----	----	----	<0.2	--	----
Toluene	EP074-UT	0.5	mg/kg	----	12800	----	----	----	<0.5	--	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	4800	----	----	----	<0.5	--	----
Styrene	EP074-UT	0.5	mg/kg	----	480	----	----	----	<0.5	--	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	9600	----	----	----	<0.5	--	----
EP074B: Oxygenated Compounds											
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	32000	----	----	----	<1	--	----
EP074I: Volatile Halogenated Compounds											



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5		
				Sampling date/time		Guideline	Guideline	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU		
EP074I: Volatile Halogenated Compounds - Continued												
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	480	----	----	----	<0.01	----		
Methylene chloride	EP074-UT	0.4	mg/kg	----	64	----	----	----	<0.4	----		
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	960	----	----	----	<0.02	----		
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	960	----	----	----	<0.01	----		
Chloroform	EP074-UT	0.02	mg/kg	----	960	----	----	----	<0.02	----		
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	4800	----	----	----	<0.01	----		
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	48	----	----	----	<0.01	----		
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	48	----	----	----	<0.02	----		
Trichloroethene	EP074-UT	0.02	mg/kg	----	80	----	----	----	<0.02	----		
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	190	----	----	----	<0.04	----		
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	1600	----	----	----	<0.01	----		
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	800	----	----	----	<0.02	----		
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	210	----	----	----	<0.02	----		
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	11	----	----	----	<0.02	----		
Chlorobenzene	EP074-UT	0.02	mg/kg	----	4800	----	----	----	<0.02	----		
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	640	----	----	----	<0.02	----		
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	24000	----	----	----	<0.02	----		
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	480	----	----	----	<0.01	----		
EP075A: Phenolic Compounds (Halogenated)												
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	4800	----	----	----	<0.03	----		
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	3200	----	----	----	<0.03	----		
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	64000	----	----	----	<0.05	----		
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	320	----	----	----	<0.05	----		
EP075A: Phenolic Compounds (Non-halogenated)												
Cresols (Total)	EP075-EM	1	mg/kg	----	32000	----	----	----	<1	----		
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	2200	----	----	----	<1	----		
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	160	----	----	----	<0.5	----		
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	400	----	----	----	<0.5	----		
EP075E: Nitroaromatics and Ketones												
Nitrobenzene	EP075-EM	0.5	mg/kg	----	320	----	----	----	<0.5	----		



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
							16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
							EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EP075E: Nitroaromatics and Ketones - Continued											
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg		----	21	----	----	----	<1.0	----
EP075I: Organochlorine Pesticides											
Heptachlor	EP075-EM	0.03	mg/kg		----	4.8	----	----	----	<0.03	--
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg		----	4.8	----	----	----	<0.03	--
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg		----	50	----	----	----	<0.05	--
Chlordane	EP075-EM	0.03	mg/kg		----	16	----	----	----	<0.03	--
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg		----	50	----	----	----	<0.03	--
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP074-UT	10	mg/kg		----	2600	----	----	----	<10	--
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg		----	40000	----	----	----	<50	--
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)											
Tributyltin oxide	EP236	0.01	mg/kg		----	10	----	----	----	<0.01	--



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EG005(ED093T): Total Metals by ICP-AES										
Antimony	EG005T	5	mg/kg	----	75	----	----	----	<5	--
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	<5	--
Barium	EG005T	10	mg/kg	----	6250	----	----	----	40	±4
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	<1	--
Boron	EG005T	50	mg/kg	----	15000	----	----	----	<50	--
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	<5	--
Copper	EG005T	5	mg/kg	----	5000	----	----	----	54	±7
Lead	EG005T	5	mg/kg	----	1500	----	----	----	8	±1
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	<2	--
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	44	±4
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	<5	--
Silver	EG005T	2	mg/kg	----	180	----	----	----	<2	--
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	36	±5
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	<0.1	--
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	<0.5	--
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	<1	--
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	<40	--
EP010: Formaldehyde										
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	<2	--
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	50	----	----	----	<0.1	--
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	<0.2	--
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	<0.5	--
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	<0.5	--
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	<0.5	--
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	<0.5	--
EP074B: Oxygenated Compounds										



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
				Sampling date/time		16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	<1	----
EP074I: Volatile Halogenated Compounds										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	<0.4	----
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	<0.01	----
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	<0.01	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	<0.01	----
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	<0.02	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	<0.02	----
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	<0.04	----
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	<0.01	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	<0.02	----
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	<0.02	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	<0.02	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	<0.02	----
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	<0.02	----
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	<0.02	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	<0.03	----
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	<0.03	----
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	<0.05	----
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	<0.05	----
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	<1	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	<1	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	40	----	----	----	<0.5	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	100	----	----	----	<0.5	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
				Sampling date/time		16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	<0.5	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	<1.0	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	<0.05	--
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	<0.03	--
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	<0.03	--
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	650	----	----	----	<10	--
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	----	----	----	<50	--
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	<0.01	--



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	17-Jan-2024	17-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU	
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	----	----	----	----	<5	--	----
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	----	<5	--	----
Barium	EG005T	10	mg/kg	----	6250	----	----	----	----	40	±4	----
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	----	<1	--	----
Boron	EG005T	50	mg/kg	----	15000	----	----	----	----	<50	--	----
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	----	<5	--	----
Copper	EG005T	5	mg/kg	----	5000	----	----	----	----	54	±7	----
Lead	EG005T	5	mg/kg	----	1500	----	----	----	----	8	±1	----
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	----	<2	--	----
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	----	44	±4	----
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	----	<5	--	----
Silver	EG005T	2	mg/kg	----	180	----	----	----	----	<2	--	----
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	----	36	±5	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	----	<0.1	--	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	----	<0.5	--	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	----	<1	--	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	----	<40	--	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	----	<2	--	----
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	----	<0.1	--	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	----	<0.2	--	----
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	----	<0.5	--	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	----	<0.5	--	----
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	----	<0.5	--	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	----	<0.5	--	----
EP074B: Oxygenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
				Sampling date/time						
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	<1	----
EP074I: Volatile Halogenated Compounds										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	<0.4	----
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	<0.01	----
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	<0.01	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	<0.01	----
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	<0.02	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	<0.02	----
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	<0.04	----
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	<0.01	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	<0.02	----
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	<0.02	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	<0.02	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	<0.02	----
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	<0.02	----
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	<0.02	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	<0.03	----
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	<0.03	----
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	<0.05	----
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	<0.05	----
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	<1	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	<1	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	----	----	----	<0.5	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	50	----	----	----	<0.5	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
				Sampling date/time		16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	<0.5	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	<1.0	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	<0.05	--
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	<0.03	--
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	<0.03	--
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	325	----	----	----	<10	--
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	5000	----	----	----	<50	--
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	<0.01	--



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5
				Sampling date/time						
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	10	----	----	----	4.1 ± 0.06	----
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	----	----	----	<5 --	----
Cadmium	EG005T	1	mg/kg	----	3	----	----	----	<5 --	----
Copper	EG005T	5	mg/kg	----	100	----	----	----	54 ± 7	----
Lead	EG005T	5	mg/kg	----	300	----	----	----	8 ± 1	----
Molybdenum	EG005T	2	mg/kg	----	40	----	----	----	<2 --	----
Nickel	EG005T	2	mg/kg	----	60	----	----	----	44 ± 4	----
Selenium	EG005T	5	mg/kg	----	10	----	----	----	<5 --	----
Silver	EG005T	2	mg/kg	----	10	----	----	----	<2 --	----
Zinc	EG005T	5	mg/kg	----	200	----	----	----	36 ± 5	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	----	----	----	<0.1 --	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1	----	----	----	<0.5 --	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	50	----	----	----	<1 --	----
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	450	----	----	----	<40 --	----
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	<0.1 --	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	----	----	----	<0.2 --	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.2	mg/kg	----	7	----	----	----	<0.2 --	----
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.01	mg/kg	----	1	----	----	----	<0.01 --	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	60	----	----	----	<1 --	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	----	----	----	<0.5 --	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	20	----	----	----	<0.5 --	----
EP080/071: Total Petroleum Hydrocarbons										



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH03_0.5	BH04_0.1	BH04_1.0	BH05_0.1	BH05_0.5		
				Sampling date/time		Guideline	Guideline	16-Jan-2024	16-Jan-2024	16-Jan-2024	17-Jan-2024	17-Jan-2024
				Lower Limit	Upper Limit	15:00	15:00	15:00	15:00	15:00		
						EM2400571-007 MU	EM2400571-009 MU	EM2400571-011 MU	EM2400571-012 MU	EM2400571-013 MU		
EP080/071: Total Petroleum Hydrocarbons - Continued												
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	100	----	----	----	<10	--		
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	----	----	----	<50	--		



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
							17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
							EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EG005(ED093T): Total Metals by ICP-AES											
Antimony	EG005T	5	mg/kg	----	300	----	----	----	----	----	<5 ..
Arsenic	EG005T	5	mg/kg	----	2000	----	----	----	----	----	<5 ..
Barium	EG005T	10	mg/kg	----	25000	----	----	----	----	----	70 ±7
Beryllium	EG005T	1	mg/kg	----	400	----	----	----	----	----	<1 ..
Boron	EG005T	50	mg/kg	----	60000	----	----	----	----	----	<50 ..
Cadmium	EG005T	1	mg/kg	----	400	----	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	20000	----	----	----	----	----	10 ±1
Lead	EG005T	5	mg/kg	----	6000	----	----	----	----	----	14 ±2
Molybdenum	EG005T	2	mg/kg	----	4000	----	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	12000	----	----	----	----	----	13 ±1
Selenium	EG005T	5	mg/kg	----	40000	----	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	720	----	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	140000	----	----	----	----	----	5 ±2
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	300	----	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	----	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser											
Total Cyanide	EK026SF	1	mg/kg	----	10000	----	----	----	----	----	<1 ..
EK040T: Fluoride Total											
Fluoride	EK040T	40	mg/kg	----	40000	----	----	----	----	----	60 ±30
EP010: Formaldehyde											
Formaldehyde	EP010	2	mg/kg	----	8000	----	----	----	----	----	<2
EP074A: Monocyclic Aromatic Hydrocarbons											
Benzene	EP074-UT	0.2	mg/kg	----	16	----	----	----	----	----	<0.2 ..
Toluene	EP074-UT	0.5	mg/kg	----	12800	----	----	----	----	----	<0.5 ..
Ethylbenzene	EP074-UT	0.5	mg/kg	----	4800	----	----	----	----	----	<0.5 ..
Styrene	EP074-UT	0.5	mg/kg	----	480	----	----	----	----	----	<0.5 ..
Total Xylenes	EP074-UT	0.5	mg/kg	----	9600	----	----	----	----	----	<0.5 ..
EP074B: Oxygenated Compounds											
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	32000	----	----	----	----	----	<1
EP074I: Volatile Halogenated Compounds											



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EP075E: Nitroaromatics and Ketones - Continued										
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	21	----	----	----	----	<1.0
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	4.8	----	----	----	----	<0.03 ..
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	4.8	----	----	----	----	<0.03 ..
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	----	<0.05 ..
Chlordane	EP075-EM	0.03	mg/kg	----	16	----	----	----	----	<0.03 ..
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	50	----	----	----	----	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	2600	----	----	----	----	<10 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	----	----	----	----	<50 ..
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	10	----	----	----	----	<0.01 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
				Sampling date/time				17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024
								15:00	15:00	15:00	15:00	15:00
								EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	----	----	----	----	----	----	<5 ..
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	----	----	----	<5 ..
Barium	EG005T	10	mg/kg	----	6250	----	----	----	----	----	----	70 ±7
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	----	----	----	<1 ..
Boron	EG005T	50	mg/kg	----	15000	----	----	----	----	----	----	<50 ..
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	5000	----	----	----	----	----	----	10 ±1
Lead	EG005T	5	mg/kg	----	1500	----	----	----	----	----	----	14 ±2
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	----	----	----	13 ±1
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	180	----	----	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	----	----	----	5 ±2
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	----	----	----	<1 ..
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	----	----	----	60 ±30
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	----	----	----	<2
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	50	----	----	----	----	----	----	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	----	----	----	<0.2 ..
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	----	----	----	<0.5 ..
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	----	----	----	<0.5 ..
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	----	----	----	<0.5 ..
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	----	----	----	<0.5 ..
EP074B: Oxygenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	----	<1
EP074I: Volatile Halogenated Compounds										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01 ..
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	----	<0.4 ..
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	----	<0.01 ..
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	----	<0.01 ..
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	----	<0.01 ..
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	----	<0.02 ..
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	----	<0.02 ..
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	----	<0.04 ..
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	----	<0.01 ..
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	----	<0.02 ..
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	----	<0.02 ..
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	----	<0.02 ..
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	----	<0.02 ..
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	----	<0.02 ..
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	----	<0.02 ..
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	----	<0.03 ..
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	----	<0.03 ..
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	----	<0.05 ..
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	----	<0.05 ..
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	----	<1
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	----	<1 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	40	----	----	----	----	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	100	----	----	----	----	<0.5 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	----	<0.5
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	----	<1.0
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	----	<0.05 ..
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	----	<0.03 ..
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	----	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	650	----	----	----	----	<10 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	----	----	----	----	<50 ..
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	----	<0.01 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
				Sampling date/time				17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024
								15:00	15:00	15:00	15:00	15:00
								EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	----	----	----	----	----	----	<5 ..
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	----	----	----	<5 ..
Barium	EG005T	10	mg/kg	----	6250	----	----	----	----	----	----	70 ±7
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	----	----	----	<1 ..
Boron	EG005T	50	mg/kg	----	15000	----	----	----	----	----	----	<50 ..
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	5000	----	----	----	----	----	----	10 ±1
Lead	EG005T	5	mg/kg	----	1500	----	----	----	----	----	----	14 ±2
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	----	----	----	13 ±1
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	180	----	----	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	----	----	----	5 ±2
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	----	----	----	<1 ..
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	----	----	----	60 ±30
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	----	----	----	<2
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	----	----	----	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	----	----	----	<0.2 ..
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	----	----	----	<0.5 ..
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	----	----	----	<0.5 ..
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	----	----	----	<0.5 ..
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	----	----	----	<0.5 ..
EP074B: Oxygenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
				Sampling date/time						
				Lower Limit	Upper Limit					
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	----	<1
EP074I: Volatile Halogenated Compounds										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01 ..
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	----	<0.4 ..
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	----	<0.01 ..
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	----	<0.01 ..
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	----	<0.01 ..
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	----	<0.02 ..
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	----	<0.02 ..
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	----	<0.04 ..
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	----	<0.01 ..
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	----	<0.02 ..
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	----	<0.02 ..
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	----	<0.02 ..
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	----	<0.02 ..
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	----	<0.02 ..
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	----	<0.02 ..
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	----	<0.03 ..
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	----	<0.03 ..
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	----	<0.05 ..
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	----	<0.05 ..
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	----	<1
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	----	<1 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	----	----	----	----	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	50	----	----	----	----	<0.5 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0	
				Sampling date/time	Guideline						Guideline
				Lower Limit	Upper Limit						
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	
						EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU	
EP075E: Nitroaromatics and Ketones											
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	----	<0.5	
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	----	<1.0	
EP075I: Organochlorine Pesticides											
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..	
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..	
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	----	<0.05 ..	
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	----	<0.03 ..	
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	----	<0.03 ..	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	325	----	----	----	----	<10 ..	
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	5000	----	----	----	----	<50 ..	
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)											
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	----	<0.01 ..	



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH06_0.1	QC02	BH06_0.5	BH07_0.1	BH07_1.0
				Sampling date/time						
				Lower Limit	Upper Limit					
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-015 MU	EM2400571-016 MU	EM2400571-018 MU	EM2400571-020 MU	EM2400571-022 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	10	----	----	----	----	4.4 ± 0.06
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	----	----	----	----	<5 ..
Cadmium	EG005T	1	mg/kg	----	3	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	100	----	----	----	----	10 ± 1
Lead	EG005T	5	mg/kg	----	300	----	----	----	----	14 ± 2
Molybdenum	EG005T	2	mg/kg	----	40	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	60	----	----	----	----	13 ± 1
Selenium	EG005T	5	mg/kg	----	10	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	10	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	200	----	----	----	----	5 ± 2
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	50	----	----	----	----	<1 ..
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	450	----	----	----	----	60 ± 30
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	----	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	----	----	----	----	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.2	mg/kg	----	7	----	----	----	----	<0.2 ..
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.01	mg/kg	----	1	----	----	----	----	<0.01 ..
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	60	----	----	----	----	<1 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	----	----	----	----	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	20	----	----	----	----	<0.5 ..
EP080/071: Total Petroleum Hydrocarbons										



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
							17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
							EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EG005(ED093T): Total Metals by ICP-AES											
Antimony	EG005T	5	mg/kg	----	300	----	----	----	----	----	<5 ..
Arsenic	EG005T	5	mg/kg	----	2000	----	----	----	----	----	<5 ..
Barium	EG005T	10	mg/kg	----	25000	----	----	----	----	----	50 ± 5
Beryllium	EG005T	1	mg/kg	----	400	----	----	----	----	----	<1 ..
Boron	EG005T	50	mg/kg	----	60000	----	----	----	----	----	<50 ..
Cadmium	EG005T	1	mg/kg	----	400	----	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	20000	----	----	----	----	----	6 ± 0.8
Lead	EG005T	5	mg/kg	----	6000	----	----	----	----	----	13 ± 2
Molybdenum	EG005T	2	mg/kg	----	4000	----	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	12000	----	----	----	----	----	11 ± 1
Selenium	EG005T	5	mg/kg	----	40000	----	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	720	----	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	140000	----	----	----	----	----	11 ± 3
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	300	----	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	----	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser											
Total Cyanide	EK026SF	1	mg/kg	----	10000	----	----	----	----	----	<1 ..
EK040T: Fluoride Total											
Fluoride	EK040T	40	mg/kg	----	40000	----	----	----	----	----	<40 ..
EP010: Formaldehyde											
Formaldehyde	EP010	2	mg/kg	----	8000	----	----	----	----	----	<2 ..
EP074A: Monocyclic Aromatic Hydrocarbons											
Benzene	EP074-UT	0.2	mg/kg	----	16	----	----	----	----	----	<0.2 ..
Toluene	EP074-UT	0.5	mg/kg	----	12800	----	----	----	----	----	<0.5 ..
Ethylbenzene	EP074-UT	0.5	mg/kg	----	4800	----	----	----	----	----	<0.5 ..
Styrene	EP074-UT	0.5	mg/kg	----	480	----	----	----	----	----	<0.5 ..
Total Xylenes	EP074-UT	0.5	mg/kg	----	9600	----	----	----	----	----	<0.5 ..
EP074B: Oxygenated Compounds											
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	32000	----	----	----	----	----	<1 ..
EP074I: Volatile Halogenated Compounds											



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EP074I: Volatile Halogenated Compounds - Continued										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	480	----	----	----	----	<0.01 ..
Methylene chloride	EP074-UT	0.4	mg/kg	----	64	----	----	----	----	<0.4 ..
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	960	----	----	----	----	<0.02 ..
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	960	----	----	----	----	<0.01 ..
Chloroform	EP074-UT	0.02	mg/kg	----	960	----	----	----	----	<0.02 ..
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	4800	----	----	----	----	<0.01 ..
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	48	----	----	----	----	<0.01 ..
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	48	----	----	----	----	<0.02 ..
Trichloroethene	EP074-UT	0.02	mg/kg	----	80	----	----	----	----	<0.02 ..
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	190	----	----	----	----	<0.04 ..
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	1600	----	----	----	----	<0.01 ..
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	800	----	----	----	----	<0.02 ..
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	210	----	----	----	----	<0.02 ..
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	11	----	----	----	----	<0.02 ..
Chlorobenzene	EP074-UT	0.02	mg/kg	----	4800	----	----	----	----	<0.02 ..
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	640	----	----	----	----	<0.02 ..
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	24000	----	----	----	----	<0.02 ..
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	480	----	----	----	----	<0.01 ..
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	4800	----	----	----	----	<0.03 ..
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	3200	----	----	----	----	<0.03 ..
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	64000	----	----	----	----	<0.05 ..
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	320	----	----	----	----	<0.05 ..
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	32000	----	----	----	----	<1 ..
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	2200	----	----	----	----	<1 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	160	----	----	----	----	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	400	----	----	----	----	<0.5 ..
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	320	----	----	----	----	<0.5 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
							17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
							EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EP075E: Nitroaromatics and Ketones - Continued											
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg		----	21	----	----	----	----	<1.0
EP075I: Organochlorine Pesticides											
Heptachlor	EP075-EM	0.03	mg/kg		----	4.8	----	----	----	----	<0.03 ..
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg		----	4.8	----	----	----	----	<0.03 ..
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg		----	50	----	----	----	----	<0.05 ..
Chlordane	EP075-EM	0.03	mg/kg		----	16	----	----	----	----	<0.03 ..
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg		----	50	----	----	----	----	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP074-UT	10	mg/kg		----	2600	----	----	----	----	<10 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg		----	40000	----	----	----	----	<50 ..
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)											
Tributyltin oxide	EP236	0.01	mg/kg		----	10	----	----	----	----	<0.01 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
							17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
							EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EG005(ED093)T: Total Metals by ICP-AES											
Antimony	EG005T	5	mg/kg	----	75	----	----	----	----	----	<5 ..
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	----	----	<5 ..
Barium	EG005T	10	mg/kg	----	6250	----	----	----	----	----	50 ± 5
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	----	----	<1 ..
Boron	EG005T	50	mg/kg	----	15000	----	----	----	----	----	<50 ..
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	5000	----	----	----	----	----	6 ± 0.8
Lead	EG005T	5	mg/kg	----	1500	----	----	----	----	----	13 ± 2
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	----	----	11 ± 1
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	180	----	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	----	----	11 ± 3
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser											
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	----	----	<1 ..
EK040T: Fluoride Total											
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	----	----	<40 ..
EP010: Formaldehyde											
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	----	----	<2
EP066: Polychlorinated Biphenyls (PCB)											
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	50	----	----	----	----	----	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons											
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	----	----	<0.2 ..
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	----	----	<0.5 ..
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	----	----	<0.5 ..
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	----	----	<0.5 ..
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	----	----	<0.5 ..
EP074B: Oxygenated Compounds											



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	----	<1
EP074I: Volatile Halogenated Compounds										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01 ..
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	----	<0.4 ..
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	----	<0.01 ..
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	----	<0.01 ..
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	----	<0.01 ..
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	----	<0.02 ..
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	----	<0.02 ..
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	----	<0.04 ..
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	----	<0.01 ..
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	----	<0.02 ..
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	----	<0.02 ..
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	----	<0.02 ..
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	----	<0.02 ..
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	----	<0.02 ..
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	----	<0.02 ..
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	----	<0.03 ..
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	----	<0.03 ..
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	----	<0.05 ..
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	----	<0.05 ..
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	----	<1
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	----	<1 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	40	----	----	----	----	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	100	----	----	----	----	<0.5 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	----	<0.5
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	----	<1.0
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	----	<0.05 ..
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	----	<0.03 ..
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	----	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	650	----	----	----	----	<10 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	----	----	----	----	<50 ..
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	----	<0.01 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
				Sampling date/time				17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	----	----	----	----	----	----	<5 ..
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	----	----	----	<5 ..
Barium	EG005T	10	mg/kg	----	6250	----	----	----	----	----	----	50 ± 5
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	----	----	----	<1 ..
Boron	EG005T	50	mg/kg	----	15000	----	----	----	----	----	----	<50 ..
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	5000	----	----	----	----	----	----	6 ± 0.8
Lead	EG005T	5	mg/kg	----	1500	----	----	----	----	----	----	13 ± 2
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	----	----	----	11 ± 1
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	180	----	----	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	----	----	----	11 ± 3
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	----	----	----	<1 ..
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	----	----	----	<40 ..
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	----	----	----	<2 ..
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	----	----	----	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	----	----	----	<0.2 ..
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	----	----	----	<0.5 ..
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	----	----	----	<0.5 ..
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	----	----	----	<0.5 ..
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	----	----	----	<0.5 ..
EP074B: Oxygenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
				Sampling date/time						
				Lower Limit	Upper Limit					
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	----	<1
EP074I: Volatile Halogenated Compounds										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01 ..
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	----	<0.4 ..
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	----	<0.01 ..
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	----	<0.02 ..
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	----	<0.01 ..
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	----	<0.01 ..
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	----	<0.02 ..
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	----	<0.02 ..
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	----	<0.04 ..
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	----	<0.01 ..
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	----	<0.02 ..
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	----	<0.02 ..
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	----	<0.02 ..
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	----	<0.02 ..
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	----	<0.02 ..
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	----	<0.02 ..
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	----	<0.01
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	----	<0.03 ..
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	----	<0.03 ..
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	----	<0.05 ..
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	----	<0.05 ..
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	----	<1
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	----	<1 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	----	----	----	----	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	50	----	----	----	----	<0.5 ..



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1		
				Sampling date/time		Guideline	Guideline	17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024	17-Jan-2024
				Lower Limit	Upper Limit	15:00	15:00	15:00	15:00	15:00		
						EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU		
EP075E: Nitroaromatics and Ketones												
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	----	<0.5		
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	----	<1.0		
EP075I: Organochlorine Pesticides												
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..		
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	----	<0.03 ..		
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	----	<0.05 ..		
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	----	<0.03 ..		
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	----	<0.03 ..		
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	325	----	----	----	----	<10 ..		
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	5000	----	----	----	----	<50 ..		
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)												
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	----	<0.01 ..		



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH08_0.1	BH08_0.5	BH09_0.1	BH09_0.5	BH10_0.1
				Sampling date/time						
				Lower Limit	Upper Limit					
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00
						EM2400571-023 MU	EM2400571-024 MU	EM2400571-026 MU	EM2400571-027 MU	EM2400571-029 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	10	----	----	----	----	4.2 ± 0.06
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	----	----	----	----	<5 ..
Cadmium	EG005T	1	mg/kg	----	3	----	----	----	----	<1 ..
Copper	EG005T	5	mg/kg	----	100	----	----	----	----	6 ± 0.8
Lead	EG005T	5	mg/kg	----	300	----	----	----	----	13 ± 2
Molybdenum	EG005T	2	mg/kg	----	40	----	----	----	----	<2 ..
Nickel	EG005T	2	mg/kg	----	60	----	----	----	----	11 ± 1
Selenium	EG005T	5	mg/kg	----	10	----	----	----	----	<5 ..
Silver	EG005T	2	mg/kg	----	10	----	----	----	----	<2 ..
Zinc	EG005T	5	mg/kg	----	200	----	----	----	----	11 ± 3
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	----	----	----	----	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1	----	----	----	----	<0.5 ..
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	50	----	----	----	----	<1 ..
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	450	----	----	----	----	<40 ..
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	----	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	----	----	----	----	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.2	mg/kg	----	7	----	----	----	----	<0.2 ..
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.01	mg/kg	----	1	----	----	----	----	<0.01 ..
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	60	----	----	----	----	<1 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	----	----	----	----	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	20	----	----	----	----	<0.5 ..
EP080/071: Total Petroleum Hydrocarbons										



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time				17-Jan-2024	17-Jan-2024	17-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU	
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	300	----	----	----	----	<5	--	----
Arsenic	EG005T	5	mg/kg	----	2000	----	----	----	----	6	±2	----
Barium	EG005T	10	mg/kg	----	25000	----	----	----	----	40	±4	----
Beryllium	EG005T	1	mg/kg	----	400	----	----	----	----	<1	--	----
Boron	EG005T	50	mg/kg	----	60000	----	----	----	----	<50	--	----
Cadmium	EG005T	1	mg/kg	----	400	----	----	----	----	<1	--	----
Copper	EG005T	5	mg/kg	----	20000	----	----	----	----	15	±2	----
Lead	EG005T	5	mg/kg	----	6000	----	----	----	----	18	±2	----
Molybdenum	EG005T	2	mg/kg	----	4000	----	----	----	----	<2	--	----
Nickel	EG005T	2	mg/kg	----	12000	----	----	----	----	13	±1	----
Selenium	EG005T	5	mg/kg	----	40000	----	----	----	----	<5	--	----
Silver	EG005T	2	mg/kg	----	720	----	----	----	----	<2	--	----
Zinc	EG005T	5	mg/kg	----	140000	----	----	----	----	6	±2	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	300	----	----	----	----	<0.1	--	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	----	----	----	----	<0.5	--	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	10000	----	----	----	----	<1	--	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	40000	----	----	----	----	<40	--	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	8000	----	----	----	----	<2	--	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	16	----	----	----	----	<0.2	--	----
Toluene	EP074-UT	0.5	mg/kg	----	12800	----	----	----	----	<0.5	--	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	4800	----	----	----	----	<0.5	--	----
Styrene	EP074-UT	0.5	mg/kg	----	480	----	----	----	----	<0.5	--	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	9600	----	----	----	----	<0.5	--	----
EP074B: Oxygenated Compounds												
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	32000	----	----	----	----	<1	--	----
EP074I: Volatile Halogenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU
EP074I: Volatile Halogenated Compounds - Continued										
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	480	----	----	----	<0.01	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	64	----	----	----	<0.4	----
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	960	----	----	----	<0.02	----
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	960	----	----	----	<0.01	----
Chloroform	EP074-UT	0.02	mg/kg	----	960	----	----	----	<0.02	----
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	4800	----	----	----	<0.01	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	48	----	----	----	<0.01	----
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	48	----	----	----	<0.02	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	80	----	----	----	<0.02	----
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	190	----	----	----	<0.04	----
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	1600	----	----	----	<0.01	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	800	----	----	----	<0.02	----
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	210	----	----	----	<0.02	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	11	----	----	----	<0.02	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	4800	----	----	----	<0.02	----
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	640	----	----	----	<0.02	----
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	24000	----	----	----	<0.02	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	480	----	----	----	<0.01	----
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	4800	----	----	----	<0.03	----
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	3200	----	----	----	<0.03	----
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	64000	----	----	----	<0.05	----
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	320	----	----	----	<0.05	----
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	32000	----	----	----	<1	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	2200	----	----	----	<1	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	160	----	----	----	<0.5	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	400	----	----	----	<0.5	----
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	320	----	----	----	<0.5	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH10_0.5		BH11_0.1		BH11_0.5		BH12_0.1		BH12_0.5	
							17-Jan-2024 15:00		17-Jan-2024 15:00		17-Jan-2024 15:00		16-Jan-2024 15:00		16-Jan-2024 15:00	
							EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU					
EP075E: Nitroaromatics and Ketones - Continued																
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	21	----	----	----	----	<1.0	----					
EP075I: Organochlorine Pesticides																
Heptachlor	EP075-EM	0.03	mg/kg	----	4.8	----	----	----	----	<0.03	--	----				
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	4.8	----	----	----	----	<0.03	--	----				
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	----	<0.05	--	----				
Chlordane	EP075-EM	0.03	mg/kg	----	16	----	----	----	----	<0.03	--	----				
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	50	----	----	----	----	<0.03	--	----				
EP080/071: Total Petroleum Hydrocarbons																
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	2600	----	----	----	----	<10	--	----				
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	----	----	----	----	<50	--	----				
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)																
Tributyltin oxide	EP236	0.01	mg/kg	----	10	----	----	----	----	<0.01	--	----				



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH10_0.5		BH11_0.1		BH11_0.5		BH12_0.1		BH12_0.5	
							17-Jan-2024 15:00		17-Jan-2024 15:00		17-Jan-2024 15:00		16-Jan-2024 15:00		16-Jan-2024 15:00	
							EM2400571-030	MU	EM2400571-032	MU	EM2400571-033	MU	EM2400571-035	MU	EM2400571-036	MU
EG005(ED093T): Total Metals by ICP-AES																
Antimony	EG005T	5	mg/kg	----	75	----	----	----	----	<5	--	----				
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	----	6	±2	----				
Barium	EG005T	10	mg/kg	----	6250	----	----	----	----	40	±4	----				
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	----	<1	--	----				
Boron	EG005T	50	mg/kg	----	15000	----	----	----	----	<50	--	----				
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	----	<1	--	----				
Copper	EG005T	5	mg/kg	----	5000	----	----	----	----	15	±2	----				
Lead	EG005T	5	mg/kg	----	1500	----	----	----	----	18	±2	----				
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	----	<2	--	----				
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	----	13	±1	----				
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	----	<5	--	----				
Silver	EG005T	2	mg/kg	----	180	----	----	----	----	<2	--	----				
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	----	6	±2	----				
EG035T: Total Recoverable Mercury by FIMS																
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	----	<0.1	--	----				
EG048: Hexavalent Chromium (Alkaline Digest)																
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	----	<0.5	--	----				
EK026SF: Total CN by Segmented Flow Analyser																
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	----	<1	--	----				
EK040T: Fluoride Total																
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	----	<40	--	----				
EP010: Formaldehyde																
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	----	<2	--	----				
EP066: Polychlorinated Biphenyls (PCB)																
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	50	----	----	----	----	<0.1	--	----				
EP074A: Monocyclic Aromatic Hydrocarbons																
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	----	<0.2	--	----				
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	----	<0.5	--	----				
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	----	<0.5	--	----				
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	----	<0.5	--	----				
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	----	<0.5	--	----				
EP074B: Oxygenated Compounds																



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	<1	----
EP074I: Volatile Halogenated Compounds										
1,1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	<0.4	----
trans-1,2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
cis-1,2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	<0.01	----
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
1,1,1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	<0.01	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	<0.01	----
1,2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	<0.02	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	<0.02	----
1,1,2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	<0.04	----
1,1,1,2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	<0.01	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	<0.02	----
1,1,2,2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	<0.02	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	<0.02	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	<0.02	----
1,4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	<0.02	----
1,2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	<0.02	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	<0.03	----
2,4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	<0.03	----
2,4,5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	<0.05	----
2,4,6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	<0.05	----
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	<1	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	<1	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	40	----	----	----	<0.5	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	100	----	----	----	<0.5	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	<0.5	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	<1.0	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	<0.05	--
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	<0.03	--
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	<0.03	--
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	650	----	----	----	<10	--
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	----	----	----	<50	--
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	<0.01	--



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time				17-Jan-2024	17-Jan-2024	17-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU	
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	----	----	----	----	<5	--	----
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	----	6	±2	----
Barium	EG005T	10	mg/kg	----	6250	----	----	----	----	40	±4	----
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	----	<1	--	----
Boron	EG005T	50	mg/kg	----	15000	----	----	----	----	<50	--	----
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	----	<1	--	----
Copper	EG005T	5	mg/kg	----	5000	----	----	----	----	15	±2	----
Lead	EG005T	5	mg/kg	----	1500	----	----	----	----	18	±2	----
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	----	<2	--	----
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	----	13	±1	----
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	----	<5	--	----
Silver	EG005T	2	mg/kg	----	180	----	----	----	----	<2	--	----
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	----	6	±2	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	----	<0.1	--	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	----	<0.5	--	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	----	<1	--	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	----	<40	--	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	----	<2	--	----
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	----	<0.1	--	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	----	<0.2	--	----
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	----	<0.5	--	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	----	<0.5	--	----
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	----	<0.5	--	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	----	<0.5	--	----
EP074B: Oxygenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time						
				Lower Limit	Upper Limit					
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU
EP074B: Oxygenated Compounds - Continued										
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	<1	----
EP074I: Volatile Halogenated Compounds										
1,1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	<0.4	----
trans-1,2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
cis-1,2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	<0.01	----
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	----
1,1,1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	<0.01	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	<0.01	----
1,2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	<0.02	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	<0.02	----
1,1,2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	<0.04	----
1,1,1,2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	<0.01	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	<0.02	----
1,1,2,2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	<0.02	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	<0.02	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	<0.02	----
1,4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	<0.02	----
1,2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	<0.02	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	----
EP075A: Phenolic Compounds (Halogenated)										
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	<0.03	----
2,4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	<0.03	----
2,4,5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	<0.05	----
2,4,6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	<0.05	----
EP075A: Phenolic Compounds (Non-halogenated)										
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	<1	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	<1	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	----	----	----	<0.5	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	50	----	----	----	<0.5	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time		17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU
EP075E: Nitroaromatics and Ketones										
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	<0.5	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	<1.0	----
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	----	<0.03	--
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	----	<0.05	--
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	----	<0.03	--
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	----	<0.03	--
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	325	----	----	----	<10	--
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	5000	----	----	----	<50	--
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	----	<0.01	--



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5
				Sampling date/time						
				Lower Limit	Upper Limit					
						17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	10	----	----	----	4.5 ± 0.06	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	----	----	----	6 ± 2	----
Cadmium	EG005T	1	mg/kg	----	3	----	----	----	<1 --	----
Copper	EG005T	5	mg/kg	----	100	----	----	----	15 ± 2	----
Lead	EG005T	5	mg/kg	----	300	----	----	----	18 ± 2	----
Molybdenum	EG005T	2	mg/kg	----	40	----	----	----	<2 --	----
Nickel	EG005T	2	mg/kg	----	60	----	----	----	13 ± 1	----
Selenium	EG005T	5	mg/kg	----	10	----	----	----	<5 --	----
Silver	EG005T	2	mg/kg	----	10	----	----	----	<2 --	----
Zinc	EG005T	5	mg/kg	----	200	----	----	----	6 ± 2	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	----	----	----	<0.1 --	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1	----	----	----	<0.5 --	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	50	----	----	----	<1 --	----
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	450	----	----	----	<40 --	----
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	<0.1 --	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	----	----	----	<0.2 --	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.2	mg/kg	----	7	----	----	----	<0.2 --	----
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.01	mg/kg	----	1	----	----	----	<0.01 --	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	60	----	----	----	<1 --	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	----	----	----	<0.5 --	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	20	----	----	----	<0.5 --	----
EP080/071: Total Petroleum Hydrocarbons										



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH10_0.5	BH11_0.1	BH11_0.5	BH12_0.1	BH12_0.5	
							17-Jan-2024 15:00	17-Jan-2024 15:00	17-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	
							EM2400571-030 MU	EM2400571-032 MU	EM2400571-033 MU	EM2400571-035 MU	EM2400571-036 MU	
EP080/071: Total Petroleum Hydrocarbons - Continued												
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	100	----	----	----	----	<10	--	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	----	----	----	----	<50	--	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	300	----	----	----	<5	--	----	----
Arsenic	EG005T	5	mg/kg	----	2000	----	----	----	<5	--	----	----
Barium	EG005T	10	mg/kg	----	25000	----	----	----	70	±7	----	----
Beryllium	EG005T	1	mg/kg	----	400	----	----	----	<1	--	----	----
Boron	EG005T	50	mg/kg	----	60000	----	----	----	<50	--	----	----
Cadmium	EG005T	1	mg/kg	----	400	----	----	----	<1	--	----	----
Copper	EG005T	5	mg/kg	----	20000	----	----	----	6	±0.9	----	----
Lead	EG005T	5	mg/kg	----	6000	----	----	----	18	±2	----	----
Molybdenum	EG005T	2	mg/kg	----	4000	----	----	----	<2	--	----	----
Nickel	EG005T	2	mg/kg	----	12000	----	----	----	13	±1	----	----
Selenium	EG005T	5	mg/kg	----	40000	----	----	----	<5	--	----	----
Silver	EG005T	2	mg/kg	----	720	----	----	----	<2	--	----	----
Zinc	EG005T	5	mg/kg	----	140000	----	----	----	7	±2	----	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	300	----	----	----	<0.1	--	----	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	2000	----	----	----	<0.5	--	----	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	10000	----	----	----	<1	--	----	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	40000	----	----	----	<40	--	----	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	8000	----	----	----	<2	--	----	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	16	----	----	----	<0.2	--	----	----
Toluene	EP074-UT	0.5	mg/kg	----	12800	----	----	----	<0.5	--	----	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	4800	----	----	----	<0.5	--	----	----
Styrene	EP074-UT	0.5	mg/kg	----	480	----	----	----	<0.5	--	----	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	9600	----	----	----	<0.5	--	----	----
EP074B: Oxygenated Compounds												
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	32000	----	----	----	<1	--	----	----
EP074I: Volatile Halogenated Compounds												
1,1-Dichloroethene	EP074-UT	0.01	mg/kg	----	480	----	----	----	<0.01	--	----	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	64	----	----	----	<0.4	--	----	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU	
EP074I: Volatile Halogenated Compounds - Continued												
trans-1,2-Dichloroethene	EP074-UT	0.02	mg/kg	----	960	----	----	----	<0.02	--	----	----
cis-1,2-Dichloroethene	EP074-UT	0.01	mg/kg	----	960	----	----	----	<0.01	--	----	----
Chloroform	EP074-UT	0.02	mg/kg	----	960	----	----	----	<0.02	--	----	----
1,1,1-Trichloroethane	EP074-UT	0.01	mg/kg	----	4800	----	----	----	<0.01	--	----	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	48	----	----	----	<0.01	--	----	----
1,2-Dichloroethane	EP074-UT	0.02	mg/kg	----	48	----	----	----	<0.02	--	----	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	80	----	----	----	<0.02	--	----	----
1,1,2-Trichloroethane	EP074-UT	0.04	mg/kg	----	190	----	----	----	<0.04	--	----	----
1,1,1,2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	1600	----	----	----	<0.01	--	----	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	800	----	----	----	<0.02	--	----	----
1,1,2,2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	210	----	----	----	<0.02	--	----	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	11	----	----	----	<0.02	--	----	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	4800	----	----	----	<0.02	--	----	----
1,4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	640	----	----	----	<0.02	--	----	----
1,2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	24000	----	----	----	<0.02	--	----	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	480	----	----	----	<0.01	--	----	----
EP075A: Phenolic Compounds (Halogenated)												
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	4800	----	----	----	<0.03	--	----	----
2,4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	3200	----	----	----	<0.03	--	----	----
2,4,5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	64000	----	----	----	<0.05	--	----	----
2,4,6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	320	----	----	----	<0.05	--	----	----
EP075A: Phenolic Compounds (Non-halogenated)												
Cresols (Total)	EP075-EM	1	mg/kg	----	32000	----	----	----	<1	--	----	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	2200	----	----	----	<1	--	----	----
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	160	----	----	----	<0.5	--	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	400	----	----	----	<0.5	--	----	----
EP075E: Nitroaromatics and Ketones												
Nitrobenzene	EP075-EM	0.5	mg/kg	----	320	----	----	----	<0.5	--	----	----
2,4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	21	----	----	----	<1.0	--	----	----
EP075I: Organochlorine Pesticides												
Heptachlor	EP075-EM	0.03	mg/kg	----	4.8	----	----	----	<0.03	--	----	----
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	4.8	----	----	----	<0.03	--	----	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category B: Total Concentration: Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
							16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
							EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU
EP075: Organochlorine Pesticides - Continued											
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	<0.05	--	----	----
Chlordane	EP075-EM	0.03	mg/kg	----	16	----	----	<0.03	--	----	----
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	50	----	----	<0.03	--	----	----
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	2600	----	----	<10	--	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	----	----	<50	--	----	----
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)											
Tributyltin oxide	EP236	0.01	mg/kg	----	10	----	----	<0.01	--	----	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	----	----	----	<5	--	----	----
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	<5	--	----	----
Barium	EG005T	10	mg/kg	----	6250	----	----	----	70	±7	----	----
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	<1	--	----	----
Boron	EG005T	50	mg/kg	----	15000	----	----	----	<50	--	----	----
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	<1	--	----	----
Copper	EG005T	5	mg/kg	----	5000	----	----	----	6	±0.9	----	----
Lead	EG005T	5	mg/kg	----	1500	----	----	----	18	±2	----	----
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	<2	--	----	----
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	13	±1	----	----
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	<5	--	----	----
Silver	EG005T	2	mg/kg	----	180	----	----	----	<2	--	----	----
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	7	±2	----	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	<0.1	--	----	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	<0.5	--	----	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	<1	--	----	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	<40	--	----	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	<2	--	----	----
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	50	----	----	----	<0.1	--	----	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	<0.2	--	----	----
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	<0.5	--	----	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	<0.5	--	----	----
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	<0.5	--	----	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	<0.5	--	----	----
EP074B: Oxygenated Compounds												
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	<1	--	----	----
EP074I: Volatile Halogenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU	
EP074I: Volatile Halogenated Compounds - Continued												
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	--	----	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	<0.4	--	----	----
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	--	----	----
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	<0.01	--	----	----
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	--	----	----
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	<0.01	--	----	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	<0.01	--	----	----
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	<0.02	--	----	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	<0.02	--	----	----
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	<0.04	--	----	----
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	<0.01	--	----	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	<0.02	--	----	----
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	<0.02	--	----	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	<0.02	--	----	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	<0.02	--	----	----
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	<0.02	--	----	----
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	<0.02	--	----	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	--	----	----
EP075A: Phenolic Compounds (Halogenated)												
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	<0.03	--	----	----
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	<0.03	--	----	----
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	<0.05	--	----	----
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	<0.05	--	----	----
EP075A: Phenolic Compounds (Non-halogenated)												
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	<1	--	----	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	<1	--	----	----
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	40	----	----	----	<0.5	--	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	100	----	----	----	<0.5	--	----	----
EP075E: Nitroaromatics and Ketones												
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	<0.5	--	----	----
2.4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	<1.0	--	----	----
EP075I: Organochlorine Pesticides												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time		16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU
EP075I: Organochlorine Pesticides - Continued										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	<0.03	--	----
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	<0.03	--	----
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	<0.05	--	----
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	<0.03	--	----
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	<0.03	--	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	650	----	----	<10	--	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	----	----	<50	--	----
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	<0.01	--	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU	
EG005(ED093)T: Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	75	----	----	----	<5	--	----	----
Arsenic	EG005T	5	mg/kg	----	500	----	----	----	<5	--	----	----
Barium	EG005T	10	mg/kg	----	6250	----	----	----	70	±7	----	----
Beryllium	EG005T	1	mg/kg	----	100	----	----	----	<1	--	----	----
Boron	EG005T	50	mg/kg	----	15000	----	----	----	<50	--	----	----
Cadmium	EG005T	1	mg/kg	----	100	----	----	----	<1	--	----	----
Copper	EG005T	5	mg/kg	----	5000	----	----	----	6	±0.9	----	----
Lead	EG005T	5	mg/kg	----	1500	----	----	----	18	±2	----	----
Molybdenum	EG005T	2	mg/kg	----	1000	----	----	----	<2	--	----	----
Nickel	EG005T	2	mg/kg	----	3000	----	----	----	13	±1	----	----
Selenium	EG005T	5	mg/kg	----	10000	----	----	----	<5	--	----	----
Silver	EG005T	2	mg/kg	----	180	----	----	----	<2	--	----	----
Zinc	EG005T	5	mg/kg	----	35000	----	----	----	7	±2	----	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	75	----	----	----	<0.1	--	----	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	500	----	----	----	<0.5	--	----	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	2500	----	----	----	<1	--	----	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	10000	----	----	----	<40	--	----	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	2000	----	----	----	<2	--	----	----
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	----	<0.1	--	----	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	4	----	----	----	<0.2	--	----	----
Toluene	EP074-UT	0.5	mg/kg	----	3200	----	----	----	<0.5	--	----	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	1200	----	----	----	<0.5	--	----	----
Styrene	EP074-UT	0.5	mg/kg	----	120	----	----	----	<0.5	--	----	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	2400	----	----	----	<0.5	--	----	----
EP074B: Oxygenated Compounds												
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	8000	----	----	----	<1	--	----	----
EP074I: Volatile Halogenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time				16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024	16-Jan-2024
								15:00	15:00	15:00	15:00	15:00
							EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU	
EP074I: Volatile Halogenated Compounds - Continued												
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	--	----	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	16	----	----	----	<0.4	--	----	----
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	--	----	----
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	240	----	----	----	<0.01	--	----	----
Chloroform	EP074-UT	0.02	mg/kg	----	240	----	----	----	<0.02	--	----	----
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	1200	----	----	----	<0.01	--	----	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	12	----	----	----	<0.01	--	----	----
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	12	----	----	----	<0.02	--	----	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	20	----	----	----	<0.02	--	----	----
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	48	----	----	----	<0.04	--	----	----
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	400	----	----	----	<0.01	--	----	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	200	----	----	----	<0.02	--	----	----
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	52	----	----	----	<0.02	--	----	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	2.8	----	----	----	<0.02	--	----	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	1200	----	----	----	<0.02	--	----	----
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	160	----	----	----	<0.02	--	----	----
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	6000	----	----	----	<0.02	--	----	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	120	----	----	----	<0.01	--	----	----
EP075A: Phenolic Compounds (Halogenated)												
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	1200	----	----	----	<0.03	--	----	----
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	800	----	----	----	<0.03	--	----	----
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	16000	----	----	----	<0.05	--	----	----
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	80	----	----	----	<0.05	--	----	----
EP075A: Phenolic Compounds (Non-halogenated)												
Cresols (Total)	EP075-EM	1	mg/kg	----	8000	----	----	----	<1	--	----	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	560	----	----	----	<1	--	----	----
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	----	----	----	<0.5	--	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	50	----	----	----	<0.5	--	----	----
EP075E: Nitroaromatics and Ketones												
Nitrobenzene	EP075-EM	0.5	mg/kg	----	80	----	----	----	<0.5	--	----	----
2.4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	5.2	----	----	----	<1.0	--	----	----
EP075I: Organochlorine Pesticides												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time		16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
				Lower Limit	Upper Limit	EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU
EP075I: Organochlorine Pesticides - Continued										
Heptachlor	EP075-EM	0.03	mg/kg	----	1.2	----	----	<0.03	--	----
Sum of Aldrin + Dieldrin	EP075-EM	0.03	mg/kg	----	1.2	----	----	<0.03	--	----
Sum of DDD + DDE + DDT	EP075-EM	0.05	mg/kg	----	50	----	----	<0.05	--	----
Chlordane	EP075-EM	0.03	mg/kg	----	4	----	----	<0.03	--	----
Sum of other organochlorine pesticides	EP075-EM	0.03	mg/kg	----	10	----	----	<0.03	--	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	325	----	----	<10	--	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	5000	----	----	<50	--	----
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)										
Tributyltin oxide	EP236	0.01	mg/kg	----	2.5	----	----	<0.01	--	----



Fill material contamination total concentration Upper Limit

Table 3: Fill material contamination total concentration upper limit: Table 3: Fill material contamination total concentration upper limit

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		BH13_0.1	BH13_0.5	BH14_0.1	BH14_0.5	QC01
				Sampling date/time						
				Lower Limit	Upper Limit					
						16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00	16-Jan-2024 15:00
						EM2400571-038 MU	EM2400571-039 MU	EM2400571-040 MU	EM2400571-041 MU	EM2400571-042 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	10	----	----	4.6 ± 0.06	----	----
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	----	----	<5 --	----	----
Cadmium	EG005T	1	mg/kg	----	3	----	----	<1 --	----	----
Copper	EG005T	5	mg/kg	----	100	----	----	6 ± 0.9	----	----
Lead	EG005T	5	mg/kg	----	300	----	----	18 ± 2	----	----
Molybdenum	EG005T	2	mg/kg	----	40	----	----	<2 --	----	----
Nickel	EG005T	2	mg/kg	----	60	----	----	13 ± 1	----	----
Selenium	EG005T	5	mg/kg	----	10	----	----	<5 --	----	----
Silver	EG005T	2	mg/kg	----	10	----	----	<2 --	----	----
Zinc	EG005T	5	mg/kg	----	200	----	----	7 ± 2	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	----	----	<0.1 --	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	----	1	----	----	<0.5 --	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	----	50	----	----	<1 --	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	40	mg/kg	----	450	----	----	<40 --	----	----
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	----	----	<0.1 --	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	----	----	<0.2 --	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.2	mg/kg	----	7	----	----	<0.2 --	----	----
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.01	mg/kg	----	1	----	----	<0.01 --	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	60	----	----	<1 --	----	----
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	----	----	<0.5 --	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	20	----	----	<0.5 --	----	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	10	mg/kg	----	100	----	----	<10 --	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	----	----	<50 --	----	----



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID Sampling date/time	Guideline Lower Limit	Guideline Upper Limit	BH15_0.1	BH15_1.0	----	----	----
							16-Jan-2024 15:00	16-Jan-2024 15:00	----	----	----
							EM2400571-045 MU	EM2400571-047 MU			
EG005(ED093T): Total Metals by ICP-AES											
Antimony	EG005T	5	mg/kg		----	----	----	----	----	----	----
Arsenic	EG005T	5	mg/kg		----	----	----	----	----	----	----
Barium	EG005T	10	mg/kg		----	----	----	----	----	----	----
Beryllium	EG005T	1	mg/kg		----	----	----	----	----	----	----
Boron	EG005T	50	mg/kg		----	----	----	----	----	----	----
Cadmium	EG005T	1	mg/kg		----	----	----	----	----	----	----
Copper	EG005T	5	mg/kg		----	----	----	----	----	----	----
Lead	EG005T	5	mg/kg		----	----	----	----	----	----	----
Molybdenum	EG005T	2	mg/kg		----	----	----	----	----	----	----
Nickel	EG005T	2	mg/kg		----	----	----	----	----	----	----
Selenium	EG005T	5	mg/kg		----	----	----	----	----	----	----
Silver	EG005T	2	mg/kg		----	----	----	----	----	----	----
Zinc	EG005T	5	mg/kg		----	----	----	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS											
Mercury	EG035T	0.1	mg/kg		----	----	----	----	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)											
Hexavalent Chromium	EG048G	0.5	mg/kg		----	----	----	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser											
Total Cyanide	EK026SF	1	mg/kg		----	----	----	----	----	----	----
EK040T: Fluoride Total											
Fluoride	EK040T	40	mg/kg		----	----	----	----	----	----	----
EP010: Formaldehyde											
Formaldehyde	EP010	2	mg/kg		----	----	----	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)											
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg		----	----	----	----	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons											
Benzene	EP074-UT	0.2	mg/kg		----	----	----	----	----	----	----
Ethylbenzene	EP074-UT	0.5	mg/kg		----	----	----	----	----	----	----
Styrene	EP074-UT	0.5	mg/kg		----	----	----	----	----	----	----
Toluene	EP074-UT	0.5	mg/kg		----	----	----	----	----	----	----
Total Xylenes	EP074-UT	0.5	mg/kg		----	----	----	----	----	----	----
EP074B: Oxygenated Compounds											
2-Butanone (MEK)	EP074-UT	1	mg/kg		----	----	----	----	----	----	----
EP074I: Volatile Halogenated Compounds											



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category C: Total Concentration: Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH15_0.1	BH15_1.0	----	----	----
				Sampling date/time				16-Jan-2024	16-Jan-2024	----	----	----
								15:00	15:00			
							EM2400571-045 MU	EM2400571-047 MU				
EP074I: Volatile Halogenated Compounds - Continued												
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	----	----	----	----	----	----	----	----
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Chloroform	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	----	----	----	----	----	----	----	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Halogenated)												
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	----	----	----	----	----	----	----	----
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	----	----	----	----	----	----	----	----
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	----	----	----	----	----	----	----	----
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	----	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)												
Cresols (Total)	EP075-EM	1	mg/kg	----	----	----	----	----	----	----	----	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	----	----	----	----	----	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	----	----	----	----	----	----	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	----	----	----	----	----	----	----	----
EP075E: Nitroaromatics and Ketones												
2.4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	----	----	----	----	----	----	----	----
Nitrobenzene	EP075-EM	0.5	mg/kg	----	----	----	----	----	----	----	----	----
EP075I: Organochlorine Pesticides												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH15_0.1	BH15_1.0	----	----	----
				Sampling date/time				16-Jan-2024	16-Jan-2024	----	----	----
								15:00	15:00			
EG005(ED093T): Total Metals by ICP-AES												
Antimony	EG005T	5	mg/kg	----	----	----	----	----	----	----	----	----
Arsenic	EG005T	5	mg/kg	----	----	----	----	----	----	----	----	----
Barium	EG005T	10	mg/kg	----	----	----	----	----	----	----	----	----
Beryllium	EG005T	1	mg/kg	----	----	----	----	----	----	----	----	----
Boron	EG005T	50	mg/kg	----	----	----	----	----	----	----	----	----
Cadmium	EG005T	1	mg/kg	----	----	----	----	----	----	----	----	----
Copper	EG005T	5	mg/kg	----	----	----	----	----	----	----	----	----
Lead	EG005T	5	mg/kg	----	----	----	----	----	----	----	----	----
Molybdenum	EG005T	2	mg/kg	----	----	----	----	----	----	----	----	----
Nickel	EG005T	2	mg/kg	----	----	----	----	----	----	----	----	----
Selenium	EG005T	5	mg/kg	----	----	----	----	----	----	----	----	----
Silver	EG005T	2	mg/kg	----	----	----	----	----	----	----	----	----
Zinc	EG005T	5	mg/kg	----	----	----	----	----	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS												
Mercury	EG035T	0.1	mg/kg	----	----	----	----	----	----	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)												
Hexavalent Chromium	EG048G	0.5	mg/kg	----	----	----	----	----	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser												
Total Cyanide	EK026SF	1	mg/kg	----	----	----	----	----	----	----	----	----
EK040T: Fluoride Total												
Fluoride	EK040T	40	mg/kg	----	----	----	----	----	----	----	----	----
EP010: Formaldehyde												
Formaldehyde	EP010	2	mg/kg	----	----	----	----	----	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	----	----	----	----	----	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons												
Benzene	EP074-UT	0.2	mg/kg	----	----	----	----	----	----	----	----	----
Ethylbenzene	EP074-UT	0.5	mg/kg	----	----	----	----	----	----	----	----	----
Styrene	EP074-UT	0.5	mg/kg	----	----	----	----	----	----	----	----	----
Toluene	EP074-UT	0.5	mg/kg	----	----	----	----	----	----	----	----	----
Total Xylenes	EP074-UT	0.5	mg/kg	----	----	----	----	----	----	----	----	----
EP074B: Oxygenated Compounds												
2-Butanone (MEK)	EP074-UT	1	mg/kg	----	----	----	----	----	----	----	----	----
EP074I: Volatile Halogenated Compounds												



Waste disposal total contamination concentrations

Table 2: Waste Disposal contamination concentrations: Category D/Industrial Waste: Total Concentration: Category D/Industrial Waste

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		Lower Limit	Upper Limit	BH15_0.1	BH15_1.0	----	----	----
				Sampling date/time				16-Jan-2024	16-Jan-2024	----	----	----
								15:00	15:00			
								EM2400571-045 MU	EM2400571-047 MU			
EP074I: Volatile Halogenated Compounds - Continued												
1.1.1.2-Tetrachloroethane	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
1.1.1-Trichloroethane	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
1.1.2.2-Tetrachloroethane	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
1.1.2-Trichloroethane	EP074-UT	0.04	mg/kg	----	----	----	----	----	----	----	----	----
1.1-Dichloroethene	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
1.2-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
1.2-Dichloroethane	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
1.4-Dichlorobenzene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Carbon Tetrachloride	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
Chlorobenzene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Chloroform	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
cis-1.2-Dichloroethene	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
Hexachlorobutadiene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Methylene chloride	EP074-UT	0.4	mg/kg	----	----	----	----	----	----	----	----	----
Sum of Trichlorobenzenes	EP074-UT	0.01	mg/kg	----	----	----	----	----	----	----	----	----
Tetrachloroethene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
trans-1.2-Dichloroethene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
Trichloroethene	EP074-UT	0.02	mg/kg	----	----	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Halogenated)												
2.4.5-Trichlorophenol	EP075-EM	0.05	mg/kg	----	----	----	----	----	----	----	----	----
2.4.6-Trichlorophenol	EP075-EM	0.05	mg/kg	----	----	----	----	----	----	----	----	----
2.4-Dichlorophenol	EP075-EM	0.03	mg/kg	----	----	----	----	----	----	----	----	----
2-Chlorophenol	EP075-EM	0.03	mg/kg	----	----	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)												
Cresols (Total)	EP075-EM	1	mg/kg	----	----	----	----	----	----	----	----	----
Sum of Phenols (non-halogenated)	EP075-EM	1	mg/kg	----	----	----	----	----	----	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons												
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	----	----	----	----	----	----	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM	0.5	mg/kg	----	----	----	----	----	----	----	----	----
EP075E: Nitroaromatics and Ketones												
2.4-Dinitrotoluene	EP075-EM	1.0	mg/kg	----	----	----	----	----	----	----	----	----
Nitrobenzene	EP075-EM	0.5	mg/kg	----	----	----	----	----	----	----	----	----
EP075I: Organochlorine Pesticides												



QUALITY CONTROL REPORT

Work Order	: EM2400571	Page	: 1 of 34
Client	: JACOBS GROUP(AUSTRALIA)PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: JORDAN PRESTIDGE	Contact	: Peter Ravlic
Address	: Level 13, 452 Flinders Street MELBOURNE 3000	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +6138549 9645
Project	: IA5000PB	Date Samples Received	: 17-Jan-2024
Order number	: TBC	Date Analysis Commenced	: 18-Jan-2024
C-O-C number	: ----	Issue Date	: 31-Jan-2024
Sampler	: JORDAN PRESTIDGE, TEA SVILAND		
Site	: ----		
Quote number	: EN/000		
No. of samples received	: 47		
No. of samples analysed	: 34		



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
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Eric Chau	Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Non-Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Layla Hafner	Acid Sulphate Soils - Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Sanjay Parekh	LCMS Coordinator	Melbourne Inorganics, Springvale, VIC
Sanjay Parekh	LCMS Coordinator	Melbourne Organics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, 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: 5556029)									
EM2400571-001	BH01_0.1	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	90	90	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	101	102	0.0	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	24	24	0.0	0% - 50%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	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	26	26	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	66	67	1.6	0% - 50%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	96	98	1.4	0% - 50%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EM2400571-013	BH05_0.5	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1 (5)*	mg/kg	<5	<5	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	20	20	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	172	169	1.9	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	41	41	0.0	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	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: 5556029) - continued									
EM2400571-013	BH05_0.5	EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	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	51	50	0.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	<5	6	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	33	33	0.0	No Limit
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5556030)									
EM2400571-030	BH10_0.5	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	50	50	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	53	54	2.5	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	10	10	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	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	6	6	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	12	12	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EM2400571-042	QC01	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	60	60	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	76	76	0.0	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	18	18	0.0	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	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	10	10	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	16	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	6	6	0.0	No Limit
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EP095: Ethylenediamine Tetraacetic Acid (EDTA) (QC Lot: 5555998)									



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 (%)
EP095: Ethylenediamine Tetraacetic Acid (EDTA) (QC Lot: 5555998) - continued									
EM2400571-001	BH01_0.1	EP095: Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg	<10	<10	0.0	No Limit
EP095: Ethylenediamine Tetraacetic Acid (EDTA) (QC Lot: 5558277)									
EM2400571-012	BH05_0.1	EP095: Ethylenediamine tetraacetic acid (EDTA)	60-00-04	10	mg/kg	<10	<10	0.0	No Limit
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO) (QC Lot: 5558632)									
EM2400571-001	BH01_0.1	EP236: 2,4-D	94-75-7	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
		EP236: Tributyltin oxide	56-35-9	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 5555735)									
EM2400571-001	BH01_0.1	EA001: pH (CaCl2)	----	0.1	pH Unit	5.9	5.9	0.0	0% - 20%
EM2400574-040	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	8.1	8.1	0.0	0% - 20%
EA002: pH 1:5 (Soils) (QC Lot: 5555995)									
EM2400571-001	BH01_0.1	EA002: pH Value	----	0.1	pH Unit	6.6	6.5	0.0	0% - 20%
EA002: pH 1:5 (Soils) (QC Lot: 5558283)									
EM2400571-022	BH07_1.0	EA002: pH Value	----	0.1	pH Unit	4.8	4.8	2.1	0% - 20%
EA010: Conductivity (1:5) (QC Lot: 5555996)									
EM2400571-001	BH01_0.1	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	33	36	8.1	0% - 20%
EA010: Conductivity (1:5) (QC Lot: 5558284)									
EM2400571-022	BH07_1.0	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	40	40	0.0	0% - 20%
EA029-A: pH Measurements (QC Lot: 5554025)									
EM2400571-003	BH01_1.0	EA029: pH KCl (23A)	----	0.1	pH Unit	4.6	4.6	0.0	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	3.9	4.0	0.0	0% - 20%
ES2401558-001	Anonymous	EA029: pH KCl (23A)	----	0.1	pH Unit	5.9	5.9	0.0	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	7.3	7.3	0.0	0% - 20%
EA029-B: Acidity Trail (QC Lot: 5554025)									
EM2400571-003	BH01_1.0	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	0.067	0.067	0.0	No Limit
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	0.204	0.202	0.9	0% - 50%
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	0.137	0.135	1.4	No Limit
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	42	42	0.0	0% - 20%
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	127	126	0.9	0% - 20%
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	86	84	1.4	0% - 20%
ES2401558-001	Anonymous	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.020	<0.020	0.0	No Limit
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	<0.020	<0.020	0.0	No Limit
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	<0.020	<0.020	0.0	No Limit
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	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 (%)
EA029-B: Acidity Trail (QC Lot: 5554025) - continued									
ES2401558-001	Anonymous	EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	<2	0.0	No Limit
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	<2	0.0	No Limit
EA029-C: Sulfur Trail (QC Lot: 5554025)									
EM2400571-003	BH01_1.0	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	0.060	0.061	0.0	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	0.070	0.071	0.0	No Limit
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	<10	<10	0.0	No Limit
ES2401558-001	Anonymous	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	<10	<10	0.0	No Limit
EA029-D: Calcium Values (QC Lot: 5554025)									
EM2400571-003	BH01_1.0	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	0.067	0.066	0.0	No Limit
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.068	0.069	0.0	No Limit
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	<0.020	0.0	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	<10	0.0	No Limit
ES2401558-001	Anonymous	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	<0.020	0.0	No Limit
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.022	0.023	0.0	No Limit
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	<0.020	0.0	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	<10	0.0	No Limit
EA029-E: Magnesium Values (QC Lot: 5554025)									
EM2400571-003	BH01_1.0	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	0.042	0.042	0.0	No Limit
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	0.042	0.044	4.4	No Limit
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	<0.020	0.0	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	<10	0.0	No Limit
ES2401558-001	Anonymous	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	0.074	0.077	3.3	No Limit
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	0.075	0.077	3.3	No Limit
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	<0.020	0.0	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	<0.020	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 (%)
EA029-E: Magnesium Values (QC Lot: 5554025) - continued									
ES2401558-001	Anonymous	EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	<10	0.0	No Limit
EA029-H: Acid Base Accounting (QC Lot: 5554025)									
EM2400571-003	BH01_1.0	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.0	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	0.08	0.08	0.0	No Limit
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.08	0.08	0.0	No Limit
		EA029: Liming Rate	----	1	kg CaCO3/t	4	4	0.0	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	4	4	0.0	No Limit
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	48	48	0.0	No Limit
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	48	48	0.0	No Limit
ES2401558-001	Anonymous	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.0	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	<0.02	<0.02	0.0	No Limit
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	<0.02	<0.02	0.0	No Limit
		EA029: Liming Rate	----	1	kg CaCO3/t	<1	<1	0.0	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	<1	<1	0.0	No Limit
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	<10	0.0	No Limit
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	<10	<10	0.0	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5548905)									
EM2400571-001	BH01_0.1	EA055: Moisture Content	----	0.1	%	27.1	27.4	1.0	0% - 20%
EM2400571-015	BH06_0.1	EA055: Moisture Content	----	0.1 (1.0)*	%	28.0	28.2	0.8	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5548906)									
EM2400571-030	BH10_0.5	EA055: Moisture Content	----	0.1 (1.0)*	%	24.1	24.8	3.0	0% - 20%
EM2400571-045	BH15_0.1	EA055: Moisture Content	----	0.1 (1.0)*	%	20.5	19.4	5.4	0% - 20%
ED040S: Soluble Major Anions (QC Lot: 5555993)									
EM2400571-001	BH01_0.1	ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	<10	0.0	No Limit
ED040S: Soluble Major Anions (QC Lot: 5558281)									
EM2400571-022	BH07_1.0	ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	<10	0.0	No Limit
ED040S: Soluble Major Anions (QC Lot: 5558288)									
EM2400571-030	BH10_0.5	ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	10	10	0.0	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 5555994)									
EM2400571-001	BH01_0.1	ED045G: Chloride	16887-00-6	10	mg/kg	10	<10	0.0	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 5558282)									
EM2400571-022	BH07_1.0	ED045G: Chloride	16887-00-6	10	mg/kg	60	60	0.0	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 5558287)									
EM2400571-030	BH10_0.5	ED045G: Chloride	16887-00-6	10	mg/kg	60	60	0.0	No Limit
ED093S: Soluble Major Cations (QC Lot: 5558289)									



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 (%)
ED093S: Soluble Major Cations (QC Lot: 5558289) - continued									
EM2400571-030	BH10_0.5	ED093S: Calcium	7440-70-2	10	mg/kg	<10	<10	0.0	No Limit
		ED093S: Magnesium	7439-95-4	10	mg/kg	<10	<10	0.0	No Limit
		ED093S: Sodium	7440-23-5	10	mg/kg	50	50	0.0	No Limit
		ED093S: Potassium	7440-09-7	10	mg/kg	<10	<10	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5556028)									
EM2400571-001	BH01_0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2400571-013	BH05_0.5	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5556031)									
EM2400571-030	BH10_0.5	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2400571-042	QC01	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 5556537)									
EM2400571-001	BH01_0.1	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2400573-036	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 5559552)									
EM2400573-036	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2400571-001	BH01_0.1	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK030: Cyanide Amenable to Chlorination (QC Lot: 5559553)									
EM2400571-001	BH01_0.1	EK030SF: Cyanide amenable to chlorination	----	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 5556535)									
EB2401280-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	980	1110	12.4	0% - 20%
EB2401280-018	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	1300	1340	3.3	0% - 20%
EK055: Ammonia as N (QC Lot: 5558727)									
EB2401892-012	Anonymous	EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	<20	0.0	No Limit
EM2400571-023	BH08_0.1	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: 5555999)									
EM2400571-004	BH02_0.1	EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	0.2	0.2	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 5558279)									
EM2400571-012	BH05_0.1	EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 5558285)									
EM2400571-013	BH05_0.5	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: 5556000)									
EM2400571-004	BH02_0.1	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	0.5	0.5	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 5558280)									
EM2400571-012	BH05_0.1	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	0.1	0.1	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 5558286)									
EM2400571-013	BH05_0.5	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	<0.1	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 (%)
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 5565454)									
EM2400571-004	BH02_0.1	EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	1720	1480	14.7	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 5565453)									
EM2400571-004	BH02_0.1	EK067G: Total Phosphorus as P	----	2	mg/kg	280	242	14.5	0% - 20%
EP010: Formaldehyde (QC Lot: 5555997)									
EM2400571-001	BH01_0.1	EP010: Formaldehyde	50-00-0	2	mg/kg	<2	<2	0.0	No Limit
EP010: Formaldehyde (QC Lot: 5558278)									
EM2400571-012	BH05_0.1	EP010: Formaldehyde	50-00-0	2	mg/kg	<2	<2	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5556085)									
EM2400571-004	BH02_0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5556094)									
EM2400571-001	BH01_0.1	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2400573-053	Anonymous	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5556084)									
EM2400571-004	BH02_0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5556084)									
EM2400571-004	BH02_0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	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 (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5556084) - continued									
EM2400571-004	BH02_0.1	EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 5555714)									
EM2400571-001	BH01_0.1	EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2400573-053	Anonymous	EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074B: Oxygenated Compounds (QC Lot: 5555714)									
EM2400571-001	BH01_0.1	EP074-UT: 2-Butanone (MEK)	78-93-3	1	mg/kg	<1	<1	0.0	No Limit
EM2400573-053	Anonymous	EP074-UT: 2-Butanone (MEK)	78-93-3	1	mg/kg	<1	<1	0.0	No Limit
EP074H: Naphthalene (QC Lot: 5555714)									
EM2400571-001	BH01_0.1	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EM2400573-053	Anonymous	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	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 (%)
EP074I: Volatile Halogenated Compounds (QC Lot: 5555714)									
EM2400571-001	BH01_0.1	EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.3.5-Trichlorobenzene	108-70-3	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.2.3-Trichlorobenzene	87-61-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	<0.04	0.0	No Limit
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	<0.4	0.0	No Limit		
EM2400573-053	Anonymous	EP074-UT: 1.1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: cis-1.2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.3.5-Trichlorobenzene	108-70-3	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: 1.2.3-Trichlorobenzene	87-61-6	0.01	mg/kg	<0.01	<0.01	0.0	No Limit
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	<0.02	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 (%)
EP074I: Volatile Halogenated Compounds (QC Lot: 5555714) - continued									
EM2400573-053	Anonymous	EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	<0.04	0.0	No Limit
		EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	<0.4	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5556083)									
EM2400571-027	BH09_0.5	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
		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
EM2400571-004	BH02_0.1	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
		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



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: 5556083) - continued									
EM2400571-004	BH02_0.1	EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 5556093)									
EM2400571-001	BH01_0.1	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EM2400573-053	Anonymous	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 5556093)									
EM2400571-001	BH01_0.1	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit
EM2400573-053	Anonymous	EP075-EM: Phenol	108-95-2	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	0.0	No Limit
		EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	<5	0.0	No Limit
		EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	<5	0.0	No Limit
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5556093)									
EM2400571-001	BH01_0.1	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	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 (%)
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5556093) - continued									
EM2400571-001	BH01_0.1	EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit
EM2400573-053	Anonymous	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	0.9	1.1	25.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	0.8	1.0	29.7	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	0.7	28.3	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	0.6	0.8	28.3	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	0.6	0.9	44.0	No Limit
		EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	0.6	22.3	No Limit
		EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.6	0.8	38.9	No Limit
		EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	1.2	1.6	35.0	No Limit
EP075C: Phthalate Esters (QC Lot: 5556093)									
EM2400571-001	BH01_0.1	EP075-EM: bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2400573-053	Anonymous	EP075-EM: bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075E: Nitroaromatics and Ketones (QC Lot: 5556093)									
EM2400571-001	BH01_0.1	EP075-EM: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: 2,4-Dinitrotoluene	121-14-2	1	mg/kg	<1.0	<1.0	0.0	No Limit
EM2400573-053	Anonymous	EP075-EM: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: 2,4-Dinitrotoluene	121-14-2	1	mg/kg	<1.0	<1.0	0.0	No Limit
EP075I: Organochlorine Pesticides (QC Lot: 5556093)									
EM2400571-001	BH01_0.1	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	<0.03	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 (%)
EP075I: Organochlorine Pesticides (QC Lot: 5556093) - continued									
EM2400571-001	BH01_0.1	EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EM2400573-053	Anonymous	EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	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 (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5555714)									
EM2400571-001	BH01_0.1	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EM2400573-053	Anonymous	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5555973)									
EM2400571-004	BH02_0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EM2400571-027	BH09_0.5	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5556082)									
EM2400571-027	BH09_0.5	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
EM2400571-004	BH02_0.1	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 Petroleum Hydrocarbons (QC Lot: 5556095)									
EM2400571-001	BH01_0.1	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EM2400573-053	Anonymous	EP071-EM: C15 - C28 Fraction	----	100	mg/kg	100	120	13.4	No Limit
		EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5555714)									
EM2400571-001	BH01_0.1	EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
		EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	0.0	No Limit
EM2400573-053	Anonymous	EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
		EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5555973)									
EM2400571-004	BH02_0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EM2400571-027	BH09_0.5	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: 5556082)									
EM2400571-027	BH09_0.5	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
EM2400571-004	BH02_0.1	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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5556095)									
EM2400571-001	BH01_0.1	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	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 (%)
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5556095) - continued									
EM2400571-001	BH01_0.1	EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EM2400573-053	Anonymous	EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	130	160	17.9	No Limit
		EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEXN (QC Lot: 5555973)									
EM2400571-004	BH02_0.1	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	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
EM2400571-027	BH09_0.5	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	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5562137)									
EM2400850-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2400850-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5562137)									
EM2400850-002	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EM2400850-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5562137)									
EM2400850-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2400850-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5562137)									
EM2400850-002	Anonymous	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2400850-001	Anonymous	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	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: 5561537)									
EM2400571-048	RB01	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: Chromium	7440-47-3	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: 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
EM2400664-030	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: Chromium	7440-47-3	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: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit

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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: 5561537) - continued									
EM2400664-030	Anonymous	EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5550010)									
EM2400396-047	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EM2400605-002	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit



Method Blank (MB) and Laboratory Control Sample (LCS) Report

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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5556029)								
EG005T: Antimony	7440-36-0	5	mg/kg	<5	2.57 mg/kg	76.6	70.0	130
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	103	70.0	130
EG005T: Barium	7440-39-3	10	mg/kg	<10	99.3 mg/kg	97.4	70.0	130
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	0.67 mg/kg	96.3	70.0	130
EG005T: Boron	7440-42-8	50	mg/kg	<50	----	----	----	----
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	52.9	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	101	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	92.5	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	94.2	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	94.2	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	97.8	70.0	130
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	81.0	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	78.4	70.0	130
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5556030)								
EG005T: Antimony	7440-36-0	5	mg/kg	<5	2.57 mg/kg	78.8	70.0	130
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	101	70.0	130
EG005T: Barium	7440-39-3	10	mg/kg	<10	99.3 mg/kg	94.0	70.0	130
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	0.67 mg/kg	94.3	70.0	130
EG005T: Boron	7440-42-8	50	mg/kg	<50	----	----	----	----
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	81.8	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	98.3	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	91.1	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	91.6	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	96.9	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.0	70.0	130
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.9 mg/kg	78.4	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	77.2	70.0	130
EP095: Ethylenediamine Tetraacetic Acid (EDTA) (QCLot: 5555998)								



Sub-Matrix: SOIL

Method: Compound				CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report		
								Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High
EP095: Ethylenediamine Tetraacetic Acid (EDTA) (QCLot: 5555998) - continued										
EP095: Ethylenediamine tetraacetic acid (EDTA) 60-00-04 10 mg/kg <10 50 mg/kg 111 70.0 130										
EP095: Ethylenediamine Tetraacetic Acid (EDTA) (QCLot: 5558277)										
EP095: Ethylenediamine tetraacetic acid (EDTA) 60-00-04 10 mg/kg <10 50 mg/kg 116 70.0 130										
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO) (QCLot: 5558632)										
EP236: 2,4-D 94-75-7 0.001 mg/kg <0.001 0.025 mg/kg 88.0 70.0 130										
EP236: Tributyltin oxide 56-35-9 0.01 mg/kg <0.01 0.229 mg/kg 93.4 70.0 130										
EA001: pH in soil using 0.01M CaCl extract (QCLot: 5555735)										
EA001: pH (CaCl2) ---- ---- pH Unit ---- 4 pH Unit 99.8 98.8 101										
EA001: pH (CaCl2) ---- ---- pH Unit ---- 7 pH Unit 100 99.3 101										
EA002: pH 1:5 (Soils) (QCLot: 5555995)										
EA002: pH Value ---- ---- pH Unit ---- 4 pH Unit 100 98.8 101										
EA002: pH Value ---- ---- pH Unit ---- 7 pH Unit 100 99.3 101										
EA002: pH 1:5 (Soils) (QCLot: 5558283)										
EA002: pH Value ---- ---- pH Unit ---- 4 pH Unit 100 98.8 101										
EA002: pH Value ---- ---- pH Unit ---- 7 pH Unit 100 99.3 101										
EA010: Conductivity (1:5) (QCLot: 5555996)										
EA010: Electrical Conductivity @ 25°C ---- 1 µS/cm <1 1413 µS/cm 100 94.5 105										
EA010: Conductivity (1:5) (QCLot: 5558284)										
EA010: Electrical Conductivity @ 25°C ---- 1 µS/cm <1 1413 µS/cm 101 94.5 105										
EA029-A: pH Measurements (QCLot: 5554025)										
EA029: pH KCl (23A) ---- 0.1 pH Unit <0.1 4.4 pH Unit 102 70.0 130										
EA029: pH OX (23B) ---- 0.1 pH Unit <0.1 4.2 pH Unit 106 70.0 130										
EA029-B: Acidity Trail (QCLot: 5554025)										
EA029: Titratable Actual Acidity (23F) ---- 2 mole H+ / t <2 16 mole H+ / t 105 70.0 130										
EA029: Titratable Peroxide Acidity (23G) ---- 2 mole H+ / t <2 25 mole H+ / t 107 70.0 130										
EA029: Titratable Sulfidic Acidity (23H) ---- 2 mole H+ / t <2 ---- ---- ----										
EA029: sulfidic - Titratable Actual Acidity (s-23F) ---- 0.02 % pyrite S <0.020 ---- ---- ----										
EA029: sulfidic - Titratable Peroxide Acidity (s-23G) ---- 0.02 % pyrite S <0.020 ---- ---- ----										
EA029: sulfidic - Titratable Sulfidic Acidity (s-23H) ---- 0.02 % pyrite S <0.020 ---- ---- ----										
EA029-C: Sulfur Trail (QCLot: 5554025)										
EA029: KCl Extractable Sulfur (23Ce) ---- 0.02 % S <0.020 0.055 % S 80.6 70.0 130										
EA029: Peroxide Sulfur (23De) ---- 0.02 % S <0.020 0.152 % S 92.8 70.0 130										
EA029: Peroxide Oxidisable Sulfur (23E) ---- 0.02 % S <0.020 ---- ---- ----										
EA029: acidity - Peroxide Oxidisable Sulfur (a-23E) ---- 10 mole H+ / t <10 ---- ---- ----										



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
					LCS	Low	High	
EA029-D: Calcium Values (QCLot: 5554025)								
EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	0.201 % Ca	100	70.0	130
EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	<0.020	0.191 % Ca	98.9	70.0	130
EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	----	----	----	----
EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	----	----	----	----
EA029-E: Magnesium Values (QCLot: 5554025)								
EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	0.204 % Mg	98.8	70.0	130
EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	0.234 % Mg	94.8	70.0	130
EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	----	----	----	----
EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	----	----	----	----
EA029-G: Retained Acidity (QCLot: 5554025)								
EA029: Net Acid Soluble Sulfur (20Je)	----	0.02	% S	<0.020	----	----	----	----
EA029: acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: HCl Extractable Sulfur (20Be)	----	0.02	% S	<0.020	0.696 % S	96.4	70.0	130
EA029-H: Acid Base Accounting (QCLot: 5554025)								
EA029: ANC Fineness Factor	----	0.5	-	<0.5	----	----	----	----
EA029: Net Acidity (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate	----	1	kg CaCO3/t	<1	----	----	----	----
EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	<1	----	----	----	----
ED040S: Soluble Major Anions (QCLot: 5555993)								
ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	----	----	----	----
ED040S: Soluble Major Anions (QCLot: 5558281)								
ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	----	----	----	----
ED040S: Soluble Major Anions (QCLot: 5558288)								
ED040S: Sulfate as SO4 2-	14808-79-8	10	mg/kg	<10	----	----	----	----
ED045G: Chloride by Discrete Analyser (QCLot: 5555994)								
ED045G: Chloride	16887-00-6	10	mg/kg	<10	50 mg/kg	96.9	85.5	120
				<10	5000 mg/kg	93.9	85.5	120
ED045G: Chloride by Discrete Analyser (QCLot: 5558282)								



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
ED045G: Chloride by Discrete Analyser (QCLot: 5558282) - continued								
ED045G: Chloride	16887-00-6	10	mg/kg	<10	50 mg/kg	95.9	85.5	120
				<10	5000 mg/kg	93.4	85.5	120
ED045G: Chloride by Discrete Analyser (QCLot: 5558287)								
ED045G: Chloride	16887-00-6	10	mg/kg	<10	50 mg/kg	95.9	85.5	120
				<10	5000 mg/kg	94.4	85.5	120
ED093S: Soluble Major Cations (QCLot: 5558289)								
ED093S: Calcium	7440-70-2	10	mg/kg	<10	250 mg/kg	102	80.0	120
ED093S: Magnesium	7439-95-4	10	mg/kg	<10	250 mg/kg	110	80.0	120
ED093S: Sodium	7440-23-5	10	mg/kg	<10	250 mg/kg	100	80.0	120
ED093S: Potassium	7440-09-7	10	mg/kg	<10	250 mg/kg	99.0	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5556028)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	121	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5556031)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	109	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5556537)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	91.7	70.0	130
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 5559552)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	100	70.0	130
EK030: Cyanide Amenable to Chlorination (QCLot: 5559553)								
EK030SF: Cyanide amenable to chlorination	----	1	mg/kg	<1	40 mg/kg	93.0	70.0	130
EK040T: Fluoride Total (QCLot: 5556535)								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	334 mg/kg	100	93.1	107
EK055: Ammonia as N (QCLot: 5558727)								
EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	25 mg/kg	94.9	80.0	110
EK057G: Nitrite as N by Discrete Analyser (QCLot: 5555999)								
EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	2.5 mg/kg	102	88.9	113
EK057G: Nitrite as N by Discrete Analyser (QCLot: 5558279)								
EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	2.5 mg/kg	90.7	88.9	113
EK057G: Nitrite as N by Discrete Analyser (QCLot: 5558285)								
EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	2.5 mg/kg	92.8	88.9	113
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 5556000)								
EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	2.5 mg/kg	95.0	89.5	119
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 5558280)								
EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	2.5 mg/kg	93.3	89.5	119



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 5558286)									
EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	2.5 mg/kg	94.4	89.5	119	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 5565454)									
EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	<20	500 mg/kg	97.2	70.0	130	
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 5565453)									
EK067G: Total Phosphorus as P	----	2	mg/kg	<2	221 mg/kg	96.4	78.3	127	
EP010: Formaldehyde (QCLot: 5555997)									
EP010: Formaldehyde	50-00-0	2	mg/kg	<2	25 mg/kg	94.6	83.9	103	
EP010: Formaldehyde (QCLot: 5558278)									
EP010: Formaldehyde	50-00-0	2	mg/kg	<2	25 mg/kg	95.2	83.9	103	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5556085)									
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	118	68.0	133	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5556094)									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	105	67.4	136	
EP068A: Organochlorine Pesticides (OC) (QCLot: 5556084)									
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	97.3	71.8	126	
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	98.2	72.2	125	
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	101	70.0	124	
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	99.6	69.1	124	
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	97.6	69.2	125	
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	66.6	122	
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	101	68.8	123	
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	102	67.2	124	
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	100	66.0	126	
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	70.2	126	
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	72.1	124	
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	106	68.0	122	
EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	68.9	124	
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	55.8	130	
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	67.9	124	
EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	72.0	127	
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	103	66.3	131	
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.7	62.4	131	
EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	103	55.4	130	
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	105	68.8	128	



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 5556084) - continued								
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	104	55.5	132
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5556084)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	102	65.6	127
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	112	63.0	129
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	120	10.0	136
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	108	58.3	128
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	122
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	97.0	68.0	122
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	97.2	59.6	124
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	108	63.8	128
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	71.1	124
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	100	67.4	126
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	105	57.9	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	103	66.2	123
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	113	59.8	123
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	100	65.4	127
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	121	52.1	128
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	103	65.2	122
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	109	63.2	124
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	103	65.9	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	119	43.1	131
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 5555714)								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	94.1	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	90.8	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	88.9	66.6	115
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	91.7	65.2	112
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	93.4	69.4	111
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	93.0	68.4	110
EP074B: Oxygenated Compounds (QCLot: 5555714)								
EP074-UT: 2-Butanone (MEK)	78-93-3	1	mg/kg	<1	1 mg/kg	80.5	70.0	130
EP074H: Naphthalene (QCLot: 5555714)								
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	98.0	72.3	114
EP074I: Volatile Halogenated Compounds (QCLot: 5555714)								



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP074I: Volatile Halogenated Compounds (QCLot: 5555714) - continued									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	98.1	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	104	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	97.2	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	90.6	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	96.4	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	93.8	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	90.8	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	89.4	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	93.8	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	89.7	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	94.2	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	90.8	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	93.8	71.8	116	
EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	94.2	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	86.7	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	89.6	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	88.7	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	91.1	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	87.0	48.4	120	
EP074-UT: 1,3,5-Trichlorobenzene	108-70-3	0.01	mg/kg	<0.01	0.1 mg/kg	86.2	70.0	130	
EP074-UT: 1,2,3-Trichlorobenzene	87-61-6	0.01	mg/kg	<0.01	0.1 mg/kg	89.2	70.0	130	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5556083)									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	98.0	85.7	123	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	94.0	81.0	123	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	94.7	83.6	120	
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	92.9	81.3	126	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	98.8	79.4	123	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	96.3	81.7	127	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	100.0	78.3	124	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	98.4	79.9	128	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	94.4	76.9	123	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	108	80.9	130	
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	3 mg/kg	86.0	70.0	121	
	205-82-3								
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	103	80.4	130	



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5556083) - continued									
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	96.2	70.2	123	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	86.3	67.9	122	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	83.6	65.8	123	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	88.3	65.8	127	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 5556093)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	110	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	104	72.7	126	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	103	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	108	72.4	128	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 5556093)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	109	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	111	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	112	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	104	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	107	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	103	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	118	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	101	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	104	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	93.3	34.5	137	
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 5556093)									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	104	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	90.1	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	102	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	104	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	106	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	106	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	107	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	109	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	105	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	108	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	111	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	108	65.1	130	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 5556093) - continued								
EP075-EM: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	106	72.1	134
EP075-EM: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	105	72.9	135
EP075-EM: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	108	71.3	134
EP075C: Phthalate Esters (QCLot: 5556093)								
EP075-EM: bis(2-ethylhexyl) phthalate	117-81-7	0.5	mg/kg	<0.5	2 mg/kg	102	70.0	130
EP075E: Nitroaromatics and Ketones (QCLot: 5556093)								
EP075-EM: 2,4-Dinitrotoluene	121-14-2	1	mg/kg	<1.0	2 mg/kg	103	70.0	130
EP075-EM: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	2 mg/kg	105	70.0	130
EP075I: Organochlorine Pesticides (QCLot: 5556093)								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	106	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	109	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	109	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	107	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	110	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	109	75.5	131
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	110	76.8	130
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	96.9	73.6	130
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	95.2	75.0	133
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	94.6	75.3	131
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	109	69.4	134
EP075-EM: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	111	71.0	132
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	107	78.0	133
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	85.3	69.0	143
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	107	55.7	145
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	106	71.4	135
EP075-EM: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	107	74.8	134
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	108	70.2	135
EP075-EM: 4,4`-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	106	77.7	133
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	109	63.6	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5555714)								
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	91.3	61.1	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5555973)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	36 mg/kg	92.4	58.6	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5556082)								



Sub-Matrix: SOIL

Method Blank (MB) Report				Laboratory Control Spike (LCS) Report				
				Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)		Low
Method: Compound	CAS Number	LOR	Unit	Result				
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5556082) - continued								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	860 mg/kg	103	75.0	128
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	2770 mg/kg	103	82.0	123
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	1520 mg/kg	105	82.4	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5556095)								
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	860 mg/kg	79.3	74.4	129
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2770 mg/kg	89.3	81.0	123
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1520 mg/kg	95.9	81.8	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5555714)								
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	92.5	59.9	119
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5555973)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	90.1	59.3	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5556082)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	1130 mg/kg	103	77.0	130
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	3730 mg/kg	102	81.5	120
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	260 mg/kg	96.5	73.3	137
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5556095)								
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1130 mg/kg	81.4	75.4	132
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3730 mg/kg	92.3	80.8	120
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	260 mg/kg	87.2	73.3	136
EP080: BTEXN (QCLot: 5555973)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	92.6	61.6	117
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	92.2	65.8	125
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	93.9	65.8	124
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4 mg/kg	94.4	64.8	134
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	99.4	68.7	132
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	90.7	61.8	123
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5562137)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	98.2	72.0	128
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00114 mg/kg	105	67.0	130
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	92.2	68.0	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5562137)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	101	71.0	135



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5562137) - continued								
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.1	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	69.0	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5562137)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	102	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00119 mg/kg	112	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	113	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00121 mg/kg	121	70.0	130
EP231P: PFAS Sums (QCLot: 5562137)								
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 5561537)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	101	89.2	115
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	92.2	86.4	115
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	97.7	86.9	112
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	98.4	86.9	111
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	99.0	88.3	112
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	95.8	87.9	113
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	98.0	86.7	117
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5550010)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	86.6	73.4	119

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%)	Acceptable Limits (%)	
				MS	Low	High	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5556029)							



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
Laboratory sample ID		Sample ID	Method: Compound	CAS Number	Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5556029) - continued							
EM2400571-003	BH01_1.0	EG005T: Chromium	7440-47-3	50 mg/kg	113	79.0	121
EM2400571-003	BH01_1.0	EG005T: Arsenic	7440-38-2	50 mg/kg	81.4	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.3	79.7	116
		EG005T: Copper	7440-50-8	250 mg/kg	101	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	97.0	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	92.0	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	95.2	80.0	120
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5556030)							
EM2400571-032	BH11_0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	93.7	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.3	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	91.4	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	98.7	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	95.3	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	97.6	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	95.0	80.0	120
EP095: Ethylenediamine Tetraacetic Acid (EDTA) (QCLot: 5558277)							
EM2400571-012	BH05_0.1	EP095: Ethylenediamine tetraacetic acid (EDTA)	60-00-04	50 mg/kg	# 34.7	70.0	130
EP236: Dichlorophenoxyacetic Acid (2.4-D) and Tributyltin Oxide (TBTO) (QCLot: 5558632)							
EM2400571-005	BH02_0.5	EP236: 2.4-D	94-75-7	0.025 mg/kg	90.3	70.0	130
		EP236: Tributyltin oxide	56-35-9	0.229 mg/kg	104	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 5555994)							
EM2400571-007	BH03_0.5	ED045G: Chloride	16887-00-6	2000 mg/kg	101	93.0	125
ED045G: Chloride by Discrete Analyser (QCLot: 5558287)							
EM2400809-001	Anonymous	ED045G: Chloride	16887-00-6	2000 mg/kg	101	93.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5556028)							
EM2400571-003	BH01_1.0	EG035T: Mercury	7439-97-6	0.5 mg/kg	105	76.0	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5556031)							
EM2400571-032	BH11_0.1	EG035T: Mercury	7439-97-6	0.5 mg/kg	99.5	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5556537)							
EM2400571-005	BH02_0.5	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 47.6	58.0	114
EM2400571-005	BH02_0.5	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 51.2	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 5559552)							
EM2400571-005	BH02_0.5	EK026SF: Total Cyanide	57-12-5	20 mg/kg	72.5	70.0	130
EK030: Cyanide Amenable to Chlorination (QCLot: 5559553)							
EM2400571-005	BH02_0.5	EK030SF: Cyanide amenable to chlorination	----	40 mg/kg	87.1	70.0	130



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	Spike Recovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK040T: Fluoride Total (QCLot: 5556535)							
EB2401280-003	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	73.6	70.0	130
EK055: Ammonia as N (QCLot: 5558727)							
EB2401892-011	Anonymous	EK055: Ammonia as N	7664-41-7	100 mg/kg	80.7	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 5555999)							
EM2400571-011	BH04_1.0	EK057G: Nitrite as N (Sol.)	14797-65-0	2.5 mg/kg	108	84.0	128
EK057G: Nitrite as N by Discrete Analyser (QCLot: 5558285)							
EM2400571-018	BH06_0.5	EK057G: Nitrite as N (Sol.)	14797-65-0	2.5 mg/kg	107	84.0	128
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 5556000)							
EM2400571-011	BH04_1.0	EK059G: Nitrite + Nitrate as N (Sol.)	----	2.5 mg/kg	94.5	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 5558286)							
EM2400571-018	BH06_0.5	EK059G: Nitrite + Nitrate as N (Sol.)	----	2.5 mg/kg	94.2	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 5565454)							
EM2400571-011	BH04_1.0	EK061G: Total Kjeldahl Nitrogen as N	----	500 mg/kg	105	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 5565453)							
EM2400571-011	BH04_1.0	EK067G: Total Phosphorus as P	----	100 mg/kg	86.4	70.0	130
EP010: Formaldehyde (QCLot: 5558278)							
EM2400571-012	BH05_0.1	EP010: Formaldehyde	50-00-0	12.5 mg/kg	96.8	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5556085)							
EM2400571-009	BH04_0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	125	63.2	144
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5556094)							
EM2400571-005	BH02_0.5	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	108	59.6	152
EP068A: Organochlorine Pesticides (OC) (QCLot: 5556084)							
EM2400571-009	BH04_0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	90.6	51.4	139
		EP068: Heptachlor	76-44-8	0.5 mg/kg	96.8	49.1	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	98.7	38.4	135
		EP068: Dieldrin	60-57-1	0.5 mg/kg	101	58.4	136
		EP068: Endrin	72-20-8	0.5 mg/kg	100	33.0	146
		EP068: 4.4'-DDT	50-29-3	0.5 mg/kg	102	20.0	133
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5556084)							
EM2400571-009	BH04_0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	91.8	65.1	135
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	91.1	56.3	127
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	93.2	55.0	133
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	98.5	55.1	133
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	82.1	43.8	128



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 5555714)							
EM2400571-005	BH02_0.5	EP074-UT: Benzene	71-43-2	2 mg/kg	77.0	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	80.1	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 5555714)							
EM2400571-005	BH02_0.5	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	72.2	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	79.9	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	83.8	55.5	122
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5556083)							
EM2400571-006	BH03_0.1	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	88.9	77.2	116
		EP075(SIM): Pyrene	129-00-0	3 mg/kg	87.1	65.5	136
EP075A: Phenolic Compounds (Halogenated) (QCLot: 5556093)							
EM2400571-022	BH07_1.0	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	83.8	44.0	143
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 5556093)							
EM2400571-022	BH07_1.0	EP075-EM: Phenol	108-95-2	3 mg/kg	83.5	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	61.8	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 5556093)							
EM2400571-022	BH07_1.0	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	73.9	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	88.7	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5555714)							
EM2400571-005	BH02_0.5	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	64.0	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5555973)							
EM2400571-006	BH03_0.1	EP080: C6 - C9 Fraction	----	28 mg/kg	76.8	33.4	124
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5556082)							
EM2400571-006	BH03_0.1	EP071: C10 - C14 Fraction	----	860 mg/kg	92.8	71.2	125
		EP071: C15 - C28 Fraction	----	2770 mg/kg	93.4	75.6	122
		EP071: C29 - C36 Fraction	----	1520 mg/kg	95.7	78.0	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5556095)							
EM2400571-012	BH05_0.1	EP071-EM: C10 - C14 Fraction	----	860 mg/kg	76.4	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2770 mg/kg	85.7	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1520 mg/kg	92.4	78.1	120
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5555714)							
EM2400571-005	BH02_0.5	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	56.7	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5555973)							
EM2400571-006	BH03_0.1	EP080: C6 - C10 Fraction	C6_C10	33 mg/kg	69.7	30.8	120
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5556082)							
EM2400571-006	BH03_0.1	EP071: >C10 - C16 Fraction	----	1130 mg/kg	92.9	72.2	128



Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5556082) - continued							
EM2400571-006	BH03_0.1	EP071: >C16 - C34 Fraction	----	3730 mg/kg	93.2	76.5	119
		EP071: >C34 - C40 Fraction	----	260 mg/kg	90.0	66.8	138
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5556095)							
EM2400571-012	BH05_0.1	EP071-EM: >C10 - C16 Fraction	----	1130 mg/kg	78.2	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3730 mg/kg	88.8	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	260 mg/kg	83.5	65.3	139
EP080: BTEXN (QCLot: 5555973)							
EM2400571-006	BH03_0.1	EP080: Benzene	71-43-2	2 mg/kg	91.9	54.4	127
		EP080: Toluene	108-88-3	2 mg/kg	92.4	57.1	131
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5562137)							
EM2400850-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	84.9	72.0	128
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	87.0	67.0	130
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	93.3	68.0	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5562137)							
EM2400850-003	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	88.0	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	77.8	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	91.6	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	96.9	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	90.4	69.0	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5562137)							
EM2400850-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	77.6	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	98.2	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	97.5	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	90.5	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 5561537)							
EM2400571-048	RB01	EG020A-T: Arsenic	7440-38-2	1 mg/L	98.3	82.0	123
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	91.3	81.8	123
		EG020A-T: Chromium	7440-47-3	1 mg/L	98.3	78.9	119
		EG020A-T: Copper	7440-50-8	1 mg/L	95.4	80.4	118
		EG020A-T: Lead	7439-92-1	1 mg/L	101	80.5	121
		EG020A-T: Nickel	7440-02-0	1 mg/L	96.8	80.0	118
		EG020A-T: Zinc	7440-66-6	1 mg/L	97.2	74.0	120

EG035T: Total Recoverable Mercury by FIMS (QCLot: 5550010)

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 Work Order : EM2400571
 Client : JACOBS GROUP(AUSTRALIA)PTY LTD
 Project : IA5000PB



Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5550010) - continued							
EM2400396-048	Anonymous	EG035T: Mercury	7439-97-6	0.01 mg/L	82.5	70.0	130



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2400571	Page	: 1 of 23
Client	: JACOBS GROUP(AUSTRALIA)PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: JORDAN PRESTIDGE	Telephone	: +6138549 9645
Project	: IA5000PB	Date Samples Received	: 17-Jan-2024
Site	: ----	Issue Date	: 31-Jan-2024
Sampler	: JORDAN PRESTIDGE, TEA SVILAND	No. of samples received	: 47
Order number	: TBC	No. of samples analysed	: 34

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.
- Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.

Outliers : Analysis Holding Time Compliance

- **NO** Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- **NO** Quality Control Sample Frequency Outliers exist.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP095: Ethylenediamine Tetraacetic Acid (EDTA)	EM2400571--012	BH05_0.1	Ethylenediamine tetraacetic acid (EDTA)	60-00-04	34.7 %	70.0-130%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	EM2400571--005	BH02_0.5	Hexavalent Chromium	18540-29-9	47.6 %	58.0-114%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	EM2400571--005	BH02_0.5	Hexavalent Chromium	18540-29-9	51.2 %	58.0-114%	Recovery less than lower data quality objective

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP068T: Organophosphorus Pesticide Surrogate	EM2400571-032	BH11_0.1	DEF	78-48-8	144 %	39.8-139 %	Recovery greater than upper data quality objective

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		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA001: pH in soil using 0.01M CaCl extract							
Soil Glass Jar - Unpreserved (EA001)							
BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	23-Jan-2024	✓	23-Jan-2024	23-Jan-2024 ✓
Soil Glass Jar - Unpreserved (EA001)							
BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	24-Jan-2024	✓	23-Jan-2024	23-Jan-2024 ✓
EA002: pH 1:5 (Soils)							
Soil Glass Jar - Unpreserved (EA002)							
BH01_0.1, BH14_0.5	BH03_0.5	16-Jan-2024	23-Jan-2024	23-Jan-2024	✓	23-Jan-2024	23-Jan-2024 ✓
Soil Glass Jar - Unpreserved (EA002)							
BH07_1.0		17-Jan-2024	24-Jan-2024	24-Jan-2024	✓	24-Jan-2024	24-Jan-2024 ✓



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA010: Conductivity (1:5)								
Soil Glass Jar - Unpreserved (EA010) BH01_0.1, BH14_0.5	BH03_0.5	16-Jan-2024	23-Jan-2024	23-Jan-2024	✓	23-Jan-2024	20-Feb-2024	✓
Soil Glass Jar - Unpreserved (EA010) BH07_1.0		17-Jan-2024	24-Jan-2024	24-Jan-2024	✓	24-Jan-2024	21-Feb-2024	✓
EA029-A: pH Measurements								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0,	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
EA029-B: Acidity Trail								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0,	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
EA029-C: Sulfur Trail								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0,	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
EA029-D: Calcium Values								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0,	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
EA029-E: Magnesium Values								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0,	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
EA029-F: Excess Acid Neutralising Capacity								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0,	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA029-G: Retained Acidity								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
EA029-H: Acid Base Accounting								
Snap Lock Bag - frozen on receipt at ALS (EA029) BH01_1.0, BH14_0.5	BH04_1.0	16-Jan-2024	23-Jan-2024	11-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
Snap Lock Bag - frozen on receipt at ALS (EA029) BH07_1.0,	BH09_0.5	17-Jan-2024	23-Jan-2024	12-Oct-2026	✓	23-Jan-2024	22-Apr-2024	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) BH01_0.1, BH02_0.1, BH03_0.1, BH04_0.1, BH12_0.1, BH13_0.1, BH14_0.1, QC01, BH15_1.0	BH01_1.0, BH02_0.5, BH03_0.5, BH04_1.0, BH12_0.5, BH13_0.5, BH14_0.5, BH15_0.1,	16-Jan-2024	----	----	----	18-Jan-2024	30-Jan-2024	✓
Soil Glass Jar - Unpreserved (EA055) BH05_0.1, BH06_0.1, BH06_0.5, BH07_1.0, BH08_0.5, BH09_0.5, BH10_0.5, BH11_0.5	BH05_0.5, QC02, BH07_0.1, BH08_0.1, BH09_0.1, BH10_0.1, BH11_0.1,	17-Jan-2024	----	----	----	18-Jan-2024	31-Jan-2024	✓
ED040S : Soluble Sulfate by ICPAES								
Soil Glass Jar - Unpreserved (ED040S) BH10_0.5		17-Jan-2024	24-Jan-2024	14-Feb-2024	✓	24-Jan-2024	21-Feb-2024	✓
ED040S: Soluble Major Anions								
Soil Glass Jar - Unpreserved (ED040S) BH01_0.1, BH14_0.5	BH03_0.5,	16-Jan-2024	23-Jan-2024	13-Feb-2024	✓	23-Jan-2024	20-Feb-2024	✓
Soil Glass Jar - Unpreserved (ED040S) BH07_1.0		17-Jan-2024	24-Jan-2024	14-Feb-2024	✓	24-Jan-2024	21-Feb-2024	✓



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
ED045G: Chloride by Discrete Analyser								
Soil Glass Jar - Unpreserved (ED045G) BH01_0.1, BH14_0.5	BH03_0.5	16-Jan-2024	23-Jan-2024	13-Feb-2024	✓	25-Jan-2024	20-Feb-2024	✓
Soil Glass Jar - Unpreserved (ED045G) BH07_1.0,	BH10_0.5	17-Jan-2024	24-Jan-2024	14-Feb-2024	✓	25-Jan-2024	21-Feb-2024	✓
ED093S: Soluble Major Cations								
Soil Glass Jar - Unpreserved (ED093S) BH10_0.5		17-Jan-2024	24-Jan-2024	15-Jul-2024	✓	24-Jan-2024	15-Jul-2024	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) BH01_0.1, BH02_0.1, BH03_0.1, BH04_0.1, BH12_0.1, BH13_0.1, BH14_0.1, QC01, BH15_1.0	BH01_1.0, BH02_0.5, BH03_0.5, BH04_1.0, BH12_0.5, BH13_0.5, BH14_0.5, BH15_0.1,	16-Jan-2024	23-Jan-2024	14-Jul-2024	✓	23-Jan-2024	14-Jul-2024	✓
Soil Glass Jar - Unpreserved (EG005T) BH05_0.1, BH06_0.1, BH06_0.5, BH07_1.0, BH08_0.5, BH09_0.5, BH10_0.5, BH11_0.5	BH05_0.5, QC02, BH07_0.1, BH08_0.1, BH09_0.1, BH10_0.1, BH11_0.1,	17-Jan-2024	23-Jan-2024	15-Jul-2024	✓	23-Jan-2024	15-Jul-2024	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) BH01_0.1, BH02_0.1, BH03_0.1, BH04_0.1, BH12_0.1, BH13_0.1, BH14_0.1, QC01, BH15_1.0	BH01_1.0, BH02_0.5, BH03_0.5, BH04_1.0, BH12_0.5, BH13_0.5, BH14_0.5, BH15_0.1	16-Jan-2024	23-Jan-2024	13-Feb-2024	✔	23-Jan-2024	13-Feb-2024	✔
Soil Glass Jar - Unpreserved (EG035T) BH05_0.1, BH06_0.1, BH06_0.5, BH07_1.0, BH08_0.5, BH09_0.5, BH10_0.5, BH11_0.5	BH05_0.5, QC02, BH07_0.1, BH08_0.1, BH09_0.1, BH10_0.1, BH11_0.1	17-Jan-2024	23-Jan-2024	14-Feb-2024	✔	23-Jan-2024	14-Feb-2024	✔
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	13-Feb-2024	✔	24-Jan-2024	30-Jan-2024	✔
Soil Glass Jar - Unpreserved (EG048G) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	14-Feb-2024	✔	24-Jan-2024	30-Jan-2024	✔
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	24-Jan-2024	30-Jan-2024	✔	29-Jan-2024	07-Feb-2024	✔
Soil Glass Jar - Unpreserved (EK026SF) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	24-Jan-2024	31-Jan-2024	✔	29-Jan-2024	07-Feb-2024	✔
EK030: Cyanide Amenable to Chlorination								
Soil Glass Jar - Unpreserved (EK030SF) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	24-Jan-2024	30-Jan-2024	✔	25-Jan-2024	07-Feb-2024	✔
Soil Glass Jar - Unpreserved (EK030SF) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	24-Jan-2024	31-Jan-2024	✔	25-Jan-2024	07-Feb-2024	✔



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	13-Feb-2024	✔	27-Jan-2024	13-Feb-2024	✔
Soil Glass Jar - Unpreserved (EK040T) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	14-Feb-2024	✔	27-Jan-2024	14-Feb-2024	✔
EK055: Ammonia as N								
Soil Glass Jar - Unpreserved (EK055) BH02_0.1	BH04_1.0	16-Jan-2024	----	----	----	24-Jan-2024	13-Feb-2024	✔
Soil Glass Jar - Unpreserved (EK055) BH05_0.1, BH06_0.5, BH11_0.5	BH05_0.5, BH08_0.1	17-Jan-2024	----	----	----	24-Jan-2024	14-Feb-2024	✔
EK057G: Nitrite as N by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK057G) BH02_0.1	BH04_1.0	16-Jan-2024	23-Jan-2024	23-Jan-2024	✔	25-Jan-2024	25-Jan-2024	✔
Soil Glass Jar - Unpreserved (EK057G) BH05_0.1, BH06_0.5, BH11_0.5	BH05_0.5, BH08_0.1	17-Jan-2024	24-Jan-2024	24-Jan-2024	✔	25-Jan-2024	26-Jan-2024	✔
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK059G) BH02_0.1	BH04_1.0	16-Jan-2024	23-Jan-2024	13-Feb-2024	✔	25-Jan-2024	25-Jan-2024	✔
Soil Glass Jar - Unpreserved (EK059G) BH05_0.1, BH06_0.5, BH11_0.5	BH05_0.5, BH08_0.1	17-Jan-2024	24-Jan-2024	14-Feb-2024	✔	25-Jan-2024	26-Jan-2024	✔
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Soil Glass Jar - Unpreserved (EK061G) BH02_0.1	BH04_1.0	16-Jan-2024	30-Jan-2024	13-Feb-2024	✔	30-Jan-2024	27-Feb-2024	✔
Soil Glass Jar - Unpreserved (EK061G) BH05_0.1, BH06_0.5, BH11_0.5	BH05_0.5, BH08_0.1	17-Jan-2024	30-Jan-2024	14-Feb-2024	✔	30-Jan-2024	27-Feb-2024	✔
EK067G: Total Phosphorus as P by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK067G) BH02_0.1	BH04_1.0	16-Jan-2024	30-Jan-2024	13-Feb-2024	✔	30-Jan-2024	27-Feb-2024	✔
Soil Glass Jar - Unpreserved (EK067G) BH05_0.1, BH06_0.5, BH11_0.5	BH05_0.5, BH08_0.1	17-Jan-2024	30-Jan-2024	14-Feb-2024	✔	30-Jan-2024	27-Feb-2024	✔



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP010: Formaldehyde							
Soil Glass Jar - Unpreserved (EP010) BH01_0.1	16-Jan-2024	23-Jan-2024	14-Jul-2024	✔	23-Jan-2024	14-Jul-2024	✔
Soil Glass Jar - Unpreserved (EP010) BH02_0.5, BH14_0.1	16-Jan-2024	24-Jan-2024	14-Jul-2024	✔	24-Jan-2024	14-Jul-2024	✔
Soil Glass Jar - Unpreserved (EP010) BH05_0.1, BH10_0.1	17-Jan-2024	24-Jan-2024	15-Jul-2024	✔	24-Jan-2024	15-Jul-2024	✔
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066-EM) BH01_0.1, BH12_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✔	23-Jan-2024	03-Mar-2024	✔
Soil Glass Jar - Unpreserved (EP066) BH02_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✔	24-Jan-2024	03-Mar-2024	✔
Soil Glass Jar - Unpreserved (EP066-EM) BH05_0.1, BH10_0.1	17-Jan-2024	23-Jan-2024	31-Jan-2024	✔	23-Jan-2024	03-Mar-2024	✔
Soil Glass Jar - Unpreserved (EP066) BH09_0.1, BH11_0.1	17-Jan-2024	23-Jan-2024	31-Jan-2024	✔	24-Jan-2024	03-Mar-2024	✔
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068) BH02_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✔	23-Jan-2024	03-Mar-2024	✔
Soil Glass Jar - Unpreserved (EP068) BH09_0.1, BH11_0.1	17-Jan-2024	23-Jan-2024	31-Jan-2024	✔	23-Jan-2024	03-Mar-2024	✔
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068) BH02_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✔	23-Jan-2024	03-Mar-2024	✔
Soil Glass Jar - Unpreserved (EP068) BH09_0.1, BH11_0.1	17-Jan-2024	23-Jan-2024	31-Jan-2024	✔	23-Jan-2024	03-Mar-2024	✔
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074-UT) BH01_0.1, BH12_0.1	16-Jan-2024	23-Jan-2024	23-Jan-2024	✔	23-Jan-2024	23-Jan-2024	✔
Soil Glass Jar - Unpreserved (EP074-UT) BH05_0.1	17-Jan-2024	18-Jan-2024	24-Jan-2024	✔	23-Jan-2024	24-Jan-2024	✔
Soil Glass Jar - Unpreserved (EP074-UT) BH07_1.0	17-Jan-2024	23-Jan-2024	24-Jan-2024	✔	23-Jan-2024	24-Jan-2024	✔



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP074B: Oxygenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	23-Jan-2024	✓	23-Jan-2024	23-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP074-UT) BH05_0.1		17-Jan-2024	18-Jan-2024	24-Jan-2024	✓	23-Jan-2024	24-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP074-UT) BH07_1.0,	BH10_0.1	17-Jan-2024	23-Jan-2024	24-Jan-2024	✓	23-Jan-2024	24-Jan-2024	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT) BH01_0.1, BH12_0.1,	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	23-Jan-2024	✓	23-Jan-2024	23-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP074-UT) BH05_0.1		17-Jan-2024	18-Jan-2024	24-Jan-2024	✓	23-Jan-2024	24-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP074-UT) BH07_1.0,	BH10_0.1	17-Jan-2024	23-Jan-2024	24-Jan-2024	✓	23-Jan-2024	24-Jan-2024	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT) BH01_0.1, BH12_0.1,	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	23-Jan-2024	✓	23-Jan-2024	23-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP074-UT) BH05_0.1		17-Jan-2024	18-Jan-2024	24-Jan-2024	✓	23-Jan-2024	24-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP074-UT) BH07_1.0,	BH10_0.1	17-Jan-2024	23-Jan-2024	24-Jan-2024	✓	23-Jan-2024	24-Jan-2024	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM)) BH02_0.1, BH04_0.1,	BH03_0.1, BH04_1.0	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) BH12_0.5, BH14_0.5, BH15_0.1	BH13_0.1, QC01,	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	24-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) BH06_0.1, BH06_0.5, BH08_0.1, BH09_0.5,	QC02, BH07_0.1, BH09_0.1, BH10_0.5	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) BH11_0.1,	BH11_0.5	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	24-Jan-2024	03-Mar-2024	✓



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075-EM) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075-EM) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075-EM) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
EP075C: Phthalate Esters								
Soil Glass Jar - Unpreserved (EP075-EM) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075-EM) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
EP075E: Nitroaromatics and Ketones								
Soil Glass Jar - Unpreserved (EP075-EM) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075-EM) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) BH01_0.1, BH12_0.1	BH02_0.5, BH14_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP075-EM) BH05_0.1, BH10_0.1	BH07_1.0	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	03-Mar-2024	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080) BH01_0.1, BH02_0.5, BH04_0.1, BH12_0.1, BH13_0.1, BH14_0.5, BH15_0.1	BH02_0.1, BH03_0.1, BH04_1.0, BH12_0.5, BH14_0.1, QC01,	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	30-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP071) BH12_0.5, BH14_0.5, BH15_0.1	BH13_0.1, QC01,	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	24-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) BH05_0.1,	BH06_0.5	17-Jan-2024	18-Jan-2024	31-Jan-2024	✓	23-Jan-2024	31-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP080) BH05_0.1, QC02, BH07_1.0, BH09_0.1, BH10_0.1, BH11_0.1,	BH06_0.1, BH07_0.1, BH08_0.1, BH09_0.5, BH10_0.5, BH11_0.5	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	31-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP071) QC02, BH07_0.1, BH09_0.1, BH10_0.5, BH11_0.5	BH06_0.5, BH08_0.1, BH09_0.5, BH11_0.1,	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	24-Jan-2024	03-Mar-2024	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080) BH01_0.1, BH02_0.5, BH04_0.1, BH12_0.1, BH13_0.1, BH14_0.5, BH15_0.1	BH02_0.1, BH03_0.1, BH04_1.0, BH12_0.5, BH14_0.1, QC01,	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	30-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP071) BH12_0.5, BH14_0.5, BH15_0.1	BH13_0.1, QC01,	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	24-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) BH05_0.1,	BH06_0.5	17-Jan-2024	18-Jan-2024	31-Jan-2024	✓	23-Jan-2024	31-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP080) BH05_0.1, QC02, BH07_1.0, BH09_0.1, BH10_0.1, BH11_0.1,	BH06_0.1, BH07_0.1, BH08_0.1, BH09_0.5, BH10_0.5, BH11_0.5	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	31-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP071) QC02, BH07_0.1, BH09_0.1, BH10_0.5, BH11_0.5	BH06_0.5, BH08_0.1, BH09_0.5, BH11_0.1,	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	24-Jan-2024	03-Mar-2024	✓
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080) BH02_0.1, BH04_0.1, BH12_0.5, BH14_0.5, BH15_0.1	BH03_0.1, BH04_1.0, BH13_0.1, QC01,	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	23-Jan-2024	30-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP080) BH06_0.5		17-Jan-2024	18-Jan-2024	31-Jan-2024	✓	23-Jan-2024	31-Jan-2024	✓
Soil Glass Jar - Unpreserved (EP080) BH06_0.1, BH07_0.1, BH09_0.1, BH10_0.5, BH11_0.5	QC02, BH08_0.1, BH09_0.5, BH11_0.1,	17-Jan-2024	23-Jan-2024	31-Jan-2024	✓	23-Jan-2024	31-Jan-2024	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP095: Ethylenediamine Tetraacetic Acid (EDTA)							
Soil Glass Jar - Unpreserved (EP095) BH01_0.1	16-Jan-2024	23-Jan-2024	30-Jan-2024	✓	24-Jan-2024	03-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP095) BH12_0.1	16-Jan-2024	24-Jan-2024	30-Jan-2024	✓	24-Jan-2024	04-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP095) BH02_0.5, BH14_0.1	16-Jan-2024	24-Jan-2024	30-Jan-2024	✓	25-Jan-2024	04-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP095) BH05_0.1, BH07_1.0, BH10_0.1	17-Jan-2024	24-Jan-2024	31-Jan-2024	✓	24-Jan-2024	04-Mar-2024	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) BH08_0.1, BH10_0.1, BH09_0.1	17-Jan-2024	25-Jan-2024	15-Jul-2024	✓	29-Jan-2024	05-Mar-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) BH08_0.1, BH10_0.1, BH09_0.1	17-Jan-2024	25-Jan-2024	15-Jul-2024	✓	29-Jan-2024	05-Mar-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) BH08_0.1, BH10_0.1, BH09_0.1	17-Jan-2024	25-Jan-2024	15-Jul-2024	✓	29-Jan-2024	05-Mar-2024	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) BH08_0.1, BH10_0.1, BH09_0.1	17-Jan-2024	25-Jan-2024	15-Jul-2024	✓	29-Jan-2024	05-Mar-2024	✓
EP236: Dichlorophenoxyacetic Acid (2,4-D) and Tributyltin Oxide (TBTO)							
Soil Glass Jar - Unpreserved (EP236) BH01_0.1, BH12_0.1, BH02_0.5, BH14_0.1	16-Jan-2024	24-Jan-2024	30-Jan-2024	✓	29-Jan-2024	04-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP236) BH05_0.1, BH07_1.0, BH10_0.1	17-Jan-2024	24-Jan-2024	31-Jan-2024	✓	29-Jan-2024	04-Mar-2024	✓

Matrix: WATER

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T) RB01	16-Jan-2024	29-Jan-2024	14-Jul-2024	✓	29-Jan-2024	14-Jul-2024	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T) RB02	17-Jan-2024	29-Jan-2024	15-Jul-2024	✓	29-Jan-2024	15-Jul-2024	✓

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 Client : JACOBS GROUP(AUSTRALIA)PTY LTD
 Project : IA5000PB



Matrix: **WATER**

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T) RB01	16-Jan-2024	----	----	----	19-Jan-2024	13-Feb-2024	✔
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T) RB02	17-Jan-2024	----	----	----	19-Jan-2024	14-Feb-2024	✔



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	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
2,4-D and Tributyltin Oxide (TBTO) by LCMSMS	EP236	1	10	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Buchi Ammonia	EK055	2	14	14.29	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Cations - soluble by ICP-AES	ED093S	1	1	100.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	3	7	42.86	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Cyanide Amenable to Chlorination (Segmented Flow Analyser)	EK030SF	1	10	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Electrical Conductivity (1:5)	EA010	2	4	50.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Ethylenediamine tetraacetic acid (EDTA) by GCMS	EP095	2	7	28.57	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Formaldehyde	EP010	2	10	20.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Major Anions - Soluble	ED040S	3	7	42.86	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	32	12.50	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	3	7	42.86	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	3	7	42.86	10.00	✔	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	19	10.53	10.00	✔	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	20.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	4	50.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	10	20.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	2	13	15.38	10.00	✔	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	7	14.29	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	40	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	40	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	7	14.29	10.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	19	10.53	10.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	19	10.53	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							



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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Laboratory Control Samples (LCS) - Continued							
2,4-D and Tributyltin Oxide (TBTO) by LCMSMS	EP236	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Buchi Ammonia	EK055	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Cations - soluble by ICP-AES	ED093S	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	6	7	85.71	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Cyanide Amenable to Chlorination (Segmented Flow Analyser)	EK030SF	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Electrical Conductivity (1:5)	EA010	2	4	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Ethylenediamine tetraacetic acid (EDTA) by GCMS	EP095	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Formaldehyde	EP010	2	10	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	3	7	42.86	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	3	7	42.86	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	4	4	100.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	10	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
2,4-D and Tributyltin Oxide (TBTO) by LCMSMS	EP236	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Buchi Ammonia	EK055	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Cations - soluble by ICP-AES	ED093S	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	3	7	42.86	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Cyanide Amenable to Chlorination (Segmented Flow Analyser)	EK030SF	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
Analytical Methods							
Method Blanks (MB) - Continued							
Electrical Conductivity (1:5)	EA010	2	4	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Ethylenediamine tetraacetic acid (EDTA) by GCMS	EP095	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Formaldehyde	EP010	2	10	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Anions - Soluble	ED040S	3	7	42.86	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	3	7	42.86	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	3	7	42.86	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
2,4-D and Tributyltin Oxide (TBTO) by LCMSMS	EP236	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Buchi Ammonia	EK055	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride Soluble By Discrete Analyser	ED045G	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Cyanide Amenable to Chlorination (Segmented Flow Analyser)	EK030SF	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Ethylenediamine tetraacetic acid (EDTA) by GCMS	EP095	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Formaldehyde	EP010	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Matrix Spikes (MS) - Continued							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Fluoride	EK040T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	40	7.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	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	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Total Mercury by FIMS	EG035T	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Total Mercury by FIMS	EG035T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Total Mercury by FIMS	EG035T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Total Mercury by FIMS	EG035T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	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 in soil using a 0.01M CaCl ₂ extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl ₂ and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
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).
Electrical Conductivity (1:5)	EA010	SOIL	In house: Referenced to Rayment and Lyons 3A1 and APHA 2510. Conductivity is determined on soil samples using a 1:5 soil/water leach. This method is compliant with NEPM Schedule B(3).
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	SOIL	In house: Referenced to Ahern et al 2004 - a suspension peroxide oxidation method following the 'sulfur trail' by determining the level of 1M KCL extractable sulfur and the sulfur level after oxidation of soil sulphides. The 'acidity trail' is followed by measurement of TAA, TPA and TSA. Liming Rate is based on results for samples as submitted and incorporates a minimum safety factor of 1.5.
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).
Resistivity (1:5)	EA080	SOIL	In house: Calculated from Electrical Conductivity
Corrosion Classification for Steel and Concrete Piles	* EA167	SOIL	In house: Exposure classification is determined according to Australian Standard AS2159-2009.
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 librated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm. Analysis is performed on a 1:5 soil / water leachate.
Cations - soluble by ICP-AES	ED093S	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010 (ICPAES) Water extracts of the soil are analyzed for major cations by ICPAES. 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-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 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)



Analytical Methods	Method	Matrix	Method Descriptions
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 dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3).
Cyanide Amenable to Chlorination (Segmented Flow Analyser)	EK030SF	SOIL	In house: Referenced to APHA 4500 - CN- G. The sample is leached in alkali solution and pretreated by contact with Chlorine (as hypochlorite) prior to determination of Total Cyanide. The measured parameter is the difference between Total Cyanide determined on an untreated sample and Total Cyanide determined post-chlorination. This method is compliant with NEPM Schedule B(3).
Total Fluoride	EK040T	SOIL	(In-house) Total fluoride is determined by 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-NH3 B&G, H Samples are steam distilled (Buchi) prior to analysis and quantified using titration, FIA or Discrete Analyser.
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 seperately 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 seperately 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.
Formaldehyde	EP010	SOIL	In house: Referenced to ASTM D 6303-98. Determined on 1:5 soil / water extracts by colourimetry using NASH reagent. The Hantzsch reaction method is based on the reaction of acetylacetone with formaldehyde in the presence of excess ammonium acetate to form a coloured compound.



Analytical Methods	Method	Matrix	Method Descriptions
Polychlorinated Biphenyls (PCB)	EP066	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
PCB - VIC EPA 448.3 Screen	EP066-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
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).
TRH - Semivolatile Fraction	EP071-EM	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40.
Volatile Organic Compounds - Ultra-trace	EP074-UT	SOIL	In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3).
Volatile Organic Compounds - Ultra-trace - Summations	EP074-UT-SUM	SOIL	Summation of MAHs and VHCs
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)
Semivolatile Organic Compounds - Waste Classification	EP075-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique 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.
Ethylenediamine tetraacetic acid (EDTA) by GCMS	EP095	SOIL	In house: Referenced to DIN EN ISO 16588. The esterified derivative of EDTA from an aliquot of a 1:5 soil:water extract is analysed by GCMS in Selected Ion Monitoring (SIM) mode. This technique is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
2,4-D and Tributyltin Oxide (TBTO) by LCMSMS	EP236	SOIL	In house: soils are solvent extracted. The extract is analysed by LC-Electrospray-MS-MS, Negative Mode using MRM. Quantification by internal standardisation. Results for Tributyltin expressed as Tributyltin Oxide (TBTO).



Analytical Methods	Method	Matrix	Method Descriptions
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 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).

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl ₂ extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl ₂ and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
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.
Drying at 85 degrees, bagging and labelling (ASS)	EN020PR	SOIL	In house
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.
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).
Extraction of solids for 2,4-D and TBTO	EP236-PR	SOIL	In house: 2g of homogenised sample is extracted with alkaline solvent. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE)
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.
Methanolic Extraction of Soils - Ultra-trace.	ORG16-UT	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, Na ₂ SO ₄ 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.
Tumbler Extraction of Solids - VIC EPA Screen	ORG17-EM	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ 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.

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Work Order : EM2400571
Client : JACOBS GROUP(AUSTRALIA)PTY LTD
Project : IA5000PB



<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
QuEChERS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
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)

FS1060723 18101124



CHAIN OF CUSTODY RECORD

Sydney Laboratory Unit F3 Bld F 16 Mars Road Little Bay NSW 2549
 Brisbane Laboratory Unit 1 21 Smallwood Place Murarie QLD 4172
 Perth Laboratory Unit 2 91 Leach Highway Kewdale WA 6105
 Melbourne Laboratory 6 Monsey Road Dandenong South VIC 3175

Company		Jacobs		Project #		IA5000PB		Project Manager		Jennifer Spencer		Sampler(s)		Tea Sviland / Jordan Prestidge			
Address		12/452 Flinders Street Melbourne		Project Name		Silvan Reservoir High Security Fence		EDD Form#		ESM# EDA# etc		Facility Code		Handed over by		Tea Sviland	
Contact Name		Tea Sviland		Analyse Where metals are reported, please check 'T' for 'Total' or 'S' for 'Soluble'. Sulfate must be listed for anions. Sulfate (ppm)		8 Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg) TRH(CO-Cd)BTEXN/PAH HOLD								Email for Invoice: jennifer.spencer@jacobs.com Email for Results: jordan.prestidge@jacobs.com; tea.sviland@jacobs.com; jacobs.labresults@esdat.net			
Phone #		0444 588 599															
Special Directions																	
Purchase Order		540002267															
Quote ID #														Containers Change container type & size if necessary		Required Turnaround Time (TAT) Default will be 5 days if not ticked	
														<input type="checkbox"/> Overnight (reporting by 9am)* <input type="checkbox"/> Same day ♦ <input type="checkbox"/> 1 day ♦ <input type="checkbox"/> 2 days ♦ <input type="checkbox"/> 3 days ♦ <input checked="" type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other ()			
																Sample Comments / Dangerous Goods Hazard Warning	
No	Client Sample ID	Sampled Date/Time	Matrix Solid (S) Water (W)	8 Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	TRH(CO-Cd)BTEXN/PAH	HOLD											
1	QC11	16/01/24	Soil	X	#												
2	QC12	17/01/24	Soil	X	X												
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Add Rows				Total Counts													
Method of Shipment		<input type="checkbox"/> Courier (#) <input checked="" type="checkbox"/> Hand Delivered		<input type="checkbox"/> Postal Name: Tea Sviland		Signature: T.S.		Date: 17/01/2024		Time: 2:00:00 PM							
Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature					
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No					

FJ1060723 18/01/24

Tyrone Gowans

From: Savini Suduweli Kondage
Sent: Thursday, 18 January 2024 9:37 AM
To: Sviland, Tea
Cc: Prestidge, Jordan; #AU_CAU001_EnviroSampleVic
Subject: RE: IA5000PB Silvan COC
Attachments: IA5000PB_Eurofins COC_17.01.24.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

INFO: INTERNAL EMAIL - Sent from your own Eurofins email domain.

Thanks Tea!

SR – Please see attached for analysis on samples dropped off yesterday.

Kind Regards,
Savini Suduweli

Phone : +61 3 8564 5051
Mobile : +61 447 222 760
Email : SaviniSuduweli@eurofins.com

From: Sviland, Tea <Tea.Sviland@jacobs.com>
Sent: Thursday, 18 January 2024 8:12 AM
To: Savini Suduweli Kondage <SaviniSuduweli@eurofins.com>
Cc: Prestidge, Jordan <Jordan.Prestidge@jacobs.com>
Subject: RE: IA5000PB Silvan COC

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins. Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

I forgot to include the PO number, see updated COC attached!

Cheers,

Tea Sviland (she/her) | Jacobs | Graduate Contaminated Land Consultant
M:+61 444 598 599 | tea.sviland@jacobs.com
Level 12, 452 Flinders Street | Melbourne, Victoria 3000 | Australia

Jacobs Challenging today.
Reinventing tomorrow.

From: Sviland, Tea
Sent: Thursday, 18 January 2024 8:10 AM
To: Savini Suduweli Kondage <SaviniSuduweli@eurofins.com>

FS 1060723 18/10/24



Environment Testing

PROJECT INFORMATION

Date Received: _____

Company: JACOBS

Contact person: TEA SULLANO

Contact Number: 044 4598 599

Contact E-mail: tea.sulana@jacobs

Project Name/site: LASOOPB

Project Number: _____

COC: Attached

E-mailed

Not received

DATE: 17/10
 TIME: 14:05
 COURIER: _____
 TEMPERATURE 0.2
 ATTEMP TO CHILL: YES NO

Last modified on: 16 October 2019	Approved on: 16 October 2019	Version: QS1039_R2
Last modified by: H. Le	Approver: M. Makarios	Page 1 of 1
Editorial Committee: T. Lakeland, F. Sanjaya, H. Le, M. Makarios		Next required review date: 16 October 2022

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Sample Receipt Advice

Company name:	Jacobs Group (Australia) P/L VIC
Contact name:	Jordan Prestidge
Project name:	SILVAN RESERVOIR HIGH SECURITY FENCE
Project ID:	IA5000PB
Turnaround time:	5 Day
Date/Time received	Jan 18, 2024 8:12 AM
Eurofins reference	1060723

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ 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.
- ✓ 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:

Savini Suduweli on phone : +61 3 8564 5051 or by email: SaviniSuduweli@eurofins.com

Results will be delivered electronically via email to Jordan Prestidge - Jordan.Prestidge@jacobs.com.

Note: A copy of these results will also be delivered to the general Jacobs Group (Australia) P/L VIC email address.

Jacobs Group (Australia) P/L VIC
 PO Box 312 Flinders Lane
 Melbourne
 VIC 8009



NATA Accredited
Accreditation Number 1261
Site Number 1254

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: **Jordan Prestidge**

Report **1060723-S**
 Project name **SILVAN RESERVOIR HIGH SECURITY FENCE**
 Project ID **IA5000PB**
 Received Date **Jan 18, 2024**

Client Sample ID			QC11	QC12
Sample Matrix			Soil	Soil
Eurofins Sample No.			M24- Ja0023941	M24- Ja0023942
Date Sampled			Jan 16, 2024	Jan 17, 2024
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	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
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	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
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
4-Bromofluorobenzene (surr.)	1	%	90	98
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
Chrysene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			QC11	QC12
Sample Matrix			Soil	Soil
Eurofins Sample No.			M24- Ja0023941	M24- Ja0023942
Date Sampled			Jan 16, 2024	Jan 17, 2024
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
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	%	113	99
p-Terphenyl-d14 (surr.)	1	%	102	102
Heavy Metals				
Arsenic	2	mg/kg	3.7	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	86	94
Copper	5	mg/kg	12	18
Lead	5	mg/kg	19	16
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	25	30
Zinc	5	mg/kg	10	13
Sample Properties				
% Moisture	1	%	21	35

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	Melbourne	Jan 22, 2024	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jan 22, 2024	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jan 22, 2024	14 Days
BTEX and Naphthalene			
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Melbourne	Jan 22, 2024	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jan 22, 2024	14 Days
Heavy Metals - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Jan 22, 2024	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Jan 18, 2024	14 Days

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Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Asb) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Jacobs Group (Australia) P/L VIC	Order No.: 540002267	Received: Jan 18, 2024 8:12 AM
Address: PO Box 312 Flinders Lane Melbourne VIC 8009	Report #: 1060723	Due: Jan 25, 2024
	Phone: 03 8668 3000	Priority: 5 Day
	Fax: 03 8668 3001	Contact Name: Jordan Prestidge
Project Name: SILVAN RESERVOIR HIGH SECURITY FENCE		
Project ID: IA5000PB		

Eurofins Analytical Services Manager : Savini Suduweli

Sample Detail						Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Polycyclic Aromatic Hydrocarbons	BTEX and Naphthalene	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X	X	X	X
External Laboratory																	
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID												
1	QC11	Jan 16, 2024		Soil	M24-Ja0023941	X	X	X	X	X	X	X	X	X	X	X	X
2	QC12	Jan 17, 2024		Soil	M24-Ja0023942	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

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry weight basis unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion unless otherwise stated.
- For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified in this report with blue colour indicates data provided by customers that may have an impact on the results.
- 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 date of sampling; 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 7 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	

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 5.4
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 70 – 130%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 5.4, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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 C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH C6-C10	mg/kg	< 20			20	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							
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							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	101			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
TRH C10-C14	%	99			70-130	Pass		
TRH C6-C10	%	96			70-130	Pass		
TRH >C10-C16	%	103			70-130	Pass		
LCS - % Recovery								
BTEX								
Benzene	%	80			70-130	Pass		
Toluene	%	76			70-130	Pass		
Ethylbenzene	%	79			70-130	Pass		
m&p-Xylenes	%	81			70-130	Pass		
Xylenes - Total*	%	80			70-130	Pass		
LCS - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions								
Naphthalene	%	94			70-130	Pass		
LCS - % Recovery								
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	%	100			70-130	Pass		
Acenaphthylene	%	99			70-130	Pass		
Anthracene	%	83			70-130	Pass		
Benz(a)anthracene	%	85			70-130	Pass		
Benzo(a)pyrene	%	77			70-130	Pass		
Benzo(b&j)fluoranthene	%	79			70-130	Pass		
Benzo(g,h,i)perylene	%	98			70-130	Pass		
Benzo(k)fluoranthene	%	102			70-130	Pass		
Chrysene	%	121			70-130	Pass		
Dibenz(a,h)anthracene	%	124			70-130	Pass		
Fluoranthene	%	94			70-130	Pass		
Fluorene	%	121			70-130	Pass		
Indeno(1,2,3-cd)pyrene	%	84			70-130	Pass		
Naphthalene	%	85			70-130	Pass		
Phenanthrene	%	96			70-130	Pass		
Pyrene	%	107			70-130	Pass		
LCS - % Recovery								
Heavy Metals								
Arsenic	%	107			80-120	Pass		
Cadmium	%	100			80-120	Pass		
Chromium	%	108			80-120	Pass		
Copper	%	107			80-120	Pass		
Lead	%	110			80-120	Pass		
Mercury	%	91			80-120	Pass		
Nickel	%	104			80-120	Pass		
Zinc	%	84			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	M24-Ja0024274	NCP	%	99		70-130	Pass	
TRH C10-C14	M24-Ja0023875	NCP	%	107		70-130	Pass	
TRH C6-C10	M24-Ja0024274	NCP	%	93		70-130	Pass	
TRH >C10-C16	M24-Ja0023875	NCP	%	108		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	M24-Ja0024274	NCP	%	73		70-130	Pass	
Toluene	M24-Ja0024274	NCP	%	72		70-130	Pass	
Ethylbenzene	M24-Ja0024274	NCP	%	78		70-130	Pass	
m&p-Xylenes	M24-Ja0024274	NCP	%	82		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
o-Xylene	M24-Ja0024274	NCP	%	81			70-130	Pass	
Xylenes - Total*	M24-Ja0024274	NCP	%	82			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M24-Ja0024274	NCP	%	89			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M24-Ja0019949	NCP	%	95			70-130	Pass	
Acenaphthylene	M24-Ja0019949	NCP	%	95			70-130	Pass	
Anthracene	M24-Ja0019949	NCP	%	119			70-130	Pass	
Benz(a)anthracene	M24-Ja0019949	NCP	%	84			70-130	Pass	
Benzo(a)pyrene	M24-Ja0011209	NCP	%	93			70-130	Pass	
Benzo(b&j)fluoranthene	M24-Ja0019949	NCP	%	115			70-130	Pass	
Benzo(g,h,i)perylene	M24-Ja0011209	NCP	%	87			70-130	Pass	
Benzo(k)fluoranthene	M24-Ja0019949	NCP	%	87			70-130	Pass	
Chrysene	M24-Ja0019949	NCP	%	116			70-130	Pass	
Dibenz(a,h)anthracene	M24-Ja0011209	NCP	%	79			70-130	Pass	
Fluoranthene	M24-Ja0019949	NCP	%	90			70-130	Pass	
Fluorene	M24-Ja0019949	NCP	%	72			70-130	Pass	
Indeno(1,2,3-cd)pyrene	M24-Ja0011209	NCP	%	91			70-130	Pass	
Naphthalene	M24-Ja0019949	NCP	%	99			70-130	Pass	
Phenanthrene	M24-Ja0019949	NCP	%	123			70-130	Pass	
Pyrene	M24-Ja0019949	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M24-Ja0028027	NCP	%	96			75-125	Pass	
Cadmium	M24-Ja0028027	NCP	%	97			75-125	Pass	
Chromium	M24-Ja0028027	NCP	%	106			75-125	Pass	
Copper	M24-Ja0028027	NCP	%	104			75-125	Pass	
Lead	M24-Ja0028027	NCP	%	121			75-125	Pass	
Mercury	M24-Ja0028027	NCP	%	115			75-125	Pass	
Nickel	M24-Ja0028027	NCP	%	99			75-125	Pass	
Zinc	M24-Ja0028027	NCP	%	108			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	M24-Ja0024831	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M24-Ja0023875	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M24-Ja0023875	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M24-Ja0023875	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C6-C10	M24-Ja0024831	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M24-Ja0023875	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M24-Ja0023875	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M24-Ja0023875	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M24-Ja0024831	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M24-Ja0024831	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M24-Ja0024831	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M24-Ja0024831	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M24-Ja0024831	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	M24-Ja0024831	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M24-Ja0024831	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M24-Ja0024280	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M24-Ja0028027	NCP	mg/kg	9.2	9.7	5.1	30%	Pass
Cadmium	M24-Ja0028027	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M24-Ja0028027	NCP	mg/kg	20	21	7.4	30%	Pass
Copper	M24-Ja0028027	NCP	mg/kg	9.9	10	6.2	30%	Pass
Lead	M24-Ja0028027	NCP	mg/kg	83	87	5.2	30%	Pass
Mercury	M24-Ja0028027	NCP	mg/kg	0.4	0.4	5.7	30%	Pass
Nickel	M24-Ja0028027	NCP	mg/kg	15	16	5.8	30%	Pass
Zinc	M24-Ja0028027	NCP	mg/kg	84	88	4.3	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	M24-Ja0023875	NCP	%	33	37	12	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	Yes
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:

Catherine Wilson	Analytical Services Manager
Edward Lee	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-Volatile
Mary Makarios	Senior Analyst-Metal
Mary Makarios	Senior Analyst-Sample Properties



Glenn Jackson
Managing Director

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 or please [click here](#).

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