

Port of Brisbane Sediment Sampling and Analysis Plan Implementation Report 2025

Post Flooding Emergency Works



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Executive Summary

Background

Port of Brisbane Pty Ltd (PBPL) undertakes annual maintenance dredging within the navigational areas of the Brisbane River and western Moreton Bay, primarily using the Trailer Suction Hopper Dredge 'Brisbane'. Rainfall associated with Cyclone Alfred resulted in major flooding in the Brisbane River in March 2025. Flood waters deposited large quantities of sediment into navigation channels, berth pockets and other operational areas in the Port of Brisbane. An emergency maintenance dredging campaign was therefore required to maintain access to these port facilities and safe port operations.

The dredge area was divided into different dredging subareas based on existing contaminant data, comprising zone 2 (Colmslie to Pinkenba), zone 3 (within Port reaches) and zone 4 (Entrance Channel). Zone 1 (upstream of the dredge area) is not part of the annual dredging and provide 'background' contextual data. Sediment was also sampled at the Mud Island Dredge Material Placement Area (MIDMPA) and reference sites in Bramble Bay north of the Port of Brisbane.

Assessment

Consistent with previous years, sediments in zone 2 were dominated by fine material (clay and silts) and a low proportion of sand. Zones 3 and 4 were comprised of both sands and fines, with slightly higher sand content. The Moreton Bay reference sites were comprised mostly of fines, whereas the MIDMPA was similar to zone 4. The 2025 results were similar to previous years.

The sediments in the dredging zones were found to be suitable for ocean disposal in accordance with the NAGD guidelines based on the following results:

- Concentrations of most metals and metalloids were generally below NAGD screening levels across the study area except for nickel and mercury.
- The 95% UCL nickel concentrations exceeded the NAGD screening values at zone 2 only. In accordance with NAGD, the mean concentration of nickel at zone 2 was compared to the 80th percentile value from reference sites. The mean concentration at zone 2 (19.56 mg/kg) was less than the 80th percentile of reference sites (19.78 mg/kg). Elutriate and porewater analysis was conservatively undertaken with both indicating concentrations at zone 2 below the ANZG (2018) default water quality guideline value (DGV) of 70 µg/L. One porewater sample at zone 3 (11-9 of 111 µg/L) was above the DGV, however anomalous, as: (i) nickel concentrations in both bulk sediment and elutriate samples were not highly elevated compared to other samples; and (ii) the split sub-sample had a low concentration.
- 95% UCL for mercury concentrations within each dredge zone were less than the reference 80th percentile and the NAGD screening levels. Elutriate and porewater analysis was conservatively undertaken with both resulting in concentrations below the ANZG (2018) DGV of 0.4 µg/L.
- All organic contaminants including organotins, total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and organochlorine pesticides (OCPs) had concentrations below the LOR in most samples. p p'-DDE was detected at eight locations within dredge zone 2 only. When normalised to 1% TOC, no samples had concentrations above the screening level. Elutriate and porewater testing was conservatively undertaken on all dredge zone samples, with concentrations reported below the limit of reporting. This indicates dredged sediments were suitable for ocean disposal in accordance with NAGD.

- Due to extensive volume and pH buffer capacity provided by seawater, the disposal of potential acid sulphate soils (PASS) in an open marine environment is unlikely to significantly alter the acidity and release of metal(loid)s to the extent that water quality values are exceeded. While acid sulphate soil testing indicated sediments as potential acid sulphate PASS, the acid neutralising capacity appears sufficient in the majority of samples to neutralise acids upon oxidation. However, if placed on land, then additional testing would be required to confirm neutralisation capacity

The evaluation of laboratory and field QA/QC procedures and assessments indicated that all sampling, sample handling and storage and laboratory analysis was undertaken to a high standard providing scientific confidence that the presented results are valid to allow an assessment of sediment quality against the NAGD.

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1 Introduction

1.1 Background

Port of Brisbane Pty Ltd (PBPL) is obligated to uphold a specific minimum depth clearance beneath the keel of ships arriving at the port. This is essential for ensuring safe and efficient access for shipping operations and overall maritime safety. PBPL undertakes an annual maintenance dredging program to ensure these minimum depths are maintained.

Rainfall associated with Cyclone Alfred resulted in major flooding in the Brisbane River in March 2025. Flood waters deposited large quantities of sediment and into navigation channels, berth pockets and other operational areas in the Port of Brisbane. An emergency maintenance dredging campaign was therefore required to maintain access to these port facilities and safe port operations.

Emergency dredging was primarily conducted using the Trailer Suction Hopper Dredge (TSHD) 'Brisbane'. Maintenance dredging works extend from the Hamilton Reach of the Brisbane River to the North West Channel located in northern Moreton Bay. Dredged material may be placed at sea within the Mud Island Dredge Material Placement Area (MIDMPA) or on land in the Future Port Expansion (FPE) reclamation area, consistent with routine maintenance dredging campaigns.

To assess suitability of dredged material for unconfined ocean placement, characterisation of the physical and chemical properties of proposed dredged sediment was required to be undertaken in accordance with the National Assessment Guidelines for Dredging (Commonwealth of Australia 2009; henceforth NAGD).

This report documents the findings of a sampling campaign conducted in March 2025. The overall aim of this study is to characterise the physico-chemical properties of sediments to be dredged from the Port of Brisbane and based on the approach set out in the NAGD, assess the suitability of dredged material for unconfined ocean disposal (if required). The specific objectives of the study were to:

- Describe and quantify the physical properties of sediments to be dredged;
- Quantify concentrations of potential contaminants in sediments to be dredged;
- Compare contaminant concentrations to screening levels set out in the NAGD to determine whether there is a need for further assessment; and
- Assess the bioavailability of contaminants and potential toxicity effects based on comparisons of contaminant concentrations to relevant guideline values.

1.2 Proposed Dredging

PBPL's area of responsibility in relation to maintenance and capital dredging within port limits can be broadly divided into two locations based on water body type, navigable depths and nature of dredged material:

- Moreton Bay dredge area (enclosed/open coastal waters); and
- Brisbane River dredge area, including the Port of Brisbane (middle/lower estuary).

This SAP specifically focuses on sediments in the Brisbane River dredge area, as well as the MIDMPA and 'reference' areas in western Moreton Bay. The Brisbane River dredge area extends from Hamilton Reach to the Outer Bar Cutting. Maintenance dredging is required to remove sediments accumulated by natural siltation processes within the catchment.

To ensure that declared depths of navigational channels are maintained at all times, PBPL undertakes 'insurance' dredging of up to -0.5 metres below the declared depth. On average, PBPL dredges about 300,000 m³ to 350,000 m³ of material each year. Dredging volumes are predominantly driven by catchment rainfall events and subsequently additional dredging needs to be undertaken following major flood events, as occurred in 2011 and 2013, 2022 and currently in March 2025.

The Brisbane River zone is divided into different dredging subareas based on existing contaminant data, comprising zone 2, zone 3 and zone 4. An additional zone (zone 1) is not part of the annual dredging and samples from this zone have been used to collect reference samples upstream of the actual dredging areas.

Table 1.1 Approximate dredging volumes for maintenance

Dredging subarea	Location	Average dredge volume (m ³)
Zone 2	Hamilton Reach to Lytton Rocks Cutting	83,000
Zone 3	Pelican Banks to Inner Bar Cutting	241,000
Zone 4	Outer Bar Cutting	26,000

1.3 Offshore Disposal

The PBPL's policy with regard to dredged material is to maximise its beneficial reuse. In general, most of the material dredged by the PBPL from within Port Limits is used in reclamation works associated with development of the port. The reuse of this dredged material provides several benefits, including:

- Reduced pressure on the MIDMPA;
- The placement of any actual or potential acid sulphate material at depth beneath the water surface; and
- The containment of any contaminated material within a designated boundary, disconnected from the marine system and monitored to ensure the immobility of identified contaminants.

In 2009, the reclamation life of the FPE area was estimated to be approximately 30 years, based on the current level of port development at that time. Following extreme flood events in both 2011 and 2013 and the subsequent disposal of additional material in the FPE area, the estimated life of the FPE area was reduced by 20 years to 10 years. Given the importance of the FPE as an area to dispose of material unsuitable for ocean disposal, there has been a shift in thinking around the management of the FPE area.

The current proposed management of dredged material is to, where practical, dispose at sea all dredged material deemed suitable for ocean disposal. This proposed management initiative will ensure the long-term viability of the FPE area for the disposal of material deemed unsuitable for ocean disposal.

In the past, significant quantities of dredged material from the Brisbane River have been placed offshore at the MIDMPA. In recent years, only smaller volumes of dredged material from boat harbours in southern Moreton Bay were placed at the MIDMPA. However, it is proposed that the MIDMPA will be utilised for material found suitable for ocean disposal in future PBPL maintenance dredging campaigns.

1.4 Marine Communities and Environmental Value

The loading (dredging) site is located within the lower Brisbane River. The foreshore of the lower Brisbane River is in a highly modified condition but still retains isolated patches of mangrove forest and tidal flats. The river channel is comprised of muds and sands and supports a locally important trawl fishery (BMT WBM 2008c).

The Port of Brisbane port facilities are located at the Brisbane River mouth on land reclaimed over a shallow sub-tidal river delta containing a series of low-lying mangrove islands, collectively called the Fisherman Islands. Brisbane River and adjacent waters of Moreton Bay experiences freshwater flows and ongoing inputs of sediments and contaminants derived from human activities in its catchment. Two major sewage treatment plants also have their sewage discharges within kilometres of the Port facilities (Luggage Point and Wynnum North wastewater treatment plant).

Construction of the present-day port facilities over intertidal and subtidal areas has resulted in extensive changes to the environmental character of the Fisherman Islands area. However, significant areas of mangrove, saltmarsh and seagrass have also been retained, and form part of the Fisherman Islands wetland complex on the southeastern side of the Port of Brisbane (BMT WBM 2014). Moreton Bay Marine Park is situated to the south and east of the FPE seawall. This area contains one of the largest semi-contiguous seagrass beds in western Moreton Bay. A Ramsar listed wetland (Moreton Bay Ramsar site) is situated only kilometres to the south of the port facilities, comprising intertidal portions of the Fisherman Islands wetland complex. The seagrass and mudflats of the Ramsar site are recognised for their importance to dugong, marine turtles and migratory and resident shorebirds (BMT WBM 2008a).

MIDMPA is located between Mud Island and Fisherman Islands. Mud Island is an ancient coral reef that is no longer actively accreting coral skeletons, but still contains coral communities (Johnson and Neil 1998). MIDMPA is comprised of a mix of mud and sand substrates that provide habitat for benthic invertebrate (BMT WBM 2008b) and fish assemblages.

2 Methodology

2.1 Compliance with SAP and Guidelines

Sampling and analysis of sediments was undertaken in accordance with the NAGD (Commonwealth of Australia 2009). All sampling and analysis procedures followed the approach outlined in the sampling and analysis plan (SAP) provided in Annex A.

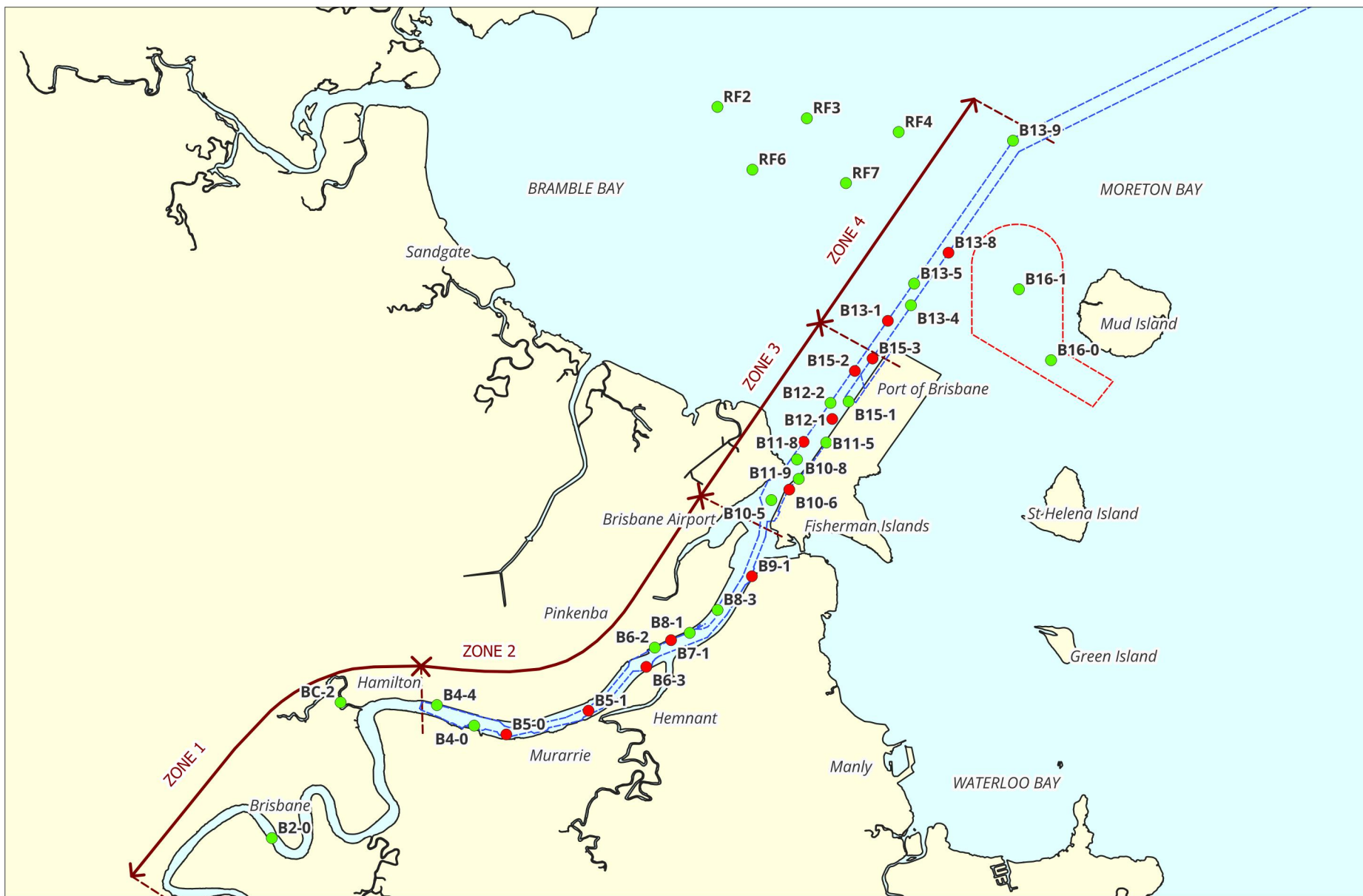
2.2 Timing of Sampling

Sampling was undertaken on the 16th, 17th and 18th of March 2025 during daylight hours (05:00 and 18:30).

2.3 Sampling Locations and Sample Numbers

2.3.1 Sampling Locations

Thirty-five locations were sampled with a Van Veen grab sampler. This was comprised of 26 sample locations within the proposed dredging area (zones 2, 3 and 4) and nine locations outside the dredge area (zone 1, MIDMPA and Moreton Bay referred to herein as 'reference sites'). Note that two additional reference sites were added to the program to characterise sediments to the east of the dredge channel. A map showing the sampling locations and sample analysis for basic suite and detailed suite is illustrated in Figure 2.1.



Site	Easting	Northing
RF2	514,083	6,982,366
RF3	516,442	6,982,026
RF4	518,863	6,981,618
RF6	515,003	6,980,511
RF7	517,470	6,980,112
B16-0	522,872	6,974,873
B16-1	522,028	6,976,970
B2-0	502,319	6,960,782
BC-2	504,133	6,964,789
B6-2R	512,413	6,966,396
B5-1R	510,663	6,964,656
B4-0	507,652	6,964,101
B4-4	506,671	6,964,708
B5-0	508,498	6,963,840
B6-2	512,413	6,966,401
B6-3	512,189	6,965,833
B7-1	512,842	6,966,620
B8-1	513,334	6,966,836
B8-3	514,068	6,967,511
B9-1	514,975	6,968,505
B5-1	510,665	6,964,540
B11-9R	516,163	6,971,958
B10-8R	516,205	6,971,378
B10-5	515,491	6,970,754
B10-6	515,963	6,971,063
B10-8	516,214	6,971,379
B11-5	516,940	6,972,451
B11-8	516,343	6,972,473
B11-9	516,167	6,971,952
B12-1	517,099	6,973,147
B15-1	517,530	6,973,661
B15-2	517,698	6,974,564
B15-3	518,165	6,974,930
B12-2	517,055	6,973,621
B13-8R	520,125	6,978,050
B13-5R	519,281	6,977,138
B13-4R	519,166	6,976,497
B13-1R	518,598	6,976,032
B13-1	518,570	6,976,043
B13-4	519,180	6,976,502
B13-5	519,264	6,977,141
B13-8	520,173	6,978,053
B13-9	521,880	6,981,357



LEGEND

-  Dredge Area
-  Dredge Material Placement Area
- Sampling Locations**
 -  Basic Suite
 -  Basic Suite and Detailed Suite

Title:

Actual Sediment Sampling Locations

BMT endeavours to ensure that the information provided in this map is correct at the time of publication. BMT does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.



Figure: **2-1**

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2.3.2 Additional Field QA/QC Samples

In accordance with NAGD requirements and based on the number of sample locations, the following field and laboratory quality control samples were taken:

- Three field triplicate samples at 10% of locations to determine the small scale (measured in metres) spatial variability of the sediment physical and chemical characteristics, i.e. two additional grab samples at locations 5-1 (zone 2), 11-9 (zone 3) and 13-4 (zone 4);
- Two triplicate split samples (primary sample from 5% of locations thoroughly mixed and split into three sample container sets) to assess laboratory variation, with one of the three samples sent to a second (reference) laboratory for analysis. Split samples were obtained at location 6-2 (zone 2) and 10-6 (zone 3); and
- Three trip blank containers (one per sampling day) filled with inert material (e.g. chromatographic sand) to be analysed concurrent with the analysis of volatile organic substances such as BTEX and TPH C6-C9.

2.3.3 Elutriate and Porewater Analyses

Phase III testing was undertaken for parameters which have frequently exceeded the NAGD screening levels previously (i.e. contaminants of potential concern – CoPCs). CoPCs were defined based on a review of historical data (refer to BMT WBM 2013), and were comprised of:

- Nickel and mercury;
- Organotins (TBT); and
- Organochlorine pesticides (DDT, DDD, DDE and chlordane).

Phase III testing varied among parameter types, as follows:

- Nickel and mercury – samples with the highest concentrations in bulk sediments were selected for porewater and elutriate testing.
- Organic contaminants (organotins and organochlorine pesticides) - porewater and elutriate analysis was conducted in accordance with the SAP (BMT WBM 2013). Additional samples were collected for porewater testing at the locations which have historically shown the highest percentage of screening level exceedances. To meet required holding times, elutriate and bioavailability analysis for the organic contaminants was undertaken concurrent with the analysis of the primary samples. Additional samples for porewater testing were obtained from five locations in zone 2 and six locations in zone 3.

2.4 Sample Collection and Handling

2.4.1 Survey Vessel, Sampling Equipment and Personnel

Sampling was conducted from a surveyed commercial vessel operated by subcontractor Abyss Commercial Diving. A handheld GPS was used for position fixing and navigation to each sampling location. All sediment sampling was undertaken by a team of two qualified marine scientists with experience in the implementation of sediment sampling and analysis programs.

2.4.2 Sampling Procedure

Sediment samples were collected using a stainless steel Van Veen grab sampler (0.14 m² grab). Only samples obtained with properly closed grab jaws were processed to ensure that the fine sediment fractions were retained.

In order to overcome issues with potential high variability at sampling locations, a minimum of two grabs were collected at each sampling location and pooled as one sample. An adequate number of grabs was obtained and pooled for each sample location ensuring that sufficient sediment was collected for all analyses.

2.4.3 Survey Vessel and Equipment

The vessel was thoroughly inspected and washed down prior to the beginning of sediment sampling each day. The workspace on the vessel was washed down regularly with ambient seawater to clean all surfaces and minimize the potential for dust contamination of samples. All sample processing was undertaken away from any potential contamination sources such as engine exhausts, fuels, oils, greases, lead weights, zinc anodes, antifouling paint etc.

The grab sampler was thoroughly cleaned with De-con 90 solution prior to use and cleaned and rinsed with seawater between samples to prevent cross contamination between samples.

2.4.4 Sample Collection, Handling and Storage

Photographs of each samples were taken and grab samples were logged for its physical characteristics, specifically colour, sediment type and texture (refer Annex B). The samples from each location were carefully homogenized in a clean container prior to the filling of analytical laboratory-supplied clean sampling jars.

Nitrile gloves were worn by all field personnel handling the sediment, and gloves were disposed of after processing of each sample.

Sample bottles were labelled with a waterproof marker pen on the bottle label and lid. Sample bottles for organic analyses were filled with zero headspace to minimise volatilisation. A field trip blank sample container filled with clean chromatographic sand was placed with opened lid near the sample processing site while a sediment sample was completely processed.

All storage containers were chilled on ice immediately following sample collection. The samples were then transferred to sealed eskies at the end of each sampling day. Acid sulphate soil samples were frozen at the end of each sampling day to minimise potential oxidation of the sediment material.

At the end of the sampling campaign, all samples were submitted to the primary and secondary analytical laboratories. All samples were submitted to the laboratories with Chain of Custody (COC) documentation (Annex D and Annex E)

2.5 Laboratory Analysis

As per the SAP, all samples were analysed for a basic suite with a detailed suite analysed at selected study locations (refer to Figure 2.1 and Annex A). The analysis type and associated analytes are detailed in Table 2.1.

Primary analysis of sediment samples was conducted by Australian Laboratory Services (ALS). The analysis of particle size distribution (PSD) was conducted by Microanalysis Australia. Eurofins was selected as the secondary (reference) laboratory for inter-laboratory quality testing.

A total of 35 locations were analysed for a basic suite of parameters. Of these, 12 locations were also analysed for a detailed list of contaminants. Furthermore, elutriate and bioavailability (porewater and dilute acid extraction) testing was undertaken at selected locations as per the SAP.

Table 2.1 Laboratory analysis

Analysis type	Description	Analytes
Basic parameter suite	Analysis including contaminations of (potential) concern and supplementary parameters.	- Metals/metalloids (As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn, Al, Fe) - Organotins (MBT, DBT, TBT) - Organochlorine pesticides (including DDT, DDD, DDE, chlordane) - PSD - Moisture content - Total organic carbon (TOC)
Detailed parameter suite	Analysis included 'low risk' parameters that have been detected in the past but generally in concentrations below Limit of Reporting (LOR) or NAGD screening levels,	- Polycyclic aromatic hydrocarbons (PAHs) - Total petroleum hydrocarbons (TPHs) - Polychlorinated biphenyls (PCBs) - Acid sulphate soils (ASS) - Nutrients (TP, TN, NOx, TKN) - Radionuclides
Elutriate and bioavailability suite	Phase III testing undertaken once results on basic parameter suite are obtained for parameters which have frequently exceeded the NAGD screening levels	- Metals/metalloids - Organotins (TBT) - Organochlorine pesticides (DDT, DDD, DDE, chlordane)

2.5.2 Laboratory Quality Control

Both laboratories followed laboratory Quality Control (QC) procedures in accordance with requirements outlined in NAGD. This included analysis of laboratory blanks, duplicates, certified surrogate materials and spiked samples.

Validation of all laboratory QC analyses was conducted in accordance with NAGD to confirm suitable data quality for undertaking a rigorous characterisation of the proposed dredge material.

Laboratory Blanks

The purpose of this assessment is to monitor potential laboratory contamination of samples due to potential cross-contamination of samples during laboratory preparation, extraction or analysis. Blank sample concentrations should be at or near the LOR of the method used.

Laboratory Duplicates

This assessment refers to a randomly selected intra-laboratory split sample, which provides information regarding the method precision and sample heterogeneity. Results are presented as Relative Percent Difference (RPD) values of two sample concentrations for a specific contaminant.

NAGD recommends that duplicates should agree within a typical RPD of the method of $\pm 35\%$. This recommended RPD is typically not adopted by analytical laboratories as it does not account for the greater uncertainty for contaminant concentrations close to the method's LOR. NAGD also notes that RPDs may not always agree within these limits where sediments are very inhomogeneous or vary greatly in grain size.

The primary laboratory ALS and secondary lab Eurofins uses the following approach to assess duplicate RPD's:

- Result <10 times LOR – no limit to RPD;
- Result between 10 and 20 times LOR – RPD between 0% and 50%; and
- Result >20 times LOR – RPD between 0% and 30%.

Refer to Annex D and Annex E for the acceptance criteria of subcontracted laboratories.

Surrogate and Matrix Spikes

Laboratory Control Samples are either certified reference materials or a blank sample spiked with known concentrations of the analytes of interest. The purpose of this measurement is to monitor method accuracy.

Matrix spikes refer to an intra-laboratory split sample spiked with a representative set of target analytes of known concentration. Matrix spikes are assessed to monitor potential sample matrix effects on analyte recoveries.

Surrogate spikes are used for organic analytes. Surrogates are known additions to samples which mimic the compounds of interest and are not normally expected to be present in the sample.

For both surrogate and matrix spikes, a calculation of the percent recovery of the spiked amount against the returned concentration is performed indicating analytical performance in terms of extraction efficiency.

NAGD states that recovery limits of 75% - 125% are generally acceptable. Analytical laboratories typically adopt specific surrogate and matrix spike recovery limits for the various contaminant compound groups. It is also noted that ideal recovery ranges may be waived in the event of sample matrix interference.

The primary laboratory ALS and secondary laboratory Eurofins adopt specific recovery limits for individual components. Refer to Annex D and Annex E.

2.6 Data Analysis

2.6.1 Sediment Contaminants

Concentrations of chemicals measured in sediment samples were compared to screening levels of NAGD to determine whether the material is suitable for unconfined placement at sea or if further analyses, such as elutriate, bioavailability or toxicity testing, are required. Specifically, mean concentrations of chemical parameters at the upper 95% confidence level (95% UCL) were compared against NAGD guideline levels as described below.

Data Pre-Treatment

Analytical values below Limit of Reporting (LOR) were set to one-half of the LOR as per NAGD recommendation to facilitate 95% UCL calculation. This was only undertaken where there was greater than 30% non-detections within the dredge zone. Any replacement technique is a source of bias (Croghan and Egeghy 2003). Only parameters with greater than 30% non-detections were subject to analysis due to the high probability of bias created by the replacement technique.

Organic contaminant results were normalised to 1% TOC where the measured value is within the range of 0.2-10%. If TOC values were outside of this range, the highest (10%) or lowest (0.2%) value was adopted as appropriate. Organic parameters with concentrations below LORs were not normalised to 1% TOC but were included at half their LOR.

One assumption in the calculation of the 95% UCL is that the samples are statistically independent. Therefore, field triplicate samples and laboratory split samples were averaged for each location in the 95% UCL calculation.

Selection of Appropriate 95% UCL Calculation Method

ProUCL Version 4.1.00 was used to calculate the 95% UCL (Singh *et al.* 2010). In accordance with NAGD, for normally distributed data, the arithmetic mean was calculated, and the 95% UCL was calculated using the one-tailed Student's t-test UCL. For data that followed a log-normal distribution, the geometric mean was calculated and the 95% UCL was calculated using Chebyshev method. For data that did not follow either a normal or log-normal distribution, the 95% UCL was calculated using non-parametric techniques as per NAGD. Should 95% UCL values for all analysed parameters fall below NAGD screening levels, the sediment was considered chemically acceptable for ocean disposal.

In accordance with NAGD, ambient baseline concentrations of chemicals were determined by sampling of sediment at reference areas near the existing disposal site. The 80th percentile value was calculated from reference site data. The mean of the sediment concentrations at the dredge site was then compared with the 80th percentile of ambient baseline levels. Sediment was chemically acceptable for ocean disposal the mean concentration at the dredge site was less than or at the 80th percentile value.

If chemicals were found to be above ambient baseline levels and the screening level, they were considered a Contaminant of Potential Concern and Phase III testing was required.

Variability in Sediment Properties and Correlation Analysis

Summary statistics, for analytical results, namely minimum, maximum, mean and relative standard deviation (RSD) values are presented and referred to throughout this report. Relative standard deviation (also known as coefficient of variation) indicates the extent of variability in a dataset in relation to the mean value, by expressing the standard deviation as a percentage of the mean. For the purposes of this report, nominal percentage ranges have been selected to aid in interpretation. Therefore, an RSD of less than 30% will be considered low variability, 30% to 70% will be considered moderate variability and more than 70% will be considered high variability. In addition, Pearson product-moment correlation analysis was performed on select parameters to measure the strength of the linear association between the chosen parameters.

2.6.2 Elutriate and Bioavailability Testing

Elutriate and bioavailability testing was undertaken as per NAGD for a range of contaminants which have regularly exceeded screening levels in the past.

Elutriate Testing

The elutriate test is designed to simulate release of contaminants from sediment during dredged material disposal. Testing was carried out using the USEPA's standard seawater elutriate test which involves shaking the sediment samples with four times the volume of seawater at room temperature for 30 minutes. The sample was allowed to settle for one hour and the supernatant was centrifuged or filtered (0.45 µm) within 60 minutes and analysed using analytical methods appropriate for determining ultra-trace levels in seawater.

Results were compared to the respective ANZECC/ARMCANZ (2000) marine water quality trigger value (for 95% protection of species).

Bioavailability Testing

For organic contaminants, analysis of pore water is the recommended bioavailability test as per NAGD. Porewater is assumed to represent the major route of exposure to sediment contaminants by benthic organisms. Porewater results were compared to the respective ANZECC/ARMCANZ (2000) marine water quality trigger value (for 95% protection of species).

Should both elutriate and bioavailability tests result in values less than the respective guideline limits, the material would be considered clean and suitable for ocean disposal.

2.6.3 Acid Sulphate Soils

The results of the chromium-suite acid sulphate analysis were assessed against the Australian framework for Acid Sulphate Soil management in coastal systems (Ahern *et al.* 1998). The risk of acidification was determined by the acid-base accounting approach (Ahern *et al.* 2004). Net acidity was calculated from the results as a measure of the acid producing capacity of the sampled sediment upon complete oxidation.

The calculated net acidity was then compared to the QASSIT action criteria of 0.03% S or 18 mol H⁺/tonne to assess the need for acid sulphate soil management if the dredged sediments were to be placed on land. Simpson *et al.*, 2018 advises that acid neutralising capacity (ANC) values should be verified by further leachate testing (slab/tray incubation) to allow its use in the net acidity calculation. The liming rate indicates the amount of lime that needs to be added to the soil to manage its acid generating capacity.

2.6.4 Field Triplicate and Interlaboratory Split

This assessment refers to field triplicates and interlaboratory split sample, which provides information regarding the method precision and sample heterogeneity. Results are presented as RSD values $\pm 50\%$ of three samples for a specific contaminant.

3 Results

Sediment logs of the sampled sediments are shown in Annex B. Laboratory tables are presented in Annex C, with laboratory reports provided in Annex D and Annex E.

3.1 Physical Sediment Characteristics

Figure 3.1 presents the sediment grain particle size distribution (PSD) results for each location during the current survey.

Zone 2

Sediments from zone 2 were dominated by fines fractions (44 to 98%), with a mean of 84% and low variability (RSD 22%). The sand content ranged from 2 to 55%, with a mean content of 17 % and high variability (RSD 123%). Gravel was present in five samples in low proportions (<10 %). The mean fines content from the current survey was higher than the mean fines content recorded in 2024 (82%; BMT, 2025), but lower than the mean fines content recorded in 2022 (92%; BMT, 2022).

Zone 3 and 4

Similar to zone 2, sediments were generally dominated by the fine fractions (zone 3 mean 72%; zone 4 mean 43%). The mean sand content for sediments in zone 3 (24%) and 4 (43%) were higher than the mean sand content in zone 2. Gravel proportions were low and generally less than 1% in most samples. Eight samples within zones 3 and 4 contained gravel, with a maximum of 17% (sample B11-8).

The mean fines content in zone 3 (72%) was higher than recorded in 2024 (69 %; BMT, 2025) and 2023 (67%; BMT, 2023).

The mean fines content in zone 4 (43%) was 15% lower to the mean fines content recorded in 2024 (58 %; BMT, 2025) and 14% lower than recorded in 2023 (59%; BMT, 2023). This may indicate deposition of coarse sediment occurred between 2024 and 2025 in zone 4.

MIDMPA and Reference/Background

Sediments recovered at the MIDMPA had sand content (48%) consistent with previous years (BMT, 2025; BMT, 2022). Moreton Bay reference sites were characterised by a high proportion of fines content (mean 88%). This was consistent with results from 2024 (88%; BMT, 2025), 2023 (89%; BMT, 2023), 2022 (90%; BMT, 2022) and 2021 (83%; BMT, 2021).

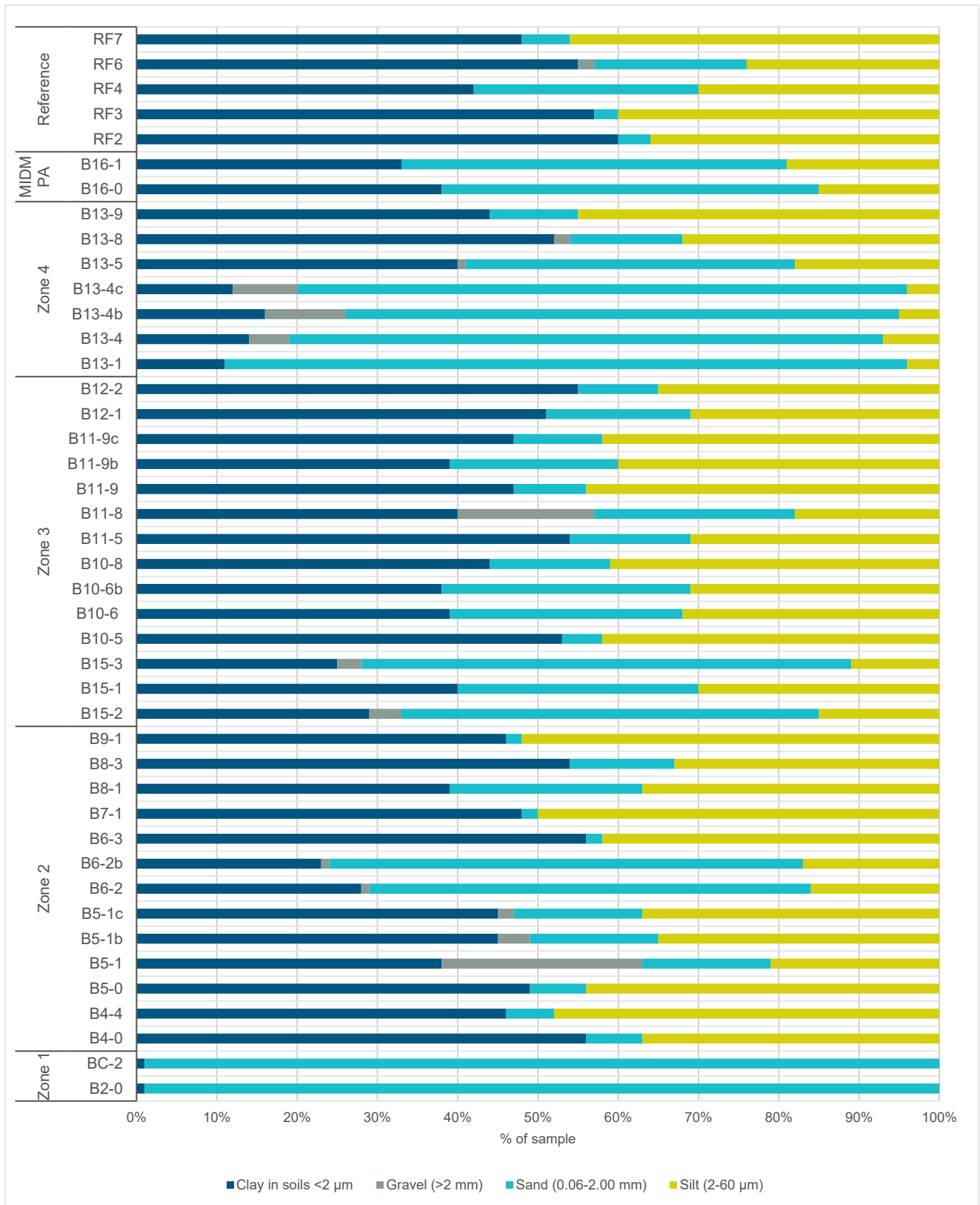


Figure 3.1 Sediment particle size distribution analysis results for post flooding event, 2025

3.2 Analysis Results

3.2.1 Metals and Metalloids

Bulk sediment results for metals and metalloids are presented in Table 1.1. Consistent with previous survey results, cadmium and silver had concentrations less than the LOR (0.1 mg/kg) in most samples from zones 2, 3 and 4.

Concentrations of most metals and metalloids were generally below NAGD screening levels across the study area, except for nickel at six sites and mercury at one site (see below). The trace metal and metalloid concentrations recorded at reference locations follow similar trends to those at the dredge sites and were also consistent with trends observed in previous surveys.

Nickel

Bulk Sediment

Across the dredge zones, nickel concentrations ranged from 9.2 mg/kg to 23.7 mg/kg, with a mean of 17.6 mg/kg. The mean nickel concentration was comparable than the mean concentration in 2024 (16.8 mg/kg; BMT, 2025), 2023 (21.4 mg/kg; BMT, 2023), 2022 (27.4 mg/kg; BMT, 2022), 2021 (18.0 mg/kg; BMT, 2021) and 2020 (19.2 mg/kg; BMT, 2020). Compared to August-September 2024 SAP results (BMT 2025), the 95% UCL for nickel was slightly greater in February 2025 at zone 2 (2025 = 21.0 mg/kg, 2024 = 19.3 mg/kg), but lower in February 2025 at zone 3 (2025 = 17.7 mg/kg, 2024 = 20.7 mg/kg) and zone 4 (2025 = 18.9 mg/kg, 2024 = 16.9 mg/kg). This likely reflects spatial patterns in sediment deposition (i.e. zone 2) and scouring (zones 3 and 4). Summary statistics for all dredge zones are highlighted in Table 3.2.

The 95% UCL for nickel was 0.27 mg/kg greater than the screening level (21 mg/kg) at zone 2 (27.27 mg/kg) (Table 3.1). The 95% UCL nickel concentrations at dredge zones 3 (19.39 mg/kg) and 4 (16.87 mg/kg) were less than the screening level.

In accordance with NAGD, the mean concentration of nickel at zone 2 was compared to the 80th percentile value from reference sites. The mean concentration at zone 2 (19.56 mg/kg) was less than the 80th percentile of reference sites (Table 3.1). In accordance with NAGD, dredged material was suitable for ocean disposal with regard to nickel concentrations.

Elutriate and Porewater

Elutriate and porewater was conservatively undertaken with nickel concentrations in elutriate samples ranging from 1.7—4.0 µg/L, well below the ANZG (2018) default water quality guideline value (DGV) of 70 µg/L.

Nickel concentrations in porewater ranged from 3.2 µg/L to 111 µg/L. The one porewater sample in zone 3 (11-9 of 111 µg/L) above the DGV was anomalous, as: (i) nickel concentrations in both bulk sediment and elutriate samples were not highly elevated compared to other samples; and (ii) the split sub-sample had a low concentration (11-9b of 4.7 µg/L- refer to Annex C).

Mercury

Bulk Sediment

Mercury concentrations across all dredge zones ranged from 0.01 mg/kg to 0.13 mg/kg, with a mean concentration of 0.08 mg/kg (Table 3.2). The 95% UCL for mercury concentrations within each dredge zone (zone 2 = 0.093 mg/kg, zone 3 = 0.079 mg/kg and zone 4 = 0.045 mg/kg) were less than the reference 80th percentile (0.09 mg/kg) and the NAGD screening level (0.15 mg/kg) (Table 3.1). In

accordance with NAGD, dredged material was suitable for ocean disposal with regard to mercury concentrations.

Elutriate and Porewater

Elutriate and porewater was conservatively undertaken, with mercury concentrations in all elutriate samples below the limit of reporting (0.04 µg/L) and below the ANZG (2018) DGV of 0.4 µg/L. Similarly, all porewater samples were below the limit of reporting (0.04 µg/L) with the exception of B5-0 of 0.09 µg/L; however, these were all below ANZG (2018) DGV of 0.4 µg/L.

Table 3.1 Metals/metalloids with samples > screening levels in bulk sediment

Parameter	Metric	Zone 2	Zone 3	Zone 4	Screening Level	Reference 80th percentile	Assessment
Nickel (mg/kg)	95% UCL	21.27	18.98	18.37	21	-	1. 95% UCL exceeded the screening level at Zone 2 (Z2) only
	Mean	19.56	17.01	14.3	-	19.78	2. Mean concentration at Zone 2 was less than 80th percentile of reference sites
Mercury (mg/kg)	95% UCL	0.109	0.096	0.0675	0.15	-	1. 95% UCL did not exceed the screening level in any dredge zone
	Mean	0.093	0.079	0.045	-	0.09	

Red – exceed relevant guideline value (i.e. screening level or reference 80th percentile); green less than relevant guideline value

3.2.2 Nutrients and Carbon Content

Results for nutrients and total organic carbon (TOC) content of marine sediment samples are presented in Table 3.2. No screening values exist for TOC and nutrients in sediments within NAGD (2009).

Nitrogen oxides concentrations (NO_x including nitrate and nitrite) were low and ranged from < 0.1 mg/kg to 1.8 mg/kg. As a result, total nitrogen (TN) and total Kjeldahl nitrogen (TKN) concentrations were similar, with minimal contribution from nitrogen oxides. TN and TKN concentrations across the dredge zones ranged from 140 mg/kg to 1900 mg/kg, with a mean of 777.5 mg/kg and a 95% UCL of 1100 mg/kg (Table 1.1). The TN and TKN concentrations recorded across the survey area were broadly comparable to historical values – 2024 (490 mg/kg to 1810 mg/kg; BMT, 2025), 2023 (290 to 1760 mg/kg; BMT, 2023), 2022 (280 to 1670 mg/kg; BMT, 2022), 2021 (180 to 2300 mg/kg; BMT, 2021) and 2020 (300 to 1300 mg/kg; BMT, 2020).

Total phosphorus (TP) concentrations ranged from 214 mg/kg to 957 mg/kg, with a mean of 525.4 mg/kg and a 95% UCL of 678.6 mg/kg. TP concentrations were broadly comparable to the range of concentrations recorded previously in 2024 (366 to 2166 mg/kg; BMT, 2025), 2023 (325 to 1040 mg/kg; BMT, 2023), 2022 (242 to 1010 mg/kg; BMT, 2022), 2021 (183 to 929 mg/kg; BMT, 2021) and 2020 (312 to 847 mg/kg; BMT, 2020).

TOC content ranged from 0.43 % to 2.2 % across the dredge zones, with a mean of 1.42 % and moderate variability (RSD 37 %). The TOC 95 % UCL for dredge zones was 1.60 %, which was higher than the reference sites (1.2 %). TOC content was comparable to TOC content previously recorded in 2024 (1.87 %; BMT, 2025), 2023 (1.5 %; BMT, 2023), 2022 (1.57 %; BMT, 2022), 2021 (0.99 %; BMT, 2021) and 2020 (1.00 %; BMT, 2020).

Table 3.2 Summary statistics and 95% UCLs for combined locations in Zones 2, 3, and 4 - trace metals/metalloids and nutrients (mg/kg)

Parameter	LOR (mg/kg)	No. detects	Screening level	Statistical distribution	95 % UCL	Min	Max	Mean
Metals and metalloids								
Aluminium	50	26 (100%)	n/a	Normal	12320	5280	14600	11412
Arsenic	1	26 (100%)	20	Normal	7.482	3.945	9.64	7.006
Cadmium	0.1	3 (11%)	1.5	NC2	NC2	<0.1	1.1	NC2
Chromium	1	26 (100%)	80	Normal	26.67	11.2	32.8	24.83
Copper	1	26 (100%)	65	Normal	24.21	5.1	37	21.22
Iron	50	26 (100%)	n/a	Normal	30824	15300	37400	28729
Lead	1	26 (100%)	50	Normal	17.63	5.9	28	15.86
Mercury	0.01	26 (100%)	0.15	Normal	0.0892	0.02	0.13	0.0782
Nickel	1	26 (100%)	21	Normal	18.84	9.2	23.7	17.57
Silver	0.1	26 (100%)	1	Normal	0.155	<0.05	0.3	0.131
Zinc	1	26 (100%)	200	Normal	87.25	33.4	135	78.27
Nutrients								
TOC	0.02	26 (100%)	n/a	Gamma	1.599	0.43	2.2	1.423
TKN	20	12 (100%)	n/a	Normal	1100	140	1900	777.5
TN	20	12 (100%)	n/a	Gamma	1100	140	1900	777.5
TP	2	12 (100%)	n/a	Normal	678.6	214	957	525.4

NC1—not calculated due to no detections.

NC2— not calculated due to >30% of values being non-detects (applicable only to parameters with screening levels)

3.2.3 Organotin

Monobutyltin (MBT), dibutyltin (DBT) and tributyltin (TBT) were analysed in all sediment samples, and results are presented in Table 3.4. MBT and DBT were below the detection limit in all sediment samples analysed.

TBT (normalised to 1% TOC) was detected in 11 samples located within dredge zones 2 and 3 only ranging from below the LOR ($<0.5 \mu\text{gSn/kg}$) to $1.02 \mu\text{gSn/kg}$, all of which were below the NAGD screening level of $9 \mu\text{gSn/kg}$. Elutriate and porewater testing was conservatively undertaken concurrently to assess TBT with results all below the limit of reporting ($0.002 \mu\text{g/L}$). In accordance with NAGD, dredged material was suitable for ocean disposal with regard to organotin concentrations.

3.2.4 Total Petroleum Hydrocarbons (TPHs)

Total petroleum hydrocarbon (TPH) concentrations within the C10 to C14, C15 to C28 and C29 to C36 carbon fractions were recorded at most locations within the dredge zones. The TPH carbon fraction C6 to C9 was below the LOR in all sediment samples. The 95% UCL for TPHs C10 to C36 was 62.75 mg/kg (normalised to 1% TOC), which is below the screening level of 280 mg/kg and comparable to previous sampling programs (74.9 mg/kg in 2024 (BMT, 2025), 62.4 mg/kg in 2023 (BMT, 2023) and 84.5 mg/kg in 2022 (BMT, 2022)) (Table 3.4). In accordance with NAGD, dredged material was suitable for ocean disposal with regard to TPH concentrations.

3.2.5 Polyaromatic Hydrocarbons (PAHs)

Low level detections of PAHs were recorded at all locations analysed within the dredge zones (Table 1.1). Total PAHs concentrations (corrected to 1% TOC) ranged from $114 \mu\text{g/kg}$ to $2646 \mu\text{g/kg}$, with a 95% UCL across all dredge zones of $982 \mu\text{g/kg}$ well below the NAGD screening level of $10,000 \mu\text{g/kg}$ in all samples. In accordance with NAGD, dredged material was suitable for ocean disposal with regard to PAH concentrations.

3.2.6 Organochlorine Pesticides (OCPs)

The OCP p p'-DDE was detected at eight locations within dredge zone 2 only. When normalised to 1% TOC, no samples had concentrations above the screening level ($2.2 \mu\text{g/kg}$). Elutriate and porewater testing was conservatively undertaken concurrently to assess DDE on all samples in dredge zones. DDE and all other OCPs were below the limit of reporting in all samples ($0.010 \mu\text{g/L}$). In accordance with NAGD, dredged material was suitable for ocean disposal with regard to OCP concentrations.

Table 3.3 Summary statistics and 95% UCLs (µg/kg) for combined locations in Zones 2, 3 and 4 - organic compounds (normalised to 1% TOC)

Parameters	LOR	No. Detects	Screening level	Distribution	95% UCL	Min	Max	Mean
OCPs								
Aldrin	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
alpha-BHC	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
beta-BHC	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
delta-BHC	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
4.4'-DDD	0.5	0(0%)	2	NC1	NC1	<0.50	NC1	NC1
4.4'-DDE	0.5	8(31%)	2.2	NC2	NC2	<0.50	2.036	NC2
4.4'-DDT	0.5	0(0%)	1.6	NC1	NC1	<0.50	NC1	NC1
Dieldrin	0.5	0(0%)	280	NC1	NC1	<0.50	NC1	NC1
alpha-Endosulfan	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
beta-Endosulfan	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Endosulfan sulphate	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Endrin	0.5	0(0%)	2.7	NC1	NC1	<0.50	NC1	NC1
Endrin aldehyde	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Endrin ketone	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Heptachlor	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Heptachlor epoxide	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Hexachlorobenzene (HCB)	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
gamma-BHC (Lindane)	0.25	0(0%)	0.32	NC1	NC1	<0.25	NC1	NC1
Methoxychlor	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
cis-Chlordane	0.5	0(0%)	0.5	NC1	NC1	<0.50	NC1	NC1
trans-Chlordane	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Oxychlordane	0.5	0(0%)	n/a	NC1	NC1	<0.50	NC1	NC1
Organotins								
Monobutyltin as Sn	1	0(0%)	n/a	NC1	NC1	<1	NC1	NC1
Dibutyltin as Sn	1	2(6.6%)	n/a	NC2	NC2	<1	1	NC2
Tributyltin as Sn	0.5	11(31%)	9	NC2	NC2	<0.5	1.02	NC2
TPHs								
TPH C ₁₀ -C ₁₄	3	12(100%)	n/a	Normal	12.37	4.11	19.51	9.92
TPH C ₁₅ -C ₂₈	3	12(100%)	n/a	Normal	27.86	6.849	36.59	22.48
TPH C ₂₉ -C ₃₆	5	12(100%)	n/a	Normal	23.11	3.67	36.59	17.46



Parameters	LOR	No. Detects	Screening level	Distribution	95% UCL	Min	Max	Mean
TPH C ₁₀ -C ₃₆	3	12(100%)	280	Normal	62.75	16.44	92.68	49.86
PAHs								
Naphthalene	5	8(67%)	n/a	Normal	11.2	1.301	17.86	8.396
2-Methylnaphthalene	5	3(25%)	n/a	NC2	NC2	1.3	5.8	NC2
Acenaphthylene	4	9(75%)	n/a	Gamma	24.21	2.597	67.07	13.11
Acenaphthene	4	1(8%)	n/a	NC2	NC2	1.1	9.8	NC2
Fluorene	4	3(25%)	n/a	NC2	NC2	1.142	18.29	NC2
Phenanthrene	4	10(83%)	n/a	Lognormal	56.27	2.597	185.4	25.85
Anthracene	4	9(75%)	n/a	Normal	24.98	2.597	81.71	13.78
Fluoranthene	4	11(92%)	n/a	Lognormal	76.41	5.195	502.4	76.41
Pyrene	4	15(100%)	n/a	Lognormal	161.9	6.494	441.5	73.76
Benz(a)anthracene	4	11(92%)	n/a	Gamma	78.77	2.597	202.4	40.81
Chrysene	4	11(92%)	n/a	Gamma	56.57	2.597	141.5	31.25
Benzo(b+j)fluoranthene	4	10(83%)	n/a	Gamma	82.36	2.597	182.9	45.07
Benzo(k)fluoranthene	4	11(92%)	n/a	Gamma	31.97	2.597	74.39	18.27
Benzo(e)pyrene	4	11(92%)	n/a	Gamma	44.72	2.597	96.34	26.26
Benzo(a)pyrene	4	11(92%)	n/a	Gamma	93.02	2.597	219.5	49.03
Perylene	4	15(100%)	n/a	Normal	103.5	48.84	175	81.77
Benzo(g,h,i)perylene	4	11(92%)	n/a	Normal	48.51	2.597	117.1	33.46
Dibenz(a,h)anthracene	4	9(75%)	n/a	Normal	9.534	2.597	21.95	6.795
Indeno(1.2.3.cd)pyrene	4	11(92%)	n/a	Gamma	44.42	2.597	98.78	25.64
Coronene	5	9(75%)	n/a	Normal	8.431	2.163	17.07	6.434
Sum of PAHs	4	12(100%)	10,000	Lognormal	982	114.3	2646	572.4

NC1—not calculated due to no detections.
NC2— not calculated due to >30% of values being non-detects (applicable only to parameters with screening levels)

3.2.7 Polychlorinated Biphenyl's (PCBs)

Concentrations of PCBs were below NAGD guideline values of 0.034 mg/kg. Therefore, the sediments in the dredge zones are considered suitable for ocean disposal as per the NAGD guidelines with respect to PCBs.

3.2.8 Radionuclides

Gross alpha and gross beta activity ranged between <0.5 Bq/g (LOR) to 0.97 Bq/g dry weight and <0.5 Bq/g (LOR) to 0.61 Bq/g dry weight respectively. The gross alpha and beta activities were comparable to the ranges recorded in 2020—2024). Therefore, the NAGD screening level for the sum of gross alpha and beta (35 Bq/g) was not exceeded in any samples, and on this basis sediments within the dredge zones, are considered suitable for ocean disposal as per the NAGD guidelines with respect to radionuclides.

3.2.9 Acid Sulphate Soils

Acid sulphate soil test results are presented in Table 3.4. Titratable Actual Acidity (TAA) was below the limit of reporting (LOR) in all samples, indicating a low likelihood of actual acid sulphate Soils (AASS) presence throughout the survey area. Furthermore, the field pH(f) results returned values ranging from pH 8.0 to 9.1, indicative of no existing acidity and low likelihood of AASS. The oxidised field pH(fox) test results ranged from pH 5.6 to 8.5, indicating the lithology has low likelihood of containing potential acidity.

All samples had chromium reducible sulphur values above the LOR, in the range of 0.123 to 0.696 %S, indicating low to moderate presence of inorganic potential acidity in these samples. Excess acid neutralising capacity (Excess ANC) was present in all samples except for two (B6-3 and B9-1), indicating that the sediment generally has sufficient self-neutralising capacity.

Net acidity (excluding ANC) ranged from <0.02 to 0.48 %S, relating directly to potential acidity as no acidity was recorded. The inclusion of ANC significantly reduced net acidity, with all samples except B6-3 and B9-1 recording values below the LOR (<0.02% S). These two samples returned net acidity values of 0.09% S and 0.18% S, respectively. Notwithstanding this, the ANC values should be considered indicative only and require corroboration through leachate testing (~8 weeks) to validate its inclusion to the calculation of net acidity. This is more relevant when land disposal is intended, as the liming rates differ based on the soils self-neutralising capacity.

Based on Simpson et al., 2018 guidelines, due to the extensive volume and pH buffering capacity provided by seawater, the disposal of potential ASS containing dredged materials in the open marine environment is unlikely to significantly alter the acidity and release of metal(oids)s to the extent that WQG values are exceeded in the water column. Therefore, while sediments from the current survey are classified as PASS, the acid neutralising capacity appears sufficient in the majority of samples to neutralise acids upon oxidation. However, if land placement is intended then additional testing would be required to confirm neutralisation capacity and inform appropriate management measures

Table 3.4 Acid sulphate soil results (chromium suite and SPOCAS)

Analyte grouping/Analyte	Actual Acidity			Potential Acidity		Acid Neutralising Capacity				Acid Base Accounting					
	pH KCl	Titrateable Actual Acidity	sulfidic - Titrateable Actual Acidity	Chromium Reducible Sulfur	acidity - Chromium Reducible Sulfur	Excess -Acid Neutralising Capacity	acidity – Excess Acid Neutralising Capacity	sulfidic – Excess Acid Neutralising Capacity	ANC Fineness Factor	Net Acidity (sulfur units)	Net Acidity (acidity units)	Liming Rate	Net Acidity excluding ANC (sulfur units)	Net Acidity excluding ANC (acidity units)	Liming Rate excluding ANC
Units	pH Unit	mole H+ / t	% pyrite S	% S	mole H+ / t	% CaCO3	mole H+ / t	% pyrite S	-	% S	mole H+ / t	kg CaCO3/t	% S	mole H+ / t	kg CaCO3/t
LOR	0.1	2	0.02	0.005	10	0.01	10	0.01	0.5	0.02	10	1	0.02	10	1
B5-0	8.1	<2	<0.020	0.308	192	0.764	152	0.244	1.5	<0.02	<10	<1	0.3	190	14
B6-3	8.1	<2	<0.020	0.290	181	----	----	----	1.5	0.09	54	4	0.24	152	11
B5-1	8	<2	<0.020	0.696	132	1.05	209	0.335	1.5	<0.02	<10	<1	0.25	158	12
B10-6	8.6	<2	<0.020	0.233	145	1.78	355	0.569	1.5	<0.02	<10	<1	0.22	140	10
B11-8	8.8	<2	<0.020	0.393	245	14.7	2930	4.7	1.5	<0.02	<10	<1	0.42	259	19
B12-1	8.4	<2	<0.020	0.453	282	1.13	226	0.362	1.5	<0.02	<10	<1	0.43	270	20
B15-2	8.9	<2	<0.020	0.292	182	5.63	1120	1.8	1.5	<0.02	<10	<1	0.28	177	13
B15-3	9	<2	<0.020	0.123	77	4.4	880	1.41	1.5	<0.02	<10	<1	0.24	148	11
B13-8	8.7	<2	<0.020	0.255	159	7.04	1400	2.25	1.5	<0.02	<10	<1	<0.02	<10	<1
B13-1	9.1	<2	<0.020	0.068	42	2.46	491	0.787	1.5	<0.02	<10	<1	0.05	32	2
B9-1	8.2	<2	<0.020	0.447	279	----	----	----	1.5	0.18	110	8	0.48	303	23
B7-1	8.5	<2	<0.020	0.196	122	1.57	315	0.504	1.5	<0.02	<10	<1	0.19	117	9

4 Data Validation

4.1 Laboratory QA/QC

Details of the laboratory QA/QC for the primary and secondary laboratories is provided in the following sections. Refer to Section 2.5 for a description of laboratory QA/QC procedures.

4.1.1 Limits of Reporting (LORs)

LOR was raised for the following parameters. Note LORs for all parameters were below the NAGD screening levels.

- PAHs: The LOR raised due to high amount of moisture present.
- Tributyltin for 'B10-6' (EB2508894-046) required re-extraction due to laboratory error. The LOR values were adjusted accordingly.
- Polychlorinated biphenyls: Some samples required dilution due to sample matrix. The LOR values were adjusted accordingly.

4.1.2 Sampling Holding Times and Storage Conditions

All samples were received by the laboratories in appropriately pre-treated and preserved containers. Samples were chilled with ice whilst in the field and during delivery (ice packs). Laboratory holding times were met for all samples except Samples B13-4c – mercury (elutriate testing) likely due to internal processing delays.

4.1.3 Laboratory Blanks

Results indicated that the laboratory blank assessment was within the acceptable criteria.

4.1.4 Laboratory Duplicates

Results indicate that the laboratory duplicate assessment was generally within the acceptable criteria. The exceptions were:

- TPH Semi volatile Fraction: Sample 'B5-0' (EB2508981—005) shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- Mercury: Sample 'B2-0' (EB2508981—001) shows poor duplicate recovery due to sample heterogeneity. Confirmed by visual inspection.

4.1.5 Surrogate and Matrix Spikes

The assessment of surrogate and matrix spike recoveries was satisfactory for most samples. The exceptions were:

- Organotin: Sample 'RF7' (EB2508894--022) showed poor matrix spike recovery due to matrix interference.
- Organotin Sample ES2507194-002 shows poor matrix spike recovery due to matrix interference.
- Organotin: Sample 'B10-6' (EB2508894-002) shows matrix spike recovery outside of control limits due to heterogeneity.

4.2 Field QA/QC

4.2.1 Field Triplicates and Splits

Analyses of field triplicate and field triplicate splits were within the NAGD criterion for RSDs or RPDs for most samples. The exceptions are highlighted in Table 4.1. In all cases the range of values was less than screening levels.

Table 4.1 Summary of duplicate and triplicate RSD exceedances

Sample	Parameter	RSD	Acceptable Range
Duplicate			
B5-1/B5-1b/B5-1c	PSD—gravel (>2 mm)	123.3%	0—50%
	C15 - C28 Fraction	89.1%	0—75%
	C10 - C36 Fraction (sum)	71.0 %	0—50%
	Perylene	71.4%	0—50%
	Sum of PAHs	55.0%	0—50%
B13-4/B13-4b/B13-4c	Lead	53.2%	0—50%
	Total Organic Carbon	84.0%	0—50%
Triplicate			
B10-6/B10-6b/B10-6c	Benz(a)anthracene	53.3%	0—50%
	Benzo(a)pyrene	64.6%	0—50%
	Sum of PAHs	55.7%	0—50%
B6-2/B6-2b/B6-2c	Total Organic Carbon	92.6%	0—50%

4.2.2 Summary of Data Validation

Results from the present study indicated that the survey was undertaken to a high standard providing scientific confidence that the presented results are valid to allow an assessment of sediment quality against NAGD guidelines. Exceptions are discussed above and relate mostly to high sample heterogeneity and sample matrix interferences.

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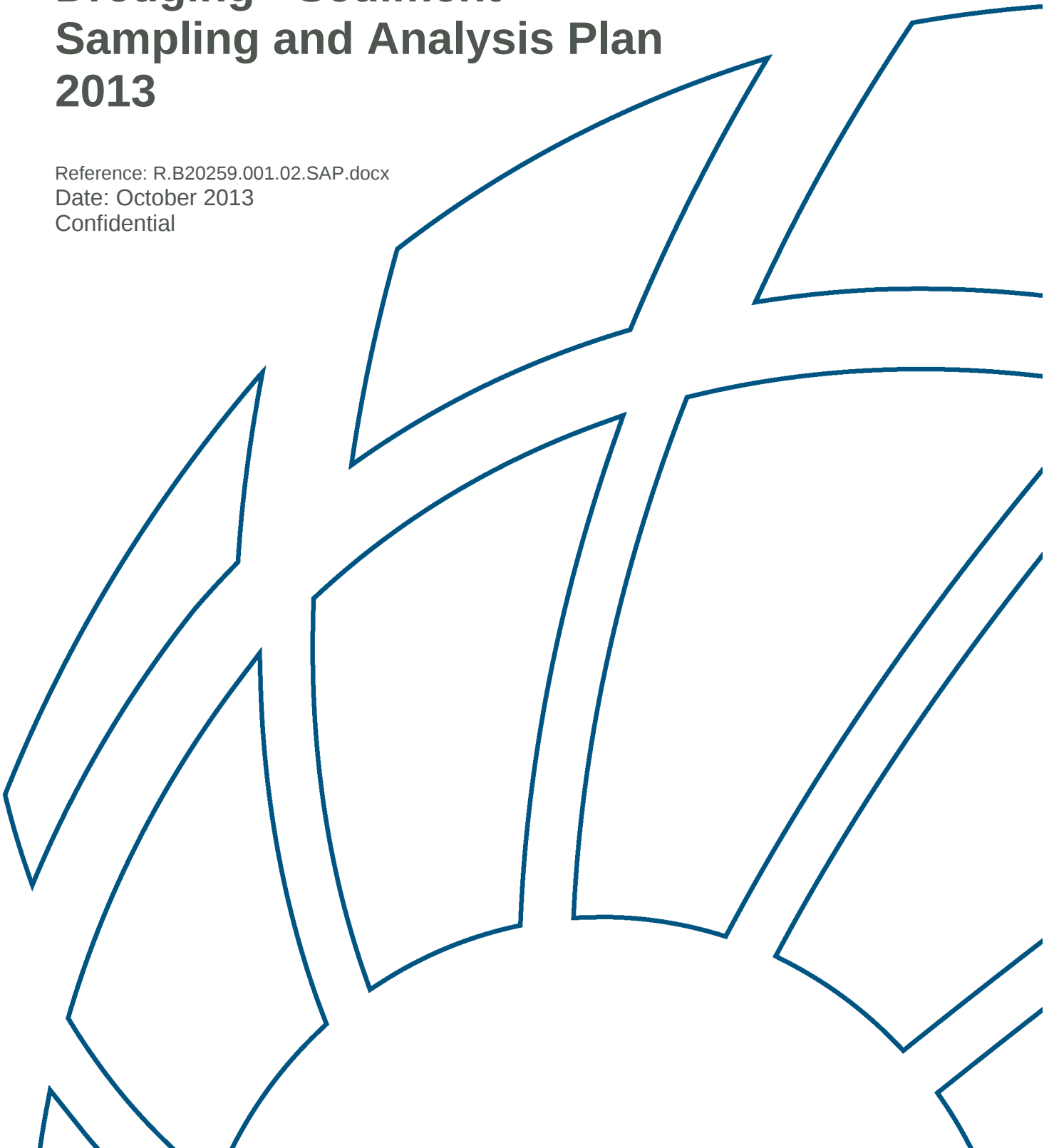
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Annex A SAP



Port of Brisbane Maintenance Dredging - Sediment Sampling and Analysis Plan 2013

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Port of Brisbane Maintenance Dredging - Sediment Sampling and Analysis Plan 2013

Prepared for: Port of Brisbane Pty Ltd

Prepared by: BMT WBM Pty Ltd (Member of the BMT group of companies)

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Introduction

1 Introduction

Port of Brisbane Pty Ltd (PBPL) is required to maintain a minimum depth of clearance below the keel of vessels calling at the port to allow for effective shipping access to the port and ensure ship safety. Channel depths are declared by the Harbour Master (Maritime Safety Queensland) and displayed on various shipping charts. PBPL undertakes an annual maintenance dredging program to ensure these minimum depths are maintained.

PBPL propose to undertake its annual maintenance dredging within the navigational areas of the Brisbane River and Moreton Bay, primarily using the Trailer Suction Hopper Dredge (TSHD) 'Brisbane'. Maintenance dredging works extend from the Hamilton Reach of the Brisbane River to the North West Channel located in northern Moreton Bay.

PBPL aims to ensure that all dredging activities, including extraction and placement of material, are undertaken in accordance with existing legislation and with minimal environmental harm. A key component of achieving this aim is to undertake a contaminant assessment of the material proposed for dredging prior to the commencement of the dredging program.

1.1 Sediment Sampling and Analysis Plan (SAP) Objectives

The aim of this SAP is to provide a set of procedures that will allow a statistically valid evaluation of the physical and chemical sediment properties of the sediments to be dredged. The results of this assessment will assist in determining the likely impacts of unconfined offshore disposal of the dredged sediment.

The assessment of physico-chemical sediment properties will be undertaken on the basis of the approach set out in the National Assessment Guidelines for Dredging (Commonwealth of Australia 2009; henceforth NAGD).

The specific SAP objectives are to:

- Provide a summary of proposed dredging and disposal operations for the project;
- Identify a list of contaminants based on a review of existing data and potential contaminant sources;
- Determine the number of samples required to provide an adequate characterisation of the physical and chemical sediment properties;
- Develop procedures for adequate field collection and handling of sediment samples;
- Outline adequate quality assurance and quality control (QA/QC) procedures for field sampling and laboratory analysis;
- Provide a description of statistical procedures used to determine the contaminant status of the dredged material;
- Describe procedures for validating the analytical data to assess whether the sample collection, handling and laboratory analysis was undertaken to a standard allowing assessment of sediment quality against the NAGD guidelines; and

Introduction

- Outline the proposed reporting framework for the sediment quality results that will address the requirements of the Determining Authority.

1.2 Proposed Dredging

PBPL's area of responsibility in relation to maintenance and capital dredging within port limits can be broadly divided into two zones on the basis of the water body type, navigable depths and nature of dredged material:

- Moreton Bay zone (enclosed/open coastal waters); and
- Brisbane River zone including the Port of Brisbane (middle/lower estuary).

This SAP only considers assessment of sediments for the Brisbane River zone. The Brisbane River zone extends from Hamilton Reach to the Outer Bar Cutting. Annual maintenance dredging is required to remove sediments accumulated by natural siltation processes within the catchment and sediment loads from residential and commercial developments.

To ensure that declared depths of navigational channels are maintained at all times, PBPL undertakes 'insurance' dredging of up to -0.5 metres below the declared depth.

On average, PBPL dredges about 400,000 m³ to 450,000 m³ of material each year. Additional dredging needs to be undertaken following major flood events, i.e. in 2011 and 2013.

The Brisbane River zone is divided into different dredging subareas based on existing contaminant data (Figure 2-1), comprising Zone 2, Zone 3 and Zone 4. It is noted that Zone 1 is not part of the annual dredging and samples from this zone have been used to collect control samples upstream of the actual dredging areas.

The following average dredge volumes apply to the dredge subareas (Table 1-1):

Table 1-1 Approximate Maintenance Dredge Volumes

Dredging Subarea	Extents	Average Dredge Volume (m ³)
Zone 2	Colmslie to Pinkenba	150,000
Zone 3	Within port reaches	250,000
Zone 4	Moreton Bay entrance channel	30,000

The maintenance dredging program is structured to maximise efficiencies and utilisation of PBPL's largest dredger, the trailing suction hopper dredge *TSHD Brisbane*. The *TSHD Brisbane* typically carries out the majority of the ports maintenance dredging over a two month period between January and May (actual period varies depending on other commitments of the *TSHD Brisbane* and siltation patterns). The PBPL may also utilise smaller, more manoeuvrable dredging plant, such as grab dredgers and bed levellers, to maintain more confined areas within the Port Limits.

1.3 Offshore Disposal

The PBPL's policy with regard to dredged material is to maximise its beneficial reuse. In general, most of the material dredged by the PBPL from within Port Limits is used in reclamation works

Introduction

associated with development of the port. The reuse of this dredged material provides several benefits, including:

- Reduced pressure on sea disposal sites;
- The placement of any actual or potential acid sulphate material at depth beneath the water surface; and
- The containment of any contaminated material within a designated boundary, disconnected from the marine system and monitored to ensure the immobility of identified contaminants.

In 2009, the reclamation life of the Future Port Expansion (FPE) area was estimated to be approximately 30 years, based on the current level of port development at that time. Following extreme flood events in both 2011 and 2013 and the subsequent disposal of additional material in the FPE area, the estimated life of the FPE area was reduced by 20 years to 10 years. Given the importance of the FPE as an area to dispose of material unsuitable for ocean disposal, there has been a shift in thinking around the management of the FPE area.

The current proposed management of dredged material is to, where practical, dispose at sea all dredged material deemed suitable for ocean disposal. This proposed management initiative will ensure the long term viability of the FPE area for the disposal of material deemed unsuitable for ocean disposal.

In the past, significant quantities of dredged material from the Brisbane River have been placed offshore at the Mud Island Dredge Material Placement Area (DMPA) (Figure 2-1). In recent years only smaller volumes of dredged material from boat harbours in southern Moreton Bay were placed at the Mud Island DMPA. However, it is proposed that the Mud Island DMPA will be utilised for material found suitable for ocean disposal in future PBPL maintenance dredging campaigns.

Review of Existing Information

2 Review of Existing Information

Prior to each annual maintenance dredging campaign, PBPL undertook assessments of sediment quality at 45 sampling locations within the dredging zones 2 to 4 (Figure 2-1).

Additional samples were obtained from three locations in Zone 1 and Breakfast Creek upstream of the dredging area in order to assess potential sediment quality impacts from the upstream catchment. The sediment quality results for the annual sampling program between 2000 and 2013 are summarised in Section 2.1.

Due to major flooding in the Brisbane River catchment in early January 2011 and late January 2013, emergency dredging was required to maintain declared depths. Twelve to twenty locations were sampled within the port and three to four locations within the Mud Island DMPA for the 2011 and 2013 flood sampling campaigns, respectively. The sediment quality assessments included elutriate and bioavailability analyses for selected trace metals and organic contaminants.

Additionally, a comparison of sediment quality (organochlorine pesticides and dioxins) at 14 sampling locations at the Mud Island DMPA and seven reference sites in Moreton Bay (Sites RF1 to RF7 in Figure 2-1) was undertaken in 2013 to assess if the emergency dredging and disposal activities impacted on sediment and water quality in Moreton Bay. The sediment quality results for the 2011 and 2013 flood sampling are summarised in Section 2.2.

Conclusions based on the review of the annual and flood sampling data are provided in Section 2.3.

2.1 Annual Sediment Quality Data 2000 – 2013

Detailed sediment quality studies have been undertaken within the Port of Brisbane since 1998. This review considers sediment quality data collected between 2000 and 2012. This comprises the studies detailed in Table 2-1.

In addition to the routine monitoring documented in Table 2-1, further sampling was carried in 2011 and 2013 (Worley Parsons 2011b, 2013b, 2013c, 2013d) to assess the effects of floods on sediment quality. Refer to Section 2.2 for a description of these studies.

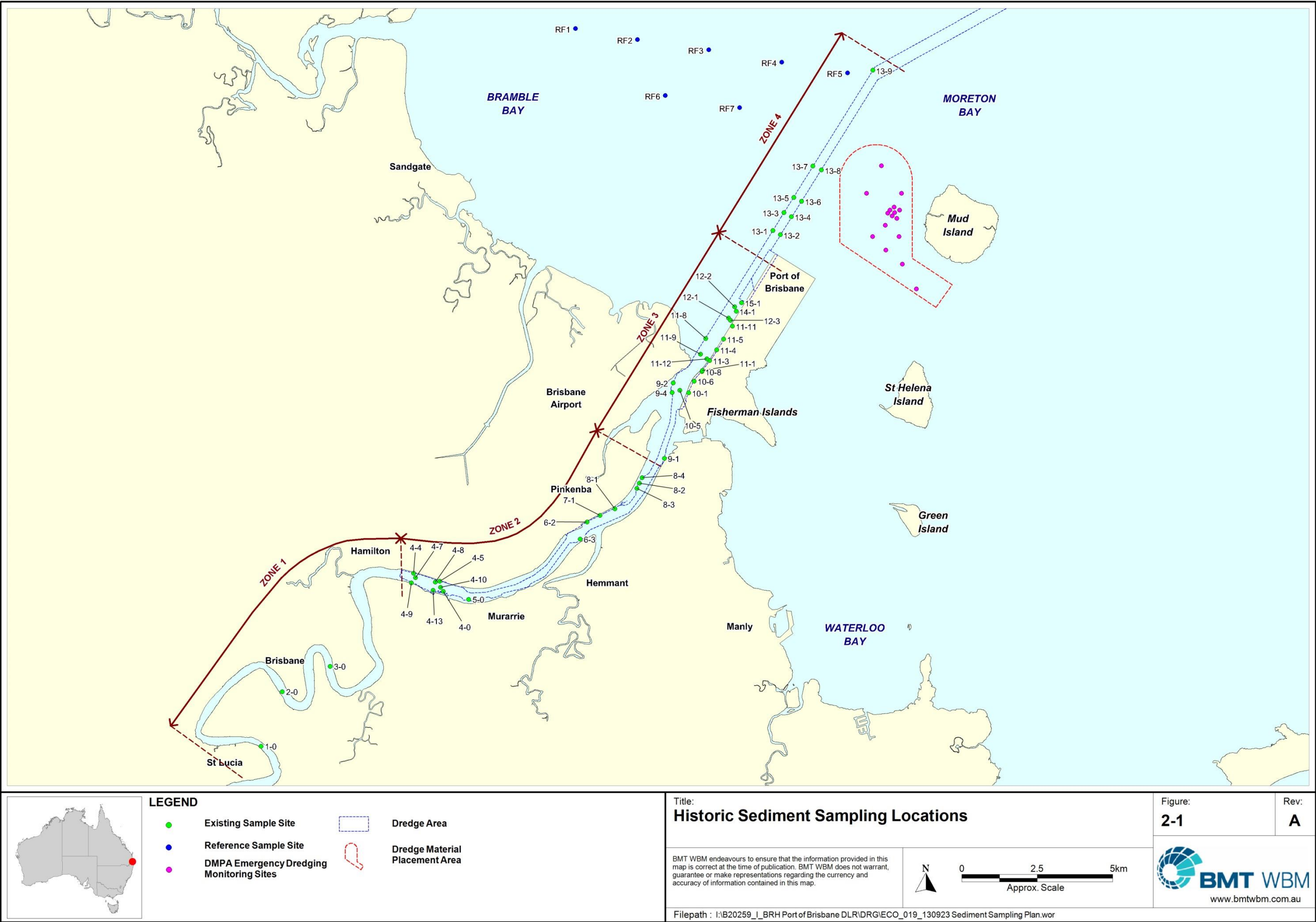
Table 2-1 Previous Routine Annual Sediment Quality Studies

Reference	Sampling Date
Maunsell McIntyre (2001)	November 2000
Butler Partners (2002)	November 2001
Hydrobiology (2003)	November 2002
Hydrobiology (2004)	November 2003
SKM (2005)	November 2004
SKM (2006)	January 2006
SKM (2007)	February 2007
Worley Parsons (2008)	January 2008
Worley Parsons (2009)	February 2009
GHD (2010)	January 2010
Worley Parsons (2011a)	December 2010
Worley Parsons (2012)	December 2011
Worley Parsons (2013a)	December 2012

A wide range of analytical parameters have been measured between 2000 and 2012 as summarised in Table 2-2. Analysis was undertaken at a total of 45 locations within the dredge areas. Additional samples were collected from three control locations upstream of the dredging areas as well as from Breakfast Creek (these locations are not within the dredge areas).

Table 2-2 Summary of Sediment Quality Data 2000 - 2012

Analytical Parameter	Measurement Events
Inorganics	
Metals & Metalloids	2000-2012
Organics	
Organotins	2000-2012
Total Petroleum Hydrocarbons (TPHs)	2000-2012
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	2000-2012
Polycyclic Aromatic Hydrocarbons (PAHs)	2000-2012 (30% of locations)
Organophosphate and Organochlorine Pesticides (OPPs and OCPs)	2000-2012 (40% of locations between 2000 and 2006)
Polychlorinated Biphenyls (PCBs)	2000-2012 (30% of locations)
Radionuclides	2010-2012
Acid Sulfate Soils	2000-2012



Review of Existing Information

2.1.1 Metals and Metalloids

Testing for metals and metalloids has included analysis of arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc between 2000 and 2012. Antimony and silver were also tested between 2001 and 2004.

The main contaminants of potential concern in terms of metals and metalloids were mercury and nickel. Mercury and nickel concentrations frequently exceeded the NAGD screening level at the 95% Upper Confidence Limit of the mean (95% UCL). Silver exceeded the NAGD screening level at the 95% UCL between 2002 and 2004. All other metals and metalloid 95% UCL concentrations were generally below the 95% UCL between 2000 and 2013.

The temporal and spatial trends observed for trace metals between 2000 and 2012 are detailed in the following sections.

2.1.1.1 Mercury

The NAGD screening level for mercury (0.15 mg/kg) was exceeded on numerous occasions in the Brisbane River dredge zones, particularly in Zone 2. Figure 2-2 shows the number of occasions when the screening level was exceeded between 2000 and 2012 and the number of sites for dredge zones 2 to 4 where exceedances were noted.

For Zone 2, mercury concentrations exceeded the screening level on 61 - 70% of occasions at 25% of locations. At a similar number of sites in Zone 2 exceedances were noted on 20 - 40% of occasions between 2000 and 2012.

Some exceedances of the mercury screening level were noted also for Zone 3 and Zone 4. However, those exceedances occurred only at a limited number of sites whilst no screening level exceedances were noted at 70 - 80% of locations in Zone 3 and Zone 4 between 2000 and 2012.

In Zone 3 most exceedances of the mercury screening level occurred at three sites (9-2, 10-6 and 11-8) occurring on 31 - 69% of occasions. In Zone 4, exceedances were only noted at two sites (13-5 and 13-6) on 8 - 23% of occasions.

Review of Existing Information

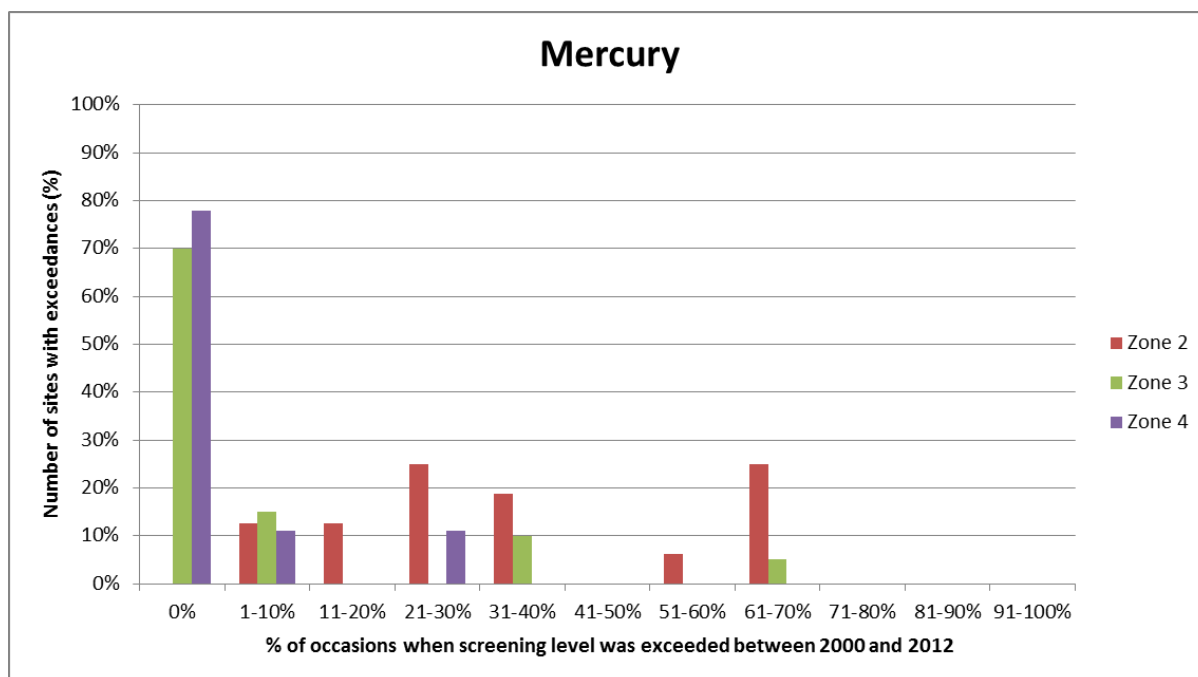


Figure 2-2 Exceedances of the NAGD Screening Level for Mercury between 2000 and 2012 in Dredge Zones 2, 3 and 4

2.1.1.2 Nickel

Exceedances of the nickel screening level (21 mg/kg) were noted for most locations across all dredge zones (Figure 2-3). Exceedances of the screening level on more than 80% of occasions were noted at a cumulative 56% of sites in Zone 2, 20% of sites in Zone 3 and 11% of sites in Zone 4. Average Nickel concentrations were 24.2 mg/kg for Zone 2, 20.1 mg/kg for Zone 3 and 21.4 mg/kg for Zone 4, i.e. close to the nickel screening level of 21 mg/kg.

Given the widespread exceedances of the nickel screening level across all dredge zones and that exceedances were also commonly noted for the upstream control sites, it appears likely that the elevated nickel concentrations are of natural origin. It is recognised that sediments in Australia including South-East Queensland commonly have high natural levels of nickel (NAGD 2009 and Preda & Cox 2002).

Review of Existing Information

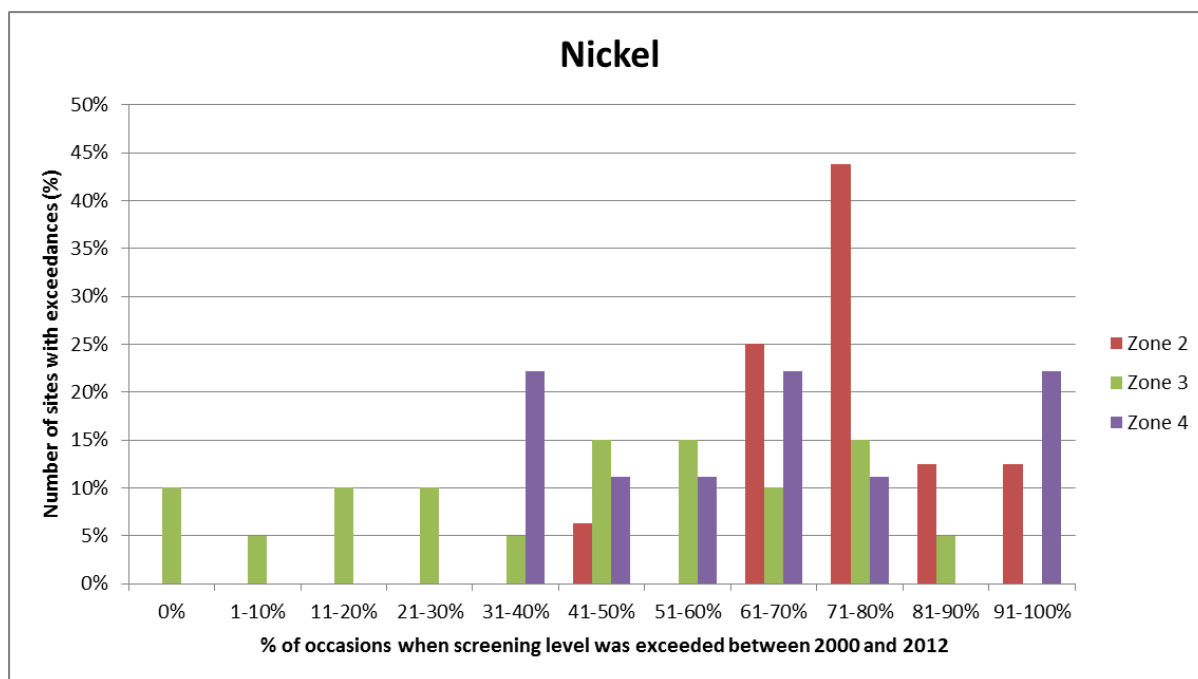


Figure 2-3 Exceedances of the NAGD Screening Level for Nickel between 2000 and 2012 in Dredge Zones 2, 3 and 4

2.1.1.3 Arsenic

Concentrations for arsenic were below the NAGD screening level of 20 mg/kg at all locations and dredge zones between 2000 and 2012.

2.1.1.4 Cadmium

Cadmium concentrations were below the NAGD screening level of 1.5 mg/kg with the exception of one site in Zone 2 (Site 6-2) where the screening level was met or exceeded between 2007 and 2009 with concentrations ranging between 1.5 – 6.3 mg/kg.

However, cadmium concentrations were below screening level at all locations between 2010 and 2012. The 95% UCL for cadmium was below the screening level between 2000 and 2013 for all dredge zones.

Average cadmium concentrations between 2000 and 2012 were 0.30 mg/kg for Zone 2, 0.20 mg/kg for Zone 3 and 0.17 mg/kg for Zone 4, i.e. well below the screening level across all dredge zones.

2.1.1.5 Chromium

Chromium concentrations were mostly below the screening level of 80 mg/kg. The only exceptions were noted at site 9-1 in Zone 3 where the screening level was exceeded in 2002 and 2012 with concentrations ranging between 94 – 100 mg/kg. However, the 95% UCL remained below the screening level. Furthermore, exceedances of the chromium screening level were noted at four sites in Zone 2 in 2000 with concentrations ranging between 88.6 – 101 mg/kg.

Review of Existing Information

2.1.1.6 Copper

Copper concentrations exceeded the NAGD screening level of 65 mg/kg on a few occasions in Zone 2 and Zone 3. No exceedances of the copper screening level were noted for Zone 4 (Figure 2-4).

In Zone 2 exceedances were noted at five out of sixteen locations, with only one to two detections noted at four of these locations between 2000 and 2012. At site 6-2 in Zone 2 exceedances of the screening level occurred on 46% of occasions. However, in 2011 and 2012 copper concentrations were below the screening level at this site.

The only exceedances of the copper screening level in Zone 3 were noted for site 9-1 in 2000 and 2008.

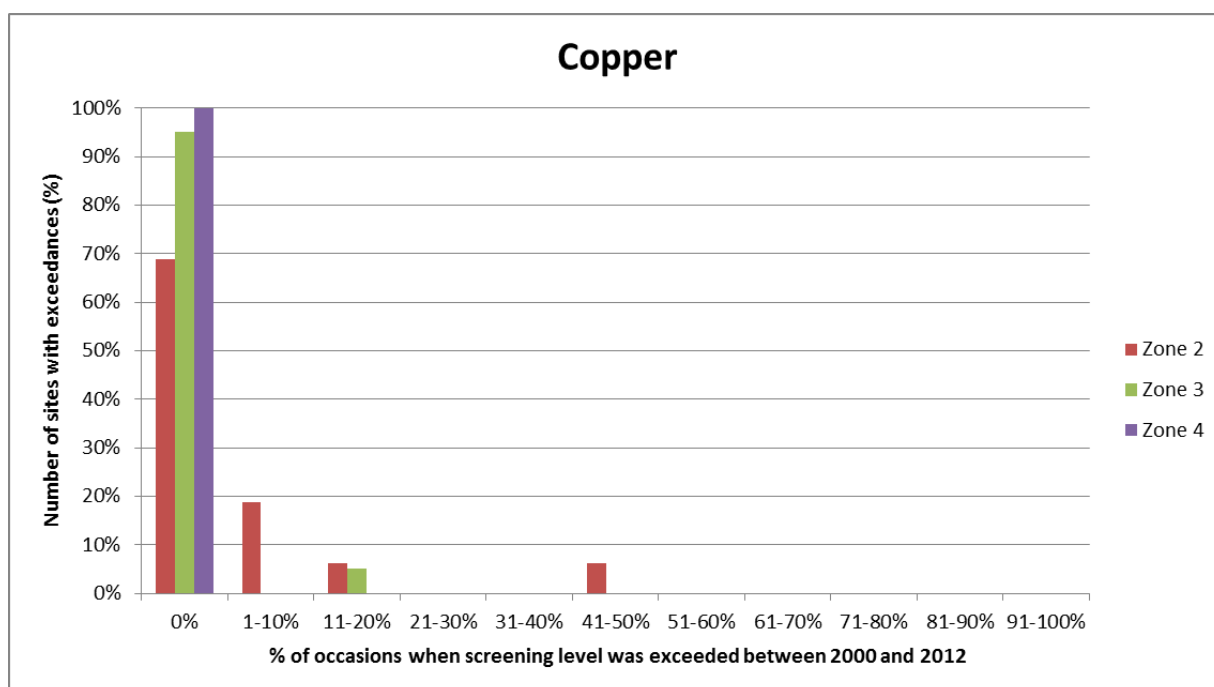


Figure 2-4 Exceedances of the NAGD Screening Level for Copper between 2000 and 2012 in Dredge Zones 2, 3 and 4

2.1.1.7 Lead

Some individual exceedances of the lead screening level (50 mg/kg) were noted, in particular in Zone 2 where exceedances were noted at seven locations (Figure 2-5). Since 2001 there were only single detections of lead above the screening level noted per annual sampling event. The 95% UCL for lead was below the NAGD screening level since 2001.

Exceedances on individual sites were noted on less than 20% of occasions, i.e. only once or twice between 2000 and 2012 in Zone 2. In Zone 3 and Zone 4, the only exceedances of the lead screening level were noted at single sites (9-1 in Zone 3 and 13-4 in Zone 4) and only on one or two occasions between 2000 and 2012.

The last screening level exceedance was noted in 2009 for Zone 2, in 2000 for Zone 3 and in 2010 for Zone 4. The average concentrations of lead between 2000 and 2012 were 26.9 mg/kg for Zone

Review of Existing Information

2, 13.7 mg/kg for Zone 3 and 12.3 mg/kg for Zone 4, i.e. well below the screening level across all dredge zones.

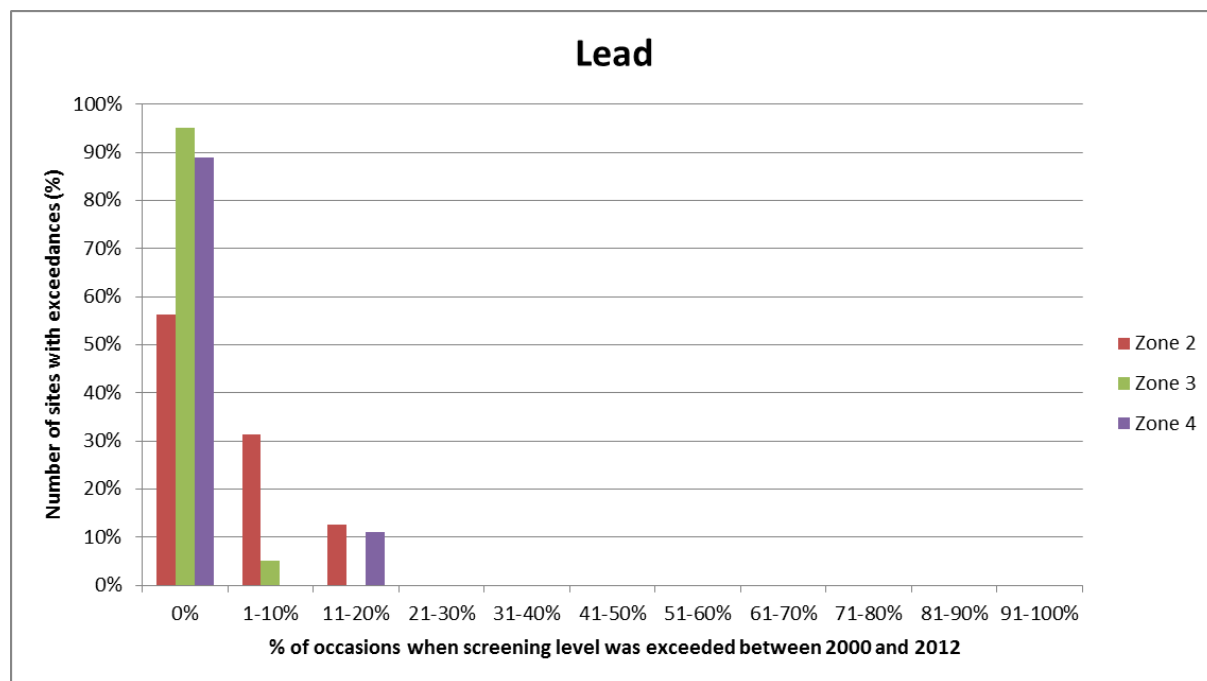


Figure 2-5 Exceedances of the NAGD Screening Level for Lead between 2000 and 2012 in Dredge Zones 2, 3 and 4

2.1.1.8 Zinc

Individual exceedances of the zinc screening level (200 mg/kg) were noted at eight locations in Zone 2. However, most of these exceedances occurred only once or twice (<15% occurrence) between 2000 and 2012 (Figure 2-6). Only at location 6-2 exceedances occurred on more than 30% of occasions (four times between 2000 and 2012). It is noted that the last exceedance of the zinc screening level in Zone 2 occurred in 2010.

In Zone 3 only a single exceedance was noted at location 9-1 in 2000. No exceedances of the zinc screening level were noted in Zone 4.

The average zinc concentration between 2000 and 2012 was 130.3 mg/kg for Zone 2, 74.0 mg/kg for Zone 3 and 57.1 mg/kg for Zone 4, i.e. well below the NAGD screening level across all dredge zones.

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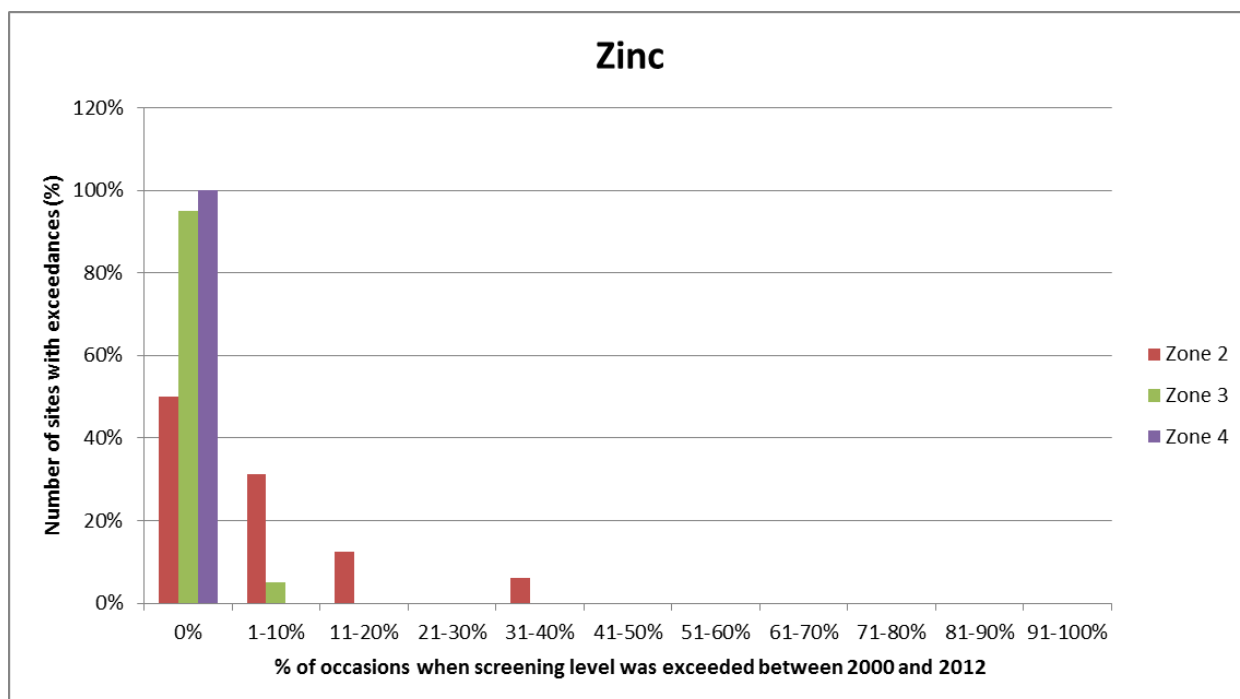


Figure 2-6 Exceedances of the NAGD Screening Level for Zinc between 2000 and 2012 in Dredge Zones 2, 3 and 4

2.1.1.9 Antimony and Silver

In addition to the metals and metalloids outlined above, antimony and silver were tested between 2001 and 2004. While antimony concentrations remained below the Limit of Reporting (LOR) for all sampling events, silver was detected at several locations and concentrations exceeded the screening level at one site in Zone 3 (11-8) between 2002 and 2004.

2.1.2 Organotins

Concentrations of TBT at the 95% UCL frequently exceeded the NAGD screening level ($9 \mu\text{g Sn/kg}$) between 2000 and 2012, particularly in dredge zones 2 and 3.

Exceedances of the TBT screening level were noted predominantly in Zone 2, including several exceedances of the NAGD high level of $70 \mu\text{g Sn/kg}$ (Figure 2-7). At sampling site 4-4 in Zone 2, the screening level was exceeded during all sampling events except in 2001, including six exceedances of the NAGD high level. At several other locations in Zone 2, screening level exceedances were noted between 20 to 70% of occasions.

In Zone 3, exceedances of the TBT screening level were typically only noted once or twice between 2000 and 2013, corresponding to 8% and 15% of occasions in Figure 2-7. The only exception was site 9-1, where exceedances of the screening level were noted on 69% of occasions. This included five sampling events where the NAGD high level was exceeded. This corresponds to a generally higher occurrence of metal/metalloid exceedances at this site as outlined in Section 1.1.1. It is noted that site 9-1 is the site located closest to Zone 2.

Only a single exceedance of the TBT screening level was noted at site 13-1 in Zone 4 in 2006.

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The average normalised TBT concentration between 2000 and 2012 was 28.8 µg Sn/kg for Zone 2, 21.8 µg Sn/kg for Zone 3 and 0.7 µg Sn/kg for Zone 4. If site 9-1 is excluded from Zone 3, the average concentration is 4.4 µg Sn/kg, i.e. less than the NAGD screening level.

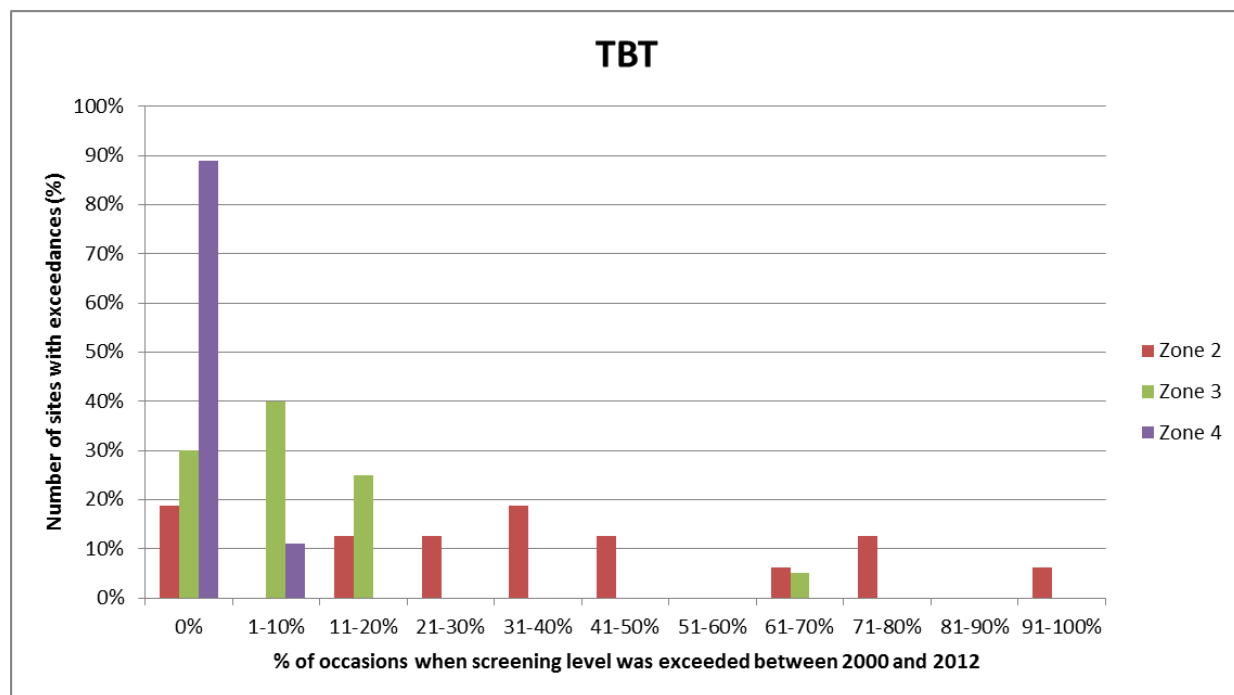


Figure 2-7 Exceedances of the NAGD Screening Level for TBT between 2000 and 2012 in Dredge Zones 2, 3 and 4

2.1.3 Benzene, Toluene, Ethylbenzene and Xylene (BTEX)

BTEX concentrations were below LOR in all samples and all zones between 2000 and 2012.

2.1.4 Total Petroleum Hydrocarbons (TPHs)

While TPHs were detected on several occasions across all dredge zones, the total TPH concentration was below the NAGD screening level of 550 mg/kg at all sampling locations between 2000 and 2012. Most detections of TPHs were noted in Zone 2, with less detections noted for Zone 3 and only some isolated detections recorded in Zone 4.

2.1.5 Polycyclic Aromatic Hydrocarbons (PAHs)

Total PAHs concentrations were mostly below the NAGD screening level of 10,000 µg/kg except for two individual detections above screening level in Zone 2 and Zone 3 in 2001. The 95% UCL for PAHs exceeded the screening level in 2011. However, since 2001, the total PAHs concentrations remained well below the screening level for all dredge zones.

2.1.6 Polychlorinated Biphenyls (PCBs)

Total PCBs concentrations were mostly well below the NAGD screening level of 23 µg/kg or below LOR. The only exceptions were site 10-6 in Zone 3 where detections above the screening level were noted in 2001 and 2012 and site 13-1 in Zone 4, where a detection above screening level was noted in 2011.

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2.1.7 Organochlorine Pesticides (OCPs)

The 95% UCL concentrations of the OCPs dichlorodiphenyltrichloroethane (DDT), dichlorodiphenyldichloroethane (DDD) and Dichlorodiphenyldichloroethylene (DDE) frequently exceeded the NAGD screening level between 2000 and 2013. In some cases the 95% UCL concentrations of chlordane also exceeded the NAGD screening level.

Total DDT concentrations and its metabolites DDD and DDE exceeded their respective screening levels (1.6, 2 and 2.2 µg/kg for DDT, DDD and DDE, respectively) on numerous occasions across all dredge zones (). This includes some exceedances of the NAGD high levels for DDT (46 µg/kg) and DDD (20 µg/kg), but DDE concentrations did not exceed the NADG high level of 27 µg/kg.

Most of these screening level exceedances for DDT, DDD and DDE were recorded at Zone 2, occasional exceedances of all three parameters were also recorded in Zone 3 and 4 between 2000 and 2012. The DDT breakdown product DDE was generally detected more frequently than DDT and DDD (Figure 2-8).

The presence of DDT and its metabolites across all dredge zones and consistent detections over the last decade demonstrates the long term environmental persistence of DDT and its metabolites.

Furthermore, several exceedances of the chlordane NAGD screening level of 0.5 µg/kg and the NAGD high level of 6 µg/kg were noted between 2000 and 2012.

In 2002, chlordane concentrations exceeded the screening level at all tested sampling locations in Zone 2, 3 and 4. Whilst no screening level exceedances were noted between 2003 and 2007, one to three locations in Zone 2 had concentrations higher than the screening level in 2008, 2009 and 2011 (sites 4-0, 4-4, 4-5, 4-7 and 4-8). One exceedance of the chlordane screening level was also noted in 2011 in Zone 3 (site 11-8).

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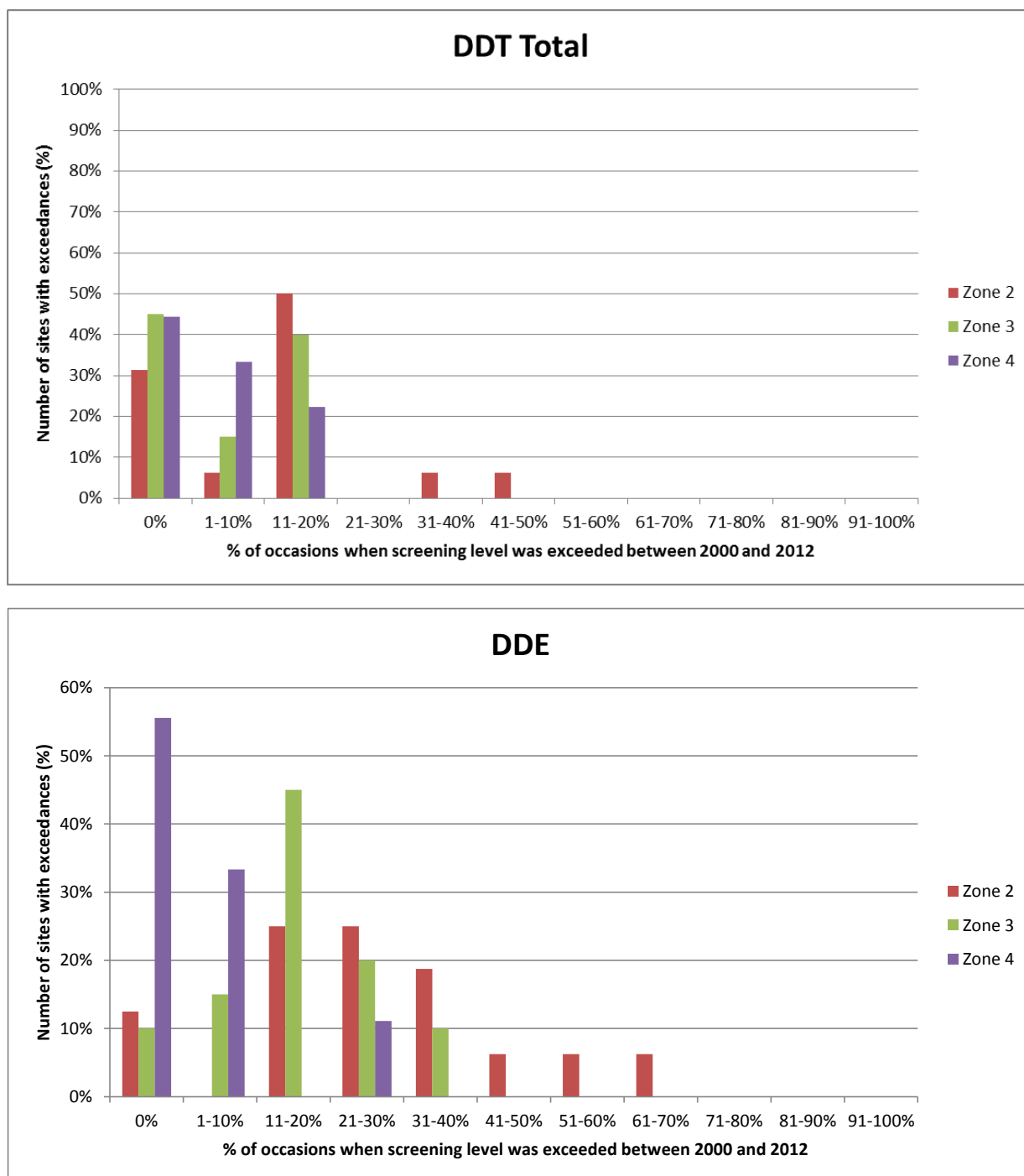


Figure 2-8 Exceedances of the NAGD Screening Level for total DDT (upper plot) and DDE (lower plot) between 2000 and 2012 in Dredge Zones 2, 3 and 4. Similar Trends for DDD.

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2.1.9 Organophosphorus Pesticides (OPPs)

Concentrations of OPPs were below LOR for all sampled locations between 2000 and 2012.

2.1.10 Radionuclides

Radionuclides (gross alpha and beta) were analysed at eight sites across all dredge zones between 2010 and 2012.

Concentrations of radionuclides were detected in the January 2010 sampling but in concentrations well below the NAGD screening level of 35 Bq/g (maximum concentration 0.97 Bq/g). Radionuclide concentrations were below the LOR at all sites in all following sampling campaigns.

2.1.11 Acid Sulfate Potential

Acid sulfate soil testing indicates that the sediments in the dredge zone have no actual acidity but are generally considered to be Potential Acid Sulfate Soils (PASS). Assessments of the buffer capacity indicate that the sediments in all dredge zones have sufficient acid neutralizing capacity to buffer any acid potentially generated through onshore disposal.

Acid Sulfate Soil test results were generally consistent between 2000 and 2012.

2.2 Flood Sampling 2011 and 2013

The review of flood sampling sediment quality results included Worley Parsons (2011b, 2013b, 2013c, 2013d).

The 2011 and 2013 sampling campaigns (Worley Parsons 2011b and 2013b) included all parameters as per Table 1 of the NAGD. Additionally, porewater ammonium concentrations were measured and acid sulfate soils assessed in 2011. For both studies elutriate and bioavailability testing for nickel and mercury was undertaken.

Further testing for DDT, DDD, DDE and dioxins/furans was undertaken in 2013 including a comparison of 14 sampling locations at the Mud Island DMPA against seven Moreton Bay reference locations to assess whether the emergency dredging and disposal has affected sediment quality in Moreton Bay (Worley Parsons 2013c and 2013d).

2.2.1 Metals and Metalloids

In 2011, nickel (9 of 15 locations), mercury (3 of 15 locations) and lead (1 location) were the only metals to exceed their respective NAGD screening levels. In 2013, nickel was the only metal to exceed screening levels at 18 of the 24 locations sampled. All other metals/metalloids were below their respective screening levels.

Elutriate and bioavailability testing was undertaken for nickel and mercury in 2011 and 2013. For both sampling events, the elutriate concentrations for mercury were below LOR and nickel elutriate concentrations were well below the ANZECC/AMRCANZ (2000) 95% species protection level of 70 µg/L or below LOR. Furthermore, dilute acid extraction results for mercury and nickel indicated low bioavailability of these metals with concentrations below their respective NAGD screening level in all samples in 2011 and 2013.

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These results indicated low likelihood for adverse water quality and sediment quality impacts during dredging and disposal for mercury and nickel.

2.2.1.1 Comparison to Annual Sampling

Consistent with the annual sampling undertaken between 2000 and 2012, nickel and mercury concentrations were the main contaminants of concern within the dredge areas with concentrations similar to the annual sampling events. Lead was detected above the screening level on some occasions during the annual sampling. Similar to the flood sampling, detections were noted only at single locations per annual event and 95% UCL concentrations were below the NAGD screening level.

2.2.2 Organochlorine Pesticides (OCPs)

DDT and its metabolites were detected in 2011 with DDE detected in nine of 15 locations. Whilst normalised DDD and DDE concentrations remained below their respective screening levels, normalised DDT concentrations exceeded the NAGD screening level at two locations. All other OCPs were below LOR at all locations in 2011.

In 2013, DDD was detected in one sample with a concentration exceeding the NAGD screening level. DDE exceeded the NAGD screening level of 2.2 µg/kg in all samples with a 95% UCL of 5.25 µg/kg.

2.2.2.1 Comparison to Annual Sampling

Similar to the annual sampling events, DDT and its metabolites were detected above the NAGD screening level in the flood sampling. Concentrations were similar to those detected in the annual sampling.

2.2.2.2 Comparison to Background Concentrations (2013)

Total DDT concentrations were below the LOR at all locations, including those at Mud Island DMPA and reference locations.

Sampling carried out prior to the 2013 emergency dredged material disposal event detected DDE at all 20 sampling locations within the dredged area, and one of the four locations within the DMPA. DDD was above the LOR in one sample within the dredged area (10µg/kg normalised to % TOC), and was also above the NAGD Screening level of 2 µg/kg.

Further more detailed sampling was carried out to compare contaminant concentrations at 14 locations in the DMPA and seven reference locations, following the 2013 emergency dredged material disposal event. The results of this sampling indicated that:

- DDT was again below the LOR at all locations, including those at Mud Island DMPA and reference locations.
- DDE was detected at all sampling locations with 95% UCL concentrations exceeding the NAGD screening level at both the DMPA and reference locations. This indicates that DDE was widespread throughout the study area.
- A comparison of the 80th percentile DDE of the reference locations was higher than historical levels of DDE in the Brisbane River. This indicates that the Brisbane River flood plume in

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January 2013 impacted on the Brisbane River, Bramble Bay and the wider Moreton Bay region and the maintenance dredging operations undertaken by PBPL were not likely to have caused or spread this contamination.

- Additional elutriate and pore water analyses for OCPs indicated that DDD and DDE are likely adsorbed to the clay fraction of the sediment and thus not bioavailable.

2.2.3 Dioxins

Dioxins and furans were detected in the 2011 and 2013 flood sampling events. A toxic effect factor is allocated to each compounds which allows the total toxicity of combined dioxins and furans to be determined using the toxic equivalence (TEQ).

In 2011, the WHO-TEQ_(0.5 LOR) value (concentrations below LOR are assigned a concentration equal to half the LOR) was elevated at one location in Zone 3 with a concentration of 25.36 pg/g. All other sampling locations, including at the DMPA had concentrations between 6.02 and 10.89 pg/g WHO-TEQ.

In 2013, the WHO-TEQ concentrations were generally lower ranging between 0.5 pg/g to 5.3 pg/g.

There are no sediment quality guideline values for comparison that would apply to Australian sediments.

2.2.3.1 Comparison to Background Concentrations (2013)

The WHO-TEQ concentrations at the Mud Island DMPA sites ranged between 4.24 to 4.94 pg/g. The WHO-TEQ concentrations were higher at the reference site in comparison ranging between 7.87 to 7.97 pg/g. Approximately 99% of the sediment concentrations at all sampling locations comprised of 99% dioxins and 1% furans.

Pore water WHO-TEQs ranged between 0.5 and 7.3 pg/g at the DMPA and between 3.1 and 8.0 pg/g at the reference sites. Mean values and 95% UCL concentrations were lower than the 80th percentile of dioxins/furans at the reference area.

A comparison with historical data (Hermanussen et al. 2004; Mueller et al. 2004) shows that dioxins/furans have been historically present within Moreton Bay in elevated concentrations and that their concentrations are not directly related to dredging activities.

2.2.4 Organotins

Organotin concentrations were below the NAGD screening level or below LOR in 2011 and 2013.

2.2.4.1 Comparison to Annual Sampling

The relatively low concentrations of organotins in the flood sampling of 2011 and 2013 appear to be different to the pattern observed in the annual sampling campaigns. However, it should be noted that TBT was only detected at three locations above the NAGD screening for the annual 2010 and 2012 sampling events.

The overall low organotin concentrations across the dredge area after the 2011 and 2013 floods may be due to burial and mixing with sediments from the catchment.

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2.2.5 Polychlorinated Biphenyls (PCBs)

PCB concentrations were below LOR at all sampling locations in 2011. In 2013, one location in Zone 3 had a normalised total PCB concentration (38.9 µg/kg) exceeding the NAGD screening level of 23 µg/kg. PCB concentrations were below LOR at all other locations in 2013.

2.2.5.1 Comparison to Annual Sampling

Similar to the annual sampling events, PCBs exceeded the NAGD screening level at only one location or were not detected.

2.2.6 Other Organic Contaminants

Concentrations of BTEX, TPHs, PAHs, OPPs, Phenols, Chlorobenzenes, halogenated compounds and non-organochlorine pesticides were either below LOR or below their respective screening levels in 2011 and 2013.

2.2.6.1 Comparison to Annual Sampling

The pattern observed for BTEX, TPHs, PAHs, OPPs were similar to the those observed in the annual sampling events, i.e. BTEX and OPPs were below their laboratory LORs whereas TPHs and PAHs were typically detected but at concentrations well below the respective NAGD screening levels.

2.2.7 Porewater Ammonia

Sediments at all locations had porewater concentrations below the literature derived guideline level of 11 mg/L (Batley and Simpson 2009). The only exception was one site in Zone 2 where the guideline level was marginally exceeded (16.6 mg/L).

2.2.8 Acid Sulfate Soil

Acid sulfate soils were tested in the 2011 flood sampling. Actual acidity was below the laboratory LOR for all samples, but potential acidity exceeded the QASSIT guideline limit identifying the samples as potential acid sulfate soils (PASS).

The acid neutralising capacity was sufficient in all samples resulting in a net acidity less than the LOR indicating that no liming would be required if the material would be placed on land.

2.2.8.1 Comparison to Annual Sampling

Results for the flood sampling were consistent with the annual maintenance dredge sampling.

2.3 Summary of Annual and Flood Sampling Data

Consistent across the annual and flood sampling events, the main contaminants of concern in the Brisbane River dredge area were the metals nickel and mercury, and DDT metabolites. TBT was also found above screening levels during routine annual monitoring, but was below screening levels in the 2011 and 2013 post-flood sampling episodes. This could suggest that the flood events had dispersed, diluted or buried TBT contaminated material.

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Exceedances of the NAGD screening level for mercury, organochlorine pesticides and organotins were most frequently detected upstream of the Port area, i.e. in Zone 2 with a lower occurrence of screening level exceedances in the Port area (Zone 3) and the Entrance Channel area (Zone 4).

The similar spatial patterns of contaminant distribution observed between the regular annual sampling and the flood sampling indicates that catchment runoff from the urbanised and industrialised area upstream of the Port and not the Port of Brisbane is likely the main contributor of contaminants in the dredge area.

Organochlorine pesticides may be present due to broad non-point catchment sources or as legacy material. TBT is mainly originating from local marine industry sources and ships. Mercury may be introduced to the system via sewage treatment plant discharges (including trade waste) or other industrial point sources along the river.

The wide distribution of high nickel concentrations across the entire dredge area and upstream reference locations indicates that nickel is of natural origin (due to local mineralogy) across the broader catchment.

3 Sampling and Analysis

3.1 Sampling Rationale

3.1.1 Number of Sampling Locations

As per NAGD, the number of sample locations for medium sized projects (up to 500,000 m³) should be divided into distinct sites based on their chemical characteristics. Based on the review of historical data (Section 2) and consistent with previous sampling campaigns, the dredge area was divided into three zones (Table 3-1).

Table 6 of NAGD was used to determine the number of sampling locations for each dredging subarea. Given that current, good quality data were available to support the classification, the number of sampling locations was halved and rounded up as per NAGD. Table 3-1 also shows the required number of sampling locations for Phase III testing (elutriate and bioavailability).

In addition to the required samples to be obtained from the dredge areas, samples will be collected also from upstream and downstream 'reference' areas. This includes two locations from Zone 1 which were sampled in previous sampling campaigns and five locations from Moreton Bay which were sampled as part of additional sediment sampling following the 2011 and 2013 flooding. Furthermore, two samples will be collected from the Mud Island DMPA.

Table 3-1 Number of Sampling Locations as per NAGD

Dredging Subarea	Classification	Dredge Volume (m ³)	# Locations – Phase II	# Locations – Phase III
Zone 2	Probably contaminated	150,000	10	5 + 1 replicate
Zone 3	Probably clean	250,000	11	6 + 2 replicates
Zone 4	Probably clean	30,000	5	3 + 1 replicate
Additional Samples				
Zone 1	Upstream Reference	N/A	2	N/A
Moreton Bay	Downstream Reference	N/A	5	N/A
Mud Island	DMPA	N/A	2	N/A

3.1.2 QA/QC Samples

In accordance with NAGD requirements, the following field and laboratory quality control samples will be obtained:

- Field triplicate samples (two additional grab samples at 10% of sample locations) to determine the small scale variability of the sediment physical and chemical characteristics. Based on a total of 26 primary locations in dredged areas (Zones 2, 3 and 4), field triplicate samples would be required at three locations. Two additional samples would therefore be collected at location 5-1 (Zone 2), 11-9 (Zone 3) and 13-4 (Zone 4).
- Triplicate split samples (primary sample from 5% of locations thoroughly mixed and split into three sample container sets) to assess laboratory variation, with one of the three samples sent to a second (reference) laboratory for analysis. Based on a total of 26 primary locations in dredged areas (Zones 2, 3 and 4), field split samples would be required at two locations. Split samples would be undertaken at location 6-2 (Zone 2) and 10-6 (Zone 3).

Sampling and Analysis

- One trip blank container per sampling day filled with inert material (e.g. chromatographic sand) to be analysed concurrent with the analysis of volatile organic substances such as; and
- One inter-batch sample from a previous batch of samples if more than one batch is submitted to the laboratory, to determine the analytical variation between batches. However, it is anticipated that all samples will be submitted in one batch.

Table 3-2 provides a summary of QA/QC samples to be obtained for the three dredging subareas.

Table 3-2 Number of Primary and QA/QC Samples

Dredging Subarea	Primary Samples	Field Triplicate Samples	Triplicate Split Samples	Trip blanks
Zone 2	10	2	2	1 per sampling day
Zone 3	11	2	2	
Zone 4	5	2		

3.1.3 Sampling for Elutriate and Bioavailability Testing

The sediment sampling will include additional sediment samples for Phase III testing (elutriate and bioavailability). Phase III testing will be undertaken for parameters which have frequently exceeded the NAGD screening levels in the past. Based on the review of historical data (Section 2) this will include:

- Metals and metalloids (nickel and mercury);
- Organotins (TBT); and
- Organochlorine Pesticides (DDT, DDD, DDE, chlordane).

Exceedances of NAGD screening levels were predominantly detected in Zone 2 and Zone 3. In accordance with Table 7 of NAGD, five locations would need to be sampled for Zone 2 and six locations for Zone 3 (Table 3-1).

In order to allow elutriate analysis, 20 L of seawater will be collected from the Mud Island DMPA.

Phase III testing for nickel and mercury (and potential other metals/metalloids) can be undertaken from the primary samples collected for the sediment quality assessment. The bioavailability analysis for nickel and mercury will involve dilute acid extraction as per NAGD. Analysis will be performed on the samples with the highest concentrations.

Bioavailability analysis for the organic contaminants (organotins and organochlorine pesticides) will require porewater testing as per NAGD. Additional samples will be collected for porewater testing at the locations which have historically shown the highest percentage of screening level exceedances. The proposed sampling locations for this testing are provided in Section 3.2.1. In order to meet required holding times, elutriate and bioavailability analysis for the organic contaminants will be undertaken concurrent with the analysis of the primary samples.

3.2 Sampling Locations

A map with the proposed sampling locations is provided in Figure 3-1. In order to provide consistency with previous sampling and to facilitate comparisons with historical data, most of the proposed sampling locations were selected from the set of historical sampling locations, and to

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also focus on areas that are most frequently dredged. Additionally, sampling locations were added to close spatial gaps in sediment quality data. These include sampling locations 5-1 in Zone 2 as well as locations 9-5 and 9-6 in Zone 3 (Figure 3-1).

As outlined in more detail in Section 3.5, samples from all locations will be analysed for a basic suite of parameters. A selection of these sites will also be analysed for a detailed suite in addition to the basic suite including 'low risk' parameters that have been detected in the past but were typically below their respective NAGD screening levels.

3.2.1 Sampling Locations for Porewater Testing

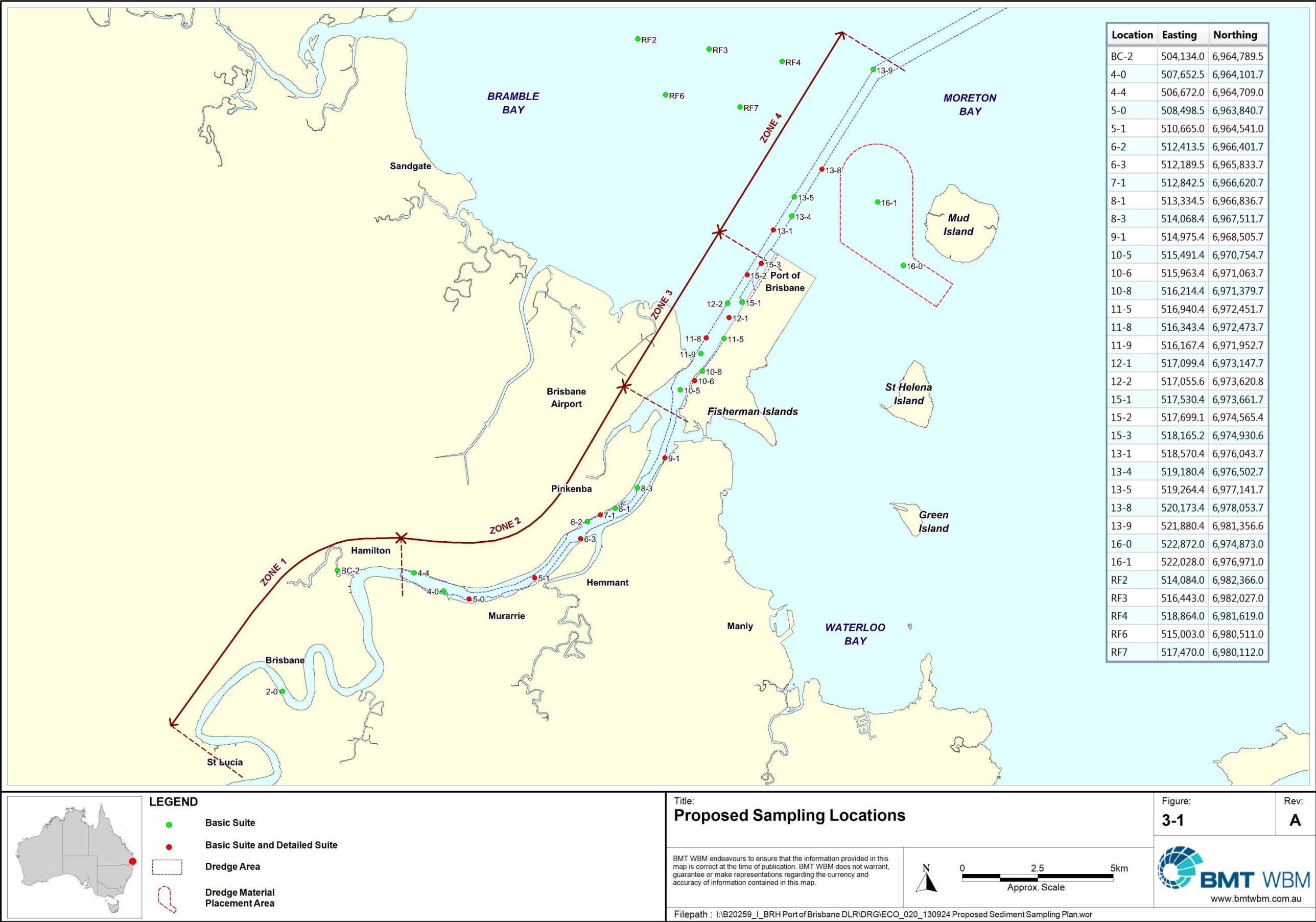
Additional sediment samples will be collected at selected locations for pore water testing of organic contaminants as part of the Phase III elutriate and bioavailability assessments (refer to Section 3.1.3).

Exceedances of NAGD screening levels were predominantly detected in Zone 2 and Zone 3. Five additional pore water samples (plus one replicate) and six samples (plus two replicates) will be collected from zones 2 and 3, respectively (see also Table 3-1). Four samples will be collected from Zone 4 however based on the historical data samples will only be analysed if contaminants exceed screening levels during Phase II sampling.

Based on the review of historical data, sample locations with the highest percentage of screening level exceedances between 2000 and 2012 were chosen for the additional pore water testing:

Zone 2: Locations 4-0, 5-0, 6-2, 7-1 and 8-3.

Zone 3: Locations 10-5, 10-6, 10-8, 11-8, 11-9 and 12-1.



3.3 Sample Collection Methodology

3.3.1 Survey Vessel and Positioning

A suitable sampling vessel will be used to undertake sediment sampling. Navigation to the sampling locations will be undertaken using a differentially corrected global positioning system (GPS) with an accuracy of approximately ± 1 m.

3.3.2 Sediment Grab Sampling

NAGD Appendix D states that:

'grab samplers may be used, i.e., for maintenance dredging surveys in frequently dredged areas with substantial shipping traffic. Here, because the sediments are mixed continually, samples taken with a grab sampler can be representative as long as the grab is designed to retain the entire sample.'

It is also noted that the one metre long sediment cores obtained in all previous sampling campaigns were always composited to single samples. Furthermore, highest contamination levels are typically expected in the top sediment layer, which would be sampled using a grab sampler. It is therefore proposed that a grab sampler will be used to obtain representative sediment samples.

All sediment sampling will be undertaken by experienced personnel. A Van Veen grab sampler (0.14 m² gape) will be used to collect surface sediments from all sample locations. Only samples obtained with properly closed grab jaws will be processed to ensure that the fine sediment fractions are retained.

The grab sampler will be thoroughly cleaned with De-con 90 solution prior to use and cleaned and rinsed with seawater to prevent cross contamination between samples.

In order to overcome issues with potential high variability at sampling locations, a minimum of two grabs will be collected at each sampling location and pooled as one sample. An adequate number of grabs will be obtained and pooled for each sample location to ensure that sufficient sediment is collected for all analyses.

3.3.3 Sample Handling

3.3.3.1 Sample Processing

Sample management procedures on the sampling vessel will include the careful processing of sediment samples following the recovery of the sediment grab sample from the seabed.

Photographs of the grab samples will be taken and field personnel will log each sample for its physical characteristics and variations in sediment type and texture. The grab samples from each location will be carefully homogenized in a clean container prior to the filling of analytical laboratory-supplied clean sampling jars.

Sample bottles will be labelled with a waterproof marker pen on the bottle label and lid. Sample bottles for organic analyses will be filled with zero headspace to prevent volatilisation. QA/QC samples will be blind-labelled to ensure that the laboratories cannot relate the QA sample back to the primary sample.

3.3.3.2 Sample Log

All sediment samples will be geotechnically logged upon collection on a standardised pro-forma. The following information will be recorded:

- Project name and number;
- The name of the sample collector;
- Date and Time of sampling;
- Type of grab sampler used;
- Field sample number;
- Northing and Easting of sample location (from onboard DGPS);
- Sediment colour;
- Sediment odour;
- Field texture (fine sand, silt, clay, sand, clayey sand);
- Tidal predictions and water depth at sample location (derived from onboard depth sounder);
- Weather and sea state conditions at the time of sampling; and
- General comments pertaining to the sample (e.g. presence of organic matter or benthic organisms, etc).

3.3.3.3 Sample Processing QA/QC

All sample handling and processing will be performed to minimise contamination and sample mix-ups. All sample equipment will be cleaned prior to sample collection using a scrub with decontamination solution followed by a rinse with seawater.

The workspace on the vessel will be washed down regularly with ambient seawater to clean all surfaces and minimize the potential for dust contamination of samples. All sample processing will be undertaken away from any potential contamination sources such as engine exhausts, fuels, oils, greases, lead weights, zinc anodes, antifouling paint etc.

Nitrile gloves will be worn by all field personnel handling the sediment, and gloves will be disposed of after processing of each sample.

Utmost care will be maintained in ensuring that cross-contamination between samples is not possible. Samples collected from each location will be placed into appropriately cleaned and preserved containers (labelled prior to filling) provided by the analytical laboratories.

Following sample processing and filling of sample containers, all samples will be immediately chilled on ice following sample collection. All acid sulfate soil samples will be transferred to a freezer at the end of each sampling day to minimise potential oxidation of the samples.

3.3.3.4 Sample Submission and Chain of Custody

All samples will be traced using Chain of Custody (COC) documentation submitted to the laboratory. This will ensure that sample possession and processing can be traced from sample collection to reporting of results.

The COC record may include, but is not limited to, the following information:

- Project name and number;
- Name(s) of sampler(s);
- Sample type, identification number and location;
- Date of collection;
- Number and types of containers;
- Required analyses;
- Preservatives (if any) and storage conditions; and
- Signatures documenting change of sample custody.

At the conclusion of the sampling program the sediment samples will be submitted to the analytical laboratories for processing and analysis in a single batch within prescribed holding times.

3.4 Health & Safety and Contingency Plan

3.4.1 Health and Safety

The vessel skipper will keep in close contact with Brisbane VTS/Harbour Control during sampling. Grab sampling can be completed at each location in around 20 minutes with logging and processing undertaken in locations out of the path of large vessels (as necessary and dependent upon shipping movements).

A single anchor may be used to anchor the vessel. The anchor would be placed upstream and upwind of the vessel. A marker buoy may be placed on the anchor if required.

The sampling vessel will display appropriate flags (R over Y) for the work being carried out at all times. Interactions with other vessel traffic will be minimised by being mindful of approaching vessels.

3.4.2 Adverse Weather

The planning of field sampling will involve regular checking of available weather forecast services for the study area. There are no unusual hazards in operating the grab sampler in wet weather.

In case of adverse weather conditions that would make sampling unacceptable due to strong winds and high waves, the sampling team and vessel operator would remain on stand-by until weather conditions improve to allow rigorous and safe collection of sediment samples.

3.4.3 Equipment Failure

The grab sampler and lifting arrangement is sufficiently robust and no failure of the equipment is expected to occur during the sampling. Prior to sampling, all equipment will be thoroughly checked and repaired if necessary.

In the unlikely event of equipment failure during sampling, repairs to any equipment would be undertaken as soon as possible to minimise delays as far as practical.

3.5 Contaminants List

3.5.1 Rationale for Selection of Sampling Parameters

In accordance with NAGD, the contaminants to be investigated should include:

- Toxic substances known, from previous investigations, to occur in dredge area sediments at levels greater than one-tenth of the screening levels; or
- Based on the historical review, substances potentially present at such levels in the sediments to be dredged.

Based on the review of existing sediment quality data (Section 2), samples will be analysed as follows:

Basic List of Parameters:

- Analysis undertaken at all sampling locations;
- Analysis includes contaminants of (potential) concern and supplementary parameters:
 - Metals/Metalloids (As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn, Al, Fe);
 - Organotins (MBT, DBT, TBT);
 - Organochlorine Pesticides (including DDT, DDD, DDE, chlordane);
 - Particle size distribution;
 - Moisture content; and
 - Total Organic Carbon.

Detailed List of Parameters:

- Analysis undertaken at 30% of sampling locations and new sampling locations (i.e. 5-1, 9-5 and 9-6).
- Analysis includes 'low risk' parameters that have been detected in the past but generally in concentrations below LOR or NAGD screening levels:
 - Polycyclic Aromatic Hydrocarbons (PAHs);
 - Total Petroleum Hydrocarbons (TPHs);
 - Polychlorinated Biphenyls (PCBs);
 - Acid Sulfate Soils;
 - Nutrients (TP, TN, NO_x, TKN); and

- Radionuclides.

Elutriate and Bioavailability Testing:

- Metals/Metalloids (Hg and Ni);
- Organotins (TBT); and
- Organochlorine Pesticides (DDT, DDD, DDE, chlordane).

3.6 Laboratory Analysis

3.6.1 Analytical Laboratories

Primary analysis of the sediment samples will be conducted by Advanced Analytical Australia Pty Ltd (AAA). Australian Laboratory Services (ALS) will be used as the secondary (reference) laboratory for inter-laboratory quality testing.

Both analytical laboratories are fully accredited by the National Association of Testing Authorities (NATA). AAA will subcontract some of the analyses to specialised NATA accredited laboratories, i.e. Sydney Analytical Laboratories (ammonia, Total Organic Carbon) and Microanalysis (Particle Size Distribution).

3.6.2 Analytical Tests

The primary laboratory Advanced Analytical Australia will perform all analyses in accordance with NAGD and will meet or provide better practical quantitation limits (PQL) than the target PQL's (Table 3-3).

Table 3-3 Analytical Parameters and Practical Quantitation Limits

Parameter	Target Practical Quantitation Limit (required)	Practical Quantitation Limit (Advanced Analytical Australia)
Moisture Content	0.1%	0.1%
Particle Size (sieve and sedigraph)	Size distribution (sieve + hydrometer or equivalent) and rates of settlement after 50% and 90% of settlement in seawater if possible.	10 to 0.001mm Settling velocities in m/s for all particle size fractions
Total Organic Carbon	0.1%	0.01%
Total Petroleum Hydrocarbons	100 mg/kg	10-50 mg/kg
Polychlorinated Biphenyls	5 µg/kg	5 µg/kg
PAHs (naphthalene, acenaphthalene, acenaphthene, fluorene, phenanthrene, anthracene, total fluoranthene, benzo [a]anthracene, benzo [a] pyrene, chrysene, dibenz[a,h] anthracene, pyrene, 2-methylnaphthalene)	Individual - 5 µg/kg; Sum of PAHs - 100 µg/kg	Individual - 5 µg/kg; Sum of PAHs - 100 µg/kg

Parameter	Target Practical Quantitation Limit (required)	Practical Quantitation Limit (Advanced Analytical Australia)
Trace Metals and Metalloids (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, zinc)	0.1 – 100 mg/kg, Hg- 0.01 mg/kg	0.1 – 5 mg/kg, Hg – 0.01 mg/kg
Organotins (MBT, DBT, TBT)	1 µg Sn/kg	0.5 µg Sn/kg
OCP Pesticides	1 µg/kg	OCP-1 µg/kg
Total Nitrogen	N/A	20 mg/kg
Total Kjeldahl Nitrogen	N/A	20 mg/kg
Nitrate & Nitrite as N	0.1 mg/kg	0.1 mg/kg
Total Phosphorus	N/A	1 mg/kg
Acid Sulfate Soils	N/A	2 mole H ⁺ /tonne
Radionuclides	N/A	35 Bq/g

3.6.3 Sample Containers

Based on the proposed analyses, the following sample containers would be required per sample:

- 2 x 250 mL glass jar – organic/inorganic chemical analysis;
- 1 x 125 mL glass jar – nutrient analyses;
- 1 x medium plastic clipseal bag (50-100 g) – particle size distribution; and
- 1 x small clipseal bag (200 g) – acid sulfate soil.

3.6.4 Quality Control – Laboratory Analysis

Both laboratories will follow laboratory QC procedures in accordance with requirements outlined in Appendix F of NAGD. This includes analysis of laboratory blanks, duplicates, certified reference materials and spiked samples.

3.6.4.1 Laboratory Blanks

The purpose of this assessment is to monitor a potential laboratory contamination of samples due to potential cross-contamination of samples during laboratory preparation, extraction or analysis. Blank sample concentrations should be at or near the detection limit of the method used.

3.6.4.2 Laboratory Duplicates

This assessment refers to a randomly selected intra-laboratory split sample, which provides information regarding the method precision and sample heterogeneity. Results are presented as Relative Percent Difference (RPD) values of two sample concentrations for a specific contaminant.

NAGD recommends that duplicates should agree within a typical RPD of the method of $\pm 35\%$. This recommended RPD is typically not adopted by analytical laboratories as it does not account for the greater uncertainty for contaminant concentrations close to the method's detection limit.

The primary laboratory AAA uses the following approach to assess duplicate RPD's:

- Result <10 times LOR – no limit to RPD; and
- Result >10 times LOR – RPD between 0% and 50%.

The secondary laboratory ALS adopts specific RPDs for individual compounds.

3.6.4.3 *Surrogate and Matrix Spikes*

Laboratory Control Samples are either certified reference materials or a blank sample spiked with known concentrations of the analytes of interest. The purpose of this measurement is to monitor method accuracy.

Matrix spikes refer to an intra-laboratory split sample spiked with a representative set of target analytes of known concentration. Matrix spikes are assessed to monitor potential sample matrix effects on analyte recoveries.

Surrogate spikes are used for organic analytes. Surrogates are known additions to samples which mimic the compounds of interest and are not normally expected to be present in the sample.

For both surrogate and matrix spikes, a calculation of the percent recovery of the spiked amount against the returned concentration is performed indicating analytical performance in terms of extraction efficiency.

NAGD states that recovery limits of 75% - 125% are generally acceptable. Analytical laboratories typically adopt specific surrogate and matrix spike recovery limits for the various contaminant compound groups. It is also noted that ideal recovery ranges may be waived in the event of sample matrix interference.

The primary laboratory AAA adopts the following acceptable surrogate and matrix spike recovery limits:

- Trace elements: 70-130%;
- Organic analyses: 50-150%;
- SVOC & speciated phenols: 10-140%; and
- Surrogates: 10-140%.

The secondary laboratory ALS adopts specific recovery limits for individual compounds.

3.7 Data Analysis

3.7.1 Sediment Contaminants

Concentrations of chemicals measured in sediment samples at each dredging sub-area (or reference area) will be compared to screening levels listed in Table 2 of NAGD. This will provide a basis for determining whether dredged material is suitable for unconfined placement at sea or if further analyses, such as elutriate, bioavailability or toxicity testing, are required.

For each dredging sub-area, the mean concentrations of chemical parameters at the upper 95% confidence level (95% UCL) will be calculated and compared against NAGD guideline levels. This involves the following steps.

Data pre-treatment

Analytical values below detection limit will be set to one-half of the laboratory Limit of Reporting (LOR) as per NAGD recommendation to facilitate 95% UCL calculation. Organic contaminant results will be normalised to 1% Total Organic Carbon (TOC) where the measured value is within the range of 0.2-10%. If TOC values are outside of this range, the highest (10%) or lowest (0.2%) value will be adopted as appropriate. Organic parameters with concentrations below detection limits will not be normalised to 1% TOC but included at half their LOR.

One assumption in the calculation of the 95% UCL is that the samples are statistically independent. Therefore, field triplicate samples and laboratory split samples will not be included in the 95% UCL calculation.

Outliers

Outliers will be treated in accordance with the procedure in NAGD. In summary this will involve:

- (a) Outliers (for all parameters) will be identified as any data points greater than two standard deviations.
- (b) For TBT, where outliers are detected, the stored portion of the sample will be analysed in triplicate.
- (c) If the original result is not confirmed through the re-analysis, it will be discarded in favour of the mean of the three triplicate samples.

NAGD does not provide guidance on treatment of outliers for other parameters. Outliers for other parameters will be noted in the report but included in calculation of the 95% UCL.

Selection of appropriate 95% UCL Calculation Method

The methodology for calculating the 95% UCL follows the approach recommended in Appendix A of NAGD. A Shapiro-Wilk test will be used to determine whether data followed a normal distribution. The ProUCL (Version 4.1.00) software package will be used for these calculations (Singh et al. 2010).

Calculation of 95% UCL and Comparison to Screening Levels

ProUCL Version 4.1.00 will be used to calculate the 95% UCL. For normally distributed data, the arithmetic mean and standard deviation will be calculated, and the 95% UCL calculated using the one-tailed Student's *t* UCL test. For data that follows a log-normal (or other) distribution, the geometric mean will be calculated, and the 95% UCL analysed using non-parametric Jack-Knife analysis as per NAGD recommendation.

In cases where an insufficient number of discrete values in the dataset would not allow calculation of the 95% UCL (e.g. most values below LOR), the maximum recorded value of the dataset will be conservatively used instead for comparison against NAGD trigger levels.

Should 95% UCL values for all analysed parameters fall below NAGD screening levels, the sediment would be considered clean and suitable for unconfined disposal at sea.

3.7.2 Baseline Concentrations

NAGD states that ambient baseline concentrations can be determined by sampling of sediment at reference areas in the vicinity of an existing disposal site. Similar to the approach followed in Worley Parsons (2013c, d), the data collected from the five reference locations in Moreton Bay would be used to derive ambient baseline concentrations if required (RF2, 3, 4, 6 and 7 in Figure 3-1).

3.8 Elutriate and Bioavailability Testing

As outlined on Section 3.1.3, elutriate and bioavailability testing will be undertaken as per NAGD for a range of contaminants which have regularly exceeded screening levels in the past.

Elutriate Testing:

The elutriate test is designed to simulate release of contaminants from sediment during dredged material disposal. Testing will be carried out using the USEPA's standard seawater elutriate test which involves shaking the sediment samples with four times the volume of seawater at room temperature for 30 minutes. The sample will be allowed to settle for one hour and the supernatant centrifuged or filtered (0.45 µm) within sixty minutes, and analysed using analytical methods appropriate for determining ultra-trace levels in seawater.

Results will be compared to the respective ANZECC/ARMCANZ (2000) marine water quality trigger value (for 95% or 99% protection of species, as appropriate).

Bioavailability Testing:

The Dilute Acid Extraction (DAE) method will be used to provide an estimate of the bioavailable fraction of the contaminant of concern in case of metal/metalloid analysis. The sediment samples will be extracted using a weak acid and the results compared against the respective NAGD screening levels.

Porewater analysis would be undertaken for organic contaminants such as TBT. Porewater is assumed to represent the major route of exposure to sediment contaminants by benthic organisms and is the recommended bioavailability test for organic contaminants as per NAGD. Porewater results would be compared to the respective ANZECC/ARMCANZ (2000) marine water quality trigger value (for 95% protection of species).

Should both elutriate and bioavailability tests result in values less than the respective guideline limits, the material would be considered clean and suitable for ocean disposal.

3.8.1 Acid Sulfate Soils

The results of the chromium-sulfate acid sulfate analysis will be assessed against the Australian framework for Acid Sulfate Soil management in coastal systems (Ahern et al. 1998). The risk of acidification will be determined by the acid-base accounting approach (Ahern et al. 2004). Net acidity will be calculated from the results as a measure of the acid producing capacity of the sampled sediment upon complete oxidation.

The calculated net acidity will then be compared to the QASSIT action criteria of 0.03% S or 18 mol H⁺/tonne to assess the need for acid sulfate soil management if the dredged sediments were to be placed on land.

The liming rate will indicate the amount of lime that needs to be added to the soil to manage its acid generating capacity.

3.9 Data Validation

All laboratory analyses will be validated in accordance with Appendix A of NAGD to confirm suitable data quality for undertaking a rigorous characterisation of the proposed dredge material.

Data Validation will involve assessment of the following:

- Sample holding times and storage conditions;
- Laboratory blanks, duplicates and surrogate/matrix spikes; and
- Field triplicate samples, triplicate sample splits and trip blank.

The proposed data quality objectives for data validation are outlined in Table 3-4.

Table 3-4 Data Quality Objectives for Data Validation

Parameter	Data Quality Objective
Holding Time	Samples received within specified holding time (NAGD Appendix H)
Field Triplicate Samples	Relative Standard Deviation <50%
Triplicate Split Samples, including inter-laboratory samples	Relative Standard Deviation <50%
Laboratory Blanks	At or near the Limit of Reporting (LOR)
Laboratory Duplicate Samples	Relative Percent Difference (RPD) <35% or as per laboratory requirements
Laboratory Matrix Spikes	Recovery as per laboratory requirements
Surrogate Spikes	Recovery as per laboratory requirements

3.10 Reporting

The reporting of sediment quality results will be undertaken in a SAP Implementation Report in accordance with NAGD including the following components:

- Summary of the SAP, or SAP appended to the report;
- Outline of potential problems encountered and deviations from the SAP, including justification;
- Description of the sampling carried out, along with the actual sampling locations, sample numbers (including replicates and QA samples), completed COC forms, field logs and description of sediments;
- Comparison of the 95% UCL of mean chemical concentrations of sediments in the dredge subareas;
- Assessment of QA/QC procedures for both field and laboratory data;

- Data validation including comparison to data quality objectives;
- Appendices including all laboratory and field data; and
- Conclusions as to the acceptability or otherwise of the dredge material for unconfined ocean disposal and recommendations as to further work required.

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4 References

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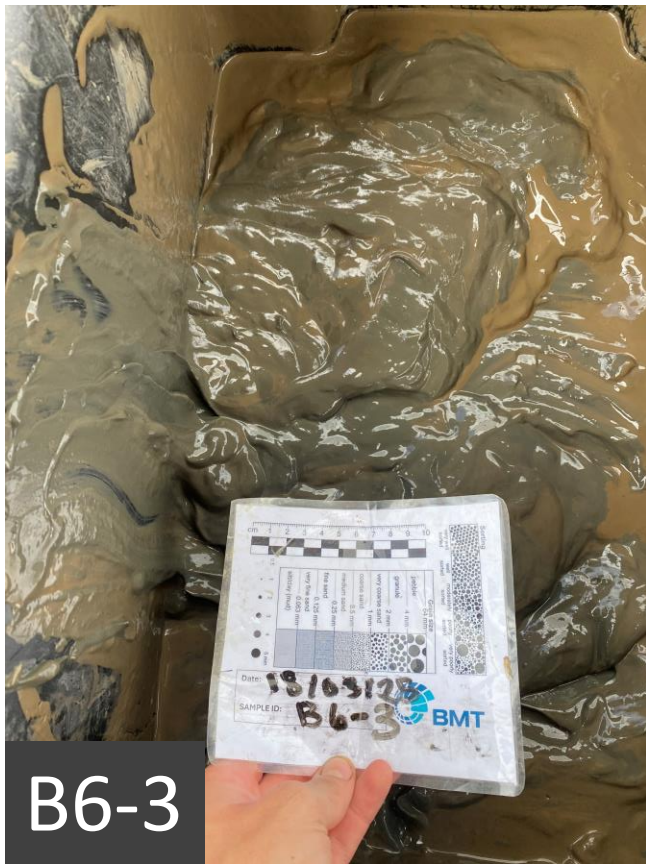
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Worley Parsons (2013c) Emergency Dredging Sediment Sampling – Round 2 Organochlorine Pesticides Results. Report prepared for Port of Brisbane Pty Ltd.

Worley Parsons (2013d) Emergency Dredging Sediment Sampling – Round 2 Dioxin Results. Report prepared for Port of Brisbane Pty Ltd.

Annex B Photolog





B6-3



B6-2



B5-1



B8-3















B12-2

Annex C Data Tables

[illegible]

Field ID	Date	Lab Report Number																	
B5-0	18 Mar 2025	EB2508981	152	0.764	<1	14	68	0.082	0.322	0.405	0.109	6.6	192	0.308	190	0.145	0.451	0.305	
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1 (primary sample)	18 Mar 2025	EB2508981	-	-	<1	32	33	0.040	0.402	0.442	0.052	4.8	434	0.696	431	0.204	0.896	0.691	
B5-1 (primary sample)	18 Mar 2025	EB2508981	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1b (field triplicate)	18 Mar 2025	EB2508981	209	1.05	<1	10	37	0.045	0.398	0.442	0.059	6.8	132	0.212	158	0.193	0.447	0.254	
B5-1b (field triplicate)	18 Mar 2025	EB2508981	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1c (field triplicate)	18 Mar 2025	EB2508981	157	0.788	<1	8	23	0.028	0.437	0.465	0.037	6.6	104	0.167	120	0.210	0.403	0.193	
B5-1c (field triplicate)	18 Mar 2025	EB2508981	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	
B6-3	18 Mar 2025	EB2508981	-	-	<1	11	41	0.050	0.359	0.409	0.066	6.4	181	0.290	152	0.138	0.382	0.243	
B6-3	18 Mar 2025	EB2508981	-	-	4	14	-	-	-	-	-	-	-	-	-	-	-	-	
B7-1	14 Mar 2025	EB2508894	315	1.57	<1	9	45	0.055	0.227	0.282	0.073	7.3	122	0.196	117	0.102	0.289	0.187	
B9-1	17 Mar 2025	EB2508894	-	-	<1	21	64	0.077	0.342	0.420	0.102	5.6	279	0.447	303	0.165	0.650	0.485	
B9-1	17 Mar 2025	EB2508894	-	-	8	23	-	-	-	-	-	-	-	-	-	-	-	-	
B10-6 (primary sample)	14 Mar 2025	EB2508894	355	1.78	<1	10	63	0.077	0.186	0.263	0.102	7.7	145	0.233	140	0.103	0.328	0.225	
B10-6 (primary sample)	14 Mar 2025	EB2508894	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	
B10-6b (intra-lab split)	14 Mar 2025	EB2508894	231	1.16	<1	15	83	0.101	0.228	0.329	0.133	7.0	196	0.314	202	0.120	0.443	0.324	
B10-6C (inter-lab split)	14 Mar 2025	1199074	-	-	<1	-	63	0.077	0.16	0.24	0.10	7.6	95	0.15	110	0.070	0.24	0.17	
B11-8	16 Mar 2025	EB2508894	2,930	14.7	<1	18	99	0.120	0.140	0.259	0.158	8.1	245	0.393	259	0.091	0.506	0.415	
B11-8	16 Mar 2025	EB2508894	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	
B12-1	16 Mar 2025	EB2508894	226	1.13	<1	20	89	0.108	0.255	0.363	0.142	6.6	282	0.453	270	0.132	0.564	0.432	
B12-1	16 Mar 2025	EB2508894	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	
B13-1	17 Mar 2025	EB2508894	491	2.46	<1	2	73	0.089	0.091	0.180	0.117	8.5	42	0.068	32	0.049	0.101	0.052	
B13-1	17 Mar 2025	EB2508894	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	
B13-8	16 Mar 2025	EB2508894	1,400	7.04	<1	<1	<10	<0.020	0.144	0.156	<0.020	7.9	159	0.255	<10	0.150	0.156	<0.020	
B13-8	16 Mar 2025	EB2508894	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	
B15-2	16 Mar 2025	EB2508894	1,120	5.63	<1	13	134	0.163	0.120	0.282	0.215	8.2	182	0.292	177	0.076	0.360	0.284	
B15-2	16 Mar 2025	EB2508894	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	
B15-3	16 Mar 2025	EB2508894	880	4.40	<1	6	205	0.249	0.125	0.374	0.328	8.3	77	0.123	148	0.083	0.321	0.237	
B15-3	16 Mar 2025	EB2508894	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	



	Metals												
	Aluminium	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury		Nickel		Silver	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg
EQL	20	1	0.1	1	1	20	1	0.01	0.00004	1	0.0005	0.1	1
ANZG Toxicant Default Guideline Values for Sediment Quality - DGV		20	1.5	80	65		50	0.15		21		1	200
ANZG Toxicant Default Guideline Values for Sediment Quality - GV - High		70	10	370	270		220	1		52		4	410

Field ID	Date	Lab Report Number													
10L Drum	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0018	-	-
B2-0	18 Mar 2025	EB2508981	2,440	1.36	<0.1	7.1	3.0	8,330	2.9	0.02	-	6.7	-	<0.1	20.2
B4-0	18 Mar 2025	EB2508981	13,600	6.54	<0.1	27.2	30.0	32,900	20.9	0.13	<0.00004	20.9	0.0032	0.1	108
B4-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	<0.00004	-	0.0164	-	-
B4-4	18 Mar 2025	EB2508981	14,500	7.11	<0.1	30.3	33.0	37,000	20.2	0.13	-	23.7	-	0.1	107
B4-4	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	25.1	-	-	-
B5-0	18 Mar 2025	EB2508981	10,300	6.92	<0.1	27.7	34.2	23,600	21.2	0.09	<0.00004	20.8	0.0026	0.2	115
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	0.00009	-	0.0540	-	-
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-0	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1 (primary sample)	18 Mar 2025	EB2508981	10,200	3.59	<0.1	18.8	19.6	24,600	12.1	0.06	-	17.6	-	0.1	64.0
B5-1 (primary sample)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1 (primary sample)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1b (field triplicate)	18 Mar 2025	EB2508981	10,100	4.04	<0.1	22.0	22.5	22,400	14.0	0.08	-	21.8	-	0.2	75.1
B5-1b (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	26.4	-	-	-
B5-1b (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1c (field triplicate)	18 Mar 2025	EB2508981	10,600	4.95	<0.1	18.8	18.5	44,800	11.2	0.05	-	18.0	-	<0.1	63.0
B5-1c (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1c (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-
B6-2 (primary sample)	14 Mar 2025	EB2508894	9,330	4.09	1.1	20.5	14.0	22,600	9.6	0.05	<0.00004	15.7	0.0031	<0.1	62.5
B6-2 (primary sample)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0074	-	-
B6-2b (intralab split)	14 Mar 2025	EB2508894	8,040	3.80	<0.1	18.3	12.0	20,900	8.4	0.04	<0.00004	14.2	0.0024	<0.1	47.8
B6-2b (intralab split)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0046	-	-
B6-2C (interlab split)	14 Mar 2025	1199074	9,000	4.2	<0.4	26	12	21,000	7.5	<0.1	-	17	-	<2	48
B6-3	18 Mar 2025	EB2508981	13,800	7.66	<0.1	28.8	30.8	34,300	22.8	0.11	-	19.9	-	0.1	112
B6-3	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-
B6-3	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-
B7-1	14 Mar 2025	EB2508894	13,600	8.38	<0.1	28.0	27.9	35,500	20.5	0.10	<0.00004	16.4	0.0040	0.2	104
B7-1	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	21.1	-	-	-
B7-1	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B7-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0136	-	-
B8-1	17 Mar 2025	EB2508894	12,800	6.38	<0.1	25.6	24.8	31,500	16.6	0.09	-	18.8	-	0.2	88.8
B8-3	14 Mar 2025	EB2508894	14,600	8.12	<0.1	30.1	28.1	37,400	18.2	0.09	<0.00004	18.6	0.0020	0.1	95.1
B8-3	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	22.0	-	-	-
B8-3	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0122	-	-
B9-1	17 Mar 2025	EB2508894	10,200	6.79	<0.1	23.4	29.6	24,800	20.8	0.10	-	14.3	-	0.2	102
B9-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-
B9-1	17 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B9-1	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-5	14 Mar 2025	EB2508894	13,900	9.06	0.1	32.8	37.0	32,100	28.0	0.12	<0.00004	19.7	0.0030	0.3	135
B10-5	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0116	-	-
B10-6 (primary sample)	14 Mar 2025	EB2508894	10,300	5.84	<0.1	24.7	22.0	27,400	12.7	0.06	<0.00004	19.0	0.0022	0.2	70.9
B10-6 (primary sample)	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0062	-	-
B10-6 (primary sample)	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6 (primary sample)	14 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6b (intralab split)	14 Mar 2025	EB2508894	9,160	5.66	<0.1	21.8	19.9	23,200	13.8	0.06	<0.00004	15.1	0.0027	0.1	71.9
B10-6b (intralab split)	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0166	-	-
B10-6b (intralab split)	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6C (interlab split)	14 Mar 2025	1199074	9,100	5.1	<0.4	27	17	21,000	8.6	<0.1	-	15	-	<2	85
B10-8	14 Mar 2025	EB2508894	12,800	7.34	<0.1	27.7	22.3	29,700	15.7	0.08	<0.00004	18.9	0.0032	0.2	79.0
B10-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0081	-	-
B11-5	16 Mar 2025	EB2508894	12,400	9.64	<0.1	27.5	22.1	30,700	15.4	0.09	-	18.7	-	0.1	83.6
B11-8	16 Mar 2025	EB2508894	11,200	7.50	0.1	27.9	19.4	29,700	12.9	0.10	<0.00004	17.7	0.0017	0.2	66.8
B11-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0066	-	-

B11-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-8	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-8	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9 (primary sample)	16 Mar 2025	EB2508894	11,600	7.73	<0.1	25.0	22.8	28,100	15.9	0.08	<0.00004	16.7	0.0022	0.1	79.9
B11-9 (primary sample)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.111	-	-
B11-9b (field triplicate)	14 Mar 2025	EB2508894	14,100	9.31	<0.1	30.0	27.6	35,200	17.9	0.10	<0.00004	20.4	0.0024	0.1	89.6
B11-9b (field triplicate)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0047	-	-
B11-9c (field triplicate)	16 Mar 2025	EB2508894	15,500	9.44	<0.1	29.5	24.2	39,300	17.3	0.11	-	20.3	-	0.2	85.5
B11-9c (field triplicate)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	21.4	-	-	-
B12-1	16 Mar 2025	EB2508894	10,200	7.26	<0.1	22.5	19.3	28,300	14.8	0.09	<0.00004	17.4	0.0018	0.2	73.4
B12-1	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0236	-	-
B12-1	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-2	16 Mar 2025	EB2508894	13,800	9.47	<0.1	31.4	23.2	34,400	17.6	0.11	-	17.2	-	0.2	86.2
B12-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	21.2	-	-	-
B13-1	17 Mar 2025	EB2508894	5,280	5.56	<0.1	11.2	5.1	15,300	6.3	0.02	-	9.2	-	<0.1	33.7
B13-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0118	-	-
B13-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-4 (primary sample)	16 Mar 2025	EB2508894	5,820	4.76	<0.1	13.4	6.3	16,600	7.3	0.03	-	10.0	-	<0.1	33.0
B13-4b (field triplicate)	17 Mar 2025	EB2508894	4,900	4.13	<0.1	11.3	8.6	14,600	25.8	0.03	-	8.7	-	<0.1	72.7
B13-4c (field triplicate)	17 Mar 2025	EB2508894	5,300	4.21	<0.1	11.6	8.0	15,300	21.2	<0.10	-	9.1	-	<0.1	53.3
B13-4c (field triplicate)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	0.16	-	-	-	-	-
B13-5	14 Mar 2025	EB2508894	10,400	5.53	<0.1	22.8	14.4	25,600	13.1	0.06	-	15.2	-	<0.1	58.5
B13-5	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0046	-	-
B13-8	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0047	-	-
B13-8	16 Mar 2025	EB2508894	12,300	7.23	<0.1	25.8	13.4	29,500	12.3	0.06	-	16.0	-	<0.1	55.0
B13-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-9	17 Mar 2025	EB2508894	14,600	7.16	<0.1	28.2	13.0	34,800	12.5	0.04	-	16.8	-	<0.1	54.3
B13-9	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	<0.00004	-	0.0032	-	-
B15-1	16 Mar 2025	EB2508894	12,400	7.04	<0.1	26.5	22.6	31,200	15.8	0.09	-	20.5	-	0.2	76.4
B15-2	16 Mar 2025	EB2508894	9,000	6.10	<0.1	20.7	7.8	22,700	5.9	0.02	-	12.8	-	<0.1	33.4
B15-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-2	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-2	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2508894	7,250	6.96	<0.1	16.7	7.0	18,600	6.8	0.02	-	11.4	-	<0.1	36.0
B15-3	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
B16-0	17 Mar 2025	EB2508894	8,440	4.71	<0.1	18.0	8.8	21,600	7.8	0.04	-	11.7	-	<0.1	40.7
B16-1	16 Mar 2025	EB2508894	8,160	4.85	<0.1	18.9	12.9	21,000	9.3	0.05	-	13.1	-	<0.1	48.6
BC-2	18 Mar 2025	EB2508981	1,240	1.67	<0.1	2.7	5.4	3,640	20.0	0.02	-	2.2	-	<0.1	47.4
RF2	17 Mar 2025	EB2508894	15,200	6.62	<0.1	31.8	17.0	34,800	17.6	0.09	-	19.5	-	0.1	72.7
RF2	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-
RF3	17 Mar 2025	EB2508894	15,200	5.54	<0.1	31.0	17.7	33,500	17.0	0.08	-	19.3	-	0.1	71.1
RF4	17 Mar 2025	EB2508894	12,000	5.75	<0.1	25.2	12.8	29,000	13.1	0.06	-	15.9	-	0.1	54.4
RF6	17 Mar 2025	EB2508894	11,200	5.71	<0.1	24.2	13.0	27,300	13.5	0.07	-	14.9	-	<0.1	55.6
RF7	17 Mar 2025	EB2508894	15,800	7.01	<0.1	30.8	19.4	35,400	17.7	0.09	-	20.9	-	0.2	72.8
RF7	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Date	Lab Report Number																
10L Drum	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B2-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B4-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B4-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B4-4	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B4-4	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-0	18 Mar 2025	EB2508981	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	12	-	98	30	140	
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-0	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1 (primary sample)	18 Mar 2025	EB2508981	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	6	-	20	7	33	
B5-1 (primary sample)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1 (primary sample)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1b (field triplicate)	18 Mar 2025	EB2508981	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	15	-	58	12	85	
B5-1b (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1b (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1c (field triplicate)	18 Mar 2025	EB2508981	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	7	-	11	<5	18	
B5-1c (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B5-1c (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B6-2 (primary sample)	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B6-2 (primary sample)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B6-2b (intralab split)	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B6-2b (intralab split)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B6-2C (interlab split)	14 Mar 2025	1199074	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B6-3	18 Mar 2025	EB2508981	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	11	-	18	5	34	
B6-3	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B6-3	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B7-1	14 Mar 2025	EB2508894	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	8	-	58	18	84	
B7-1	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B7-1	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B7-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B8-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B8-3	14 Mar 2025	EB2508894	-	-	-													

B11-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-8	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-8	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9 (primary sample)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9 (primary sample)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9b (field triplicate)	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9b (field triplicate)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9c (field triplicate)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9c (field triplicate)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2508894	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	9	-	53	15	77
B12-1	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2508894	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	3	-	16	<5	19
B13-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-4 (primary sample)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-4b (field triplicate)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-4c (field triplicate)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-4c (field triplicate)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-5	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-5	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	16 Mar 2025	EB2508894	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	7	-	45	10	62
B13-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-9	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-9	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-1	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-2	16 Mar 2025	EB2508894	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	3	-	12	<5	15
B15-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-2	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-2	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2508894	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<3	<3.0	3	-	18	<5	21
B15-3	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B16-0	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B16-1	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC-2	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF2	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF2	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF3	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF4	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF6	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF7	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF7	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[illegible]

[illegible]



												Organotins			
	g-BHC (Lindane)		Heptachlor		Heptachlor epoxide		Methoxychlor		Oxychlorthane		Toxaphene	Dibutyltin (as Sn)	Monobutyltin (as Sn)	Tributyltin as Sn	Tributyltin as Sn
	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/L	mg/kg	µg/kg	µg/kg	mg/kg	mg/L
EQL	0.00025	0.01	0.0005	0.005	0.0005	0.01	0.0005	0.01	0.0005	0.00001	0.001	1	1	0.0005	0.000002
ANZG Toxicant Default Guideline Values for Sediment Quality - DGV	0.0009													0.009	
ANZG Toxicant Default Guideline Values for Sediment Quality - GV - High	0.0014													0.07	

Field ID	Date	Lab Report Number															
10L Drum	16 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B2-0	18 Mar 2025	EB2508981	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B4-0	18 Mar 2025	EB2508981	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	0.0018	<0.000002
B4-0	18 Mar 2025	EB2508981	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B4-4	18 Mar 2025	EB2508981	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	1	<1	0.0019	-
B4-4	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-0	18 Mar 2025	EB2508981	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	0.0013	<0.000002
B5-0	18 Mar 2025	EB2508981	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-0	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1 (primary sample)	18 Mar 2025	EB2508981	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B5-1 (primary sample)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1 (primary sample)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1b (field triplicate)	18 Mar 2025	EB2508981	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B5-1b (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1b (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1c (field triplicate)	18 Mar 2025	EB2508981	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B5-1c (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1c (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B6-2 (primary sample)	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B6-2 (primary sample)	17 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B6-2b (intralab split)	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B6-2b (intralab split)	17 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B6-2C (interlab split)	14 Mar 2025	1199074	<0.001	-	<0.001	-	<0.001	-	<0.001	-	-	-	<0.001	-	-	-	-
B6-3	18 Mar 2025	EB2508981	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	0.0007	-
B6-3	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B6-3	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B7-1	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B7-1	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B7-1	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B7-1	17 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B8-1	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	0.0008	-
B8-3	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B8-3	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B8-3	17 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B9-1	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	1	<1	0.0017	-
B9-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B9-1	17 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B9-1	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-5	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	0.0017	<0.000002
B10-5	14 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B10-6 (primary sample)	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	0.0006	<0.000002
B10-6 (primary sample)	14 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B10-6 (primary sample)	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6 (primary sample)	14 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6b (intralab split)	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	0.0010	<0.000002
B10-6b (intralab split)	14 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B10-6b (intralab split)	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6C (interlab split)	14 Mar 2025	1199074	<0.001	-	<0.001	-	<0.001	-	<0.001	-	-	-	<0.001	<1	<1	<0.001	-
B10-8	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B10-8	16 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B11-5	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	0.0007	-
B11-8	16 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B11-8	16 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002

B11-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-8	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-8	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-9 (primary sample)	16 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B11-9 (primary sample)	16 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B11-9b (field triplicate)	14 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B11-9b (field triplicate)	16 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B11-9c (field triplicate)	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	0.0007	-
B11-9c (field triplicate)	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2508894	<0.00025	<0.010	<0.00050	<0.005	<0.00050	<0.010	<0.00050	<0.010	<0.00050	<0.000010	-	<1	<1	<0.0005	<0.000002
B12-1	16 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B12-1	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-1	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12-2	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	0.0008	-
B12-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B13-1	17 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B13-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-1	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-4 (primary sample)	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B13-4b (field triplicate)	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B13-4c (field triplicate)	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B13-4c (field triplicate)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-5	14 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B13-5	16 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000005
B13-8	14 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B13-8	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B13-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-8	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B13-9	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B13-9	17 Mar 2025	EB2508894	-	<0.010	-	<0.005	-	<0.010	-	<0.010	-	<0.000010	-	-	-	-	<0.000002
B15-1	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B15-2	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B15-2	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-2	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-2	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B15-3	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B15-3	16 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B16-0	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
B16-1	16 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
BC-2	18 Mar 2025	EB2508981	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	0.0008	-
RF2	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
RF2	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RF3	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
RF4	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
RF6	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
RF7	17 Mar 2025	EB2508894	<0.00025	-	<0.00050	-	<0.00050	-	<0.00050	-	<0.00050	-	-	<1	<1	<0.0005	-
RF7	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Date	Lab Report Number																				
10L Drum	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B2-0	18 Mar 2025	EB2508981	-	-	-	-	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-	-	-	-	-
B4-0	18 Mar 2025	EB2508981	-	-	-	-	<0.012	<0.012	<0.012	-	<0.012	-	-	-	-	-	-	-	-	-	-	-
B4-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B4-4	18 Mar 2025	EB2508981	-	-	-	-	<0.012	<0.012	<0.012	-	<0.012	-	-	-	-	-	-	-	-	-	-	-
B4-4	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-0	18 Mar 2025	EB2508981	0.058	0.058	0.058	0.518	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-0	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-0	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,040	570
B5-1 (primary sample)	18 Mar 2025	EB2508981	0.059	0.059	0.059	0.559	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B5-1 (primary sample)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1 (primary sample)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	520	<500
B5-1b (field triplicate)	18 Mar 2025	EB2508981	0.054	0.054	0.054	0.543	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B5-1b (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1b (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	690	510
B5-1c (field triplicate)	18 Mar 2025	EB2508981	0.02	0.022	0.018	0.153	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B5-1c (field triplicate)	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5-1c (field triplicate)	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,130	540
B6-2 (primary sample)	14 Mar 2025	EB2508894	-	-	-	-	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-	-	-	-	-
B6-2 (primary sample)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B6-2b (intralab split)	14 Mar 2025	EB2508894	-	-	-	-	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-	-	-	-	-
B6-2b (intralab split)	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B6-2C (interlab split)	14 Mar 2025	1199074	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
B6-3	18 Mar 2025	EB2508981	0.072	0.072	0.072	0.667	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B6-3	18 Mar 2025	EB2508981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B6-3	18 Mar 2025	EB2509150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700	570
B7-1	14 Mar 2025	EB2508894	0.076	0.076	0.076	0.775	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B7-1	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B7-1	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	<500	-
B7-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B8-1	17 Mar 2025	EB2508894	-	-	-	-	<0.012	<0.012	<0.012	-	<0.012	-	-	-	-	-	-	-	-	-	-	-
B8-3	14 Mar 2025	EB2508894	-	-	-	-	<0.012	<0.012	<0.012	-	<0.012	-	-	-	-	-	-	-	-	-	-	-
B8-3	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B8-3	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B9-1	17 Mar 2025	EB2508894	0.1	0.1	0.1	0.867	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B9-1	17 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B9-1	17 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	970	540
B9-1	17 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-5	14 Mar 2025	EB2508894	-	-	-	-	<0.012	<0.012	<0.012	-	<0.012	-	-	-	-	-	-	-	-	-	-	-
B10-5	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6 (primary sample)	14 Mar 2025	EB2508894	0.096	0.096	0.096	0.667	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B10-6 (primary sample)	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6 (primary sample)	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	890	560
B10-6 (primary sample)	14 Mar 2025	EB2509200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6b (intralab split)	14 Mar 2025	EB2508894	0.112	0.112	0.112	0.843	<0.012	<0.012	<0.012	-	<0.012	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	-	-	-
B10-6b (intralab split)	14 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B10-6b (intralab split)	14 Mar 2025	EB2509145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	560	510
B10-6C (interlab split)	14 Mar 2025	1199074	-	-	-	0.22	-	-	<0.1	<0.1	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-
B10-8	14 Mar 2025	EB2508894	-	-	-	-	<0.012	<0.012	<0.012	-	<0.012	-	-	-	-	-	-	-	-	-	-	-
B10-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B11-5	16 Mar 2025	EB2508894	-	-	-	-	<0.012	<0.012	<0.012	-	<0.012	-	-	-	-	-	-	-	-	-	-	-
B11-8	16 Mar 2025	EB2508894	0.246	0.246	0.246	2.17	<0.01	<0.01	<0.01	-	<0.01	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	-	-	-
B11-8	16 Mar 2025	EB2508894	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[illegible]

Annex D Primary Lab—ALS



CERTIFICATE OF ANALYSIS

Work Order	: EB2508894	Page	: 1 of 80
Amendment	: 1		
Client	: BMT COMMERCIAL AUSTRALIA PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MACKENZIE STACEY	Contact	: Nathan King
Address	: PO BOX 203 SPRING HILL BRISBANE QLD 4004	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: +61-7-3552-8685
Project	: 01295 PoB Monitoring 2019-2025	Date Samples Received	: 17-Mar-2025 16:00
Order number	: No PO Provided	Date Analysis Commenced	: 18-Mar-2025
C-O-C number	: ----	Issue Date	: 15-Apr-2025 11:40
Sampler	: MACKENZIE STACEY		
Site	: ----		
Quote number	: BN/016/19 V2		
No. of samples received	: 53		
No. of samples analysed	: 53		



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	Position	Accreditation Category
Beatriz Llarinas	Senior Chemist - Inorganics	Brisbane Inorganics, Stafford, QLD
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Edwandy Fadjari	Organic Coordinator	Sydney Organics, Smithfield, NSW
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Kim McCabe	Senior Inorganic Chemist	Brisbane Soil Preparation, Stafford, QLD
Layla Hafner	Acid Sulphate Soils - Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Tatijana Markoska	Senior Chemist - Organics	Brisbane Organics, Stafford, QLD
Timothy Creagh	Senior Chemist - Organics	Brisbane Organics, Stafford, QLD



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.

- EA150H: Soil particle density results fell outside the scope of AS1289.3.6.3. Results should be scrutinised accordingly.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP131A: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP080-SD: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- ASS: EA033 (CRS Suite): 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)
- EP132B-SD : LOR is raised due to high amount of moistures is present.
- EP130: LOR for sample raised due to the high amount of moisture present.
- **Speciality organic analysis is conducted by ALS Environmental, Sydney, NATA accreditation no. 825, Site No. 10911.**
- ASS: EA029 (SPOCAS): Retained Acidity not required because pH KCl greater than or equal to 4.5
- ASS: EA033 (CRS Suite): Retained Acidity not required because pH KCl greater than or equal to 4.5
- Amendment (15/04/2025): This report has been amended and re-released to allow the reporting of additional analytical data, specifically method EG005-SDH/EG035-SDH for samples B13-4C, B7-1, B8-3, B11-9c, B12-2 (ALS #8,27,29,34 and 38)
- EP131B : Particular samples required dilution due to sample matrix . LOR values have been adjusted accordingly.
- EP090 – Organotin Analysis: Sample 'RF7' (EB2508894-022) shows poor matrix spike recovery due to matrix interference.
- EP090 – Organotin Analysis: Sample 'B13-5' (EB2508894-046) requires re-extraction due to laboratory error. The LOR for Tributyltin has been raised due to insufficient sample remaining for re-extraction and re-analysis.
- EP090 – Organotin Analysis: High LCS recovery deemed acceptable as all associated analyte results are less than LOR
- EP090 – Organotin Analysis: Sample ES2507194-002 shows poor matrix spike recovery due to matrix interference.
- EP090 – Organotin Analysis: Sample 'B10-6' (EB2508894-002) shows matrix spike recovery outside of control limits due to heterogeneity. Confirmed by re-extraction and re-analysis.
- EP071 – TRH Semivolatile Fraction: Samples EB2508981-005 and show poor duplicate recovery due to heterogeneity. Confirmed by visual inspection.
- ASS: EA029 (SPOCAS): Laboratory determinations of ANC needs to be corroborated by effectiveness of the measured ANC in relation to incubation ANC. Unless corroborated, the results of ANC testing should be discounted when determining Net Acidity for comparison with action criteria, or for the determination of the acidity hazard and required liming amounts.
- ASS: EA033 (CRS Suite): Laboratory determinations of ANC needs to be corroborated by effectiveness of the measured ANC in relation to incubation ANC. Unless corroborated, the results of ANC testing should be discounted when determining Net Acidity for comparison with action criteria, or for the determination of the acidity hazard and required liming amounts.
- ASS: EA033 (CRS Suite): 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'.



- ASS: EA029 (SPOCAS): Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO_3) 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.
- EN68: This analysis in accordance with National Ocean Disposal Guidelines, Commonwealth of Australia, 2002 - (modified). Results reported are those determined on a 1:4 sediment/seawater elutriate without blank correction.
- EG093: Samples containing high levels of sulfate may precipitate barium under the acidic conditions of this method and may therefore bias results low.



Analytical Results

Sub-Matrix: LEACHATE BLANK
 (Matrix: WATER)

Sample ID

				10L Drum Elutriate blank	----	----	----	----
Sampling date / time				16-Mar-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-032	-----	-----	-----	-----
Result				----	----	----	----	----
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	----	----	----	----
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	1.8	----	----	----	----
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	----	----	----	----
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	----	----	----	----
alpha-BHC	319-84-6	0.010	µg/L	<0.010	----	----	----	----
beta-BHC	319-85-7	0.010	µg/L	<0.010	----	----	----	----
delta-BHC	319-86-8	0.010	µg/L	<0.010	----	----	----	----
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	----	----	----	----
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	----	----	----	----
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	----	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.010	µg/L	<0.010	----	----	----	----
Dieldrin	60-57-1	0.010	µg/L	<0.010	----	----	----	----
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	----	----	----	----
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	----	----	----	----
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	----	----	----	----
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	----	----	----	----
Endrin	72-20-8	0.010	µg/L	<0.010	----	----	----	----
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	----	----	----	----
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	----	----	----	----
Heptachlor	76-44-8	0.005	µg/L	<0.005	----	----	----	----
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	----	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	----	----	----	----



Analytical Results

Sub-Matrix: LEACHATE BLANK
 (Matrix: WATER)

Sample ID

				10L Drum Elutriate blank	----	----	----	----
Sampling date / time				16-Mar-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-032	-----	-----	-----	-----
				Result	----	----	----	----
EP131A: Organochlorine Pesticides - Continued								
Methoxychlor	72-43-5	0.010	µg/L	<0.010	----	----	----	----
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	----	----	----	----
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	----	----	----	----
^ Total Chlordane (sum)	-----	0.010	µg/L	<0.010	----	----	----	----
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	----	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	----	----	----	----
EP090S: Organotin Surrogate								
Tripopyltin	-----	5	%	84.4	----	----	----	----
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.010	%	117	----	----	----	----



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B10-5 Pore water	B10-6 Pore water	B10-6b Pore water	B10-8 Pore water	B11-9 Pore water
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-039	EB2508894-040	EB2508894-041	EB2508894-042	EB2508894-043
				Result	Result	Result	Result	Result
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	11.6	6.2	16.6	8.1	111
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	<2	<2	<2
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

Sub-Matrix: PORE WATER LEACHATE (Matrix: WATER)				Sample ID	B10-5 Pore water	B10-6 Pore water	B10-6b Pore water	B10-8 Pore water	B11-9 Pore water
Sampling date / time					14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-039	EB2508894-040	EB2508894-041	EB2508894-042	EB2508894-043	
				Result	Result	Result	Result	Result	
EP131A: Organochlorine Pesticides - Continued									
Methoxychlor	72-43-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
^ Total Chlordane (sum)	----	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
EP090S: Organotin Surrogate									
Tripropyltin	----	5	%	36.0	43.7	38.8	39.2	25.6	
EP131S: OC Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.010	%	83.0	67.5	89.6	94.7	92.2	



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B11-8 Pore water	B12-1 Pore water	B13-5 Pore water	B13-8 Pore water	B13-9 Pore water
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-044	EB2508894-045	EB2508894-046	EB2508894-047	EB2508894-048
				Result	Result	Result	Result	Result
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	6.6	23.6	4.6	4.7	3.2
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	<5	<2	<2
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

Sub-Matrix: PORE WATER LEACHATE (Matrix: WATER)				Sample ID	B11-8 Pore water	B12-1 Pore water	B13-5 Pore water	B13-8 Pore water	B13-9 Pore water
Sampling date / time					16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-044	EB2508894-045	EB2508894-046	EB2508894-047	EB2508894-048	
				Result	Result	Result	Result	Result	
EP131A: Organochlorine Pesticides - Continued									
Methoxychlor	72-43-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
^ Total Chlordane (sum)	----	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
EP090S: Organotin Surrogate									
Tripropyltin	----	5	%	37.9	49.5	64.6	55.0	82.3	
EP131S: OC Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.010	%	96.5	89.8	93.0	92.9	91.9	



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B13-1 Pore water	B8-3 Pore water	B7-1 Pore water	B6-2 Pore water	B6-2b Pore water
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-049	EB2508894-050	EB2508894-051	EB2508894-052	EB2508894-053
				Result	Result	Result	Result	Result
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	11.8	12.2	13.6	7.4	4.6
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	<2	<2	<2
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B13-1 Pore water	B8-3 Pore water	B7-1 Pore water	B6-2 Pore water	B6-2b Pore water
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-049	EB2508894-050	EB2508894-051	EB2508894-052	EB2508894-053
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
Methoxychlor	72-43-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Total Chlordane (sum)	----	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
EP090S: Organotin Surrogate								
Tripropyltin	----	5	%	72.2	56.2	51.0	34.4	40.2
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.010	%	92.7	91.9	96.2	80.7	92.8



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B11-9b Pore water	----	----	----	----
Sampling date / time				16-Mar-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-054	-----	-----	-----	-----
Result				----	----	----	----	----
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	----	----	----	----
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	4.7	----	----	----	----
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	----	----	----	----
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	----	----	----	----
alpha-BHC	319-84-6	0.010	µg/L	<0.010	----	----	----	----
beta-BHC	319-85-7	0.010	µg/L	<0.010	----	----	----	----
delta-BHC	319-86-8	0.010	µg/L	<0.010	----	----	----	----
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	----	----	----	----
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	----	----	----	----
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	----	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.010	µg/L	<0.010	----	----	----	----
Dieldrin	60-57-1	0.010	µg/L	<0.010	----	----	----	----
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	----	----	----	----
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	----	----	----	----
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	----	----	----	----
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	----	----	----	----
Endrin	72-20-8	0.010	µg/L	<0.010	----	----	----	----
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	----	----	----	----
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	----	----	----	----
Heptachlor	76-44-8	0.005	µg/L	<0.005	----	----	----	----
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	----	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	----	----	----	----



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B11-9b	----	----	----	----
				Pore water				
Sampling date / time				16-Mar-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-054	-----	-----	-----	-----
				Result	----	----	----	----
EP131A: Organochlorine Pesticides - Continued								
Methoxychlor	72-43-5	0.010	µg/L	<0.010	----	----	----	----
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	----	----	----	----
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	----	----	----	----
^ Total Chlordane (sum)	-----	0.010	µg/L	<0.010	----	----	----	----
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	----	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	----	----	----	----
EP090S: Organotin Surrogate								
Tripopyltin	-----	5	%	44.8	----	----	----	----
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.010	%	89.4	----	----	----	----



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	3.0	2.2	2.7	3.2	2.2
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	<2	<2	<2
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

				Sample ID	B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time					14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit		EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
					Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued									
Methoxychlor	72-43-5	0.010	µg/L		<0.010	<0.010	<0.010	<0.010	<0.010
cis-Chlordane	5103-71-9	0.010	µg/L		<0.010	<0.010	<0.010	<0.010	<0.010
trans-Chlordane	5103-74-2	0.010	µg/L		<0.010	<0.010	<0.010	<0.010	<0.010
^ Total Chlordane (sum)	----	0.010	µg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	27304-13-8	0.010	µg/L		<0.010	<0.010	<0.010	<0.010	<0.010
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L		<0.010	<0.010	<0.010	<0.010	<0.010
EP090S: Organotin Surrogate									
Tripropyltin	----	5	%		58.0	61.8	83.5	75.8	65.8
EP131S: OC Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.010	%		101	103	102	106	106



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

Sample ID

				B11-8	B12-1	B8-3	B7-1	B6-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-027	EB2508894-029	EB2508894-030
				Result	Result	Result	Result	Result
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	1.7	1.8	2.0	4.0	3.1
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	<2	<2	<2
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

Sample ID

				B11-8	B12-1	B8-3	B7-1	B6-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-027	EB2508894-029	EB2508894-030
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
Methoxychlor	72-43-5	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
[^] Total Chlordane (sum)	----	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
EP090S: Organotin Surrogate								
Tripopyltin	----	5	%	81.0	74.7	45.4	49.8	66.8
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.010	%	112	109	113	114	109



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

Sample ID

				B6-2b	B11-9b	----	----	----
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-031	EB2508894-033	-----	-----	-----
				Result	Result	----	----	----
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	----	----	----
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	2.4	2.4	----	----	----
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	----	----	----
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	----	----	----
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	----	----	----
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	----	----	----
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.010	µg/L	<0.010	<0.010	----	----	----
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	----	----	----
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	----	----	----
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	----	----	----
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	----	----	----
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	----	----	----
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	----	----	----
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	----	----	----



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

Sample ID

				B6-2b	B11-9b	----	----	----
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-031	EB2508894-033	-----	-----	-----
				Result	Result	----	----	----
EP131A: Organochlorine Pesticides - Continued								
Methoxychlor	72-43-5	0.010	µg/L	<0.010	<0.010	----	----	----
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	<0.010	----	----	----
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	<0.010	----	----	----
[^] Total Chlordane (sum)	----	0.010	µg/L	<0.010	<0.010	----	----	----
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	<0.010	----	----	----
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	<0.010	----	----	----
EP090S: Organotin Surrogate								
Tripopyltin	----	5	%	66.6	70.1	----	----	----
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.010	%	108	122	----	----	----



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	8.6	8.5	----	----
pH OX (23B)	----	0.1	pH Unit	----	7.7	7.0	----	----
EA029-B: Acidity Trail								
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	<2	<2	----	----
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	<2	<2	----	----
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	<2	<2	----	----
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	<0.020	<0.020	----	----
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	<0.020	<0.020	----	----
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	<0.020	<0.020	----	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	0.103	0.120	----	----
Peroxide Sulfur (23De)	----	0.020	% S	----	0.328	0.443	----	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	0.225	0.324	----	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	140	202	----	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.227	0.239	----	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.699	0.650	----	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	0.472	0.411	----	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	236	205	----	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	0.378	0.329	----	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	0.186	0.228	----	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	0.263	0.329	----	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	0.077	0.101	----	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	63	83	----	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	0.102	0.133	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO ₃	----	1.78	1.16	----	----
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H ⁺ / t	----	355	231	----	----
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	0.569	0.370	----	----
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	1.5	1.5	----	----
Net Acidity (sulfur units)	----	0.02	% S	----	<0.02	<0.02	----	----
Net Acidity (acidity units)	----	10	mole H ⁺ / t	----	<10	<10	----	----
Liming Rate	----	1	kg CaCO ₃ /t	----	<1	<1	----	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	0.22	0.32	----	----
Net Acidity excluding ANC (acidity units)	----	10	mole H ⁺ / t	----	140	202	----	----
Liming Rate excluding ANC	----	1	kg CaCO ₃ /t	----	10	15	----	----
EA033-A: Actual Acidity								
pH KCl (23A)	----	0.1	pH Unit	----	8.6	8.5	----	----
Titrateable Actual Acidity (23F)	----	2	mole H ⁺ / t	----	<2	<2	----	----
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S	----	<0.02	<0.02	----	----
EA033-B: Potential Acidity								
Chromium Reducible Sulfur (22B)	----	0.005	% S	----	0.233	0.314	----	----
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H ⁺ / t	----	145	196	----	----
EA033-C: Acid Neutralising Capacity								
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO ₃	----	3.03	3.21	----	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H ⁺ / t	----	606	641	----	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	----	0.97	1.03	----	----
EA033-E: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	1.5	1.5	----	----
Net Acidity (sulfur units)	----	0.02	% S	----	<0.02	<0.02	----	----

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005	
				Result	Result	Result	Result	Result	
EA033-E: Acid Base Accounting - Continued									
Net Acidity (acidity units)	----	10	mole H+ / t	----	<10	<10	----	----	
Liming Rate	----	1	kg CaCO3/t	----	<1	<1	----	----	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	0.23	0.31	----	----	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	145	196	----	----	
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	11	15	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	63.7	52.7	51.3	64.5	61.2	
EA150: Particle Sizing									
+75µm	----	1	%	2	26	28	11	6	
+150µm	----	1	%	1	15	17	7	3	
+300µm	----	1	%	<1	4	5	2	1	
+425µm	----	1	%	<1	2	2	1	<1	
+600µm	----	1	%	<1	<1	1	<1	<1	
+1180µm	----	1	%	<1	<1	<1	<1	<1	
+2.36mm	----	1	%	<1	<1	<1	<1	<1	
+4.75mm	----	1	%	<1	<1	<1	<1	<1	
+9.5mm	----	1	%	<1	<1	<1	<1	<1	
+19.0mm	----	1	%	<1	<1	<1	<1	<1	
+37.5mm	----	1	%	<1	<1	<1	<1	<1	
+75.0mm	----	1	%	<1	<1	<1	<1	<1	
EA150: Soil Classification based on Particle Size									
Clay (<2 µm)	----	1	%	53	39	38	44	47	
Silt (2-60 µm)	----	1	%	42	32	31	41	44	
Sand (0.06-2.00 mm)	----	1	%	5	29	31	15	9	
Gravel (>2mm)	----	1	%	<1	<1	<1	<1	<1	
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	<1	
EA152: Soil Particle Density									

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005	
				Result	Result	Result	Result	Result	
EA152: Soil Particle Density - Continued									
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.62	2.38	2.27	2.42	2.32	
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	13900	10300	9160	12800	11600	
Iron	7439-89-6	50	mg/kg	32100	27400	23200	29700	28100	
EG020-SD: Total Metals in Sediments by ICPMS									
Arsenic	7440-38-2	1.00	mg/kg	9.06	5.84	5.66	7.34	7.73	
Cadmium	7440-43-9	0.1	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	
Chromium	7440-47-3	1.0	mg/kg	32.8	24.7	21.8	27.7	25.0	
Copper	7440-50-8	1.0	mg/kg	37.0	22.0	19.9	22.3	22.8	
Lead	7439-92-1	1.0	mg/kg	28.0	12.7	13.8	15.7	15.9	
Nickel	7440-02-0	1.0	mg/kg	19.7	19.0	15.1	18.9	16.7	
Silver	7440-22-4	0.1	mg/kg	0.3	0.2	0.1	0.2	0.1	
Zinc	7440-66-6	1.0	mg/kg	135	70.9	71.9	79.0	79.9	
EG035T: Total Recoverable Mercury by FIMS (Low Level)									
Mercury	7439-97-6	0.01	mg/kg	0.12	0.06	0.06	0.08	0.08	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	----	<0.1	0.1	----	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	----	1210	730	----	----	
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg	----	1210	730	----	----	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	----	704	609	----	----	
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Seawater Sampling Date	----	-	-	19/03/2025	19/03/2025	19/03/2025	19/03/2025	19/03/2025	
EP003: Total Organic Carbon (TOC) in Soil									
Total Organic Carbon	----	0.02	%	2.20	1.06	1.46	1.38	1.60	
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons									



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons - Continued								
C6 - C9 Fraction	----	3	mg/kg	----	<3	<3	----	----
C10 - C14 Fraction	----	3	mg/kg	----	30	7	----	----
C15 - C28 Fraction	----	3	mg/kg	----	47	19	----	----
C29 - C36 Fraction	----	5	mg/kg	----	49	17	----	----
^ C10 - C36 Fraction (sum)	----	3	mg/kg	----	126	43	----	----
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
C6 - C10 Fraction	C6_C10	3	mg/kg	----	<3	<3	----	----
>C10 - C16 Fraction	----	3	mg/kg	----	11	6	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	3.0	mg/kg	----	<3.0	<3.0	----	----
>C16 - C34 Fraction	----	3	mg/kg	----	81	30	----	----
>C34 - C40 Fraction	----	5	mg/kg	----	23	10	----	----
^ >C10 - C40 Fraction (sum)	----	3	mg/kg	----	115	46	----	----
EP080-SD: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	<0.2	<0.2	----	----
Toluene	108-88-3	0.2	mg/kg	----	<0.2	<0.2	----	----
Ethylbenzene	100-41-4	0.2	mg/kg	----	<0.2	<0.2	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	----	<0.2	<0.2	----	----
ortho-Xylene	95-47-6	0.2	mg/kg	----	<0.2	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	<0.2	----	----
Naphthalene	91-20-3	0.2	mg/kg	----	<0.2	<0.2	----	----
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	<1
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	<1
Tributyltin	56573-85-4	0.5	µgSn/kg	1.7	0.6	1.0	<0.5	<0.5
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Bromophos-ethyl	4824-78-6	10	µg/kg	<12	<12	<12	<12	<12



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result

EP130A: Organophosphorus Pesticides (Ultra-trace) - Continued

Carbophenothion	786-19-6	10	µg/kg	<12	<12	<12	<12	<12
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<12.0	<12.0	<12.0	<12.0	<12.0
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<12	<12	<12	<12	<12
Chlorpyrifos	2921-88-2	10	µg/kg	<12	<12	<12	<12	<12
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<12	<12	<12	<12	<12
Demeton-S-methyl	919-86-8	10	µg/kg	<12	<12	<12	<12	<12
Diazinon	333-41-5	10	µg/kg	<12	<12	<12	<12	<12
Dichlorvos	62-73-7	10	µg/kg	<12	<12	<12	<12	<12
Dimethoate	60-51-5	10	µg/kg	<12	<12	<12	<12	<12
Ethion	563-12-2	10	µg/kg	<12	<12	<12	<12	<12
Fenamiphos	22224-92-6	10	µg/kg	<12	<12	<12	<12	<12
Fenthion	55-38-9	10	µg/kg	<12	<12	<12	<12	<12
Malathion	121-75-5	10	µg/kg	<12	<12	<12	<12	<12
Azinphos Methyl	86-50-0	10	µg/kg	<12	<12	<12	<12	<12
Monocrotophos	6923-22-4	10	µg/kg	<12	<12	<12	<12	<12
Parathion	56-38-2	10	µg/kg	<12	<12	<12	<12	<12
Parathion-methyl	298-00-0	10	µg/kg	<12	<12	<12	<12	<12
Pirimphos-ethyl	23505-41-1	10	µg/kg	<12	<12	<12	<12	<12
Prothiofos	34643-46-4	10	µg/kg	<12	<12	<12	<12	<12

EP131A: Organochlorine Pesticides

Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDE	72-55-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP131B: Polychlorinated Biphenyls (as Aroclors)								
^ Total Polychlorinated biphenyls	----	5.0	µg/kg	----	<31.2	<31.2	----	----
Aroclor 1016	12674-11-2	5.0	µg/kg	----	<31.2	<31.2	----	----
Aroclor 1221	11104-28-2	5.0	µg/kg	----	<31.2	<31.2	----	----
Aroclor 1232	11141-16-5	5.0	µg/kg	----	<31.2	<31.2	----	----
Aroclor 1242	53469-21-9	5.0	µg/kg	----	<31.2	<31.2	----	----
Aroclor 1248	12672-29-6	5.0	µg/kg	----	<31.2	<31.2	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result
EP131B: Polychlorinated Biphenyls (as Aroclors) - Continued								
Aroclor 1254	11097-69-1	5.0	µg/kg	----	<31.2	<31.2	----	----
Aroclor 1260	11096-82-5	5.0	µg/kg	----	<31.2	<31.2	----	----
EP132B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	5	µg/kg	----	11	8	----	----
2-Methylnaphthalene	91-57-6	5	µg/kg	----	<5	<5	----	----
Acenaphthylene	208-96-8	4	µg/kg	----	16	17	----	----
Acenaphthene	83-32-9	4	µg/kg	----	<5	<5	----	----
Fluorene	86-73-7	4	µg/kg	----	<5	6	----	----
Phenanthrene	85-01-8	4	µg/kg	----	22	40	----	----
Anthracene	120-12-7	4	µg/kg	----	14	15	----	----
Fluoranthene	206-44-0	4	µg/kg	----	67	101	----	----
Pyrene	129-00-0	4	µg/kg	----	70	99	----	----
Benzo(a)anthracene	56-55-3	4	µg/kg	----	49	71	----	----
Chrysene	218-01-9	4	µg/kg	----	38	58	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	----	63	78	----	----
Benzo(k)fluoranthene	207-08-9	4	µg/kg	----	23	26	----	----
Benzo(e)pyrene	192-97-2	4	µg/kg	----	36	44	----	----
Benzo(a)pyrene	50-32-8	4	µg/kg	----	65	78	----	----
Perylene	198-55-0	4	µg/kg	----	79	90	----	----
Benzo(g,h,i)perylene	191-24-2	4	µg/kg	----	49	51	----	----
Dibenz(a,h)anthracene	53-70-3	4	µg/kg	----	13	12	----	----
Indeno(1,2,3,cd)pyrene	193-39-5	4	µg/kg	----	38	40	----	----
Coronene	191-07-1	5	µg/kg	----	14	9	----	----
^ Sum of PAHs	----	4	µg/kg	----	667	843	----	----
^ Benzo(a)pyrene TEQ (zero)	----	4	µg/kg	----	96	112	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	4	µg/kg	----	96	112	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	4	µg/kg	----	96	112	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B10-5	B10-6	B10-6b	B10-8	B11-9
Sampling date / time				14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-001	EB2508894-002	EB2508894-003	EB2508894-004	EB2508894-005
				Result	Result	Result	Result	Result
EP080-SD: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	----	78.4	55.2	----	----
Toluene-D8	2037-26-5	0.2	%	----	67.8	52.0	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	----	82.2	58.8	----	----
EP090S: Organotin Surrogate								
Tripropyltin	----	0.5	%	91.5	92.3	91.8	105	92.6
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	58.5	53.8	64.5	53.7	53.3
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	51.7	66.8	77.4	69.3	71.2
EP131T: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.5	%	----	101	108	----	----
EP132T: Base/Neutral Extractable Surrogates - SD								
2-Fluorobiphenyl	321-60-8	10	%	----	82.0	86.0	----	----
Anthracene-d10	1719-06-8	10	%	----	102	110	----	----
4-Terphenyl-d14	1718-51-0	10	%	----	89.3	96.9	----	----



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	8.8	8.4	----	----	8.9
pH OX (23B)	----	0.1	pH Unit	8.1	6.6	----	----	8.2
EA029-B: Acidity Trail								
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	----	----	<2
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	<2	----	----	<2
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	<2	----	----	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	<0.020	<0.020	----	----	<0.020
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	<0.020	<0.020	----	----	<0.020
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	<0.020	<0.020	----	----	<0.020
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	0.091	0.132	----	----	0.076
Peroxide Sulfur (23De)	----	0.020	% S	0.506	0.564	----	----	0.360
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	0.415	0.432	----	----	0.284
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	259	270	----	----	177
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	0.234	0.296	----	----	0.194
Peroxide Calcium (23Wh)	----	0.020	% Ca	5.89	0.734	----	----	2.40
Acid Reacted Calcium (23X)	----	0.020	% Ca	5.66	0.438	----	----	2.20
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	2820	218	----	----	1100
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	4.53	0.350	----	----	1.76
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	0.140	0.255	----	----	0.120
Peroxide Magnesium (23Tm)	----	0.020	% Mg	0.259	0.363	----	----	0.282
Acid Reacted Magnesium (23U)	----	0.020	% Mg	0.120	0.108	----	----	0.163
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	99	89	----	----	134
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	0.158	0.142	----	----	0.215



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO ₃	14.7	1.13	----	----	5.63
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H ⁺ / t	2930	226	----	----	1120
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	4.70	0.362	----	----	1.80
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	1.5	----	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	<0.02	<0.02	----	----	<0.02
Net Acidity (acidity units)	----	10	mole H ⁺ / t	<10	<10	----	----	<10
Liming Rate	----	1	kg CaCO ₃ /t	<1	<1	----	----	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.42	0.43	----	----	0.28
Net Acidity excluding ANC (acidity units)	----	10	mole H ⁺ / t	259	270	----	----	177
Liming Rate excluding ANC	----	1	kg CaCO ₃ /t	19	20	----	----	13
EA033-A: Actual Acidity								
pH KCl (23A)	----	0.1	pH Unit	8.8	8.4	----	----	8.9
Titrateable Actual Acidity (23F)	----	2	mole H ⁺ / t	<2	<2	----	----	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	<0.02	----	----	<0.02
EA033-B: Potential Acidity								
Chromium Reducible Sulfur (22B)	----	0.005	% S	0.393	0.453	----	----	0.292
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H ⁺ / t	245	282	----	----	182
EA033-C: Acid Neutralising Capacity								
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO ₃	18.0	3.53	----	----	8.51
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H ⁺ / t	3600	704	----	----	1700
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	5.77	1.13	----	----	2.72
EA033-E: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	1.5	----	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	<0.02	<0.02	----	----	<0.02

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010	
				Result	Result	Result	Result	Result	
EA033-E: Acid Base Accounting - Continued									
Net Acidity (acidity units)	----	10	mole H+ / t	<10	<10	----	----	<10	
Liming Rate	----	1	kg CaCO3/t	<1	<1	----	----	<1	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.39	0.45	----	----	0.29	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	245	282	----	----	182	
Liming Rate excluding ANC	----	1	kg CaCO3/t	18	21	----	----	14	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	49.7	54.2	65.6	54.9	38.0	
EA150: Particle Sizing									
+75µm	----	1	%	42	15	6	27	55	
+150µm	----	1	%	35	9	3	21	49	
+300µm	----	1	%	30	5	1	8	29	
+425µm	----	1	%	26	2	<1	4	12	
+600µm	----	1	%	22	<1	<1	2	8	
+1180µm	----	1	%	18	<1	<1	<1	5	
+2.36mm	----	1	%	16	<1	<1	<1	4	
+4.75mm	----	1	%	13	<1	<1	<1	2	
+9.5mm	----	1	%	<1	<1	<1	<1	<1	
+19.0mm	----	1	%	<1	<1	<1	<1	<1	
+37.5mm	----	1	%	<1	<1	<1	<1	<1	
+75.0mm	----	1	%	<1	<1	<1	<1	<1	
EA150: Soil Classification based on Particle Size									
Clay (<2 µm)	----	1	%	40	51	55	40	29	
Silt (2-60 µm)	----	1	%	18	31	35	30	15	
Sand (0.06-2.00 mm)	----	1	%	25	18	10	30	52	
Gravel (>2mm)	----	1	%	17	<1	<1	<1	4	
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	<1	
EA152: Soil Particle Density									

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010	
				Result	Result	Result	Result	Result	
EA152: Soil Particle Density - Continued									
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.75	2.58	2.34	2.49	2.60	
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES									
Nickel	7440-02-0	1.0	mg/kg	----	----	17.2	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	11200	10200	13800	12400	9000	
Iron	7439-89-6	50	mg/kg	29700	28300	34400	31200	22700	
EG020-SD: Total Metals in Sediments by ICPMS									
Arsenic	7440-38-2	1.00	mg/kg	7.50	7.26	9.47	7.04	6.10	
Cadmium	7440-43-9	0.1	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	
Chromium	7440-47-3	1.0	mg/kg	27.9	22.5	31.4	26.5	20.7	
Copper	7440-50-8	1.0	mg/kg	19.4	19.3	23.2	22.6	7.8	
Lead	7439-92-1	1.0	mg/kg	12.9	14.8	17.6	15.8	5.9	
Nickel	7440-02-0	1.0	mg/kg	17.7	17.4	21.2	20.5	12.8	
Silver	7440-22-4	0.1	mg/kg	0.2	0.2	0.2	0.2	<0.1	
Zinc	7440-66-6	1.0	mg/kg	66.8	73.4	86.2	76.4	33.4	
EG035T: Total Recoverable Mercury by FIMS (Low Level)									
Mercury	7439-97-6	0.01	mg/kg	0.10	0.09	0.11	0.09	0.02	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	0.2	<0.1	----	----	0.3	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	180	230	----	----	140	
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg	180	230	----	----	140	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	214	273	----	----	236	
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Seawater Sampling Date	----	-	-	19/03/2025	19/03/2025	----	----	----	
EP003: Total Organic Carbon (TOC) in Soil									



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010
				Result	Result	Result	Result	Result
EP003: Total Organic Carbon (TOC) in Soil - Continued								
Total Organic Carbon	----	0.02	%	0.82	1.71	1.62	1.32	0.77
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	3	mg/kg	<3	<3	----	----	<3
C10 - C14 Fraction	----	3	mg/kg	16	10	----	----	5
C15 - C28 Fraction	----	3	mg/kg	30	35	----	----	8
C29 - C36 Fraction	----	5	mg/kg	30	28	----	----	6
^ C10 - C36 Fraction (sum)	----	3	mg/kg	76	73	----	----	19
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
C6 - C10 Fraction	C6_C10	3	mg/kg	<3	<3	----	----	<3
>C10 - C16 Fraction	----	3	mg/kg	8	9	----	----	3
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	3.0	mg/kg	<3.0	<3.0	----	----	<3.0
>C16 - C34 Fraction	----	3	mg/kg	51	53	----	----	12
>C34 - C40 Fraction	----	5	mg/kg	16	15	----	----	<5
^ >C10 - C40 Fraction (sum)	----	3	mg/kg	75	77	----	----	15
EP080-SD: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	----	----	<0.2
Toluene	108-88-3	0.2	mg/kg	<0.2	<0.2	----	----	<0.2
Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	<0.2	----	----	<0.2
meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	<0.2	<0.2	----	----	<0.2
ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	<0.2	----	----	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	----	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	----	----	<0.2
Naphthalene	91-20-3	0.2	mg/kg	<0.2	<0.2	----	----	<0.2
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	<1
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	<1
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	0.8	<0.5	<0.5



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010
				Result	Result	Result	Result	Result

EP090: Organotin Compounds - Continued

EP130A: Organophosphorus Pesticides (Ultra-trace)

Bromophos-ethyl	4824-78-6	10	µg/kg	<10	<12	<12	<12	<10
Carbophenothion	786-19-6	10	µg/kg	<10	<12	<12	<12	<10
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<10.0	<12.0	<12.0	<12.0	<10.0
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	<12	<12	<12	<10
Chlorpyrifos	2921-88-2	10	µg/kg	<10	<12	<12	<12	<10
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	<12	<12	<12	<10
Demeton-S-methyl	919-86-8	10	µg/kg	<10	<12	<12	<12	<10
Diazinon	333-41-5	10	µg/kg	<10	<12	<12	<12	<10
Dichlorvos	62-73-7	10	µg/kg	<10	<12	<12	<12	<10
Dimethoate	60-51-5	10	µg/kg	<10	<12	<12	<12	<10
Ethion	563-12-2	10	µg/kg	<10	<12	<12	<12	<10
Fenamiphos	22224-92-6	10	µg/kg	<10	<12	<12	<12	<10
Fenthion	55-38-9	10	µg/kg	<10	<12	<12	<12	<10
Malathion	121-75-5	10	µg/kg	<10	<12	<12	<12	<10
Azinphos Methyl	86-50-0	10	µg/kg	<10	<12	<12	<12	<10
Monocrotophos	6923-22-4	10	µg/kg	<10	<12	<12	<12	<10
Parathion	56-38-2	10	µg/kg	<10	<12	<12	<12	<10
Parathion-methyl	298-00-0	10	µg/kg	<10	<12	<12	<12	<10
Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	<12	<12	<12	<10
Prothiofos	34643-46-4	10	µg/kg	<10	<12	<12	<12	<10

EP131A: Organochlorine Pesticides

Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
4,4'-DDE	72-55-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP131B: Polychlorinated Biphenyls (as Aroclors)								
^ Total Polychlorinated biphenyls	----	5.0	µg/kg	<15.6	<31.2	----	----	<15.6
Aroclor 1016	12674-11-2	5.0	µg/kg	<15.6	<31.2	----	----	<15.6
Aroclor 1221	11104-28-2	5.0	µg/kg	<15.6	<31.2	----	----	<15.6
Aroclor 1232	11141-16-5	5.0	µg/kg	<15.6	<31.2	----	----	<15.6



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010
				Result	Result	Result	Result	Result
EP131B: Polychlorinated Biphenyls (as Aroclors) - Continued								
Aroclor 1242	53469-21-9	5.0	µg/kg	<15.6	<31.2	----	----	<15.6
Aroclor 1248	12672-29-6	5.0	µg/kg	<15.6	<31.2	----	----	<15.6
Aroclor 1254	11097-69-1	5.0	µg/kg	<15.6	<31.2	----	----	<15.6
Aroclor 1260	11096-82-5	5.0	µg/kg	<15.6	<31.2	----	----	<15.6
EP132B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	5	µg/kg	9	11	----	----	<5
2-Methylnaphthalene	91-57-6	5	µg/kg	<5	<5	----	----	<5
Acenaphthylene	208-96-8	4	µg/kg	55	20	----	----	<4
Acenaphthene	83-32-9	4	µg/kg	8	<5	----	----	<4
Fluorene	86-73-7	4	µg/kg	15	<5	----	----	<4
Phenanthrene	85-01-8	4	µg/kg	152	30	----	----	<4
Anthracene	120-12-7	4	µg/kg	67	20	----	----	<4
Fluoranthene	206-44-0	4	µg/kg	412	110	----	----	4
Pyrene	129-00-0	4	µg/kg	362	112	----	----	5
Benz(a)anthracene	56-55-3	4	µg/kg	166	72	----	----	<4
Chrysene	218-01-9	4	µg/kg	116	56	----	----	<4
Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	150	82	----	----	<4
Benzo(k)fluoranthene	207-08-9	4	µg/kg	61	35	----	----	<4
Benzo(e)pyrene	192-97-2	4	µg/kg	79	48	----	----	<4
Benzo(a)pyrene	50-32-8	4	µg/kg	180	86	----	----	<4
Perylene	198-55-0	4	µg/kg	129	108	----	----	79
Benzo(g,h,i)perylene	191-24-2	4	µg/kg	96	58	----	----	<4
Dibenz(a,h)anthracene	53-70-3	4	µg/kg	18	13	----	----	<4
Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	81	45	----	----	<4
Coronene	191-07-1	5	µg/kg	14	10	----	----	<5
^ Sum of PAHs	----	4	µg/kg	2170	916	----	----	88
^ Benzo(a)pyrene TEQ (zero)	----	4	µg/kg	246	124	----	----	<4



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-8	B12-1	B12-2	B15-1	B15-2
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-006	EB2508894-007	EB2508894-008	EB2508894-009	EB2508894-010
				Result	Result	Result	Result	Result
EP132B: Polynuclear Aromatic Hydrocarbons - Continued								
^ Benzo(a)pyrene TEQ (half LOR)	----	4	µg/kg	246	124	----	----	5
^ Benzo(a)pyrene TEQ (LOR)	----	4	µg/kg	246	124	----	----	10
EP080-SD: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	78.6	88.3	----	----	84.6
Toluene-D8	2037-26-5	0.2	%	66.0	77.1	----	----	71.1
4-Bromofluorobenzene	460-00-4	0.2	%	79.6	91.5	----	----	83.4
EP090S: Organotin Surrogate								
Tripopyltin	----	0.5	%	82.2	105	107	126	79.6
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	65.6	73.1	66.4	63.5	46.8
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	62.8	49.2	75.1	68.0	45.9
EP131T: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.5	%	79.4	80.0	----	----	59.4
EP132T: Base/Neutral Extractable Surrogates - SD								
2-Fluorobiphenyl	321-60-8	10	%	93.6	92.3	----	----	108
Anthracene-d10	1719-06-8	10	%	93.7	75.2	----	----	113
4-Terphenyl-d14	1718-51-0	10	%	83.5	87.4	----	----	105



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	9.0	----	----	----	8.7
pH OX (23B)	----	0.1	pH Unit	8.3	----	----	----	7.9
EA029-B: Acidity Trail								
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	<2	----	----	----	<2
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	----	----	----	<2
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	----	----	----	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	<0.020	----	----	----	<0.020
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	<0.020	----	----	----	<0.020
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	<0.020	----	----	----	<0.020
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	0.083	----	----	----	0.150
Peroxide Sulfur (23De)	----	0.020	% S	0.321	----	----	----	0.156
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	0.237	----	----	----	<0.020
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	148	----	----	----	<10
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	0.194	----	----	----	0.333
Peroxide Calcium (23Wh)	----	0.020	% Ca	2.08	----	----	----	1.41
Acid Reacted Calcium (23X)	----	0.020	% Ca	1.89	----	----	----	1.08
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	942	----	----	----	537
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	1.51	----	----	----	0.860
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	0.125	----	----	----	0.144
Peroxide Magnesium (23Tm)	----	0.020	% Mg	0.374	----	----	----	0.156
Acid Reacted Magnesium (23U)	----	0.020	% Mg	0.249	----	----	----	<0.020
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	205	----	----	----	<10
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	0.328	----	----	----	<0.020



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO ₃	4.40	----	----	----	7.04
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H ⁺ / t	880	----	----	----	1400
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	1.41	----	----	----	2.25
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	----	----	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	<0.02	----	----	----	<0.02
Net Acidity (acidity units)	----	10	mole H ⁺ / t	<10	----	----	----	<10
Liming Rate	----	1	kg CaCO ₃ /t	<1	----	----	----	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.24	----	----	----	<0.02
Net Acidity excluding ANC (acidity units)	----	10	mole H ⁺ / t	148	----	----	----	<10
Liming Rate excluding ANC	----	1	kg CaCO ₃ /t	11	----	----	----	<1
EA033-A: Actual Acidity								
pH KCl (23A)	----	0.1	pH Unit	9.0	----	----	----	8.7
Titrateable Actual Acidity (23F)	----	2	mole H ⁺ / t	<2	----	----	----	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	----	----	----	<0.02
EA033-B: Potential Acidity								
Chromium Reducible Sulfur (22B)	----	0.005	% S	0.123	----	----	----	0.255
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H ⁺ / t	77	----	----	----	159
EA033-C: Acid Neutralising Capacity								
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO ₃	7.18	----	----	----	8.22
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H ⁺ / t	1440	----	----	----	1640
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	2.30	----	----	----	2.63
EA033-E: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	----	----	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	<0.02	----	----	----	<0.02

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015	
				Result	Result	Result	Result	Result	
EA033-E: Acid Base Accounting - Continued									
Net Acidity (acidity units)	----	10	mole H+ / t	<10	----	----	----	<10	
Liming Rate	----	1	kg CaCO3/t	<1	----	----	----	<1	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.12	----	----	----	0.25	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	77	----	----	----	159	
Liming Rate excluding ANC	----	1	kg CaCO3/t	6	----	----	----	12	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	42.0	64.8	35.8	51.4	58.3	
EA150: Particle Sizing									
+75µm	----	1	%	62	14	75	41	14	
+150µm	----	1	%	56	9	69	25	10	
+300µm	----	1	%	23	4	40	5	5	
+425µm	----	1	%	11	2	27	4	4	
+600µm	----	1	%	7	2	18	3	4	
+1180µm	----	1	%	4	<1	6	2	3	
+2.36mm	----	1	%	2	<1	4	<1	1	
+4.75mm	----	1	%	1	<1	2	<1	<1	
+9.5mm	----	1	%	<1	<1	<1	<1	<1	
+19.0mm	----	1	%	<1	<1	<1	<1	<1	
+37.5mm	----	1	%	<1	<1	<1	<1	<1	
+75.0mm	----	1	%	<1	<1	<1	<1	<1	
EA150: Soil Classification based on Particle Size									
Clay (<2 µm)	----	1	%	25	54	14	40	52	
Silt (2-60 µm)	----	1	%	11	31	7	18	32	
Sand (0.06-2.00 mm)	----	1	%	61	15	74	41	14	
Gravel (>2mm)	----	1	%	3	<1	5	1	2	
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	<1	
EA152: Soil Particle Density									



Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time					16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit		EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
					Result	Result	Result	Result	Result
EA152: Soil Particle Density - Continued									
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3		2.57	2.80	2.64	2.88	2.57
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		7250	12400	5820	10400	12300
Iron	7439-89-6	50	mg/kg		18600	30700	16600	25600	29500
EG020-SD: Total Metals in Sediments by ICPMS									
Arsenic	7440-38-2	1.00	mg/kg		6.96	9.64	4.76	5.53	7.23
Cadmium	7440-43-9	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	7440-47-3	1.0	mg/kg		16.7	27.5	13.4	22.8	25.8
Copper	7440-50-8	1.0	mg/kg		7.0	22.1	6.3	14.4	13.4
Lead	7439-92-1	1.0	mg/kg		6.8	15.4	7.3	13.1	12.3
Nickel	7440-02-0	1.0	mg/kg		11.4	18.7	10.0	15.2	16.0
Silver	7440-22-4	0.1	mg/kg		<0.1	0.1	<0.1	<0.1	<0.1
Zinc	7440-66-6	1.0	mg/kg		36.0	83.6	33.0	58.5	55.0
EG035T: Total Recoverable Mercury by FIMS (Low Level)									
Mercury	7439-97-6	0.01	mg/kg		0.02	0.09	0.03	0.06	0.06
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg		0.1	----	----	----	<0.1
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg		250	----	----	----	860
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg		250	----	----	----	860
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg		261	----	----	----	492
EP003: Total Organic Carbon (TOC) in Soil									
Total Organic Carbon	----	0.02	%		0.48	1.57	0.65	0.93	1.12
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	3	mg/kg		<3	----	----	----	<3
C10 - C14 Fraction	----	3	mg/kg		6	----	----	----	10



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
				Result	Result	Result	Result	Result
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons - Continued								
C15 - C28 Fraction	----	3	mg/kg	14	----	----	----	34
C29 - C36 Fraction	----	5	mg/kg	7	----	----	----	17
^ C10 - C36 Fraction (sum)	----	3	mg/kg	27	----	----	----	61
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
C6 - C10 Fraction	C6_C10	3	mg/kg	<3	----	----	----	<3
>C10 - C16 Fraction	----	3	mg/kg	3	----	----	----	7
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	3.0	mg/kg	<3.0	----	----	----	<3.0
>C16 - C34 Fraction	----	3	mg/kg	18	----	----	----	45
>C34 - C40 Fraction	----	5	mg/kg	<5	----	----	----	10
^ >C10 - C40 Fraction (sum)	----	3	mg/kg	21	----	----	----	62
EP080-SD: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	<0.2
Toluene	108-88-3	0.2	mg/kg	<0.2	----	----	----	<0.2
Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	----	----	----	<0.2
meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	<0.2	----	----	----	<0.2
ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	----	----	----	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	----	<0.2
Naphthalene	91-20-3	0.2	mg/kg	<0.2	----	----	----	<0.2
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	<1
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	<1
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	0.7	<0.5	<0.5	<0.5
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Bromophos-ethyl	4824-78-6	10	µg/kg	<10	<12	<10	<12	<12
Carbophenothion	786-19-6	10	µg/kg	<10	<12	<10	<12	<12
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<10.0	<12.0	<10.0	<12.0	<12.0



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
				Result	Result	Result	Result	Result
EP130A: Organophosphorus Pesticides (Ultra-trace) - Continued								
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	<12	<10	<12	<12
Chlorpyrifos	2921-88-2	10	µg/kg	<10	<12	<10	<12	<12
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	<12	<10	<12	<12
Demeton-S-methyl	919-86-8	10	µg/kg	<10	<12	<10	<12	<12
Diazinon	333-41-5	10	µg/kg	<10	<12	<10	<12	<12
Dichlorvos	62-73-7	10	µg/kg	<10	<12	<10	<12	<12
Dimethoate	60-51-5	10	µg/kg	<10	<12	<10	<12	<12
Ethion	563-12-2	10	µg/kg	<10	<12	<10	<12	<12
Fenamiphos	22224-92-6	10	µg/kg	<10	<12	<10	<12	<12
Fenthion	55-38-9	10	µg/kg	<10	<12	<10	<12	<12
Malathion	121-75-5	10	µg/kg	<10	<12	<10	<12	<12
Azinphos Methyl	86-50-0	10	µg/kg	<10	<12	<10	<12	<12
Monocrotophos	6923-22-4	10	µg/kg	<10	<12	<10	<12	<12
Parathion	56-38-2	10	µg/kg	<10	<12	<10	<12	<12
Parathion-methyl	298-00-0	10	µg/kg	<10	<12	<10	<12	<12
Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	<12	<10	<12	<12
Prothiofos	34643-46-4	10	µg/kg	<10	<12	<10	<12	<12
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDE	72-55-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP131B: Polychlorinated Biphenyls (as Aroclors)								
^ Total Polychlorinated biphenyls	----	5.0	µg/kg	<15.6	----	----	----	<31.2
Aroclor 1016	12674-11-2	5.0	µg/kg	<15.6	----	----	----	<31.2
Aroclor 1221	11104-28-2	5.0	µg/kg	<15.6	----	----	----	<31.2
Aroclor 1232	11141-16-5	5.0	µg/kg	<15.6	----	----	----	<31.2
Aroclor 1242	53469-21-9	5.0	µg/kg	<15.6	----	----	----	<31.2
Aroclor 1248	12672-29-6	5.0	µg/kg	<15.6	----	----	----	<31.2
Aroclor 1254	11097-69-1	5.0	µg/kg	<15.6	----	----	----	<31.2
Aroclor 1260	11096-82-5	5.0	µg/kg	<15.6	----	----	----	<31.2



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
				Result	Result	Result	Result	Result
EP132B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	5	µg/kg	8	----	----	----	20
2-Methylnaphthalene	91-57-6	5	µg/kg	<5	----	----	----	<5
Acenaphthylene	208-96-8	4	µg/kg	<4	----	----	----	9
Acenaphthene	83-32-9	4	µg/kg	<4	----	----	----	<5
Fluorene	86-73-7	4	µg/kg	<4	----	----	----	<5
Phenanthrene	85-01-8	4	µg/kg	<4	----	----	----	12
Anthracene	120-12-7	4	µg/kg	<4	----	----	----	9
Fluoranthene	206-44-0	4	µg/kg	10	----	----	----	48
Pyrene	129-00-0	4	µg/kg	11	----	----	----	51
Benz(a)anthracene	56-55-3	4	µg/kg	8	----	----	----	41
Chrysene	218-01-9	4	µg/kg	6	----	----	----	33
Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	9	----	----	----	60
Benzo(k)fluoranthene	207-08-9	4	µg/kg	<4	----	----	----	22
Benzo(e)pyrene	192-97-2	4	µg/kg	5	----	----	----	36
Benzo(a)pyrene	50-32-8	4	µg/kg	9	----	----	----	64
Perylene	198-55-0	4	µg/kg	26	----	----	----	57
Benzo(g,h,i)perylene	191-24-2	4	µg/kg	8	----	----	----	50
Dibenz(a,h)anthracene	53-70-3	4	µg/kg	<4	----	----	----	9
Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	5	----	----	----	36
Coronene	191-07-1	5	µg/kg	<5	----	----	----	8
^ Sum of PAHs	----	4	µg/kg	105	----	----	----	565
^ Benzo(a)pyrene TEQ (zero)	----	4	µg/kg	11	----	----	----	90
^ Benzo(a)pyrene TEQ (half LOR)	----	4	µg/kg	14	----	----	----	90
^ Benzo(a)pyrene TEQ (LOR)	----	4	µg/kg	16	----	----	----	90
EP080-SD: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	88.1	----	----	----	86.9
Toluene-D8	2037-26-5	0.2	%	76.4	----	----	----	73.9



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B15-3	B11-5	B13-4	B13-5	B13-8
Sampling date / time				16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-011	EB2508894-012	EB2508894-013	EB2508894-014	EB2508894-015
				Result	Result	Result	Result	Result
EP080-SD: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	90.7	----	----	----	88.9
EP090S: Organotin Surrogate								
Tripropyltin	----	0.5	%	74.6	114	80.9	73.6	80.9
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	77.9	51.0	94.0	84.8	82.6
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	52.3	64.6	67.8	48.8	44.8
EP131T: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.5	%	86.2	----	----	----	94.4
EP132T: Base/Neutral Extractable Surrogates - SD								
2-Fluorobiphenyl	321-60-8	10	%	110	----	----	----	116
Anthracene-d10	1719-06-8	10	%	112	----	----	----	116
4-Terphenyl-d14	1718-51-0	10	%	102	----	----	----	90.6



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B16-1	B16-0	RF2	RF3	RF6
Sampling date / time				16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-016	EB2508894-017	EB2508894-018	EB2508894-019	EB2508894-020
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	45.2	42.6	65.3	65.6	55.1
EA150: Particle Sizing								
+75µm	----	1	%	48	46	1	1	20
+150µm	----	1	%	39	38	1	1	15
+300µm	----	1	%	26	14	<1	<1	10
+425µm	----	1	%	14	3	<1	<1	6
+600µm	----	1	%	5	1	<1	<1	4
+1180µm	----	1	%	1	<1	<1	<1	3
+2.36mm	----	1	%	<1	<1	<1	<1	2
+4.75mm	----	1	%	<1	<1	<1	<1	2
+9.5mm	----	1	%	<1	<1	<1	<1	<1
+19.0mm	----	1	%	<1	<1	<1	<1	<1
+37.5mm	----	1	%	<1	<1	<1	<1	<1
+75.0mm	----	1	%	<1	<1	<1	<1	<1
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	33	38	60	57	55
Silt (2-60 µm)	----	1	%	19	15	36	40	24
Sand (0.06-2.00 mm)	----	1	%	48	47	4	3	19
Gravel (>2mm)	----	1	%	<1	<1	<1	<1	2
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	<1
EA152: Soil Particle Density								
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.55	2.66	2.37	2.16	2.72
EG005(ED093)T: Total Metals by ICP-AES								
Aluminium	7429-90-5	50	mg/kg	8160	8440	15200	15200	11200
Iron	7439-89-6	50	mg/kg	21000	21600	34800	33500	27300
EG020-SD: Total Metals in Sediments by ICPMS								
Arsenic	7440-38-2	1.00	mg/kg	4.85	4.71	6.62	5.54	5.71



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B16-1	B16-0	RF2	RF3	RF6
Sampling date / time				16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-016	EB2508894-017	EB2508894-018	EB2508894-019	EB2508894-020
				Result	Result	Result	Result	Result
EG020-SD: Total Metals in Sediments by ICPMS - Continued								
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	7440-47-3	1.0	mg/kg	18.9	18.0	31.8	31.0	24.2
Copper	7440-50-8	1.0	mg/kg	12.9	8.8	17.0	17.7	13.0
Lead	7439-92-1	1.0	mg/kg	9.3	7.8	17.6	17.0	13.5
Nickel	7440-02-0	1.0	mg/kg	13.1	11.7	19.5	19.3	14.9
Silver	7440-22-4	0.1	mg/kg	<0.1	<0.1	0.1	0.1	<0.1
Zinc	7440-66-6	1.0	mg/kg	48.6	40.7	72.7	71.1	55.6
EG035T: Total Recoverable Mercury by FIMS (Low Level)								
Mercury	7439-97-6	0.01	mg/kg	0.05	0.04	0.09	0.08	0.07
EP003: Total Organic Carbon (TOC) in Soil								
Total Organic Carbon	----	0.02	%	0.87	0.79	1.23	1.33	1.01
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	<1
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	<1
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Bromophos-ethyl	4824-78-6	10	µg/kg	<10	<10	<12	<12	<12
Carbophenothion	786-19-6	10	µg/kg	<10	<10	<12	<12	<12
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<10.0	<10.0	<12.0	<12.0	<12.0
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	<10	<12	<12	<12
Chlorpyrifos	2921-88-2	10	µg/kg	<10	<10	<12	<12	<12
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	<10	<12	<12	<12
Demeton-S-methyl	919-86-8	10	µg/kg	<10	<10	<12	<12	<12
Diazinon	333-41-5	10	µg/kg	<10	<10	<12	<12	<12
Dichlorvos	62-73-7	10	µg/kg	<10	<10	<12	<12	<12
Dimethoate	60-51-5	10	µg/kg	<10	<10	<12	<12	<12
Ethion	563-12-2	10	µg/kg	<10	<10	<12	<12	<12



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B16-1	B16-0	RF2	RF3	RF6
Sampling date / time				16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-016	EB2508894-017	EB2508894-018	EB2508894-019	EB2508894-020
				Result	Result	Result	Result	Result
EP130A: Organophosphorus Pesticides (Ultra-trace) - Continued								
Fenamiphos	22224-92-6	10	µg/kg	<10	<10	<12	<12	<12
Fenthion	55-38-9	10	µg/kg	<10	<10	<12	<12	<12
Malathion	121-75-5	10	µg/kg	<10	<10	<12	<12	<12
Azinphos Methyl	86-50-0	10	µg/kg	<10	<10	<12	<12	<12
Monocrotophos	6923-22-4	10	µg/kg	<10	<10	<12	<12	<12
Parathion	56-38-2	10	µg/kg	<10	<10	<12	<12	<12
Parathion-methyl	298-00-0	10	µg/kg	<10	<10	<12	<12	<12
Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	<10	<12	<12	<12
Prothiofos	34643-46-4	10	µg/kg	<10	<10	<12	<12	<12
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDE	72-55-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B16-1	B16-0	RF2	RF3	RF6
Sampling date / time				16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-016	EB2508894-017	EB2508894-018	EB2508894-019	EB2508894-020
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP090S: Organotin Surrogate								
Tripopyltin	----	0.5	%	99.8	80.3	72.5	40.2	93.0
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	98.2	70.3	65.5	93.1	90.8
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	69.9	44.0	65.4	62.3	54.5



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	----	----	9.1	8.2
pH OX (23B)	----	0.1	pH Unit	----	----	----	8.5	5.6
EA029-B: Acidity Trail								
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	----	----	<2	<2
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	----	<2	14
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	----	<2	14
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	----	<0.020	<0.020
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	----	<0.020	0.022
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	----	<0.020	0.022
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	----	0.049	0.165
Peroxide Sulfur (23De)	----	0.020	% S	----	----	----	0.101	0.650
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	----	0.052	0.485
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	----	32	303
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	----	0.162	0.349
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	----	0.844	0.424
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	----	0.682	0.075
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	----	340	38
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	----	0.546	0.060
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	----	0.091	0.342
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	----	0.180	0.420
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	----	0.089	0.077
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	----	73	64
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	----	0.117	0.102



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO ₃	----	----	----	2.46	----
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H ⁺ / t	----	----	----	491	----
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	----	----	0.787	----
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	----	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	----	----	<0.02	0.18
Net Acidity (acidity units)	----	10	mole H ⁺ / t	----	----	----	<10	110
Liming Rate	----	1	kg CaCO ₃ /t	----	----	----	<1	8
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	----	0.05	0.48
Net Acidity excluding ANC (acidity units)	----	10	mole H ⁺ / t	----	----	----	32	303
Liming Rate excluding ANC	----	1	kg CaCO ₃ /t	----	----	----	2	23
EA033-A: Actual Acidity								
pH KCl (23A)	----	0.1	pH Unit	----	----	----	9.1	8.2
Titrateable Actual Acidity (23F)	----	2	mole H ⁺ / t	----	----	----	<2	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S	----	----	----	<0.02	<0.02
EA033-B: Potential Acidity								
Chromium Reducible Sulfur (22B)	----	0.005	% S	----	----	----	0.068	0.447
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H ⁺ / t	----	----	----	42	279
EA033-C: Acid Neutralising Capacity								
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO ₃	----	----	----	3.39	2.93
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H ⁺ / t	----	----	----	676	585
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	----	----	----	1.08	0.94
EA033-E: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	----	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	----	----	<0.02	<0.02

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026	
				Result	Result	Result	Result	Result	
EA033-E: Acid Base Accounting - Continued									
Net Acidity (acidity units)	----	10	mole H+ / t	----	----	----	<10	<10	
Liming Rate	----	1	kg CaCO3/t	----	----	----	<1	<1	
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	----	0.07	0.45	
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	----	----	42	279	
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	----	----	3	21	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	64.6	54.8	63.4	32.6	57.8	
EA150: Particle Sizing									
+75µm	----	1	%	2	26	8	80	2	
+150µm	----	1	%	<1	21	7	69	1	
+300µm	----	1	%	<1	9	2	12	<1	
+425µm	----	1	%	<1	4	<1	5	<1	
+600µm	----	1	%	<1	1	<1	2	<1	
+1180µm	----	1	%	<1	<1	<1	<1	<1	
+2.36mm	----	1	%	<1	<1	<1	<1	<1	
+4.75mm	----	1	%	<1	<1	<1	<1	<1	
+9.5mm	----	1	%	<1	<1	<1	<1	<1	
+19.0mm	----	1	%	<1	<1	<1	<1	<1	
+37.5mm	----	1	%	<1	<1	<1	<1	<1	
+75.0mm	----	1	%	<1	<1	<1	<1	<1	
EA150: Soil Classification based on Particle Size									
Clay (<2 µm)	----	1	%	48	42	44	11	46	
Silt (2-60 µm)	----	1	%	46	30	45	4	52	
Sand (0.06-2.00 mm)	----	1	%	6	28	11	85	2	
Gravel (>2mm)	----	1	%	<1	<1	<1	<1	<1	
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	<1	
EA152: Soil Particle Density									



Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time					17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit		EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
					Result	Result	Result	Result	Result
EA152: Soil Particle Density - Continued									
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3		2.32	2.38	2.51	2.55	2.00
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		15800	12000	14600	5280	10200
Iron	7439-89-6	50	mg/kg		35400	29000	34800	15300	24800
EG020-SD: Total Metals in Sediments by ICPMS									
Arsenic	7440-38-2	1.00	mg/kg		7.01	5.75	7.16	5.56	6.79
Cadmium	7440-43-9	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	7440-47-3	1.0	mg/kg		30.8	25.2	28.2	11.2	23.4
Copper	7440-50-8	1.0	mg/kg		19.4	12.8	13.0	5.1	29.6
Lead	7439-92-1	1.0	mg/kg		17.7	13.1	12.5	6.3	20.8
Nickel	7440-02-0	1.0	mg/kg		20.9	15.9	16.8	9.2	14.3
Silver	7440-22-4	0.1	mg/kg		0.2	0.1	<0.1	<0.1	0.2
Zinc	7440-66-6	1.0	mg/kg		72.8	54.4	54.3	33.7	102
EG035T: Total Recoverable Mercury by FIMS (Low Level)									
Mercury	7439-97-6	0.01	mg/kg		0.09	0.06	0.04	0.02	0.10
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg		----	----	----	0.2	1.0
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg		----	----	----	240	440
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg		----	----	----	240	440
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg		----	----	----	296	326
EP003: Total Organic Carbon (TOC) in Soil									
Total Organic Carbon	----	0.02	%		1.34	1.13	1.19	0.43	2.19
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	3	mg/kg		----	----	----	<3	<3
C10 - C14 Fraction	----	3	mg/kg		----	----	----	4	9



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
				Result	Result	Result	Result	Result
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons - Continued								
C15 - C28 Fraction	----	3	mg/kg	----	----	----	10	15
C29 - C36 Fraction	----	5	mg/kg	----	----	----	8	12
^ C10 - C36 Fraction (sum)	----	3	mg/kg	----	----	----	22	36
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
C6 - C10 Fraction	C6_C10	3	mg/kg	----	----	----	<3	<3
>C10 - C16 Fraction	----	3	mg/kg	----	----	----	3	5
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	3.0	mg/kg	----	----	----	<3.0	<3.0
>C16 - C34 Fraction	----	3	mg/kg	----	----	----	16	23
>C34 - C40 Fraction	----	5	mg/kg	----	----	----	<5	6
^ >C10 - C40 Fraction (sum)	----	3	mg/kg	----	----	----	19	34
EP080-SD: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	----	<0.2	<0.2
Toluene	108-88-3	0.2	mg/kg	----	----	----	<0.2	<0.2
Ethylbenzene	100-41-4	0.2	mg/kg	----	----	----	<0.2	<0.2
meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	----	----	----	<0.2	<0.2
ortho-Xylene	95-47-6	0.2	mg/kg	----	----	----	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg	----	----	----	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg	----	----	----	<0.2	<0.2
Naphthalene	91-20-3	0.2	mg/kg	----	----	----	<0.2	<0.2
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	<1
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	1
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	<0.5	<0.5	1.7
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Bromophos-ethyl	4824-78-6	10	µg/kg	<12	<12	<12	<10	<12
Carbophenothion	786-19-6	10	µg/kg	<12	<12	<12	<10	<12
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<12.0	<12.0	<12.0	<10.0	<12.0



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
				Result	Result	Result	Result	Result
EP130A: Organophosphorus Pesticides (Ultra-trace) - Continued								
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<12	<12	<12	<10	<12
Chlorpyrifos	2921-88-2	10	µg/kg	<12	<12	<12	<10	<12
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<12	<12	<12	<10	<12
Demeton-S-methyl	919-86-8	10	µg/kg	<12	<12	<12	<10	<12
Diazinon	333-41-5	10	µg/kg	<12	<12	<12	<10	<12
Dichlorvos	62-73-7	10	µg/kg	<12	<12	<12	<10	<12
Dimethoate	60-51-5	10	µg/kg	<12	<12	<12	<10	<12
Ethion	563-12-2	10	µg/kg	<12	<12	<12	<10	<12
Fenamiphos	22224-92-6	10	µg/kg	<12	<12	<12	<10	<12
Fenthion	55-38-9	10	µg/kg	<12	<12	<12	<10	<12
Malathion	121-75-5	10	µg/kg	<12	<12	<12	<10	<12
Azinphos Methyl	86-50-0	10	µg/kg	<12	<12	<12	<10	<12
Monocrotophos	6923-22-4	10	µg/kg	<12	<12	<12	<10	<12
Parathion	56-38-2	10	µg/kg	<12	<12	<12	<10	<12
Parathion-methyl	298-00-0	10	µg/kg	<12	<12	<12	<10	<12
Pirimphos-ethyl	23505-41-1	10	µg/kg	<12	<12	<12	<10	<12
Prothiofos	34643-46-4	10	µg/kg	<12	<12	<12	<10	<12
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDE	72-55-9	0.50	µg/kg	2.17	0.64	<0.50	<0.50	2.00
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.50	µg/kg	2.17	0.64	<0.50	<0.50	2.00



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP131B: Polychlorinated Biphenyls (as Aroclors)								
^ Total Polychlorinated biphenyls	----	5.0	µg/kg	----	----	----	<15.6	<31.2
Aroclor 1016	12674-11-2	5.0	µg/kg	----	----	----	<15.6	<31.2
Aroclor 1221	11104-28-2	5.0	µg/kg	----	----	----	<15.6	<31.2
Aroclor 1232	11141-16-5	5.0	µg/kg	----	----	----	<15.6	<31.2
Aroclor 1242	53469-21-9	5.0	µg/kg	----	----	----	<15.6	<31.2
Aroclor 1248	12672-29-6	5.0	µg/kg	----	----	----	<15.6	<31.2
Aroclor 1254	11097-69-1	5.0	µg/kg	----	----	----	<15.6	<31.2
Aroclor 1260	11096-82-5	5.0	µg/kg	----	----	----	<15.6	<31.2



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
				Result	Result	Result	Result	Result
EP132B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	5	µg/kg	----	----	----	<5	16
2-Methylnaphthalene	91-57-6	5	µg/kg	----	----	----	<5	6
Acenaphthylene	208-96-8	4	µg/kg	----	----	----	<4	25
Acenaphthene	83-32-9	4	µg/kg	----	----	----	<4	<5
Fluorene	86-73-7	4	µg/kg	----	----	----	<4	<5
Phenanthrene	85-01-8	4	µg/kg	----	----	----	6	28
Anthracene	120-12-7	4	µg/kg	----	----	----	4	19
Fluoranthene	206-44-0	4	µg/kg	----	----	----	23	86
Pyrene	129-00-0	4	µg/kg	----	----	----	25	95
Benz(a)anthracene	56-55-3	4	µg/kg	----	----	----	17	56
Chrysene	218-01-9	4	µg/kg	----	----	----	13	46
Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	----	----	----	22	74
Benzo(k)fluoranthene	207-08-9	4	µg/kg	----	----	----	8	26
Benzo(e)pyrene	192-97-2	4	µg/kg	----	----	----	12	44
Benzo(a)pyrene	50-32-8	4	µg/kg	----	----	----	23	69
Perylene	198-55-0	4	µg/kg	----	----	----	21	160
Benzo(g,h,i)perylene	191-24-2	4	µg/kg	----	----	----	16	55
Dibenz(a,h)anthracene	53-70-3	4	µg/kg	----	----	----	<4	11
Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	----	----	----	12	39
Coronene	191-07-1	5	µg/kg	----	----	----	<5	12
^ Sum of PAHs	----	4	µg/kg	----	----	----	202	867
^ Benzo(a)pyrene TEQ (zero)	----	4	µg/kg	----	----	----	29	100
^ Benzo(a)pyrene TEQ (half LOR)	----	4	µg/kg	----	----	----	31	100
^ Benzo(a)pyrene TEQ (LOR)	----	4	µg/kg	----	----	----	33	100
EP080-SD: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	----	91.5	87.9
Toluene-D8	2037-26-5	0.2	%	----	----	----	78.5	75.7



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				RF7	RF4	B13-9	B13-1	B9-1
Sampling date / time				17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-022	EB2508894-023	EB2508894-024	EB2508894-025	EB2508894-026
				Result	Result	Result	Result	Result
EP080-SD: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	----	91.2	89.3
EP090S: Organotin Surrogate								
Tripropyltin	----	0.5	%	104	96.8	94.7	94.5	94.7
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	85.6	83.8	92.4	63.5	91.2
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	51.4	64.2	92.6	66.8	59.0
EP131T: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.5	%	----	----	----	75.6	90.6
EP132T: Base/Neutral Extractable Surrogates - SD								
2-Fluorobiphenyl	321-60-8	10	%	----	----	----	95.8	117
Anthracene-d10	1719-06-8	10	%	----	----	----	106	118
4-Terphenyl-d14	1718-51-0	10	%	----	----	----	96.1	118



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	----	8.5	----	----
pH OX (23B)	----	0.1	pH Unit	----	----	7.3	----	----
EA029-B: Acidity Trail								
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	----	<2	----	----
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	<2	----	----
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	<2	----	----
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	<0.020	----	----
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	<0.020	----	----
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	<0.020	----	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	0.102	----	----
Peroxide Sulfur (23De)	----	0.020	% S	----	----	0.289	----	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	0.187	----	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	117	----	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	0.255	----	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	0.663	----	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	0.408	----	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	204	----	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	0.326	----	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	0.227	----	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	0.282	----	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	0.055	----	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	45	----	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	0.073	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO ₃	----	----	1.57	----	----
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H ⁺ / t	----	----	315	----	----
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	----	0.504	----	----
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	1.5	----	----
Net Acidity (sulfur units)	----	0.02	% S	----	----	<0.02	----	----
Net Acidity (acidity units)	----	10	mole H ⁺ / t	----	----	<10	----	----
Liming Rate	----	1	kg CaCO ₃ /t	----	----	<1	----	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	0.19	----	----
Net Acidity excluding ANC (acidity units)	----	10	mole H ⁺ / t	----	----	117	----	----
Liming Rate excluding ANC	----	1	kg CaCO ₃ /t	----	----	9	----	----
EA033-A: Actual Acidity								
pH KCl (23A)	----	0.1	pH Unit	----	----	8.5	----	----
Titrateable Actual Acidity (23F)	----	2	mole H ⁺ / t	----	----	<2	----	----
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S	----	----	<0.02	----	----
EA033-B: Potential Acidity								
Chromium Reducible Sulfur (22B)	----	0.005	% S	----	----	0.196	----	----
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H ⁺ / t	----	----	122	----	----
EA033-C: Acid Neutralising Capacity								
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO ₃	----	----	3.08	----	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H ⁺ / t	----	----	616	----	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	----	----	0.99	----	----
EA033-E: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	1.5	----	----
Net Acidity (sulfur units)	----	0.02	% S	----	----	<0.02	----	----

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031	
				Result	Result	Result	Result	Result	
EA152: Soil Particle Density - Continued									
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.80	2.54	2.12	2.69	2.57	
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES									
Nickel	7440-02-0	1.0	mg/kg	18.6	----	16.4	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	14600	12800	13600	9330	8040	
Iron	7439-89-6	50	mg/kg	37400	31500	35500	22600	20900	
EG020-SD: Total Metals in Sediments by ICPMS									
Arsenic	7440-38-2	1.00	mg/kg	8.12	6.38	8.38	4.09	3.80	
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	1.1	<0.1	
Chromium	7440-47-3	1.0	mg/kg	30.1	25.6	28.0	20.5	18.3	
Copper	7440-50-8	1.0	mg/kg	28.1	24.8	27.9	14.0	12.0	
Lead	7439-92-1	1.0	mg/kg	18.2	16.6	20.5	9.6	8.4	
Nickel	7440-02-0	1.0	mg/kg	22.0	18.8	21.1	15.7	14.2	
Silver	7440-22-4	0.1	mg/kg	0.1	0.2	0.2	<0.1	<0.1	
Zinc	7440-66-6	1.0	mg/kg	95.1	88.8	104	62.5	47.8	
EG035T: Total Recoverable Mercury by FIMS (Low Level)									
Mercury	7439-97-6	0.01	mg/kg	0.09	0.09	0.10	0.05	0.04	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	----	----	1.8	----	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	----	----	1690	----	----	
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg	----	----	1690	----	----	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	----	----	897	----	----	
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Seawater Sampling Date	----	-	-	19/03/2025	----	19/03/2025	19/03/2025	19/03/2025	
EP003: Total Organic Carbon (TOC) in Soil									



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031
				Result	Result	Result	Result	Result
EP003: Total Organic Carbon (TOC) in Soil - Continued								
Total Organic Carbon	----	0.02	%	1.68	1.76	1.40	0.54	0.63
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	3	mg/kg	----	----	<3	----	----
C10 - C14 Fraction	----	3	mg/kg	----	----	12	----	----
C15 - C28 Fraction	----	3	mg/kg	----	----	39	----	----
C29 - C36 Fraction	----	5	mg/kg	----	----	29	----	----
^ C10 - C36 Fraction (sum)	----	3	mg/kg	----	----	80	----	----
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
C6 - C10 Fraction	C6_C10	3	mg/kg	----	----	<3	----	----
>C10 - C16 Fraction	----	3	mg/kg	----	----	8	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	3.0	mg/kg	----	----	<3.0	----	----
>C16 - C34 Fraction	----	3	mg/kg	----	----	58	----	----
>C34 - C40 Fraction	----	5	mg/kg	----	----	18	----	----
^ >C10 - C40 Fraction (sum)	----	3	mg/kg	----	----	84	----	----
EP080-SD: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	----
Toluene	108-88-3	0.2	mg/kg	----	----	<0.2	----	----
Ethylbenzene	100-41-4	0.2	mg/kg	----	----	<0.2	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	----	----	<0.2	----	----
ortho-Xylene	95-47-6	0.2	mg/kg	----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	----	----
Naphthalene	91-20-3	0.2	mg/kg	----	----	<0.2	----	----
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	<1
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	<1
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	0.8	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031
				Result	Result	Result	Result	Result

EP090: Organotin Compounds - Continued

EP130A: Organophosphorus Pesticides (Ultra-trace)

Bromophos-ethyl	4824-78-6	10	µg/kg	<12	<12	<12	<10	<10
Carbophenothion	786-19-6	10	µg/kg	<12	<12	<12	<10	<10
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<12.0	<12.0	<12.0	<10.0	<10.0
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<12	<12	<12	<10	<10
Chlorpyrifos	2921-88-2	10	µg/kg	<12	<12	<12	<10	<10
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<12	<12	<12	<10	<10
Demeton-S-methyl	919-86-8	10	µg/kg	<12	<12	<12	<10	<10
Diazinon	333-41-5	10	µg/kg	<12	<12	<12	<10	<10
Dichlorvos	62-73-7	10	µg/kg	<12	<12	<12	<10	<10
Dimethoate	60-51-5	10	µg/kg	<12	<12	<12	<10	<10
Ethion	563-12-2	10	µg/kg	<12	<12	<12	<10	<10
Fenamiphos	22224-92-6	10	µg/kg	<12	<12	<12	<10	<10
Fenthion	55-38-9	10	µg/kg	<12	<12	<12	<10	<10
Malathion	121-75-5	10	µg/kg	<12	<12	<12	<10	<10
Azinphos Methyl	86-50-0	10	µg/kg	<12	<12	<12	<10	<10
Monocrotophos	6923-22-4	10	µg/kg	<12	<12	<12	<10	<10
Parathion	56-38-2	10	µg/kg	<12	<12	<12	<10	<10
Parathion-methyl	298-00-0	10	µg/kg	<12	<12	<12	<10	<10
Pirimphos-ethyl	23505-41-1	10	µg/kg	<12	<12	<12	<10	<10
Prothiofos	34643-46-4	10	µg/kg	<12	<12	<12	<10	<10

EP131A: Organochlorine Pesticides

Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
4,4'-DDE	72-55-9	0.50	µg/kg	3.07	<0.50	2.85	<0.50	<0.50
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.50	µg/kg	3.07	<0.50	2.85	<0.50	<0.50
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP131B: Polychlorinated Biphenyls (as Aroclors)								
^ Total Polychlorinated biphenyls	----	5.0	µg/kg	----	----	<31.2	----	----
Aroclor 1016	12674-11-2	5.0	µg/kg	----	----	<31.2	----	----
Aroclor 1221	11104-28-2	5.0	µg/kg	----	----	<31.2	----	----
Aroclor 1232	11141-16-5	5.0	µg/kg	----	----	<31.2	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031
				Result	Result	Result	Result	Result
EP131B: Polychlorinated Biphenyls (as Aroclors) - Continued								
Aroclor 1242	53469-21-9	5.0	µg/kg	----	----	<31.2	----	----
Aroclor 1248	12672-29-6	5.0	µg/kg	----	----	<31.2	----	----
Aroclor 1254	11097-69-1	5.0	µg/kg	----	----	<31.2	----	----
Aroclor 1260	11096-82-5	5.0	µg/kg	----	----	<31.2	----	----
EP132B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	5	µg/kg	----	----	<5	----	----
2-Methylnaphthalene	91-57-6	5	µg/kg	----	----	6	----	----
Acenaphthylene	208-96-8	4	µg/kg	----	----	21	----	----
Acenaphthene	83-32-9	4	µg/kg	----	----	<5	----	----
Fluorene	86-73-7	4	µg/kg	----	----	7	----	----
Phenanthrene	85-01-8	4	µg/kg	----	----	22	----	----
Anthracene	120-12-7	4	µg/kg	----	----	14	----	----
Fluoranthene	206-44-0	4	µg/kg	----	----	64	----	----
Pyrene	129-00-0	4	µg/kg	----	----	72	----	----
Benz(a)anthracene	56-55-3	4	µg/kg	----	----	42	----	----
Chrysene	218-01-9	4	µg/kg	----	----	33	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	----	----	45	----	----
Benzo(k)fluoranthene	207-08-9	4	µg/kg	----	----	26	----	----
Benzo(e)pyrene	192-97-2	4	µg/kg	----	----	34	----	----
Benzo(a)pyrene	50-32-8	4	µg/kg	----	----	52	----	----
Perylene	198-55-0	4	µg/kg	----	----	245	----	----
Benzo(g,h,i)perylene	191-24-2	4	µg/kg	----	----	43	----	----
Dibenz(a,h)anthracene	53-70-3	4	µg/kg	----	----	9	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	----	----	31	----	----
Coronene	191-07-1	5	µg/kg	----	----	9	----	----
^ Sum of PAHs	----	4	µg/kg	----	----	775	----	----
^ Benzo(a)pyrene TEQ (zero)	----	4	µg/kg	----	----	76	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B8-3	B8-1	B7-1	B6-2	B6-2b
Sampling date / time				14-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-027	EB2508894-028	EB2508894-029	EB2508894-030	EB2508894-031
				Result	Result	Result	Result	Result
EP132B: Polynuclear Aromatic Hydrocarbons - Continued								
^ Benzo(a)pyrene TEQ (half LOR)	----	4	µg/kg	----	----	76	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	4	µg/kg	----	----	76	----	----
EP080-SD: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	87.2	----	----
Toluene-D8	2037-26-5	0.2	%	----	----	73.0	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	88.2	----	----
EP090S: Organotin Surrogate								
Tripopyltin	----	0.5	%	35.5	111	40.9	41.3	46.9
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	64.8	50.4	53.4	84.8	73.3
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	89.4	47.0	86.4	78.5	60.4
EP131T: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.5	%	----	----	92.2	----	----
EP132T: Base/Neutral Extractable Surrogates - SD								
2-Fluorobiphenyl	321-60-8	10	%	----	----	119	----	----
Anthracene-d10	1719-06-8	10	%	----	----	116	----	----
4-Terphenyl-d14	1718-51-0	10	%	----	----	120	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-9b	B11-9c	B13-4b	B13-4c	B10-5 Pore water
Sampling date / time				14-Mar-2025 00:00	16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-033	EB2508894-034	EB2508894-037	EB2508894-038	EB2508894-039
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	64.6	69.0	28.1	28.6	----
EA150: Particle Sizing								
+75µm	----	1	%	14	7	78	83	----
+150µm	----	1	%	5	3	69	73	----
+300µm	----	1	%	2	1	45	47	----
+425µm	----	1	%	1	<1	34	36	----
+600µm	----	1	%	<1	<1	23	22	----
+1180µm	----	1	%	<1	<1	12	10	----
+2.36mm	----	1	%	<1	<1	9	7	----
+4.75mm	----	1	%	<1	<1	5	5	----
+9.5mm	----	1	%	<1	<1	<1	<1	----
+19.0mm	----	1	%	<1	<1	<1	<1	----
+37.5mm	----	1	%	<1	<1	<1	<1	----
+75.0mm	----	1	%	<1	<1	<1	<1	----
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	39	47	16	12	----
Silt (2-60 µm)	----	1	%	40	42	5	4	----
Sand (0.06-2.00 mm)	----	1	%	21	11	69	76	----
Gravel (>2mm)	----	1	%	<1	<1	10	8	----
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	----
EA152: Soil Particle Density								
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.17	2.55	2.59	2.62	----
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES								
Nickel	7440-02-0	1.0	mg/kg	----	20.3	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Aluminium	7429-90-5	50	mg/kg	14100	15500	4900	5300	----
Iron	7439-89-6	50	mg/kg	35200	39300	14600	15300	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-9b	B11-9c	B13-4b	B13-4c	B10-5 Pore water
Sampling date / time				14-Mar-2025 00:00	16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-033	EB2508894-034	EB2508894-037	EB2508894-038	EB2508894-039
				Result	Result	Result	Result	Result
EG020-SD: Total Metals in Sediments by ICPMS								
Arsenic	7440-38-2	1.00	mg/kg	9.31	9.44	4.13	4.21	----
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----
Chromium	7440-47-3	1.0	mg/kg	30.0	29.5	11.3	11.6	----
Copper	7440-50-8	1.0	mg/kg	27.6	24.2	8.6	8.0	----
Lead	7439-92-1	1.0	mg/kg	17.9	17.3	25.8	21.2	----
Nickel	7440-02-0	1.0	mg/kg	20.4	21.4	8.7	9.1	----
Silver	7440-22-4	0.1	mg/kg	0.1	0.2	<0.1	<0.1	----
Zinc	7440-66-6	1.0	mg/kg	89.6	85.5	72.7	53.3	----
EG035-SDH: 1M HCl extractable Mercury by FIMS								
Mercury	7439-97-6	0.10	mg/kg	----	----	----	<0.10	----
EG035T: Total Recoverable Mercury by FIMS (Low Level)								
Mercury	7439-97-6	0.01	mg/kg	0.10	0.11	0.03	0.16	----
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)								
Seawater Sampling Date	----	-	-	19/03/2025	----	----	----	----
EN82: Porewater Extraction								
Volume	----	1	mL	----	----	----	----	580
EP003: Total Organic Carbon (TOC) in Soil								
Total Organic Carbon	----	0.02	%	1.64	1.62	2.35	0.58	----
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	----
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	----
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	0.7	<0.5	<0.5	----
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Bromophos-ethyl	4824-78-6	10	µg/kg	<12	<12	<10	<10	----
Carbophenothion	786-19-6	10	µg/kg	<12	<12	<10	<10	----
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<12.0	<12.0	<10.0	<10.0	----
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<12	<12	<10	<10	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-9b	B11-9c	B13-4b	B13-4c	B10-5 Pore water
Sampling date / time				14-Mar-2025 00:00	16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-033	EB2508894-034	EB2508894-037	EB2508894-038	EB2508894-039
				Result	Result	Result	Result	Result
EP130A: Organophosphorus Pesticides (Ultra-trace) - Continued								
Chlorpyrifos	2921-88-2	10	µg/kg	<12	<12	<10	<10	----
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<12	<12	<10	<10	----
Demeton-S-methyl	919-86-8	10	µg/kg	<12	<12	<10	<10	----
Diazinon	333-41-5	10	µg/kg	<12	<12	<10	<10	----
Dichlorvos	62-73-7	10	µg/kg	<12	<12	<10	<10	----
Dimethoate	60-51-5	10	µg/kg	<12	<12	<10	<10	----
Ethion	563-12-2	10	µg/kg	<12	<12	<10	<10	----
Fenamiphos	22224-92-6	10	µg/kg	<12	<12	<10	<10	----
Fenthion	55-38-9	10	µg/kg	<12	<12	<10	<10	----
Malathion	121-75-5	10	µg/kg	<12	<12	<10	<10	----
Azinphos Methyl	86-50-0	10	µg/kg	<12	<12	<10	<10	----
Monocrotophos	6923-22-4	10	µg/kg	<12	<12	<10	<10	----
Parathion	56-38-2	10	µg/kg	<12	<12	<10	<10	----
Parathion-methyl	298-00-0	10	µg/kg	<12	<12	<10	<10	----
Pirimphos-ethyl	23505-41-1	10	µg/kg	<12	<12	<10	<10	----
Prothiofos	34643-46-4	10	µg/kg	<12	<12	<10	<10	----
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
4,4'-DDE	72-55-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B11-9b	B11-9c	B13-4b	B13-4c	B10-5 Pore water
Sampling date / time				14-Mar-2025 00:00	16-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	14-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-033	EB2508894-034	EB2508894-037	EB2508894-038	EB2508894-039
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	----
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
EP090S: Organotin Surrogate								
Tripopyltin	----	0.5	%	85.6	91.5	90.2	87.6	----
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	83.4	87.7	63.6	72.4	----
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	123	68.9	54.9	57.6	----



Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B10-6 Pore water	B10-6b Pore water	B10-8 Pore water	B11-9 Pore water	B11-8 Pore water
Sampling date / time					14-Mar-2025 00:00	14-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-040	EB2508894-041	EB2508894-042	EB2508894-043	EB2508894-044	
				Result	Result	Result	Result	Result	
EN82: Porewater Extraction									
Volume	----	1	mL	481	610	684	681	544	



Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B12-1 Pore water	B13-5 Pore water	B13-8 Pore water	B13-9 Pore water	B13-1 Pore water
Sampling date / time					16-Mar-2025 00:00	16-Mar-2025 00:00	14-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-045	EB2508894-046	EB2508894-047	EB2508894-048	EB2508894-049	
				Result	Result	Result	Result	Result	
EN82: Porewater Extraction									
Volume	----	1	mL	694	580	602	446	542	



Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B8-3 Pore water	B7-1 Pore water	B6-2 Pore water	B6-2b Pore water	B11-9b Pore water
Sampling date / time					17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	17-Mar-2025 00:00	16-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508894-050	EB2508894-051	EB2508894-052	EB2508894-053	EB2508894-054	
				Result	Result	Result	Result	Result	
EN82: Porewater Extraction									
Volume	----	1	mL	517	496	656	655	495	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	Trip blank 111829	Trip blank 111825	----	----	----
Sampling date / time					17-Mar-2025 00:00	17-Mar-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-035	EB2508894-036	-----	-----	-----	-----
Result				Result	Result	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	----	----	----	----
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	----	----	----	----
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	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	86.4	86.1	----	----	----	----
Toluene-D8	2037-26-5	0.2	%	77.9	78.2	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	87.0	86.0	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: SOIL)			Sample ID	10L Drum Elutriate blank	----	----	----	----
			Sampling date / time	16-Mar-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EB2508894-032	-----	-----	-----	-----
Result					----	----	----	----
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)								
Seawater Sampling Date	----	-	-	19/03/2025	----	----	----	----



Surrogate Control Limits

Sub-Matrix: LEACHATE BLANK		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP090S: Organotin Surrogate			
Tripropyltin	----	24	116
EP131S: OC Pesticide Surrogate			
Dibromo-DDE	21655-73-2	14	166

Sub-Matrix: PORE WATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP090S: Organotin Surrogate			
Tripropyltin	----	24	116
EP131S: OC Pesticide Surrogate			
Dibromo-DDE	21655-73-2	14	166

Sub-Matrix: SEAWATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP090S: Organotin Surrogate			
Tripropyltin	----	24	116
EP131S: OC Pesticide Surrogate			
Dibromo-DDE	21655-73-2	14	166

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080-SD: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	51	145
Toluene-D8	2037-26-5	42	144
4-Bromofluorobenzene	460-00-4	58	142
EP090S: Organotin Surrogate			
Tripropyltin	----	35	130
EP130S: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	14	102
EP131S: OC Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	119
EP131T: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	10	106
EP132T: Base/Neutral Extractable Surrogates - SD			
2-Fluorobiphenyl	321-60-8	55	135
Anthracene-d10	1719-06-8	70	136
4-Terphenyl-d14	1718-51-0	57	127

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High

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Work Order : EB2508894 Amendment 1
Client : BMT COMMERCIAL AUSTRALIA PTY LTD
Project : 01295 PoB Monitoring 2019-2025



Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	53	134
Toluene-D8	2037-26-5	60	131
4-Bromofluorobenzene	460-00-4	59	127

Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry / Biology).

(WATER) EP131A: Organochlorine Pesticides

(WATER) EP131S: OC Pesticide Surrogate

(SOIL) EP131B: Polychlorinated Biphenyls (as Aroclors)

(SOIL) EP131T: PCB Surrogate

(SOIL) EP132B: Polynuclear Aromatic Hydrocarbons

(SOIL) EP130A: Organophosphorus Pesticides (Ultra-trace)

(SOIL) EP130S: Organophosphorus Pesticide Surrogate

(SOIL) EP131A: Organochlorine Pesticides

(SOIL) EP131S: OC Pesticide Surrogate

(SOIL) EP132T: Base/Neutral Extractable Surrogates - SD



QUALITY CONTROL REPORT

Work Order : **EB2508894**

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Amendment : **1**

Client : **BMT COMMERCIAL AUSTRALIA PTY LTD**

Contact : **MACKENZIE STACEY**

Address : **PO BOX 203 SPRING HILL
BRISBANE QLD 4004**

Telephone : ----

Project : **01295 PoB Monitoring 2019-2025**

Order number : **No PO Provided**

C-O-C number : ----

Sampler : **MACKENZIE STACEY**

Site : ----

Quote number : **BN/016/19 V2**

No. of samples received : **53**

No. of samples analysed : **53**

Laboratory : **Environmental Division Brisbane**

Contact : **Nathan King**

Address : **2 Byth Street Stafford QLD Australia 4053**

Telephone : **+61-7-3552-8685**

Date Samples Received : **17-Mar-2025**

Date Analysis Commenced : **18-Mar-2025**

Issue Date : **15-Apr-2025**



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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	Position	Accreditation Category
Beatriz Llarinas	Senior Chemist - Inorganics	Brisbane Inorganics, Stafford, QLD
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Kim McCabe	Senior Inorganic Chemist	Brisbane Soil Preparation, Stafford, QLD
Layla Hafner	Acid Sulphate Soils - Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Tatijana Markoska	Senior Chemist - Organics	Brisbane Organics, Stafford, QLD
Timothy Creagh	Senior Chemist - Organics	Brisbane Organics, Stafford, QLD



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)-SDH: 1M HCl-Extractable Metals by ICPAES (QC Lot: 6499663)									
EB2508894-008	B12-2	EG005-SDH: Nickel	7440-02-0	1	mg/kg	17.2	16.5	4.2	0% - 50%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6446416)									
EB2508894-001	B10-5	EG005T: Aluminium	7429-90-5	50	mg/kg	13900	13600	2.0	0% - 20%
		EG005T: Iron	7439-89-6	50	mg/kg	32100	31900	0.6	0% - 20%
EB2508894-011	B15-3	EG005T: Aluminium	7429-90-5	50	mg/kg	7250	6650	8.6	0% - 20%
		EG005T: Iron	7439-89-6	50	mg/kg	18600	17300	7.3	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6446418)									
EB2508894-022	RF7	EG005T: Aluminium	7429-90-5	50	mg/kg	15800	15600	1.9	0% - 20%
		EG005T: Iron	7439-89-6	50	mg/kg	35400	35700	0.7	0% - 20%
EB2508894-033	B11-9b	EG005T: Aluminium	7429-90-5	50	mg/kg	14100	13800	2.1	0% - 20%
		EG005T: Iron	7439-89-6	50	mg/kg	35200	34200	2.8	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QC Lot: 6446414)									
EB2508894-001	B10-5	EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	0.12	0.11	0.0	0% - 50%
EB2508894-011	B15-3	EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	0.02	0.02	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QC Lot: 6446419)									
EB2508894-022	RF7	EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	0.09	0.10	0.0	No Limit
EB2508894-033	B11-9b	EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	0.10	0.10	0.0	0% - 50%
EA029-A: pH Measurements (QC Lot: 6452673)									
EB2508871-001	Anonymous	EA029: pH KCl (23A)	----	0.1	pH Unit	4.8	4.9	0.0	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	4.1	4.1	0.0	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 (%)
EA029-A: pH Measurements (QC Lot: 6452673) - continued									
EB2508894-026	B9-1	EA029: pH KCl (23A)	----	0.1	pH Unit	8.2	8.2	0.0	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	5.6	5.6	0.0	0% - 20%
EA029-B: Acidity Trail (QC Lot: 6452673)									
EB2508871-001	Anonymous	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	0.038	0.033	11.6	No Limit
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	0.099	0.097	2.2	No Limit
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	0.061	0.063	3.2	No Limit
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	23	21	11.6	0% - 50%
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	62	60	2.2	0% - 20%
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	38	39	3.2	0% - 50%
EB2508894-026	B9-1	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	0.022	0.022	0.0	No Limit
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	0.022	0.022	0.0	No Limit
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	0.0	No Limit
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	14	14	0.0	No Limit
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	14	14	0.0	No Limit
EA029-C: Sulfur Trail (QC Lot: 6452673)									
EB2508871-001	Anonymous	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	<0.020	0.0	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	0.030	0.028	7.0	No Limit
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	0.030	0.028	7.0	No Limit
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	18	17	7.0	No Limit
EB2508894-026	B9-1	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	0.165	0.155	6.1	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	0.650	0.650	0.0	0% - 20%
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	0.485	0.495	2.0	0% - 20%
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	303	309	2.0	0% - 20%
EA029-D: Calcium Values (QC Lot: 6452673)									
EB2508871-001	Anonymous	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	0.033	0.035	3.7	No Limit
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.036	0.036	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
EB2508894-026	B9-1	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	0.349	0.338	3.3	0% - 50%
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.424	0.424	0.0	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 (%)
EA029-D: Calcium Values (QC Lot: 6452673) - continued									
EB2508894-026	B9-1	EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	0.075	0.086	14.1	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	0.060	0.069	14.1	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	38	43	14.1	No Limit
EA029-E: Magnesium Values (QC Lot: 6452673)									
EB2508871-001	Anonymous	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	<0.020	0.0	No Limit
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	<0.020	0.0	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
EB2508894-026	B9-1	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	0.342	0.333	2.8	0% - 50%
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	0.420	0.420	0.0	0% - 20%
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	0.077	0.087	11.4	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	0.102	0.114	11.4	No Limit
		EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	64	71	11.4	No Limit
EA029-H: Acid Base Accounting (QC Lot: 6452673)									
EB2508871-001	Anonymous	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.0	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	0.07	0.06	0.0	No Limit
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.07	0.06	0.0	No Limit
		EA029: Liming Rate	----	1	kg CaCO3/t	3	3	0.0	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	3	3	0.0	No Limit
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	42	38	9.5	No Limit
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	42	38	9.5	No Limit
EB2508894-026	B9-1	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.0	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	0.18	0.18	0.0	No Limit
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.48	0.50	0.0	0% - 20%
		EA029: Liming Rate	----	1	kg CaCO3/t	8	8	0.0	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	23	23	0.0	0% - 20%
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	110	112	1.8	0% - 50%
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	303	309	2.0	0% - 20%
EA033-A: Actual Acidity (QC Lot: 6469997)									
EB2508894-002	B10-6	EA033: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	<0.02	0.0	No Limit
		EA033: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	0.0	No Limit
		EA033: pH KCl (23A)	----	0.1	pH Unit	8.6	8.6	0.0	0% - 20%
EA033-B: Potential Acidity (QC Lot: 6469997)									



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 (%)
EA033-B: Potential Acidity (QC Lot: 6469997) - continued									
EB2508894-002	B10-6	EA033: Chromium Reducible Sulfur (22B)	----	0.005	% S	0.233	0.228	2.2	0% - 20%
		EA033: acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t	145	142	2.2	0% - 50%
EA033-C: Acid Neutralising Capacity (QC Lot: 6469997)									
EB2508894-002	B10-6	EA033: Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3	3.03	2.98	1.7	0% - 20%
		EA033: sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	0.97	0.96	1.7	0% - 20%
		EA033: acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t	606	596	1.7	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6446375)									
EB2508894-001	B10-5	EA055: Moisture Content	----	0.1	%	63.7	65.2	2.3	0% - 20%
EB2508894-011	B15-3	EA055: Moisture Content	----	0.1	%	42.0	41.5	1.4	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6446376)									
EB2508894-022	RF7	EA055: Moisture Content	----	0.1	%	64.6	64.4	0.3	0% - 20%
EB2508894-033	B11-9b	EA055: Moisture Content	----	0.1	%	64.6	64.9	0.3	0% - 20%
EG020-SD: Total Metals in Sediments by ICPMS (QC Lot: 6446415)									
EB2508894-001	B10-5	EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	0.1	<0.1	0.0	No Limit
		EG020-SD: Silver	7440-22-4	0.1	mg/kg	0.3	0.3	0.0	No Limit
		EG020-SD: Arsenic	7440-38-2	1	mg/kg	9.06	8.73	3.7	No Limit
		EG020-SD: Chromium	7440-47-3	1	mg/kg	32.8	31.9	2.9	0% - 20%
		EG020-SD: Copper	7440-50-8	1	mg/kg	37.0	35.6	3.7	0% - 20%
		EG020-SD: Lead	7439-92-1	1	mg/kg	28.0	28.3	0.8	0% - 20%
		EG020-SD: Nickel	7440-02-0	1	mg/kg	19.7	18.5	6.4	0% - 50%
		EG020-SD: Zinc	7440-66-6	1	mg/kg	135	130	3.9	0% - 20%
EB2508894-011	B15-3	EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020-SD: Silver	7440-22-4	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020-SD: Arsenic	7440-38-2	1	mg/kg	6.96	6.63	4.8	No Limit
		EG020-SD: Chromium	7440-47-3	1	mg/kg	16.7	15.8	5.4	0% - 50%
		EG020-SD: Copper	7440-50-8	1	mg/kg	7.0	7.0	0.0	No Limit
		EG020-SD: Lead	7439-92-1	1	mg/kg	6.8	6.3	8.0	No Limit
		EG020-SD: Nickel	7440-02-0	1	mg/kg	11.4	11.0	3.7	0% - 50%
		EG020-SD: Zinc	7440-66-6	1	mg/kg	36.0	35.4	1.7	0% - 20%
EG020-SD: Total Metals in Sediments by ICPMS (QC Lot: 6446420)									
EB2508894-022	RF7	EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020-SD: Silver	7440-22-4	0.1	mg/kg	0.2	0.2	0.0	No Limit
		EG020-SD: Arsenic	7440-38-2	1	mg/kg	7.01	7.44	5.9	No Limit
		EG020-SD: Chromium	7440-47-3	1	mg/kg	30.8	31.5	2.2	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 (%)
EG020-SD: Total Metals in Sediments by ICPMS (QC Lot: 6446420) - continued									
EB2508894-022	RF7	EG020-SD: Copper	7440-50-8	1	mg/kg	19.4	20.1	3.7	0% - 20%
		EG020-SD: Lead	7439-92-1	1	mg/kg	17.7	18.5	4.3	0% - 50%
		EG020-SD: Nickel	7440-02-0	1	mg/kg	20.9	21.4	2.5	0% - 20%
		EG020-SD: Zinc	7440-66-6	1	mg/kg	72.8	74.4	2.1	0% - 20%
EB2508894-033	B11-9b	EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020-SD: Silver	7440-22-4	0.1	mg/kg	0.1	0.1	0.0	No Limit
		EG020-SD: Arsenic	7440-38-2	1	mg/kg	9.31	9.51	2.1	No Limit
		EG020-SD: Chromium	7440-47-3	1	mg/kg	30.0	29.8	0.7	0% - 20%
		EG020-SD: Copper	7440-50-8	1	mg/kg	27.6	24.3	12.6	0% - 20%
		EG020-SD: Lead	7439-92-1	1	mg/kg	17.9	17.3	3.4	0% - 50%
		EG020-SD: Nickel	7440-02-0	1	mg/kg	20.4	21.0	3.0	0% - 20%
		EG020-SD: Zinc	7440-66-6	1	mg/kg	89.6	87.4	2.6	0% - 20%
EG035-SDH: 1M HCl extractable Mercury by FIMS (QC Lot: 6499664)									
EB2508894-038	B13-4c	EG035-SDH: Mercury	7439-97-6	0.1	mg/kg	<0.10	<0.10	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 6447184)									
EB2508894-002	B10-6	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EB2508981-005	Anonymous	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	0.8	0.8	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 6448000)									
EB2508894-002	B10-6	EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	1210	1210	0.0	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 6447999)									
EB2508894-002	B10-6	EK067G: Total Phosphorus as P	----	2	mg/kg	704	623	12.3	0% - 20%
EP003: Total Organic Carbon (TOC) in Soil (QC Lot: 6452560)									
EB2508894-001	B10-5	EP003: Total Organic Carbon	----	0.02	%	2.20	2.10	4.7	0% - 20%
EB2508894-011	B15-3	EP003: Total Organic Carbon	----	0.02	%	0.48	0.49	0.0	0% - 20%
EP003: Total Organic Carbon (TOC) in Soil (QC Lot: 6452561)									
EB2508894-022	RF7	EP003: Total Organic Carbon	----	0.02	%	1.34	1.35	1.1	0% - 20%
EB2508894-033	B11-9b	EP003: Total Organic Carbon	----	0.02	%	1.64	1.58	3.9	0% - 20%
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6446885)									
EB2508669-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6446885)									
EB2508669-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 6446885)									
EB2508669-001	Anonymous	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



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC Lot: 6446885) - continued									
EB2508669-001	Anonymous	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
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QC Lot: 6447180)									
EB2508894-002	B10-6	EP080-SD: C6 - C9 Fraction	----	3	mg/kg	<3	<3	0.0	No Limit
EB2508894-029	B7-1	EP080-SD: C6 - C9 Fraction	----	3	mg/kg	<3	<3	0.0	No Limit
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QC Lot: 6447191)									
EB2508894-002	B10-6	EP071-SD-SV: C10 - C14 Fraction	----	3	mg/kg	30	18	50.0	0% - 50%
		EP071-SD-SV: C15 - C28 Fraction	----	3	mg/kg	47	50	4.9	0% - 50%
		EP071-SD-SV: C10 - C36 Fraction (sum)	----	3	mg/kg	126	111	12.7	0% - 20%
		EP071-SD-SV: C29 - C36 Fraction	----	5	mg/kg	49	43	12.2	No Limit
EB2508981-005	Anonymous	EP071-SD-SV: C10 - C14 Fraction	----	3	mg/kg	24	13	58.8	No Limit
		EP071-SD-SV: C15 - C28 Fraction	----	3	mg/kg	58	# 28	68.3	0% - 50%
		EP071-SD-SV: C10 - C36 Fraction (sum)	----	3	mg/kg	140	# 57	84.3	0% - 20%
		EP071-SD-SV: C29 - C36 Fraction	----	5	mg/kg	58	# 16	112	0% - 50%
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QC Lot: 6447180)									
EB2508894-002	B10-6	EP080-SD: C6 - C10 Fraction	C6_C10	3	mg/kg	<3	<3	0.0	No Limit
EB2508894-029	B7-1	EP080-SD: C6 - C10 Fraction	C6_C10	3	mg/kg	<3	<3	0.0	No Limit
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QC Lot: 6447191)									
EB2508894-002	B10-6	EP071-SD-SV: >C10 - C16 Fraction	----	3	mg/kg	11	11	0.0	No Limit
		EP071-SD-SV: >C16 - C34 Fraction	----	3	mg/kg	81	79	1.9	0% - 20%
		EP071-SD-SV: >C10 - C40 Fraction (sum)	----	3	mg/kg	115	111	3.5	0% - 20%
		EP071-SD-SV: >C34 - C40 Fraction	----	5	mg/kg	23	21	11.8	No Limit
EB2508981-005	Anonymous	EP071-SD-SV: >C10 - C16 Fraction	----	3	mg/kg	12	9	31.3	No Limit
		EP071-SD-SV: >C16 - C34 Fraction	----	3	mg/kg	98	# 38	88.4	0% - 20%
		EP071-SD-SV: >C10 - C40 Fraction (sum)	----	3	mg/kg	140	# 57	84.3	0% - 20%
		EP071-SD-SV: >C34 - C40 Fraction	----	5	mg/kg	30	10	101	No Limit
EP080-SD: BTEXN (QC Lot: 6447180)									
EB2508894-002	B10-6	EP080-SD: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Toluene	108-88-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Total Xylenes	----	0.2 (0.5)*	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080-SD: Naphthalene	91-20-3	0.2	mg/kg	<0.2	<0.2	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 (%)
EP080-SD: BTEXN (QC Lot: 6447180) - continued									
EB2508894-029	B7-1	EP080-SD: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Toluene	108-88-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: meta- & para-Xylene	108-38-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
			106-42-3						
		EP080-SD: ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Total Xylenes	----	0.2 (0.5)*	mg/kg	<0.5	<0.5	0.0	No Limit
EP080-SD: Naphthalene	91-20-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP090: Organotin Compounds (QC Lot: 6446730)									
EB2508894-001	B10-5	EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	1.7	2.2	27.8	No Limit
		EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	0.0	No Limit
		EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	1	0.0	No Limit
EB2508894-011	B15-3	EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	0.0	No Limit
		EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	0.0	No Limit
		EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	0.0	No Limit
EP090: Organotin Compounds (QC Lot: 6446731)									
EB2508894-020	RF6	EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	0.0	No Limit
		EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	0.0	No Limit
		EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	0.0	No Limit
EB2508894-031	B6-2b	EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	0.0	No Limit
		EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	0.0	No Limit
		EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	0.0	No Limit
EP090: Organotin Compounds (QC Lot: 6447707)									
ES2507194-001	Anonymous	EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	0.0	No Limit
		EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	0.0	No Limit
		EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	0.0	No Limit
EP130A: Organophosphorus Pesticides (Ultra-trace) (QC Lot: 6452704)									
EB2508894-011	B15-3	EP130: Bromophos-ethyl	4824-78-6	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Carbophenothion	786-19-6	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Chlorfenvinphos (E)	18708-86-6	10	µg/kg	<10.0	<10.0	0.0	No Limit
		EP130: Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Chlorpyrifos	2921-88-2	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Demeton-S-methyl	919-86-8	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Diazinon	333-41-5	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Dichlorvos	62-73-7	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Dimethoate	60-51-5	10	µg/kg	<10	<10	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 (%)
EP130A: Organophosphorus Pesticides (Ultra-trace) (QC Lot: 6452704) - continued									
EB2508894-011	B15-3	EP130: Ethion	563-12-2	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Fenamiphos	22224-92-6	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Fenthion	55-38-9	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Malathion	121-75-5	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Azinphos Methyl	86-50-0	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Monocrotophos	6923-22-4	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Parathion	56-38-2	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Parathion-methyl	298-00-0	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Prothiofos	34643-46-4	10	µg/kg	<10	<10	0.0	No Limit
EB2508894-002	B10-6	EP130: Bromophos-ethyl	4824-78-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Carbophenothion	786-19-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorfenvinphos (E)	18708-86-6	10 (12.0)*	µg/kg	<12.0	<12.0	0.0	No Limit
		EP130: Chlorfenvinphos (Z)	18708-87-7	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorpyrifos	2921-88-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorpyrifos-methyl	5598-13-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Demeton-S-methyl	919-86-8	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Diazinon	333-41-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Dichlorvos	62-73-7	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Dimethoate	60-51-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Ethion	563-12-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Fenamiphos	22224-92-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Fenthion	55-38-9	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Malathion	121-75-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Azinphos Methyl	86-50-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Monocrotophos	6923-22-4	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Parathion	56-38-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Parathion-methyl	298-00-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Pirimphos-ethyl	23505-41-1	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Prothiofos	34643-46-4	10 (12)*	µg/kg	<12	<12	0.0	No Limit
EP130A: Organophosphorus Pesticides (Ultra-trace) (QC Lot: 6452709)									
EB2508894-033	B11-9b	EP130: Bromophos-ethyl	4824-78-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Carbophenothion	786-19-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorfenvinphos (E)	18708-86-6	10 (12.0)*	µg/kg	<12.0	<12.0	0.0	No Limit
		EP130: Chlorfenvinphos (Z)	18708-87-7	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorpyrifos	2921-88-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorpyrifos-methyl	5598-13-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Demeton-S-methyl	919-86-8	10 (12)*	µg/kg	<12	<12	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 (%)
EP130A: Organophosphorus Pesticides (Ultra-trace) (QC Lot: 6452709) - continued									
EB2508894-033	B11-9b	EP130: Diazinon	333-41-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Dichlorvos	62-73-7	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Dimethoate	60-51-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Ethion	563-12-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Fenamiphos	22224-92-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Fenthion	55-38-9	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Malathion	121-75-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Azinphos Methyl	86-50-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Monocrotophos	6923-22-4	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Parathion	56-38-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Parathion-methyl	298-00-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Pirimphos-ethyl	23505-41-1	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Prothiofos	34643-46-4	10 (12)*	µg/kg	<12	<12	0.0	No Limit
EB2508894-025	B13-1	EP130: Bromophos-ethyl	4824-78-6	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Carbophenothion	786-19-6	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Chlorfenvinphos (E)	18708-86-6	10	µg/kg	<10.0	<10.0	0.0	No Limit
		EP130: Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Chlorpyrifos	2921-88-2	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Demeton-S-methyl	919-86-8	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Diazinon	333-41-5	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Dichlorvos	62-73-7	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Dimethoate	60-51-5	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Ethion	563-12-2	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Fenamiphos	22224-92-6	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Fenthion	55-38-9	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Malathion	121-75-5	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Azinphos Methyl	86-50-0	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Monocrotophos	6923-22-4	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Parathion	56-38-2	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Parathion-methyl	298-00-0	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	<10	0.0	No Limit
		EP130: Prothiofos	34643-46-4	10	µg/kg	<10	<10	0.0	No Limit
EP131A: Organochlorine Pesticides (QC Lot: 6452703)									
EB2508894-011	B15-3	EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	0.0	No Limit
		EP131A: cis-Chlordane	5103-71-9	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: trans-Chlordane	5103-74-2	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Total Chlordane (sum)	----	0.25 (0.50)*	µg/kg	<0.50	<0.50	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 (%)
EP131A: Organochlorine Pesticides (QC Lot: 6452703) - continued									
EB2508894-011	B15-3	EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
EB2508894-002	B10-6	EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	0.0	No Limit
		EP131A: cis-Chlordane	5103-71-9	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: trans-Chlordane	5103-74-2	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Total Chlordane (sum)	----	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	<0.50	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 (%)		
EP131A: Organochlorine Pesticides (QC Lot: 6452703) - continued											
EB2508894-002	B10-6	EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
EP131A: Organochlorine Pesticides (QC Lot: 6452710)											
EB2508894-033	B11-9b	EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	0.0	No Limit		
		EP131A: cis-Chlordane	5103-71-9	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: trans-Chlordane	5103-74-2	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Total Chlordane (sum)	----	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit		
		EB2508894-025	B13-1	EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	0.0	No Limit
				EP131A: cis-Chlordane	5103-71-9	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
				EP131A: trans-Chlordane	5103-74-2	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
				EP131A: Total Chlordane (sum)	----	0.25 (0.50)*	µg/kg	<0.50	<0.50	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 (%)
EP131A: Organochlorine Pesticides (QC Lot: 6452710) - continued									
EB2508894-025	B13-1	EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
EP131B: Polychlorinated Biphenyls (as Aroclors) (QC Lot: 6452705)									
EB2508894-002	B10-6	EP131B: Total Polychlorinated biphenyls	----	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
		EP131B: Aroclor 1016	12674-11-2	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
		EP131B: Aroclor 1221	11104-28-2	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
		EP131B: Aroclor 1232	11141-16-5	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
		EP131B: Aroclor 1242	53469-21-9	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
		EP131B: Aroclor 1248	12672-29-6	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
		EP131B: Aroclor 1254	11097-69-1	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
		EP131B: Aroclor 1260	11096-82-5	5 (31.2)*	µg/kg	<31.2	<31.2	0.0	No Limit
EP131B: Polychlorinated Biphenyls (as Aroclors) (QC Lot: 6452711)									
EB2508894-025	B13-1	EP131B: Total Polychlorinated biphenyls	----	5 (15.6)*	µg/kg	<15.6	<15.6	0.0	No Limit
		EP131B: Aroclor 1016	12674-11-2	5 (15.6)*	µg/kg	<15.6	<15.6	0.0	No Limit
		EP131B: Aroclor 1221	11104-28-2	5 (15.6)*	µg/kg	<15.6	<15.6	0.0	No Limit
		EP131B: Aroclor 1232	11141-16-5	5 (15.6)*	µg/kg	<15.6	<15.6	0.0	No Limit
		EP131B: Aroclor 1242	53469-21-9	5 (15.6)*	µg/kg	<15.6	<15.6	0.0	No Limit
		EP131B: Aroclor 1248	12672-29-6	5 (15.6)*	µg/kg	<15.6	<15.6	0.0	No Limit
		EP131B: Aroclor 1254	11097-69-1	5 (15.6)*	µg/kg	<15.6	<15.6	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 (%)
EP131B: Polychlorinated Biphenyls (as Aroclors) (QC Lot: 6452711) - continued									
EB2508894-025	B13-1	EP131B: Aroclor 1260	11096-82-5	5 (15.6)*	µg/kg	<15.6	<15.6	0.0	No Limit
EP132B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6452739)									
EB2508894-002	B10-6	EP132B-SD: Acenaphthylene	208-96-8	4 (5)*	µg/kg	16	13	24.2	No Limit
		EP132B-SD: Acenaphthene	83-32-9	4 (5)*	µg/kg	<5	<5	0.0	No Limit
		EP132B-SD: Fluorene	86-73-7	4 (5)*	µg/kg	<5	<5	0.0	No Limit
		EP132B-SD: Phenanthrene	85-01-8	4 (5)*	µg/kg	22	18	20.9	No Limit
		EP132B-SD: Anthracene	120-12-7	4 (5)*	µg/kg	14	11	21.2	No Limit
		EP132B-SD: Fluoranthene	206-44-0	4 (5)*	µg/kg	67	54	20.0	0% - 50%
		EP132B-SD: Pyrene	129-00-0	4 (5)*	µg/kg	70	58	19.1	0% - 50%
		EP132B-SD: Benz(a)anthracene	56-55-3	4 (5)*	µg/kg	49	39	22.8	No Limit
		EP132B-SD: Chrysene	218-01-9	4 (5)*	µg/kg	38	32	17.4	No Limit
		EP132B-SD: Benzo(b+j)fluoranthene	205-99-2	4 (5)*	µg/kg	63	47	29.6	0% - 50%
			205-82-3						
		EP132B-SD: Benzo(k)fluoranthene	207-08-9	4 (5)*	µg/kg	23	20	12.8	No Limit
		EP132B-SD: Benzo(e)pyrene	192-97-2	4 (5)*	µg/kg	36	34	5.3	No Limit
		EP132B-SD: Benzo(a)pyrene	50-32-8	4 (5)*	µg/kg	65	50	25.3	0% - 50%
		EP132B-SD: Perylene	198-55-0	4 (5)*	µg/kg	79	68	14.6	0% - 50%
		EP132B-SD: Benzo(g,h,i)perylene	191-24-2	4 (5)*	µg/kg	49	40	19.8	No Limit
		EP132B-SD: Dibenz(a,h)anthracene	53-70-3	4 (5)*	µg/kg	13	11	15.0	No Limit
		EP132B-SD: Indeno(1.2.3.cd)pyrene	193-39-5	4 (5)*	µg/kg	38	31	20.2	No Limit
		EP132B-SD: Sum of PAHs	----	4 (5)*	µg/kg	667	551	19.0	0% - 20%
		EP132B-SD: Naphthalene	91-20-3	5	µg/kg	11	14	22.6	No Limit
		EP132B-SD: 2-Methylnaphthalene	91-57-6	5	µg/kg	<5	<5	0.0	No Limit
		EP132B-SD: Coronene	191-07-1	5	µg/kg	14	11	22.7	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 (%)
EG035T: Total Mercury by FIMS (QC Lot: 6451063)									
EB2508894-001	B10-5	EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	0.0	No Limit
EB2508894-031	B6-2b	EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	0.0	No Limit
EG035T: Total Mercury by FIMS (QC Lot: 6458369)									
EB2508894-039	B10-5 Pore water	EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	0.0	No Limit
EB2508894-049	B13-1 Pore water	EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	0.0	No Limit
EG093T: Total Metals in Saline Water by ORC-ICPMS (QC Lot: 6451161)									
EB2508894-001	B10-5	EG093A-T: Nickel	7440-02-0	0.5	µg/L	3.0	2.8	6.6	No Limit
EB2508894-030	B6-2	EG093A-T: Nickel	7440-02-0	0.5	µg/L	3.1	3.1	0.0	No Limit
EG093T: Total Metals in Saline Water by ORC-ICPMS (QC Lot: 6458374)									
EB2508894-039	B10-5 Pore water	EG093A-T: Nickel	7440-02-0	0.5	µg/L	11.6	11.3	3.0	0% - 20%



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG093T: Total Metals in Saline Water by ORC-ICPMS (QC Lot: 6458374) - continued									
EB2508894-048	B13-9 Pore water	EG093A-T: Nickel	7440-02-0	0.5	µg/L	3.2	3.2	0.0	No Limit
EP090: Organotin Compounds (Soluble) (QC Lot: 6460359)									
EP2504014-001	Anonymous	EP090S: Tributyltin	56573-85-4	2	ngSn/L	<2	<2	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**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES (QCLot: 6499663)								
EG005-SDH: Nickel	7440-02-0	1	mg/kg	<1.0	12.2 mg/kg	93.1	70.0	128
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6446416)								
EG005T: Aluminium	7429-90-5	50	mg/kg	<50	6935 mg/kg	101	70.0	130
EG005T: Iron	7439-89-6	50	mg/kg	<50	23400 mg/kg	101	70.0	120
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6446418)								
EG005T: Aluminium	7429-90-5	50	mg/kg	<50	6935 mg/kg	100	70.0	130
EG005T: Iron	7439-89-6	50	mg/kg	<50	23400 mg/kg	101	70.0	120
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QCLot: 6446414)								
EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	<0.01	0.087 mg/kg	126	70.0	130
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QCLot: 6446419)								
EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	<0.01	0.087 mg/kg	124	70.0	130
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel) (QCLot: 6447945)								
EN68a-G: Seawater Sampling Date	----	----	-	19/03/2025	----	----	----	----
EA029-A: pH Measurements (QCLot: 6452673)								
EA029: pH KCl (23A)	----	0.1	pH Unit	<0.1	4.7 pH Unit	98.7	70.0	130
EA029: pH OX (23B)	----	0.1	pH Unit	<0.1	4.5 pH Unit	95.6	70.0	130
EA029-B: Acidity Trail (QCLot: 6452673)								
EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	23.5 mole H+ / t	106	70.0	130
EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	46.5 mole H+ / t	102	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: 6452673)								
EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	0.065 % S	85.0	70.0	130
EA029: Peroxide Sulfur (23De)	----	0.02	% S	<0.020	0.165 % S	97.6	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	----	----	----	----
EA029-D: Calcium Values (QCLot: 6452673)								
EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	0.188 % Ca	88.8	70.0	130



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EA029-D: Calcium Values (QCLot: 6452673) - continued								
EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	<0.020	0.185 % Ca	93.2	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: 6452673)								
EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	0.154 % Mg	89.8	70.0	130
EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	0.19 % Mg	93.0	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-F: Excess Acid Neutralising Capacity (QCLot: 6452673)								
EA029: Excess Acid Neutralising Capacity (23Q)	----	0.02	% CaCO3	<0.020	----	----	----	----
EA029: acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.02	% S	<0.020	----	----	----	----
EA029-H: Acid Base Accounting (QCLot: 6452673)								
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	----	----	----	----
EA033-A: Actual Acidity (QCLot: 6469997)								
EA033: pH KCl (23A)	----	----	pH Unit	----	4.7 pH Unit	98.7	80.0	120
EA033: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	23.5 mole H+ / t	106	80.0	120
EA033: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	----	----	----	----
EA033-B: Potential Acidity (QCLot: 6469997)								
EA033: Chromium Reducible Sulfur (22B)	----	0.005	% S	<0.005	0.283 % S	90.8	77.0	121
EA033: acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t	<10	----	----	----	----
EA033-C: Acid Neutralising Capacity (QCLot: 6469997)								
EA033: Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3	<0.01	10 % CaCO3	97.4	91.0	112
EA033: acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t	<10	----	----	----	----
EA033: sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	<0.01	----	----	----	----



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: <i>Compound</i>	CAS Number	LOR	Unit	Result				
EA152: Soil Particle Density (QCLot: 6447514)								
EA152: Soil Particle Density (Clay/Silt/Sand)	----	----	g/cm3	----	2.68 g/cm3	99.2	80.0	120
EA152: Soil Particle Density (QCLot: 6447516)								
EA152: Soil Particle Density (Clay/Silt/Sand)	----	----	g/cm3	----	2.68 g/cm3	99.2	80.0	120
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6446415)								
EG020-SD: Arsenic	7440-38-2	1	mg/kg	<1.00	33.25 mg/kg	103	80.0	124
EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	<0.1	0.95 mg/kg	111	87.0	122
EG020-SD: Chromium	7440-47-3	1	mg/kg	<1.0	25.5 mg/kg	118	79.0	129
EG020-SD: Copper	7440-50-8	1	mg/kg	<1.0	103.55 mg/kg	107	85.0	118
EG020-SD: Lead	7439-92-1	1	mg/kg	<1.0	121 mg/kg	115	86.0	119
EG020-SD: Nickel	7440-02-0	1	mg/kg	<1.0	30.05 mg/kg	112	77.0	123
EG020-SD: Silver	7440-22-4	0.1	mg/kg	<0.1	0.55 mg/kg	92.4	70.0	130
EG020-SD: Zinc	7440-66-6	1	mg/kg	<1.0	209 mg/kg	105	71.0	127
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6446420)								
EG020-SD: Arsenic	7440-38-2	1	mg/kg	<1.00	33.25 mg/kg	100	80.0	124
EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	<0.1	0.95 mg/kg	106	87.0	122
EG020-SD: Chromium	7440-47-3	1	mg/kg	<1.0	25.5 mg/kg	112	79.0	129
EG020-SD: Copper	7440-50-8	1	mg/kg	<1.0	103.55 mg/kg	101	85.0	118
EG020-SD: Lead	7439-92-1	1	mg/kg	<1.0	121 mg/kg	110	86.0	119
EG020-SD: Nickel	7440-02-0	1	mg/kg	<1.0	30.05 mg/kg	108	77.0	123
EG020-SD: Silver	7440-22-4	0.1	mg/kg	<0.1	0.55 mg/kg	100	70.0	130
EG020-SD: Zinc	7440-66-6	1	mg/kg	<1.0	209 mg/kg	102	71.0	127
EG035-SDH: 1M HCl extractable Mercury by FIMS (QCLot: 6499664)								
EG035-SDH: Mercury	7439-97-6	0.1	mg/kg	<0.10	0.25 mg/kg	73.4	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6447184)								
EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	2.5 mg/kg	97.5	83.2	111
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6448000)								
EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	<20	306 mg/kg	109	70.0	130
				<20	2300 mg/kg	104	88.0	112
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6447999)								
EK067G: Total Phosphorus as P	----	2	mg/kg	<2	142 mg/kg	129	70.0	130
				<2	567 mg/kg	97.4	88.0	112
EP003: Total Organic Carbon (TOC) in Soil (QCLot: 6452560)								
EP003: Total Organic Carbon	----	0.02	%	<0.02	0.55 %	103	80.0	120
				<0.02	32.3 %	96.4	80.0	120



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP003: Total Organic Carbon (TOC) in Soil (QCLot: 6452561)								
EP003: Total Organic Carbon	----	0.02	%	<0.02	0.55 %	104	80.0	120
				<0.02	32.3 %	98.0	80.0	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6446885)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	18 mg/kg	80.5	64.0	120
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6446885)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	22.5 mg/kg	76.0	58.1	124
EP080: BTEXN (QCLot: 6446885)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	83.3	68.0	107
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	85.4	69.0	108
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	88.4	68.0	109
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	88.6	70.0	114
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	88.7	74.0	116
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	79.3	74.0	109
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447180)								
EP080-SD: C6 - C9 Fraction	----	3	mg/kg	<3	18 mg/kg	92.4	66.0	120
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447191)								
EP071-SD-SV: C10 - C14 Fraction	----	3	mg/kg	<3	167 mg/kg	94.1	43.0	126
EP071-SD-SV: C15 - C28 Fraction	----	3	mg/kg	<3	216 mg/kg	88.8	66.0	140
EP071-SD-SV: C29 - C36 Fraction	----	5	mg/kg	<5	----	----	----	----
EP071-SD-SV: C10 - C36 Fraction (sum)	----	3	mg/kg	<3	----	----	----	----
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447180)								
EP080-SD: C6 - C10 Fraction	C6_C10	3	mg/kg	<3	22.5 mg/kg	91.2	66.0	119
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447191)								
EP071-SD-SV: >C10 - C16 Fraction	----	3	mg/kg	<3	223 mg/kg	93.1	40.0	134
EP071-SD-SV: >C16 - C34 Fraction	----	3	mg/kg	<3	150 mg/kg	87.7	66.0	136
EP071-SD-SV: >C34 - C40 Fraction	----	5	mg/kg	<5	----	----	----	----
EP071-SD-SV: >C10 - C40 Fraction (sum)	----	3	mg/kg	<3	----	----	----	----
EP080-SD: BTEXN (QCLot: 6447180)								
EP080-SD: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	83.0	73.0	105
EP080-SD: Toluene	108-88-3	0.2	mg/kg	<0.2	1 mg/kg	87.6	73.0	105
EP080-SD: Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	1 mg/kg	92.1	67.0	104
EP080-SD: meta- & para-Xylene	108-38-3	0.2	mg/kg	<0.2	2 mg/kg	95.7	66.0	106
	106-42-3							
EP080-SD: ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	1 mg/kg	97.3	68.0	105



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: <i>Compound</i>	CAS Number	LOR	Unit	Result				
EP080-SD: BTEXN (QCLot: 6447180) - continued								
EP080-SD: Total Xylenes	----	0.2	mg/kg	<0.2	----	----	----	----
EP080-SD: Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	----	----
EP080-SD: Naphthalene	91-20-3	0.2	mg/kg	<0.2	1 mg/kg	95.0	72.0	115
EP090: Organotin Compounds (QCLot: 6446730)								
EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	1.25 µgSn/kg	78.9	36.0	128
EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	1.25 µgSn/kg	86.6	42.0	132
EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	1.25 µgSn/kg	114	52.0	139
EP090: Organotin Compounds (QCLot: 6446731)								
EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	1.25 µgSn/kg	96.1	36.0	128
EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	1.25 µgSn/kg	85.9	42.0	132
EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	1.25 µgSn/kg	99.5	52.0	139
EP090: Organotin Compounds (QCLot: 6447707)								
EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	1.25 µgSn/kg	# 150	36.0	128
EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	1.25 µgSn/kg	# 148	42.0	132
EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	1.25 µgSn/kg	104	52.0	139
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452704)								
EP130: Bromophos-ethyl	4824-78-6	10	µg/kg	<10	50 µg/kg	93.3	49.0	117
EP130: Carbophenothion	786-19-6	10	µg/kg	<10	50 µg/kg	77.3	54.0	104
EP130: Chlorfenvinphos (E)	18708-86-6	10	µg/kg	<10.0	5 µg/kg	82.3	48.0	156
EP130: Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	50 µg/kg	79.1	53.0	119
EP130: Chlorpyrifos	2921-88-2	10	µg/kg	<10	50 µg/kg	91.7	54.0	112
EP130: Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	50 µg/kg	90.8	52.0	108
EP130: Demeton-S-methyl	919-86-8	10	µg/kg	<10	50 µg/kg	82.7	51.0	109
EP130: Diazinon	333-41-5	10	µg/kg	<10	50 µg/kg	88.2	57.0	121
EP130: Dichlorvos	62-73-7	10	µg/kg	<10	50 µg/kg	79.3	48.0	104
EP130: Dimethoate	60-51-5	10	µg/kg	<10	50 µg/kg	85.5	52.0	120
EP130: Ethion	563-12-2	10	µg/kg	<10	50 µg/kg	99.0	51.0	121
EP130: Fenamiphos	22224-92-6	10	µg/kg	<10	50 µg/kg	79.1	50.0	120
EP130: Fenthion	55-38-9	10	µg/kg	<10	50 µg/kg	89.0	48.0	112
EP130: Malathion	121-75-5	10	µg/kg	<10	50 µg/kg	78.1	51.0	121
EP130: Azinphos Methyl	86-50-0	10	µg/kg	<10	50 µg/kg	77.6	45.0	127
EP130: Monocrotophos	6923-22-4	10	µg/kg	<10	50 µg/kg	84.3	48.0	128
EP130: Parathion	56-38-2	10	µg/kg	<10	50 µg/kg	95.4	49.0	125
EP130: Parathion-methyl	298-00-0	10	µg/kg	<10	50 µg/kg	76.5	51.0	119



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452704) - continued								
EP130: Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	50 µg/kg	93.8	48.0	120
EP130: Prothiofos	34643-46-4	10	µg/kg	<10	50 µg/kg	86.0	51.0	117
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452709)								
EP130: Bromophos-ethyl	4824-78-6	10	µg/kg	<10	50 µg/kg	93.0	49.0	117
EP130: Carbophenothion	786-19-6	10	µg/kg	<10	50 µg/kg	82.5	54.0	104
EP130: Chlorfenvinphos (E)	18708-86-6	10	µg/kg	<10.0	5 µg/kg	79.6	48.0	156
EP130: Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	50 µg/kg	77.0	53.0	119
EP130: Chlorpyrifos	2921-88-2	10	µg/kg	<10	50 µg/kg	87.4	54.0	112
EP130: Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	50 µg/kg	87.3	52.0	108
EP130: Demeton-S-methyl	919-86-8	10	µg/kg	<10	50 µg/kg	84.9	51.0	109
EP130: Diazinon	333-41-5	10	µg/kg	<10	50 µg/kg	86.2	57.0	121
EP130: Dichlorvos	62-73-7	10	µg/kg	<10	50 µg/kg	80.3	48.0	104
EP130: Dimethoate	60-51-5	10	µg/kg	<10	50 µg/kg	84.0	52.0	120
EP130: Ethion	563-12-2	10	µg/kg	<10	50 µg/kg	94.5	51.0	121
EP130: Fenamiphos	22224-92-6	10	µg/kg	<10	50 µg/kg	78.2	50.0	120
EP130: Fenthion	55-38-9	10	µg/kg	<10	50 µg/kg	81.9	48.0	112
EP130: Malathion	121-75-5	10	µg/kg	<10	50 µg/kg	81.2	51.0	121
EP130: Azinphos Methyl	86-50-0	10	µg/kg	<10	50 µg/kg	84.4	45.0	127
EP130: Monocrotophos	6923-22-4	10	µg/kg	<10	50 µg/kg	88.6	48.0	128
EP130: Parathion	56-38-2	10	µg/kg	<10	50 µg/kg	89.9	49.0	125
EP130: Parathion-methyl	298-00-0	10	µg/kg	<10	50 µg/kg	80.8	51.0	119
EP130: Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	50 µg/kg	90.6	48.0	120
EP130: Prothiofos	34643-46-4	10	µg/kg	<10	50 µg/kg	80.4	51.0	117
EP131A: Organochlorine Pesticides (QCLot: 6452703)								
EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	5 µg/kg	66.8	38.0	139
EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	5 µg/kg	77.6	17.6	136
EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	5 µg/kg	87.1	30.5	131
EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	5 µg/kg	74.1	37.0	140
EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	5 µg/kg	59.1	25.9	141
EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	<0.50	5 µg/kg	80.6	35.0	129
EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	5 µg/kg	82.4	23.4	138
EP131A: Sum of DDD + DDE + DDT	72-54-8/72-5 5-9/50-2	0.5	µg/kg	<0.50	----	----	----	----
EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	5 µg/kg	78.8	30.2	140



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP131A: Organochlorine Pesticides (QCLot: 6452703) - continued								
EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	5 µg/kg	72.7	38.0	140
EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	5 µg/kg	68.6	32.0	152
EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	5 µg/kg	78.1	36.0	155
EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	----	----	----	----
EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	5 µg/kg	60.2	25.8	158
EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	5 µg/kg	38.0	20.1	118
EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	5 µg/kg	66.2	13.4	135
EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	5 µg/kg	79.1	39.0	155
EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	5 µg/kg	92.9	34.0	148
EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	5 µg/kg	51.6	26.1	152
EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	5 µg/kg	81.4	31.2	137
EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	5 µg/kg	83.9	36.0	152
EP131A: cis-Chlordane	5103-71-9	0.25	µg/kg	<0.25	5 µg/kg	77.6	36.0	142
EP131A: trans-Chlordane	5103-74-2	0.25	µg/kg	<0.25	5 µg/kg	41.8	29.5	138
EP131A: Total Chlordane (sum)	----	0.25	µg/kg	<0.25	----	----	----	----
EP131A: Organochlorine Pesticides (QCLot: 6452710)								
EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	5 µg/kg	98.9	38.0	139
EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	5 µg/kg	90.6	17.6	136
EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	5 µg/kg	80.4	30.5	131
EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	5 µg/kg	78.9	37.0	140
EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	5 µg/kg	56.3	25.9	141
EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	<0.50	5 µg/kg	71.0	35.0	129
EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	5 µg/kg	103	23.4	138
EP131A: Sum of DDD + DDE + DDT	72-54-8/72-5 5-9/50-2	0.5	µg/kg	<0.50	----	----	----	----
EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	5 µg/kg	85.9	30.2	140
EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	5 µg/kg	67.0	38.0	140
EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	5 µg/kg	73.1	32.0	152
EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	5 µg/kg	113	36.0	155
EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	----	----	----	----
EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	5 µg/kg	46.4	25.8	158
EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	5 µg/kg	46.2	20.1	118
EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	5 µg/kg	80.6	13.4	135
EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	5 µg/kg	96.1	39.0	155
EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	5 µg/kg	92.7	34.0	148



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP131A: Organochlorine Pesticides (QCLot: 6452710) - continued								
EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	5 µg/kg	55.0	26.1	152
EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	5 µg/kg	82.1	31.2	137
EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	5 µg/kg	88.8	36.0	152
EP131A: cis-Chlordane	5103-71-9	0.25	µg/kg	<0.25	5 µg/kg	75.3	36.0	142
EP131A: trans-Chlordane	5103-74-2	0.25	µg/kg	<0.25	5 µg/kg	48.3	29.5	138
EP131A: Total Chlordane (sum)	----	0.25	µg/kg	<0.25	----	----	----	----
EP131B: Polychlorinated Biphenyls (as Aroclors) (QCLot: 6452705)								
EP131B: Total Polychlorinated biphenyls	----	5	µg/kg	<5.0	50 µg/kg	72.9	45.0	115
EP131B: Aroclor 1016	12674-11-2	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1221	11104-28-2	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1232	11141-16-5	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1242	53469-21-9	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1248	12672-29-6	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1254	11097-69-1	5	µg/kg	<5.0	50 µg/kg	72.9	45.0	115
EP131B: Aroclor 1260	11096-82-5	5	µg/kg	<5.0	----	----	----	----
EP131B: Polychlorinated Biphenyls (as Aroclors) (QCLot: 6452711)								
EP131B: Total Polychlorinated biphenyls	----	5	µg/kg	<5.0	50 µg/kg	74.5	45.0	115
EP131B: Aroclor 1016	12674-11-2	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1221	11104-28-2	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1232	11141-16-5	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1242	53469-21-9	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1248	12672-29-6	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1254	11097-69-1	5	µg/kg	<5.0	50 µg/kg	74.5	45.0	115
EP131B: Aroclor 1260	11096-82-5	5	µg/kg	<5.0	----	----	----	----
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 6452739)								
EP132B-SD: Naphthalene	91-20-3	5	µg/kg	<5	25 µg/kg	86.4	63.0	129
EP132B-SD: 2-Methylnaphthalene	91-57-6	5	µg/kg	<5	25 µg/kg	86.2	64.0	128
EP132B-SD: Acenaphthylene	208-96-8	4	µg/kg	<4	25 µg/kg	100	65.0	129
EP132B-SD: Acenaphthene	83-32-9	4	µg/kg	<4	25 µg/kg	93.3	68.0	132
EP132B-SD: Fluorene	86-73-7	4	µg/kg	<4	25 µg/kg	87.1	68.0	124
EP132B-SD: Phenanthrene	85-01-8	4	µg/kg	<4	25 µg/kg	94.8	64.0	134
EP132B-SD: Anthracene	120-12-7	4	µg/kg	<4	25 µg/kg	103	65.0	131
EP132B-SD: Fluoranthene	206-44-0	4	µg/kg	<4	25 µg/kg	90.7	64.0	130
EP132B-SD: Pyrene	129-00-0	4	µg/kg	<4	25 µg/kg	90.5	67.0	133



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 6452739) - continued								
EP132B-SD: Benz(a)anthracene	56-55-3	4	µg/kg	<4	25 µg/kg	102	62.0	130
EP132B-SD: Chrysene	218-01-9	4	µg/kg	<4	25 µg/kg	97.1	65.0	133
EP132B-SD: Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	<4	25 µg/kg	79.2	68.0	120
EP132B-SD: Benzo(k)fluoranthene	207-08-9	4	µg/kg	<4	25 µg/kg	88.1	61.0	133
EP132B-SD: Benzo(e)pyrene	192-97-2	4	µg/kg	<4	25 µg/kg	85.4	63.0	127
EP132B-SD: Benzo(a)pyrene	50-32-8	4	µg/kg	<4	25 µg/kg	87.5	66.0	118
EP132B-SD: Perylene	198-55-0	4	µg/kg	<4	25 µg/kg	91.5	69.0	119
EP132B-SD: Benzo(g,h,i)perylene	191-24-2	4	µg/kg	<4	25 µg/kg	84.3	66.0	120
EP132B-SD: Dibenz(a,h)anthracene	53-70-3	4	µg/kg	<4	25 µg/kg	82.3	64.0	122
EP132B-SD: Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	<4	25 µg/kg	82.2	64.0	120
EP132B-SD: Coronene	191-07-1	5	µg/kg	<5	25 µg/kg	76.8	68.0	136
EP132B-SD: Sum of PAHs	----	4	µg/kg	<4	----	----	----	----

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) LowHigh	
Method: Compound	CAS Number	LOR	Unit	Result				
EG035T: Total Mercury by FIMS (QCLot: 6451063)								
EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	0.002 mg/L	94.0	84.0	114
EG035T: Total Mercury by FIMS (QCLot: 6458369)								
EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	0.002 mg/L	95.6	84.0	114
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6451161)								
EG093A-T: Nickel	7440-02-0	0.5	µg/L	<0.5	10 µg/L	105	80.0	120
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6458374)								
EG093A-T: Nickel	7440-02-0	0.5	µg/L	<0.5	10 µg/L	97.6	80.0	120
EP090: Organotin Compounds (Soluble) (QCLot: 6460359)								
EP090S: Tributyltin	56573-85-4	2	ngSn/L	<2	147 ngSn/L	90.7	30.7	134
EP090: Organotin Compounds (Soluble) (QCLot: 6463274)								
EP090S: Tributyltin	56573-85-4	2	ngSn/L	<2	147 ngSn/L	88.0	30.7	134
EP090: Organotin Compounds (Soluble) (QCLot: 6466360)								
EP090S: Tributyltin	56573-85-4	2	ngSn/L	<2	147 ngSn/L	88.3	30.7	134
EP131A: Organochlorine Pesticides (QCLot: 6452691)								
EP131A: Aldrin	309-00-2	0.01	µg/L	<0.010	1.1 µg/L	77.4	34.0	145
EP131A: alpha-BHC	319-84-6	0.01	µg/L	<0.010	1.1 µg/L	112	27.2	131
EP131A: beta-BHC	319-85-7	0.01	µg/L	<0.010	1.1 µg/L	102	28.6	133



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP131A: Organochlorine Pesticides (QCLot: 6452691) - continued								
EP131A: delta-BHC	319-86-8	0.01	µg/L	<0.010	1.1 µg/L	93.4	36.0	131
EP131A: 4,4'-DDD	72-54-8	0.01	µg/L	<0.010	1.1 µg/L	108	36.0	142
EP131A: 4,4'-DDE	72-55-9	0.01	µg/L	<0.010	1.1 µg/L	109	30.4	112
EP131A: 4,4'-DDT	50-29-3	0.01	µg/L	<0.010	1.1 µg/L	102	29.5	142
EP131A: Dieldrin	60-57-1	0.01	µg/L	<0.010	1.1 µg/L	104	28.1	122
EP131A: alpha-Endosulfan	959-98-8	0.01	µg/L	<0.010	1.1 µg/L	107	34.0	119
EP131A: beta-Endosulfan	33213-65-9	0.01	µg/L	<0.010	1.1 µg/L	95.5	31.6	128
EP131A: Endosulfan sulfate	1031-07-8	0.01	µg/L	<0.010	1.1 µg/L	88.2	35.0	159
EP131A: Endrin	72-20-8	0.01	µg/L	<0.010	1.1 µg/L	114	21.5	165
EP131A: Endosulfan (sum)	115-29-7	0.01	µg/L	<0.010	----	----	----	----
EP131A: Endrin aldehyde	7421-93-4	0.01	µg/L	<0.010	1.1 µg/L	113	22.7	123
EP131A: Endrin ketone	53494-70-5	0.01	µg/L	<0.010	1.1 µg/L	109	16.3	144
EP131A: Heptachlor	76-44-8	0.005	µg/L	<0.005	1.1 µg/L	114	33.0	160
EP131A: Heptachlor epoxide	1024-57-3	0.01	µg/L	<0.010	1.1 µg/L	110	33.0	117
EP131A: Hexachlorobenzene (HCB)	118-74-1	0.01	µg/L	<0.010	1.1 µg/L	117	23.6	126
EP131A: gamma-BHC - (Lindane)	58-89-9	0.01	µg/L	<0.010	1.1 µg/L	110	28.7	134
EP131A: Methoxychlor	72-43-5	0.01	µg/L	<0.010	1.1 µg/L	112	29.5	150
EP131A: cis-Chlordane	5103-71-9	0.01	µg/L	<0.010	1.1 µg/L	114	27.0	116
EP131A: trans-Chlordane	5103-74-2	0.01	µg/L	<0.010	1.1 µg/L	95.9	31.2	119
EP131A: Total Chlordane (sum)	----	0.01	µg/L	<0.010	----	----	----	----
EP131A: Sum of DDD + DDE + DDT	72-54-8/72-5 5-9/50-2	0.01	µg/L	<0.010	----	----	----	----
EP131A: Organochlorine Pesticides (QCLot: 6462573)								
EP131A: Aldrin	309-00-2	0.01	µg/L	<0.010	1.1 µg/L	90.9	34.0	145
EP131A: alpha-BHC	319-84-6	0.01	µg/L	<0.010	1.1 µg/L	92.9	27.2	131
EP131A: beta-BHC	319-85-7	0.01	µg/L	<0.010	1.1 µg/L	85.5	28.6	133
EP131A: delta-BHC	319-86-8	0.01	µg/L	<0.010	1.1 µg/L	83.3	36.0	131
EP131A: 4,4'-DDD	72-54-8	0.01	µg/L	<0.010	1.1 µg/L	80.5	36.0	142
EP131A: 4,4'-DDE	72-55-9	0.01	µg/L	<0.010	1.1 µg/L	98.8	30.4	112
EP131A: 4,4'-DDT	50-29-3	0.01	µg/L	<0.010	1.1 µg/L	93.4	29.5	142
EP131A: Dieldrin	60-57-1	0.01	µg/L	<0.010	1.1 µg/L	104	28.1	122
EP131A: alpha-Endosulfan	959-98-8	0.01	µg/L	<0.010	1.1 µg/L	94.5	34.0	119
EP131A: beta-Endosulfan	33213-65-9	0.01	µg/L	<0.010	1.1 µg/L	93.4	31.6	128
EP131A: Endosulfan sulfate	1031-07-8	0.01	µg/L	<0.010	1.1 µg/L	116	35.0	159
EP131A: Endrin	72-20-8	0.01	µg/L	<0.010	1.1 µg/L	108	21.5	165

Matrix Spike (MS) Report

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES (QCLot: 6499663)							
EB2508894-027	B8-3	EG005-SDH: Nickel	7440-02-0	25 mg/kg	81.0	70.0	130
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QCLot: 6446414)							
EB2508894-002	B10-6	EG035T-LL: Mercury	7439-97-6	0.5 mg/kg	94.2	70.0	130
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QCLot: 6446419)							
EB2508894-023	RF4	EG035T-LL: Mercury	7439-97-6	0.5 mg/kg	88.7	70.0	130
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6446415)							
EB2508894-002	B10-6	EG020-SD: Arsenic	7440-38-2	50 mg/kg	84.6	70.0	130
		EG020-SD: Cadmium	7440-43-9	50 mg/kg	91.6	70.0	130
		EG020-SD: Chromium	7440-47-3	50 mg/kg	84.1	70.0	130
		EG020-SD: Copper	7440-50-8	250 mg/kg	81.8	70.0	130
		EG020-SD: Lead	7439-92-1	250 mg/kg	85.8	70.0	130
		EG020-SD: Nickel	7440-02-0	50 mg/kg	84.1	70.0	130
		EG020-SD: Zinc	7440-66-6	250 mg/kg	84.1	70.0	130
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6446420)							



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6446420) - continued							
EB2508894-023	RF4	EG020-SD: Arsenic	7440-38-2	50 mg/kg	77.5	70.0	130
		EG020-SD: Cadmium	7440-43-9	50 mg/kg	86.6	70.0	130
		EG020-SD: Chromium	7440-47-3	50 mg/kg	77.1	70.0	130
		EG020-SD: Copper	7440-50-8	250 mg/kg	77.4	70.0	130
		EG020-SD: Lead	7439-92-1	250 mg/kg	80.7	70.0	130
		EG020-SD: Nickel	7440-02-0	50 mg/kg	80.0	70.0	130
		EG020-SD: Zinc	7440-66-6	250 mg/kg	77.6	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6447184)							
EB2508894-003	B10-6b	EK059G: Nitrite + Nitrate as N (Sol.)	----	2.5 mg/kg	110	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6448000)							
EB2508894-003	B10-6b	EK061G: Total Kjeldahl Nitrogen as N	----	500 mg/kg	118	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6447999)							
EB2508894-003	B10-6b	EK067G: Total Phosphorus as P	----	100 mg/kg	82.2	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6446885)							
EB2508894-035	Trip blank 111829	EP080: C6 - C9 Fraction	----	8 mg/kg	75.3	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6446885)							
EB2508894-035	Trip blank 111829	EP080: C6 - C10 Fraction	C6_C10	8 mg/kg	72.1	70.0	130
EP080: BTEXN (QCLot: 6446885)							
EB2508894-035	Trip blank 111829	EP080: Benzene	71-43-2	2 mg/kg	84.6	70.0	130
		EP080: Toluene	108-88-3	2 mg/kg	86.0	70.0	130
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447180)							
EB2508894-003	B10-6b	EP080-SD: C6 - C9 Fraction	----	8 mg/kg	72.4	70.0	130
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447191)							
EB2508894-003	B10-6b	EP071-SD-SV: C10 - C14 Fraction	----	167 mg/kg	96.2	70.0	130
		EP071-SD-SV: C15 - C28 Fraction	----	216 mg/kg	92.1	70.0	130
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447180)							
EB2508894-003	B10-6b	EP080-SD: C6 - C10 Fraction	C6_C10	8 mg/kg	72.6	70.0	130
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447191)							
EB2508894-003	B10-6b	EP071-SD-SV: >C10 - C16 Fraction	----	223 mg/kg	96.4	70.0	130
		EP071-SD-SV: >C16 - C34 Fraction	----	150 mg/kg	91.2	70.0	130
EP080-SD: BTEXN (QCLot: 6447180)							
EB2508894-003	B10-6b	EP080-SD: Benzene	71-43-2	2 mg/kg	75.4	70.0	130
		EP080-SD: Toluene	108-88-3	2 mg/kg	78.8	70.0	130
EP090: Organotin Compounds (QCLot: 6446730)							
EB2508894-002	B10-6	EP090: Monobutyltin	78763-54-9	1.25 µgSn/kg	# 12.9	20.0	130



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP090: Organotin Compounds (QCLot: 6446730) - continued							
EB2508894-002	B10-6	EP090: Dibutyltin	1002-53-5	1.25 µgSn/kg	81.1	20.0	130
		EP090: Tributyltin	56573-85-4	1.25 µgSn/kg	# 145	20.0	130
EP090: Organotin Compounds (QCLot: 6446731)							
EB2508894-022	RF7	EP090: Monobutyltin	78763-54-9	1.25 µgSn/kg	# 11.6	20.0	130
		EP090: Dibutyltin	1002-53-5	1.25 µgSn/kg	79.7	20.0	130
		EP090: Tributyltin	56573-85-4	1.25 µgSn/kg	93.2	20.0	130
EP090: Organotin Compounds (QCLot: 6447707)							
ES2507194-002	Anonymous	EP090: Monobutyltin	78763-54-9	1.25 µgSn/kg	# 1.7	20.0	130
		EP090: Dibutyltin	1002-53-5	1.25 µgSn/kg	25.7	20.0	130
		EP090: Tributyltin	56573-85-4	1.25 µgSn/kg	65.1	20.0	130
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452704)							
EB2508894-002	B10-6	EP130: Bromophos-ethyl	4824-78-6	50 µg/kg	72.6	36.0	144
		EP130: Carbophenothion	786-19-6	50 µg/kg	68.1	38.0	120
		EP130: Chlorfenvinphos (E)	18708-86-6	5 µg/kg	69.4	49.0	157
		EP130: Chlorfenvinphos (Z)	18708-87-7	50 µg/kg	75.4	53.0	145
		EP130: Chlorpyrifos	2921-88-2	50 µg/kg	76.8	60.0	140
		EP130: Chlorpyrifos-methyl	5598-13-0	50 µg/kg	72.2	56.0	126
		EP130: Demeton-S-methyl	919-86-8	50 µg/kg	76.8	9.70	148
		EP130: Diazinon	333-41-5	50 µg/kg	67.7	60.0	122
		EP130: Dichlorvos	62-73-7	50 µg/kg	79.8	33.0	123
		EP130: Dimethoate	60-51-5	50 µg/kg	84.0	36.0	142
		EP130: Ethion	563-12-2	50 µg/kg	63.0	48.0	136
		EP130: Fenamiphos	22224-92-6	50 µg/kg	72.7	42.0	136
		EP130: Fenthion	55-38-9	50 µg/kg	79.5	35.0	131
		EP130: Malathion	121-75-5	50 µg/kg	80.8	55.0	141
		EP130: Azinphos Methyl	86-50-0	50 µg/kg	61.3	23.5	132
		EP130: Monocrotophos	6923-22-4	50 µg/kg	80.2	35.0	153
		EP130: Parathion	56-38-2	50 µg/kg	69.8	57.0	147
		EP130: Parathion-methyl	298-00-0	50 µg/kg	73.4	48.0	140
		EP130: Pirimphos-ethyl	23505-41-1	50 µg/kg	64.6	45.0	137
		EP130: Prothiofos	34643-46-4	50 µg/kg	81.1	51.0	137
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452709)							
EB2508894-025	B13-1	EP130: Bromophos-ethyl	4824-78-6	50 µg/kg	72.2	36.0	144
		EP130: Carbophenothion	786-19-6	50 µg/kg	66.3	38.0	120
		EP130: Chlorfenvinphos (E)	18708-86-6	5 µg/kg	65.9	49.0	157
		EP130: Chlorfenvinphos (Z)	18708-87-7	50 µg/kg	79.1	53.0	145
		EP130: Chlorpyrifos	2921-88-2	50 µg/kg	79.0	60.0	140
		EP130: Chlorpyrifos-methyl	5598-13-0	50 µg/kg	74.3	56.0	126



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452709) - continued							
EB2508894-025	B13-1	EP130: Demeton-S-methyl	919-86-8	50 µg/kg	57.7	9.70	148
		EP130: Diazinon	333-41-5	50 µg/kg	72.1	60.0	122
		EP130: Dichlorvos	62-73-7	50 µg/kg	74.8	33.0	123
		EP130: Dimethoate	60-51-5	50 µg/kg	71.6	36.0	142
		EP130: Ethion	563-12-2	50 µg/kg	60.1	48.0	136
		EP130: Fenamiphos	22224-92-6	50 µg/kg	52.8	42.0	136
		EP130: Fenthion	55-38-9	50 µg/kg	70.9	35.0	131
		EP130: Malathion	121-75-5	50 µg/kg	80.0	55.0	141
		EP130: Azinphos Methyl	86-50-0	50 µg/kg	67.6	23.5	132
		EP130: Monocrotophos	6923-22-4	50 µg/kg	59.6	35.0	153
		EP130: Parathion	56-38-2	50 µg/kg	69.8	57.0	147
		EP130: Parathion-methyl	298-00-0	50 µg/kg	74.5	48.0	140
		EP130: Pirimphos-ethyl	23505-41-1	50 µg/kg	71.0	45.0	137
		EP130: Prothiofos	34643-46-4	50 µg/kg	82.7	51.0	137
EP131A: Organochlorine Pesticides (QCLot: 6452703)							
EB2508894-002	B10-6	EP131A: Aldrin	309-00-2	5 µg/kg	112	23.4	153
		EP131A: alpha-BHC	319-84-6	5 µg/kg	102	17.6	156
		EP131A: beta-BHC	319-85-7	5 µg/kg	122	24.9	153
		EP131A: delta-BHC	319-86-8	5 µg/kg	102	25.2	147
		EP131A: 4,4'-DDD	72-54-8	5 µg/kg	82.8	25.9	150
		EP131A: 4,4'-DDE	72-55-9	5 µg/kg	120	31.2	125
		EP131A: 4,4'-DDT	50-29-3	5 µg/kg	123	23.4	163
		EP131A: Dieldrin	60-57-1	5 µg/kg	117	30.2	140
		EP131A: alpha-Endosulfan	959-98-8	5 µg/kg	105	28.8	135
		EP131A: beta-Endosulfan	33213-65-9	5 µg/kg	100	22.6	141
		EP131A: Endosulfan sulfate	1031-07-8	5 µg/kg	74.4	16.1	156
		EP131A: Endrin	72-20-8	5 µg/kg	56.6	17.7	162
		EP131A: Endrin aldehyde	7421-93-4	5 µg/kg	43.2	20.1	116
		EP131A: Endrin ketone	53494-70-5	5 µg/kg	85.3	13.4	151
		EP131A: Heptachlor	76-44-8	5 µg/kg	118	23.8	170
		EP131A: Heptachlor epoxide	1024-57-3	5 µg/kg	129	28.3	140
		EP131A: Hexachlorobenzene (HCB)	118-74-1	5 µg/kg	82.7	17.7	144
		EP131A: gamma-BHC - (Lindane)	58-89-9	5 µg/kg	113	21.8	158
		EP131A: Methoxychlor	72-43-5	5 µg/kg	110	24.4	158
		EP131A: cis-Chlordane	5103-71-9	5 µg/kg	113	27.3	139
		EP131A: trans-Chlordane	5103-74-2	5 µg/kg	65.8	29.5	138
EP131A: Organochlorine Pesticides (QCLot: 6452710)							
EB2508894-025	B13-1	EP131A: Aldrin	309-00-2	5 µg/kg	64.9	23.4	153
		EP131A: alpha-BHC	319-84-6	5 µg/kg	96.7	17.6	156



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP131A: Organochlorine Pesticides (QCLot: 6452710) - continued							
EB2508894-025	B13-1	EP131A: beta-BHC	319-85-7	5 µg/kg	97.0	24.9	153
		EP131A: delta-BHC	319-86-8	5 µg/kg	95.9	25.2	147
		EP131A: 4,4'-DDD	72-54-8	5 µg/kg	78.8	25.9	150
		EP131A: 4,4'-DDE	72-55-9	5 µg/kg	102	31.2	125
		EP131A: 4,4'-DDT	50-29-3	5 µg/kg	57.0	23.4	163
		EP131A: Dieldrin	60-57-1	5 µg/kg	84.6	30.2	140
		EP131A: alpha-Endosulfan	959-98-8	5 µg/kg	104	28.8	135
		EP131A: beta-Endosulfan	33213-65-9	5 µg/kg	79.2	22.6	141
		EP131A: Endosulfan sulfate	1031-07-8	5 µg/kg	60.0	16.1	156
		EP131A: Endrin	72-20-8	5 µg/kg	68.7	17.7	162
		EP131A: Endrin aldehyde	7421-93-4	5 µg/kg	58.6	20.1	116
		EP131A: Endrin ketone	53494-70-5	5 µg/kg	113	13.4	151
		EP131A: Heptachlor	76-44-8	5 µg/kg	104	23.8	170
		EP131A: Heptachlor epoxide	1024-57-3	5 µg/kg	85.5	28.3	140
		EP131A: Hexachlorobenzene (HCB)	118-74-1	5 µg/kg	59.6	17.7	144
		EP131A: gamma-BHC - (Lindane)	58-89-9	5 µg/kg	101	21.8	158
		EP131A: Methoxychlor	72-43-5	5 µg/kg	83.5	24.4	158
		EP131A: cis-Chlordane	5103-71-9	5 µg/kg	78.4	27.3	139
		EP131A: trans-Chlordane	5103-74-2	5 µg/kg	55.6	29.5	138
EP131B: Polychlorinated Biphenyls (as Aroclors) (QCLot: 6452705)							
EB2508894-002	B10-6	EP131B: Total Polychlorinated biphenyls	----	50 µg/kg	104	44.0	136
		EP131B: Aroclor 1254	11097-69-1	50 µg/kg	104	44.0	136
EP131B: Polychlorinated Biphenyls (as Aroclors) (QCLot: 6452711)							
EB2508894-025	B13-1	EP131B: Total Polychlorinated biphenyls	----	50 µg/kg	84.2	44.0	136
		EP131B: Aroclor 1254	11097-69-1	50 µg/kg	84.2	44.0	136
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 6452739)							
EB2508894-002	B10-6	EP132B-SD: Naphthalene	91-20-3	25 µg/kg	94.2	70.0	130
		EP132B-SD: 2-Methylnaphthalene	91-57-6	25 µg/kg	86.0	70.0	130
		EP132B-SD: Acenaphthylene	208-96-8	25 µg/kg	80.8	70.0	130
		EP132B-SD: Acenaphthene	83-32-9	25 µg/kg	84.0	70.0	130
		EP132B-SD: Fluorene	86-73-7	25 µg/kg	79.1	70.0	130
		EP132B-SD: Phenanthrene	85-01-8	25 µg/kg	95.2	70.0	130
		EP132B-SD: Anthracene	120-12-7	25 µg/kg	113	70.0	130
		EP132B-SD: Fluoranthene	206-44-0	25 µg/kg	96.5	70.0	130
		EP132B-SD: Pyrene	129-00-0	25 µg/kg	92.0	70.0	130
		EP132B-SD: Benz(a)anthracene	56-55-3	25 µg/kg	114	70.0	130
		EP132B-SD: Chrysene	218-01-9	25 µg/kg	106	70.0	130



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 6452739) - continued							
EB2508894-002	B10-6	EP132B-SD: Benzo(b+j)fluoranthene	205-99-2	25 µg/kg	119	70.0	130
			205-82-3				
		EP132B-SD: Benzo(k)fluoranthene	207-08-9	25 µg/kg	98.6	70.0	130
		EP132B-SD: Benzo(e)pyrene	192-97-2	25 µg/kg	94.0	70.0	130
		EP132B-SD: Benzo(a)pyrene	50-32-8	25 µg/kg	104	70.0	130
		EP132B-SD: Perylene	198-55-0	25 µg/kg	109	70.0	130
		EP132B-SD: Benzo(g,h,i)perylene	191-24-2	25 µg/kg	120	70.0	130
		EP132B-SD: Dibenz(a,h)anthracene	53-70-3	25 µg/kg	105	70.0	130
		EP132B-SD: Indeno(1.2.3.cd)pyrene	193-39-5	25 µg/kg	123	70.0	130
	EP132B-SD: Coronene	191-07-1	25 µg/kg	130	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
EG035T: Total Mercury by FIMS (QCLot: 6451063)							
EB2508894-002	B10-6	EG035T-LL: Mercury	7439-97-6	0.002 mg/L	92.2	70.0	130
EG035T: Total Mercury by FIMS (QCLot: 6458369)							
EB2508894-040	B10-6 Pore water	EG035T-LL: Mercury	7439-97-6	0.002 mg/L	89.0	70.0	130
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6451161)							
EB2508894-002	B10-6	EG093A-T: Nickel	7440-02-0	500 µg/L	99.6	70.0	130
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6458374)							
EB2508894-040	B10-6 Pore water	EG093A-T: Nickel	7440-02-0	500 µg/L	98.0	70.0	130
EP090: Organotin Compounds (Soluble) (QCLot: 6460359)							
EP2504014-001	Anonymous	EP090S: Tributyltin	56573-85-4	147 ngSn/L	90.9	20.0	130



QA/QC Compliance Assessment to assist with Quality Review

Work Order : **EB2508894**

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Amendment : **1**

Client : **BMT COMMERCIAL AUSTRALIA PTY LTD**

Laboratory : Environmental Division Brisbane

Contact : MACKENZIE STACEY

Telephone : +61-7-3552-8685

Project : 01295 PoB Monitoring 2019-2025

Date Samples Received : 17-Mar-2025

Site : ----

Issue Date : 15-Apr-2025

Sampler : MACKENZIE STACEY

No. of samples received : 53

Order number : No PO Provided

No. of samples analysed : 53

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.
- Duplicate outliers exist - please see following pages for full details.
- Laboratory Control outliers exist - please see following pages for full details.
- 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

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

Outliers : Frequency of Quality Control Samples

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



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
Duplicate (DUP) RPDs							
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons	EB2508981--005	Anonymous	C15 - C28 Fraction	----	68.3 %	0% - 50%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons	EB2508981--005	Anonymous	C29 - C36 Fraction	----	112 %	0% - 50%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons	EB2508981--005	Anonymous	C10 - C36 Fraction (sum)	----	84.3 %	0% - 20%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Recoverable Hydrocarbon	EB2508981--005	Anonymous	>C16 - C34 Fraction	----	88.4 %	0% - 20%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Recoverable Hydrocarbon	EB2508981--005	Anonymous	>C10 - C40 Fraction (sum)	----	84.3 %	0% - 20%	RPD exceeds LOR based limits
Laboratory Control Spike (LCS) Recoveries							
EP090: Organotin Compounds	QC-6447707-002	----	Monobutyltin	78763-54-9	150 %	36.0-128%	Recovery greater than upper control limit
EP090: Organotin Compounds	QC-6447707-002	----	Dibutyltin	1002-53-5	148 %	42.0-132%	Recovery greater than upper control limit
Matrix Spike (MS) Recoveries							
EP090: Organotin Compounds	EB2508894--002	B10-6	Monobutyltin	78763-54-9	12.9 %	20.0-130%	Recovery less than lower data quality objective
EP090: Organotin Compounds	EB2508894--022	RF7	Monobutyltin	78763-54-9	11.6 %	20.0-130%	Recovery less than lower data quality objective
EP090: Organotin Compounds	ES2507194--002	Anonymous	Monobutyltin	78763-54-9	1.7 %	20.0-130%	Recovery less than lower data quality objective
EP090: Organotin Compounds	EB2508894--002	B10-6	Tributyltin	56573-85-4	145 %	20.0-130%	Recovery greater than upper data quality objective

Regular Sample Surrogates

Sub-Matrix: **SEDIMENT**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP131S: OC Pesticide Surrogate	EB2508894-033	B11-9b	Dibromo-DDE	21655-73-2	123 %	10.0-119 %	Recovery greater than upper data quality objective
EP131T: PCB Surrogate	EB2508894-003	B10-6b	Decachlorobiphenyl	2051-24-3	108 %	10.0-106 %	Recovery greater than upper data quality objective

Outliers : Analysis Holding Time Compliance

Matrix: **SOIL**

Method	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EG035-SDH: 1M HCl extractable Mercury by FIMS						
Soil Glass Jar - Unpreserved B13-4c	----	----	----	15-Apr-2025	14-Apr-2025	1

Outliers : Frequency of Quality Control Samples



Matrix: **SOIL**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Soil Particle Density	EA152	0	34	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
1M HCl Extractable Mercury by FIMS	EG035-SDH	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	0	34	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	45	2.22	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	45	2.22	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-A: pH Measurements								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-B: Acidity Trail								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
EA029-C: Sulfur Trail								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
EA029-D: Calcium Values								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
EA029-E: Magnesium Values								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-F: Excess Acid Neutralising Capacity								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
EA029-G: Retained Acidity								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
EA029-H: Acid Base Accounting								
Snap Lock Bag - frozen (EA029) B10-6, B7-1	B10-6b,	14-Mar-2025	21-Mar-2025	08-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	21-Mar-2025	10-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
Snap Lock Bag - frozen (EA029) B13-1,	B9-1	17-Mar-2025	21-Mar-2025	11-Dec-2027	✔	21-Mar-2025	19-Jun-2025	✔
EA033-A: Actual Acidity								
Snap Lock Bag - frozen (EA033) B10-6, B7-1	B10-6b,	14-Mar-2025	28-Mar-2025	14-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	28-Mar-2025	16-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B13-1,	B9-1	17-Mar-2025	28-Mar-2025	17-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA033-B: Potential Acidity								
Snap Lock Bag - frozen (EA033) B10-6, B7-1	B10-6b,	14-Mar-2025	28-Mar-2025	14-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	28-Mar-2025	16-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B13-1,	B9-1	17-Mar-2025	28-Mar-2025	17-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
EA033-C: Acid Neutralising Capacity								
Snap Lock Bag - frozen (EA033) B10-6, B7-1	B10-6b,	14-Mar-2025	28-Mar-2025	14-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	28-Mar-2025	16-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B13-1,	B9-1	17-Mar-2025	28-Mar-2025	17-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
EA033-D: Retained Acidity								
Snap Lock Bag - frozen (EA033) B10-6, B7-1	B10-6b,	14-Mar-2025	28-Mar-2025	14-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	28-Mar-2025	16-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B13-1,	B9-1	17-Mar-2025	28-Mar-2025	17-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
EA033-E: Acid Base Accounting								
Snap Lock Bag - frozen (EA033) B10-6, B7-1	B10-6b,	14-Mar-2025	28-Mar-2025	14-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	28-Mar-2025	16-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔
Snap Lock Bag - frozen (EA033) B13-1,	B9-1	17-Mar-2025	28-Mar-2025	17-Mar-2026	✔	28-Mar-2025	26-Jun-2025	✔

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055) B10-5, B10-6b, B13-5, B7-1, B6-2b, B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	----	----	----	18-Mar-2025	28-Mar-2025	✓
Soil Glass Jar - Unpreserved (EA055) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1, B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	----	----	----	18-Mar-2025	30-Mar-2025	✓
Soil Glass Jar - Unpreserved (EA055) B16-0, RF3, RF7, B13-9, B9-1, B13-4b, RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	----	----	----	18-Mar-2025	31-Mar-2025	✓
EA150: Particle Sizing							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H) B10-5, B10-6b, B13-5, B7-1, B6-2b, B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	----	----	----	28-Mar-2025	10-Sep-2025	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1, B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	----	----	----	28-Mar-2025	12-Sep-2025	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H) B16-0, RF3, RF7, B13-9, B9-1, B13-4b, RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	----	----	----	28-Mar-2025	13-Sep-2025	✓

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA150: Soil Classification based on Particle Size							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H) B10-5, B10-6b, B13-5, B7-1, B6-2b, B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	----	----	----	28-Mar-2025	10-Sep-2025	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1, B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	----	----	----	28-Mar-2025	12-Sep-2025	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H) B16-0, RF3, RF7, B13-9, B9-1, B13-4b, RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	----	----	----	28-Mar-2025	13-Sep-2025	✓
EA152: Soil Particle Density							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA152) B10-5, B10-6b, B13-5, B7-1, B6-2b, B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	----	----	----	27-Mar-2025	10-Sep-2025	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA152) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1, B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	----	----	----	27-Mar-2025	12-Sep-2025	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA152) B16-0, RF3, RF7, B13-9, B9-1, B13-4b, RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	----	----	----	27-Mar-2025	13-Sep-2025	✓



Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES							
Soil Glass Jar - Unpreserved (EG005-SDH) B8-3, B7-1	14-Mar-2025	10-Apr-2025	10-Sep-2025	✓	14-Apr-2025	10-Sep-2025	✓
Soil Glass Jar - Unpreserved (EG005-SDH) B12-2, B11-9c	16-Mar-2025	10-Apr-2025	12-Sep-2025	✓	14-Apr-2025	12-Sep-2025	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T) B10-5, B10-6b, B13-5, B7-1, B6-2b, B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	18-Mar-2025	10-Sep-2025	✓	18-Mar-2025	10-Sep-2025	✓
Soil Glass Jar - Unpreserved (EG005T) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1, B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	18-Mar-2025	12-Sep-2025	✓	18-Mar-2025	12-Sep-2025	✓
Soil Glass Jar - Unpreserved (EG005T) B16-0, RF3, RF7, B13-9, B9-1, B13-4b, RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	18-Mar-2025	13-Sep-2025	✓	18-Mar-2025	13-Sep-2025	✓



Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG020-SD: Total Metals in Sediments by ICPMS								
Soil Glass Jar - Unpreserved (EG020-SD) B10-5, B10-6b, B13-5, B7-1, B6-2b,	B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	18-Mar-2025	10-Sep-2025	✓	19-Mar-2025	10-Sep-2025	✓
Soil Glass Jar - Unpreserved (EG020-SD) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1,	B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	18-Mar-2025	12-Sep-2025	✓	19-Mar-2025	12-Sep-2025	✓
Soil Glass Jar - Unpreserved (EG020-SD) B16-0, RF3, RF7, B13-9, B9-1, B13-4b,	RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	18-Mar-2025	13-Sep-2025	✓	19-Mar-2025	13-Sep-2025	✓
EG035-SDH: 1M HCl extractable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035-SDH) B13-4c		17-Mar-2025	10-Apr-2025	14-Apr-2025	✓	15-Apr-2025	14-Apr-2025	✗



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS (Low Level)								
Soil Glass Jar - Unpreserved (EG035T-LL)		14-Mar-2025	18-Mar-2025	11-Apr-2025	✓	19-Mar-2025	11-Apr-2025	✓
B10-5, B10-6b, B13-5, B7-1, B6-2b,	B10-6, B10-8, B8-3, B6-2, B11-9b							
Soil Glass Jar - Unpreserved (EG035T-LL)		16-Mar-2025	18-Mar-2025	13-Apr-2025	✓	19-Mar-2025	13-Apr-2025	✓
B11-9, B12-1, B15-1, B15-3, B13-4, B16-1,	B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c							
Soil Glass Jar - Unpreserved (EG035T-LL)		17-Mar-2025	18-Mar-2025	14-Apr-2025	✓	19-Mar-2025	14-Apr-2025	✓
B16-0, RF3, RF7, B13-9, B9-1, B13-4b,	RF2, RF6, RF4, B13-1, B8-1, B13-4c							
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK059G)		14-Mar-2025	19-Mar-2025	11-Apr-2025	✓	20-Mar-2025	21-Mar-2025	✓
B10-6, B7-1	B10-6b,							
Soil Glass Jar - Unpreserved (EK059G)		16-Mar-2025	19-Mar-2025	13-Apr-2025	✓	20-Mar-2025	21-Mar-2025	✓
B11-8, B15-2, B13-8	B12-1, B15-3,							
Soil Glass Jar - Unpreserved (EK059G)		17-Mar-2025	19-Mar-2025	14-Apr-2025	✓	20-Mar-2025	21-Mar-2025	✓
B13-1,	B9-1							
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Soil Glass Jar - Unpreserved (EK061G)		14-Mar-2025	19-Mar-2025	11-Apr-2025	✓	20-Mar-2025	16-Apr-2025	✓
B10-6, B7-1	B10-6b,							
Soil Glass Jar - Unpreserved (EK061G)		16-Mar-2025	19-Mar-2025	13-Apr-2025	✓	20-Mar-2025	16-Apr-2025	✓
B11-8, B15-2, B13-8	B12-1, B15-3,							
Soil Glass Jar - Unpreserved (EK061G)		17-Mar-2025	19-Mar-2025	14-Apr-2025	✓	20-Mar-2025	16-Apr-2025	✓
B13-1,	B9-1							



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK067G: Total Phosphorus as P by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK067G) B10-6, B7-1	B10-6b,	14-Mar-2025	19-Mar-2025	11-Apr-2025	✔	20-Mar-2025	16-Apr-2025	✔
Soil Glass Jar - Unpreserved (EK067G) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	19-Mar-2025	13-Apr-2025	✔	20-Mar-2025	16-Apr-2025	✔
Soil Glass Jar - Unpreserved (EK067G) B13-1,	B9-1	17-Mar-2025	19-Mar-2025	14-Apr-2025	✔	20-Mar-2025	16-Apr-2025	✔
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)								
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN68a-G) B10-5, B10-6b, B8-3, B6-2, B11-9b	B10-6, B10-8, B7-1, B6-2b,	14-Mar-2025	19-Mar-2025	28-Mar-2025	✔	----	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN68a-G) B11-9, B12-1,	B11-8, 10L Drum - Elutriate blank	16-Mar-2025	19-Mar-2025	30-Mar-2025	✔	----	----	----
EN82: Porewater Extraction								
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN82) B10-5 - Pore water, B10-6b - Pore water	B10-6 - Pore water,	14-Mar-2025	18-Mar-2025	28-Mar-2025	✔	----	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN82) B13-8 - Pore water		14-Mar-2025	19-Mar-2025	28-Mar-2025	✔	----	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN82) B10-8 - Pore water, B11-8 - Pore water, B13-5 - Pore water	B11-9 - Pore water, B12-1 - Pore water,	16-Mar-2025	18-Mar-2025	30-Mar-2025	✔	----	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN82) B11-9b - Pore water		16-Mar-2025	19-Mar-2025	30-Mar-2025	✔	----	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN82) B13-9 - Pore water, B8-3 - Pore water, B6-2 - Pore water,	B13-1 - Pore water, B7-1 - Pore water, B6-2b - Pore water	17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	----	----	----



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP003: Total Organic Carbon (TOC) in Soil									
Pulp Bag (EP003) B10-5, B10-6b, B13-5, B7-1, B6-2b,		B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	20-Mar-2025	11-Apr-2025	✔	20-Mar-2025	11-Apr-2025	✔
Pulp Bag (EP003) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1,		B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	20-Mar-2025	13-Apr-2025	✔	20-Mar-2025	13-Apr-2025	✔
Pulp Bag (EP003) B16-0, RF3, RF7, B13-9, B9-1, B13-4b,		RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	20-Mar-2025	14-Apr-2025	✔	20-Mar-2025	14-Apr-2025	✔
EP080/071: Total Petroleum Hydrocarbons									
Soil Glass Jar - Unpreserved (EP080) Trip blank - 111829,		Trip blank - 111825	17-Mar-2025	18-Mar-2025	31-Mar-2025	✔	19-Mar-2025	31-Mar-2025	✔
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
Soil Glass Jar - Unpreserved (EP080) Trip blank - 111829,		Trip blank - 111825	17-Mar-2025	18-Mar-2025	31-Mar-2025	✔	19-Mar-2025	31-Mar-2025	✔
EP080: BTEXN									
Soil Glass Jar - Unpreserved (EP080) Trip blank - 111829,		Trip blank - 111825	17-Mar-2025	18-Mar-2025	31-Mar-2025	✔	19-Mar-2025	31-Mar-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080-SD) B10-6, B7-1	B10-6b,	14-Mar-2025	19-Mar-2025	28-Mar-2025	✔	20-Mar-2025	28-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B10-6, B7-1	B10-6b,	14-Mar-2025	19-Mar-2025	28-Mar-2025	✔	31-Mar-2025	28-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP080-SD) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	19-Mar-2025	30-Mar-2025	✔	20-Mar-2025	30-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	19-Mar-2025	30-Mar-2025	✔	31-Mar-2025	28-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP080-SD) B13-1,	B9-1	17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	20-Mar-2025	31-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B13-1		17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	30-Mar-2025	28-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B9-1		17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	31-Mar-2025	28-Apr-2025	✔
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080-SD) B10-6, B7-1	B10-6b,	14-Mar-2025	19-Mar-2025	28-Mar-2025	✔	20-Mar-2025	28-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B10-6, B7-1	B10-6b,	14-Mar-2025	19-Mar-2025	28-Mar-2025	✔	31-Mar-2025	28-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP080-SD) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	19-Mar-2025	30-Mar-2025	✔	20-Mar-2025	30-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	19-Mar-2025	30-Mar-2025	✔	31-Mar-2025	28-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP080-SD) B13-1,	B9-1	17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	20-Mar-2025	31-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B13-1		17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	30-Mar-2025	28-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP071-SD-SV) B9-1		17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	31-Mar-2025	28-Apr-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080-SD: BTEXN								
Soil Glass Jar - Unpreserved (EP080-SD) B10-6, B7-1	B10-6b,	14-Mar-2025	19-Mar-2025	28-Mar-2025	✔	20-Mar-2025	28-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP080-SD) B11-8, B15-2, B13-8	B12-1, B15-3,	16-Mar-2025	19-Mar-2025	30-Mar-2025	✔	20-Mar-2025	30-Mar-2025	✔
Soil Glass Jar - Unpreserved (EP080-SD) B13-1,	B9-1	17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	20-Mar-2025	31-Mar-2025	✔
EP090: Organotin Compounds								
Soil Glass Jar - Frozen (EP090) B8-3, B6-2, B11-9b	B7-1, B6-2b,	14-Mar-2025	18-Mar-2025	09-May-2025	✔	25-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Frozen (EP090) B10-5, B10-6b,	B10-6, B10-8	14-Mar-2025	18-Mar-2025	09-May-2025	✔	27-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Frozen (EP090) B11-9, B12-1	B11-8,	16-Mar-2025	18-Mar-2025	11-May-2025	✔	27-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) B13-5		14-Mar-2025	18-Mar-2025	28-Mar-2025	✔	28-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) B11-9c		16-Mar-2025	18-Mar-2025	30-Mar-2025	✔	25-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) B12-2		16-Mar-2025	18-Mar-2025	30-Mar-2025	✔	27-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) B15-1, B15-3, B13-4, B16-1	B15-2, B11-5, B13-8,	16-Mar-2025	18-Mar-2025	30-Mar-2025	✔	28-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) RF6,	RF7	17-Mar-2025	18-Mar-2025	31-Mar-2025	✔	24-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) RF4, B13-1, B13-4b,	B13-9, B9-1, B13-4c	17-Mar-2025	18-Mar-2025	31-Mar-2025	✔	25-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) B16-0, RF3	RF2,	17-Mar-2025	18-Mar-2025	31-Mar-2025	✔	28-Mar-2025	27-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP090) B8-1		17-Mar-2025	19-Mar-2025	31-Mar-2025	✔	20-Mar-2025	28-Apr-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Soil Glass Jar - Unpreserved (EP130) B10-5, B10-6b, B13-5		14-Mar-2025	20-Mar-2025	28-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP130) B8-3, B6-2, B11-9b		14-Mar-2025	20-Mar-2025	28-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP130) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1		16-Mar-2025	20-Mar-2025	30-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP130) B11-9c		16-Mar-2025	20-Mar-2025	30-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP130) B16-0		17-Mar-2025	20-Mar-2025	31-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP130) RF2, RF6, RF4, B13-1, B8-1, B13-4c		17-Mar-2025	20-Mar-2025	31-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP131A: Organochlorine Pesticides									
Soil Glass Jar - Unpreserved (EP131A) B10-5, B10-6b, B13-5, B7-1, B6-2b,		B10-6, B10-8, B8-3, B6-2, B11-9b	14-Mar-2025	20-Mar-2025	28-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP131A) B11-9, B12-1, B15-1, B15-3, B13-4, B16-1,		B11-8, B12-2, B15-2, B11-5, B13-8, B11-9c	16-Mar-2025	20-Mar-2025	30-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP131A) B16-0, RF3, RF7, B13-9, B9-1, B13-4b,		RF2, RF6, RF4, B13-1, B8-1, B13-4c	17-Mar-2025	20-Mar-2025	31-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔
EP131B: Polychlorinated Biphenyls (as Aroclors)									
Soil Glass Jar - Unpreserved (EP131B) B10-6,		B10-6b	14-Mar-2025	20-Mar-2025	28-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP131B) B7-1			14-Mar-2025	20-Mar-2025	28-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP131B) B11-8, B15-2, B13-8		B12-1, B15-3,	16-Mar-2025	20-Mar-2025	30-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP131B) B13-1,		B9-1	17-Mar-2025	20-Mar-2025	31-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP132B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP132B-SD)								
B10-6,	B10-6b	14-Mar-2025	20-Mar-2025	28-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP132B-SD)								
B7-1		14-Mar-2025	20-Mar-2025	28-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP132B-SD)								
B11-8,	B12-1,	16-Mar-2025	20-Mar-2025	30-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
B15-2,	B15-3,							
B13-8								
Soil Glass Jar - Unpreserved (EP132B-SD)								
B13-1		17-Mar-2025	20-Mar-2025	31-Mar-2025	✔	24-Mar-2025	29-Apr-2025	✔
Soil Glass Jar - Unpreserved (EP132B-SD)								
B9-1		17-Mar-2025	20-Mar-2025	31-Mar-2025	✔	25-Mar-2025	29-Apr-2025	✔

Matrix: **WATER**

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

Method		Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG035T: Total Mercury by FIMS									
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T-LL) B10-5 - Pore water, B10-6b - Pore water, B11-9 - Pore water, B12-1 - Pore water,		B10-6 - Pore water, B10-8 - Pore water, B11-8 - Pore water, B13-5 - Pore water	18-Mar-2025	----	----	----	24-Mar-2025	15-Apr-2025	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T-LL) B10-5, B10-6b, B11-9, B12-1, B7-1, B6-2b, B11-9b		B10-6, B10-8, B11-8, B8-3, B6-2, 10L Drum - Elutriate blank,	19-Mar-2025	----	----	----	22-Mar-2025	16-Apr-2025	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T-LL) B13-8 - Pore water, B13-1 - Pore water, B7-1 - Pore water, B6-2b - Pore water,		B13-9 - Pore water, B8-3 - Pore water, B6-2 - Pore water, B11-9b - Pore water	19-Mar-2025	----	----	----	24-Mar-2025	16-Apr-2025	✓



Matrix: **WATER**

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

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG093A-T) B10-5 - Pore water, B10-6b - Pore water, B11-9 - Pore water, B12-1 - Pore water,	B10-6 - Pore water, B10-8 - Pore water, B11-8 - Pore water, B13-5 - Pore water	18-Mar-2025	24-Mar-2025	14-Sep-2025	✔	24-Mar-2025	14-Sep-2025	✔
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG093A-T) B10-5, B10-6b, B11-9, B12-1, B7-1, B6-2b, B11-9b	B10-6, B10-8, B11-8, B8-3, B6-2, 10L Drum - Elutriate blank,	19-Mar-2025	21-Mar-2025	15-Sep-2025	✔	22-Mar-2025	15-Sep-2025	✔
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG093A-T) B13-8 - Pore water, B13-1 - Pore water, B7-1 - Pore water, B6-2b - Pore water,	B13-9 - Pore water, B8-3 - Pore water, B6-2 - Pore water, B11-9b - Pore water	19-Mar-2025	24-Mar-2025	15-Sep-2025	✔	24-Mar-2025	15-Sep-2025	✔
EP090: Organotin Compounds (Soluble)								
Amber Glass Bottle - Unpreserved (EP090S) B10-5 - Pore water, B10-6b - Pore water, B11-9 - Pore water, B12-1 - Pore water,	B10-6 - Pore water, B10-8 - Pore water, B11-8 - Pore water, B13-5 - Pore water	18-Mar-2025	25-Mar-2025	25-Mar-2025	✔	28-Mar-2025	04-May-2025	✔
Amber Glass Bottle - Unpreserved (EP090S) B6-2 - Pore water, B11-9b - Pore water	B6-2b - Pore water,	19-Mar-2025	25-Mar-2025	26-Mar-2025	✔	26-Mar-2025	04-May-2025	✔
Amber Glass Bottle - Unpreserved (EP090S) B10-5, B10-6b, B11-9, B12-1, B7-1, B6-2b, B11-9b, B13-9 - Pore water, B8-3 - Pore water,	B10-6, B10-8, B11-8, B8-3, B6-2, 10L Drum - Elutriate blank, B13-8 - Pore water, B13-1 - Pore water, B7-1 - Pore water	19-Mar-2025	26-Mar-2025	26-Mar-2025	✔	27-Mar-2025	05-May-2025	✔

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

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP131A: Organochlorine Pesticides								
Amber Glass Bottle - Unpreserved (EP131A) B10-5 - Pore water, B10-6b - Pore water, B11-9 - Pore water, B12-1 - Pore water,	B10-6 - Pore water, B10-8 - Pore water, B11-8 - Pore water, B13-5 - Pore water	18-Mar-2025	25-Mar-2025	25-Mar-2025	✓	26-Mar-2025	04-May-2025	✓
Amber Glass Bottle - Unpreserved (EP131A) B10-5, B10-6b, B11-9, B12-1, B7-1, B6-2b, B11-9b	B10-6, B10-8, B11-8, B8-3, B6-2, 10L Drum - Elutriate blank,	19-Mar-2025	20-Mar-2025	26-Mar-2025	✓	21-Mar-2025	29-Apr-2025	✓
Amber Glass Bottle - Unpreserved (EP131A) B13-8 - Pore water, B13-1 - Pore water, B7-1 - Pore water, B6-2b - Pore water,	B13-9 - Pore water, B8-3 - Pore water, B6-2 - Pore water, B11-9b - Pore water	19-Mar-2025	25-Mar-2025	26-Mar-2025	✓	26-Mar-2025	04-May-2025	✓



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
1M HCl Extractable Mercury by FIMS	EG035-SDH	1	1	100.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chromium Suite for Acid Sulphate Soils	EA033	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organochlorine Pesticides (Ultra-trace)	EP131A	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	5	40	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	2	10	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Soil Particle Density	EA152	0	34	0.00	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	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS (Low Level)	EG035T-LL	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Organic Carbon	EP003	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatle Fractions Only	EP071-SD-SV	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
1M HCl Extractable Mercury by FIMS	EG035-SDH	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chromium Suite for Acid Sulphate Soils	EA033	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organochlorine Pesticides (Ultra-trace)	EP131A	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	3	40	7.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	2	10	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Soil Particle Density	EA152	2	34	5.88	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		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Control Samples (LCS) - Continued							
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	2	10	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS (Low Level)	EG035T-LL	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Organic Carbon	EP003	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	2	10	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatile Fractions Only	EP071-SD-SV	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
1M HCl Extractable Mercury by FIMS	EG035-SDH	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chromium Suite for Acid Sulphate Soils	EA033	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organochlorine Pesticides (Ultra-trace)	EP131A	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	3	40	7.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	2	10	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Seawater Elutriate Testing Procedure - Glass Leaching Vessel	EN68a-G	1	13	7.69	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	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS (Low Level)	EG035T-LL	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Organic Carbon	EP003	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatile Fractions Only	EP071-SD-SV	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
1M HCl Extractable Mercury by FIMS	EG035-SDH	0	1	0.00	5.00	✗	NEPM 2013 B3 & ALS QC Standard
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	15	6.67	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		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS) - Continued							
Organochlorine Pesticides (Ultra-trace)	EP131A	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	3	40	7.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	2	10	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS (Low Level)	EG035T-LL	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	0	34	0.00	5.00	✗	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	2	34	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatle Fractions Only	EP071-SD-SV	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	45	2.22	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	4	33	12.12	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	4	33	12.12	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Organochlorine Pesticides (Ultra-trace)	EP131A	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	3	45	6.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Organochlorine Pesticides (Ultra-trace)	EP131A	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	3	45	6.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	45	2.22	5.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	2	33	6.06	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
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.
Chromium Suite for Acid Sulphate Soils	EA033	SOIL	In house: Referenced to Ahern et al 2004. This method covers the determination of Chromium Reducible Sulfur (SCR); pHKCl; titratable actual acidity (TAA); acid neutralising capacity by back titration (ANC); and net acid soluble sulfur (SNAS) which incorporates peroxide sulfur. It applies to soils and sediments (including sands) derived from coastal regions. 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).
Particle Size Analysis by Hydrometer	EA150H	SOIL	Particle Size Analysis by Hydrometer according to AS1289.3.6.3
Soil Particle Density	EA152	SOIL	Soil Particle Density by AS 1289.3.5.1: Methods of testing soils for engineering purposes - Soil classification tests - Determination of the soil particle density of a soil - Standard method
1M HCl Extractable Metals	EG005-SDH	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined via ICPAES following weak acid extraction. 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). LORs per NAGD. ALS is not NATA accredited for the analysis of Barium, Boron, Molybdenum and Strontium by this method.
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Metals in Sediments by ICPMS	EG020-SD	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector. Analyte list and LORs per NODG.
1M HCl Extractable Mercury by FIMS	EG035-SDH	SOIL	In house: Referenced to APHA 3112 Hg - B. Mercury is determined via FIMS following weak acid extraction. 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)
Total Mercury by FIMS - Low Level	EG035T-LL	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. 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).



Analytical Methods	Method	Matrix	Method Descriptions
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020. The ORC-ICPMS technique removes interfering species through a series of chemical reactions prior to ion detection. Ions are passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to measurement by a discrete dynode ion detector. This method is compliant with NEPM Schedule B(3).
Nitrite and Nitrate as N (NO _x)- 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 (NO _x -N) and nitrate (NO ₃ -N) by calculation, Combined oxidised Nitrogen (NO ₂ +NO ₃) 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 + NO _x) By Discrete Analyser	EK062G	SOIL	In house: Referenced to APHA 4500 Norg/NO ₃ - Total Nitrogen is determined as the sum of TKN and Oxidised Nitrogen, each determined separately as N.
Total Phosphorus By Discrete Analyser	EK067G	SOIL	In house: Referenced to APHA 4500 P-B&F This procedure involves sulfuric acid digestion and quantification using Discrete Analyser.
Total Organic Carbon	EP003	SOIL	In house C-IR17. Dried and pulverised sample is reacted with acid to remove inorganic Carbonates, then combusted in a furnace in the presence of strong oxidants / catalysts. The evolved (Organic) Carbon (as CO ₂) is automatically measured by infra-red detector.
TPH - Semivolatile Fractions Only	EP071-SD-SV	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
TRH Volatiles/BTEX in Sediments	EP080-SD	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.
Organotin Analysis	EP090	SOIL	In house: Referenced to USEPA SW 846 - 8270 Prepared sample extracts are analysed by GC/MS coupled with high volume injection, and quantified against an established calibration curve.
Organotin Compounds (Soluble)	EP090S	SOIL	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by GC/MS coupled with high volume injection and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
Organophosphorus Pesticides (Ultra-trace)	EP130	SOIL	In house: Referenced to USEPA Method 3640 (GPC cleanup), 8141 (GC/FPD - Capillary Column) This technique is compliant with NEPM Schedule B(3)
Organochlorine Pesticides (Ultra-trace)	EP131A	SOIL	In house: Referenced to USEPA Method 3640 (GPC cleanup), 3620 (Florisil), 8081/8082 (GC/μECD/uECD). This method is compliant with NEPM Schedule B(3)
PCB's (Ultra-trace)	EP131B	SOIL	In house: Referenced to USEPA Method 3640 (GPC cleanup), 3620 (Florisil), 8081/8082 (GC/μECD/μECD) This technique is compliant with NEPM Schedule B(3)
PAHs in Sediments by GCMS(SIM)	EP132B-SD	SOIL	In house: Referenced to USEPA 8270 GCMS Capillary column, SIM mode using large volume programmed temperature vaporisation injection.
Preparation Methods	Method	Matrix	Method Descriptions
TKN/TP Digestion	EK061/EK067	SOIL	In house: Referenced to APHA 4500 Norg- D; APHA 4500 P - H. Macro Kjeldahl digestion.



Preparation Methods	Method	Matrix	Method Descriptions
Drying at 85 degrees, bagging and labelling (ASS)	EN020PR	SOIL	In house
Digestion for Total Recoverable Metals - ORC	EN25-ORC	SOIL	In house: Referenced to USEPA SW846-3005. This is an Ultrapure Nitric acid digestion procedure used to prepare surface and ground water samples for analysis by ORC- ICPMS. This method is compliant with NEPM Schedule B(3)
1:5 solid / water leach for soluble analytes	EN34	SOIL	10 g of soil is mixed with 50 mL of reagent grade water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
Seawater Elutriate Testing Procedure - Glass Leaching Vessel	EN68a-G	SOIL	USEPA Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Guide, EPA-503/8-91/001, USEPA and US Army Corps of Engineers. ANZECC Interim Ocean Disposal Guidelines This Procedure outlines the preparation of leachate designed to simulate release of contaminants from sediment during the disposal of dredged material. Release can occur by physical processes or a variety of chemical changes such as oxidation of metal sulphides and release of contaminants adsorbed to particles or organic matter.
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).
1M HCl Extraction for Metals in Sediments (1 hour)	EN71	SOIL	In house: Referenced to In house, Allen (1993). 1g of sample is leached at room temperature for 1 hour in 10% hydrochloric acid. The resultant extract is filtered and bulked for analysis of extracted metals.
Porewater Extraction	EN82	SOIL	Extraction of porewater from sediment samples using centrifuge.
Dry and Pulverise (up to 100g)	GEO30	SOIL	#
Sep. Funnel Extraction of Liquids (Ultra-trace pesticides.)	ORG14-UTP	SOIL	In house: Referenced to USEPA 3510 Samples are extracted into dichloromethane, concentrated and exchanged into an appropriate solvent for GPC and florisil cleanup as required. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In house: Mechanical agitation (tumbler). 20g of sample, Na ₂ SO ₄ and surrogate are extracted with 150mL 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/ Sample Cleanup	ORG17A-UTP	SOIL	In house: Mechanical agitation (tumbler). 20g of sample, Na ₂ SO ₄ and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. Samples are extracted, concentrated (by KD) and exchanged into an appropriate solvent for GPC and florisil cleanup as required.
Tumbler Extraction of Solids for LVI (Non-concentrating)	ORG17D	SOIL	In house: 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 50mL 1:1 DCM/Acetone by end over end tumbling. An aliquot is concentrated by nitrogen blowdown to a reduced volume for analysis if required.
Organotin Sample Preparation	ORG34	SOIL	In house. A specified volume of sample is spiked with surrogate, acidified and vacuum filtered. Reagents and solvent are added and the mixture tumbled. The butyltin compounds is derivatisated, extracted and the substitution reaction completed. The extract is transferred to a separatory funnel and further extracted two times with petroleum ether. The resultant extracts are combined and concentrated for analysis.



Preparation Methods	Method	Matrix	Method Descriptions
Organotin Sample Preparation	ORG35	SOIL	In house: 20g sample is spiked with surrogate and leached in a methanol:acetic acid:UHP water mix and vacuum filtered. Reagents and solvents are added to the sample and the mixture tumbled. The butyltin compounds are simultaneously derivatised and extracted. The extract is further extracted with petroleum ether. The resultant extracts are combined and concentrated for analysis.



CERTIFICATE OF ANALYSIS

Work Order	: EB2508981	Page	: 1 of 29
Amendment	: 1		
Client	: BMT COMMERCIAL AUSTRALIA PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MACKENZIE STACEY	Contact	: Nathan King
Address	: PO BOX 203 SPRING HILL BRISBANE QLD 4004	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: +61-7-3552-8685
Project	: B23621 PoB Monitoring 2019-2025	Date Samples Received	: 18-Mar-2025 13:00
Order number	: No PO Provided	Date Analysis Commenced	: 19-Mar-2025
C-O-C number	: ----	Issue Date	: 15-Apr-2025 11:42
Sampler	: ANGUS WILLIAMS, CRAIG HEATHERINGTON, MACKENZIE STACEY		
Site	: ----		
Quote number	: BN/016/19 V2		
No. of samples received	: 12		
No. of samples analysed	: 12		



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	Position	Accreditation Category
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Kim McCabe	Senior Inorganic Chemist	Brisbane Soil Preparation, Stafford, QLD
Layla Hafner	Acid Sulphate Soils - Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Tatijana Markoska	Senior Chemist - Organics	Brisbane Organics, Stafford, QLD



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.

- EA150H: Soil particle density results fell outside the scope of AS1289.3.6.3. Results should be scrutinised accordingly.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP131A: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP080-SD: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- ASS: EA033 (CRS Suite): 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)
- EP132B-SD : LOR is raised due to high amount of moistures is present.
- EP130: LOR for sample raised due to the high amount of moisture present.
- **Speciality organic analysis is conducted by ALS Environmental, Sydney, NATA accreditation no. 825, Site No. 10911.**
- ASS: EA029 (SPOCAS): Retained Acidity not required because pH KCl greater than or equal to 4.5
- ASS: EA033 (CRS Suite): Retained Acidity not required because pH KCl greater than or equal to 4.5
- Amendment (15/04/2025): This report has been amended and re-released to allow the reporting of additional analytical data, specifically method EG005-SDH for samples B4-4 and B5-1b (ALS #3 and 8)
- EP131B : Particular samples required dilution due to sample matrix . LOR values have been adjusted accordingly.
- EG035T-LL (Low-Level Total Mercury by FIMS): B2-0 (EB2508981-001) shows poor duplicate results due to sample heterogeneity. This has been confirmed by visual inspection.
- EG035T-LL (Total Mercury Low Level): Positive mercury result has been confirmed by re-extraction and re-analysis.
- EP071 – TRH Semivolatile Fraction: Sample 'B5-0' (EB2508981-005) shows poor duplicate recovery due to heterogeneity (Free Water). Confirmed by visual inspection.
- It is recognised that EG020-SD (Total Metals in Sediments by ICP-MS) is less than EG005-SDH (1M HCl Extractable Metals by ICP-AES) for some samples. However, the difference is within experimental variation of the methods.
- ASS: EA029 (SPOCAS): Laboratory determinations of ANC needs to be corroborated by effectiveness of the measured ANC in relation to incubation ANC. Unless corroborated, the results of ANC testing should be discounted when determining Net Acidity for comparison with action criteria, or for the determination of the acidity hazard and required liming amounts.
- ASS: EA033 (CRS Suite): Laboratory determinations of ANC needs to be corroborated by effectiveness of the measured ANC in relation to incubation ANC. Unless corroborated, the results of ANC testing should be discounted when determining Net Acidity for comparison with action criteria, or for the determination of the acidity hazard and required liming amounts.
- ASS: EA033 (CRS Suite): 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'.
- 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.



- EN68: This analysis in accordance with National Ocean Disposal Guidelines, Commonwealth of Australia, 2002 - (modified). Results reported are those determined on a 1:4 sediment/seawater elutriate without blank correction.
- EG093: Samples containing high levels of sulfate may precipitate barium under the acidic conditions of this method and may therefore bias results low.



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B4-0 Pore water	B5-0 Pore water	----	----	----
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2508981-011	EB2508981-012	-----	-----	-----
				Result	Result	----	----	----
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	0.00009	----	----	----
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	16.4	54.0	----	----	----
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	----	----	----
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	----	----	----
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	----	----	----
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	----	----	----
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.010	µg/L	<0.010	<0.010	----	----	----
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	----	----	----
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	----	----	----
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	----	----	----
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	----	----	----
^ Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	----	----	----
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	----	----	----
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	----	----	----



Analytical Results

Sub-Matrix: PORE WATER LEACHATE
 (Matrix: WATER)

Sample ID

				B4-0 Pore water	B5-0 Pore water	----	----	----
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2508981-011	EB2508981-012	-----	-----	-----
				Result	Result	----	----	----
EP131A: Organochlorine Pesticides - Continued								
Methoxychlor	72-43-5	0.010	µg/L	<0.010	<0.010	----	----	----
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	<0.010	----	----	----
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	<0.010	----	----	----
^ Total Chlordane (sum)	-----	0.010	µg/L	<0.010	<0.010	----	----	----
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	<0.010	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	<0.010	----	----	----
EP090S: Organotin Surrogate								
Tripopyltin	-----	5	%	26.3	53.6	----	----	----
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.010	%	93.0	92.1	----	----	----



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

Sample ID

				B4-0	B5-0	----	----	----
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2508981-004	EB2508981-005	-----	-----	-----
				Result	Result	----	----	----
EG035T: Total Mercury by FIMS								
Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	----	----	----
EG093T: Total Metals in Saline Water by ORC-ICPMS								
Nickel	7440-02-0	0.5	µg/L	3.2	2.6	----	----	----
EP090: Organotin Compounds (Soluble)								
Tributyltin	56573-85-4	2	ngSn/L	<2	<2	----	----	----
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.010	µg/L	<0.010	<0.010	----	----	----
alpha-BHC	319-84-6	0.010	µg/L	<0.010	<0.010	----	----	----
beta-BHC	319-85-7	0.010	µg/L	<0.010	<0.010	----	----	----
delta-BHC	319-86-8	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDD	72-54-8	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDE	72-55-9	0.010	µg/L	<0.010	<0.010	----	----	----
4,4'-DDT	50-29-3	0.010	µg/L	<0.010	<0.010	----	----	----
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.010	µg/L	<0.010	<0.010	----	----	----
Dieldrin	60-57-1	0.010	µg/L	<0.010	<0.010	----	----	----
alpha-Endosulfan	959-98-8	0.010	µg/L	<0.010	<0.010	----	----	----
beta-Endosulfan	33213-65-9	0.010	µg/L	<0.010	<0.010	----	----	----
Endosulfan sulfate	1031-07-8	0.010	µg/L	<0.010	<0.010	----	----	----
[^] Endosulfan (sum)	115-29-7	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin	72-20-8	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin aldehyde	7421-93-4	0.010	µg/L	<0.010	<0.010	----	----	----
Endrin ketone	53494-70-5	0.010	µg/L	<0.010	<0.010	----	----	----
Heptachlor	76-44-8	0.005	µg/L	<0.005	<0.005	----	----	----
Heptachlor epoxide	1024-57-3	0.010	µg/L	<0.010	<0.010	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.010	µg/L	<0.010	<0.010	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.010	µg/L	<0.010	<0.010	----	----	----



Analytical Results

Sub-Matrix: SEAWATER LEACHATE
 (Matrix: WATER)

Sample ID

				B4-0	B5-0	----	----	----
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2508981-004	EB2508981-005	-----	-----	-----
				Result	Result	----	----	----
EP131A: Organochlorine Pesticides - Continued								
Methoxychlor	72-43-5	0.010	µg/L	<0.010	<0.010	----	----	----
cis-Chlordane	5103-71-9	0.010	µg/L	<0.010	<0.010	----	----	----
trans-Chlordane	5103-74-2	0.010	µg/L	<0.010	<0.010	----	----	----
[^] Total Chlordane (sum)	----	0.010	µg/L	<0.010	<0.010	----	----	----
Oxychlordane	27304-13-8	0.010	µg/L	<0.010	<0.010	----	----	----
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.010	µg/L	<0.010	<0.010	----	----	----
EP090S: Organotin Surrogate								
Tripopyltin	----	5	%	56.5	56.7	----	----	----
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.010	%	107	112	----	----	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	----	----	----	8.1
pH OX (23B)	----	0.1	pH Unit	----	----	----	----	6.6
EA029-B: Acidity Trail								
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	----	----	----	----	<2
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	----	----	<2
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	----	----	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	----	----	<0.020
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	----	----	<0.020
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	----	----	<0.020
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	----	----	0.145
Peroxide Sulfur (23De)	----	0.020	% S	----	----	----	----	0.451
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	----	----	0.305
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	----	----	190
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	----	----	0.314
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	----	----	0.383
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	----	----	0.069
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	----	----	34
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	----	----	0.055
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	----	----	0.322
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	----	----	0.405
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	----	----	0.082
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	----	----	68
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	----	----	0.109



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO ₃	----	----	----	----	0.764
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H ⁺ / t	----	----	----	----	152
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	----	----	----	0.244
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	----	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	----	----	----	<0.02
Net Acidity (acidity units)	----	10	mole H ⁺ / t	----	----	----	----	<10
Liming Rate	----	1	kg CaCO ₃ /t	----	----	----	----	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	----	----	0.30
Net Acidity excluding ANC (acidity units)	----	10	mole H ⁺ / t	----	----	----	----	190
Liming Rate excluding ANC	----	1	kg CaCO ₃ /t	----	----	----	----	14
EA033-A: Actual Acidity								
pH KCl (23A)	----	0.1	pH Unit	----	----	----	----	8.2
Titrateable Actual Acidity (23F)	----	2	mole H ⁺ / t	----	----	----	----	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S	----	----	----	----	<0.02
EA033-B: Potential Acidity								
Chromium Reducible Sulfur (22B)	----	0.005	% S	----	----	----	----	0.308
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H ⁺ / t	----	----	----	----	192
EA033-C: Acid Neutralising Capacity								
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO ₃	----	----	----	----	2.47
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H ⁺ / t	----	----	----	----	493
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	----	----	----	----	0.79
EA033-E: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	----	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	----	----	----	<0.02



Analytical Results

Sub-Matrix: SEDIMENT
(Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued								
Net Acidity (acidity units)	----	10	mole H+ / t	----	----	----	----	<10
Liming Rate	----	1	kg CaCO3/t	----	----	----	----	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	----	----	0.31
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	----	----	----	192
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	----	----	----	14
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	23.4	27.8	70.2	69.6	----
Moisture Content	----	1.0	%	----	----	----	----	66.8
EA150: Particle Sizing								
+75µm	----	1	%	98	98	3	4	4
+150µm	----	1	%	98	98	2	2	2
+300µm	----	1	%	90	75	1	2	1
+425µm	----	1	%	62	16	<1	<1	<1
+600µm	----	1	%	17	3	<1	<1	<1
+1180µm	----	1	%	<1	<1	<1	<1	<1
+2.36mm	----	1	%	<1	<1	<1	<1	<1
+4.75mm	----	1	%	<1	<1	<1	<1	<1
+9.5mm	----	1	%	<1	<1	<1	<1	<1
+19.0mm	----	1	%	<1	<1	<1	<1	<1
+37.5mm	----	1	%	<1	<1	<1	<1	<1
+75.0mm	----	1	%	<1	<1	<1	<1	<1
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	1	1	46	56	49
Silt (2-60 µm)	----	1	%	<1	<1	48	37	44
Sand (0.06-2.00 mm)	----	1	%	99	99	6	7	7
Gravel (>2mm)	----	1	%	<1	<1	<1	<1	<1
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	<1

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005	
				Result	Result	Result	Result	Result	
EA152: Soil Particle Density									
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.62	2.72	2.38	2.44	2.43	
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES									
Nickel	7440-02-0	1.0	mg/kg	----	----	25.1	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	2440	1240	14500	13600	10300	
Iron	7439-89-6	50	mg/kg	8330	3640	37000	32900	23600	
EG020-SD: Total Metals in Sediments by ICPMS									
Arsenic	7440-38-2	1.00	mg/kg	1.36	1.67	7.11	6.54	6.92	
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
Chromium	7440-47-3	1.0	mg/kg	7.1	2.7	30.3	27.2	27.7	
Copper	7440-50-8	1.0	mg/kg	3.0	5.4	33.0	30.0	34.2	
Lead	7439-92-1	1.0	mg/kg	2.9	20.0	20.2	20.9	21.2	
Nickel	7440-02-0	1.0	mg/kg	6.7	2.2	23.7	20.9	20.8	
Silver	7440-22-4	0.1	mg/kg	<0.1	<0.1	0.1	0.1	0.2	
Zinc	7440-66-6	1.0	mg/kg	20.2	47.4	107	108	115	
EG035T: Total Recoverable Mercury by FIMS (Low Level)									
Mercury	7439-97-6	0.01	mg/kg	0.02	0.02	0.13	0.13	0.09	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	----	----	----	----	0.8	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	20	mg/kg	----	----	----	----	1270	
EK062: Total Nitrogen as N (TKN + NOx)									
^ Total Nitrogen as N	----	20	mg/kg	----	----	----	----	1270	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	----	----	----	----	885	
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Seawater Sampling Date	----	-	-	----	----	----	19/03/2025	19/03/2025	
EP003: Total Organic Carbon (TOC) in Soil									



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result
EP003: Total Organic Carbon (TOC) in Soil - Continued								
Total Organic Carbon	----	0.02	%	0.11	0.14	1.86	2.07	1.72
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	3	mg/kg	----	----	----	----	<3
C10 - C14 Fraction	----	3	mg/kg	----	----	----	----	24
C15 - C28 Fraction	----	3	mg/kg	----	----	----	----	58
C29 - C36 Fraction	----	5	mg/kg	----	----	----	----	58
^ C10 - C36 Fraction (sum)	----	3	mg/kg	----	----	----	----	140
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
C6 - C10 Fraction	C6_C10	3	mg/kg	----	----	----	----	<3
>C10 - C16 Fraction	----	3	mg/kg	----	----	----	----	12
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	3.0	mg/kg	----	----	----	----	<3.0
>C16 - C34 Fraction	----	3	mg/kg	----	----	----	----	98
>C34 - C40 Fraction	----	5	mg/kg	----	----	----	----	30
^ >C10 - C40 Fraction (sum)	----	3	mg/kg	----	----	----	----	140
EP080-SD: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	----	----	<0.2
Toluene	108-88-3	0.2	mg/kg	----	----	----	----	<0.2
Ethylbenzene	100-41-4	0.2	mg/kg	----	----	----	----	<0.2
meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	----	----	----	----	<0.2
ortho-Xylene	95-47-6	0.2	mg/kg	----	----	----	----	<0.2
^ Total Xylenes	----	0.5	mg/kg	----	----	----	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg	----	----	----	----	<0.2
Naphthalene	91-20-3	0.2	mg/kg	----	----	----	----	<0.2
EP090: Organotin Compounds								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	<1
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	1	<1	<1
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	0.8	1.9	1.8	1.3



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result

EP090: Organotin Compounds - Continued

EP130A: Organophosphorus Pesticides (Ultra-trace)

Bromophos-ethyl	4824-78-6	10	µg/kg	<10	<10	<12	<12	<12
Carbophenothion	786-19-6	10	µg/kg	<10	<10	<12	<12	<12
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<10.0	<10.0	<12.0	<12.0	<12.0
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	<10	<12	<12	<12
Chlorpyrifos	2921-88-2	10	µg/kg	<10	<10	<12	<12	<12
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	<10	<12	<12	<12
Demeton-S-methyl	919-86-8	10	µg/kg	<10	<10	<12	<12	<12
Diazinon	333-41-5	10	µg/kg	<10	<10	<12	<12	<12
Dichlorvos	62-73-7	10	µg/kg	<10	<10	<12	<12	<12
Dimethoate	60-51-5	10	µg/kg	<10	<10	<12	<12	<12
Ethion	563-12-2	10	µg/kg	<10	<10	<12	<12	<12
Fenamiphos	22224-92-6	10	µg/kg	<10	<10	<12	<12	<12
Fenthion	55-38-9	10	µg/kg	<10	<10	<12	<12	<12
Malathion	121-75-5	10	µg/kg	<10	<10	<12	<12	<12
Azinphos Methyl	86-50-0	10	µg/kg	<10	<10	<12	<12	<12
Monocrotophos	6923-22-4	10	µg/kg	<10	<10	<12	<12	<12
Parathion	56-38-2	10	µg/kg	<10	<10	<12	<12	<12
Parathion-methyl	298-00-0	10	µg/kg	<10	<10	<12	<12	<12
Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	<10	<12	<12	<12
Prothiofos	34643-46-4	10	µg/kg	<10	<10	<12	<12	<12

EP131A: Organochlorine Pesticides

Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
4,4'-DDE	72-55-9	0.50	µg/kg	<0.50	0.61	3.12	2.28	2.41
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.50	µg/kg	<0.50	0.61	3.12	2.28	2.41
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP131B: Polychlorinated Biphenyls (as Aroclors)								
^ Total Polychlorinated biphenyls	----	5.0	µg/kg	----	----	----	----	<31.2
Aroclor 1016	12674-11-2	5.0	µg/kg	----	----	----	----	<31.2
Aroclor 1221	11104-28-2	5.0	µg/kg	----	----	----	----	<31.2
Aroclor 1232	11141-16-5	5.0	µg/kg	----	----	----	----	<31.2



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result
EP131B: Polychlorinated Biphenyls (as Aroclors) - Continued								
Aroclor 1242	53469-21-9	5.0	µg/kg	----	----	----	----	<31.2
Aroclor 1248	12672-29-6	5.0	µg/kg	----	----	----	----	<31.2
Aroclor 1254	11097-69-1	5.0	µg/kg	----	----	----	----	<31.2
Aroclor 1260	11096-82-5	5.0	µg/kg	----	----	----	----	<31.2
EP132B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	5	µg/kg	----	----	----	----	14
2-Methylnaphthalene	91-57-6	5	µg/kg	----	----	----	----	<5
Acenaphthylene	208-96-8	4	µg/kg	----	----	----	----	14
Acenaphthene	83-32-9	4	µg/kg	----	----	----	----	<5
Fluorene	86-73-7	4	µg/kg	----	----	----	----	<5
Phenanthrene	85-01-8	4	µg/kg	----	----	----	----	15
Anthracene	120-12-7	4	µg/kg	----	----	----	----	12
Fluoranthene	206-44-0	4	µg/kg	----	----	----	----	53
Pyrene	129-00-0	4	µg/kg	----	----	----	----	57
Benz(a)anthracene	56-55-3	4	µg/kg	----	----	----	----	32
Chrysene	218-01-9	4	µg/kg	----	----	----	----	26
Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	----	----	----	----	42
Benzo(k)fluoranthene	207-08-9	4	µg/kg	----	----	----	----	17
Benzo(e)pyrene	192-97-2	4	µg/kg	----	----	----	----	26
Benzo(a)pyrene	50-32-8	4	µg/kg	----	----	----	----	40
Perylene	198-55-0	4	µg/kg	----	----	----	----	100
Benzo(g,h,i)perylene	191-24-2	4	µg/kg	----	----	----	----	33
Dibenz(a,h)anthracene	53-70-3	4	µg/kg	----	----	----	----	6
Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	----	----	----	----	24
Coronene	191-07-1	5	µg/kg	----	----	----	----	7
^ Sum of PAHs	----	4	µg/kg	----	----	----	----	518
^ Benzo(a)pyrene TEQ (zero)	----	4	µg/kg	----	----	----	----	58



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B2-0	BC-2	B4-4	B4-0	B5-0
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-001	EB2508981-002	EB2508981-003	EB2508981-004	EB2508981-005
				Result	Result	Result	Result	Result
EP132B: Polynuclear Aromatic Hydrocarbons - Continued								
^ Benzo(a)pyrene TEQ (half LOR)	----	4	µg/kg	----	----	----	----	58
^ Benzo(a)pyrene TEQ (LOR)	----	4	µg/kg	----	----	----	----	58
EP080-SD: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	----	----	87.0
Toluene-D8	2037-26-5	0.2	%	----	----	----	----	72.2
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	----	----	86.2
EP090S: Organotin Surrogate								
Tripopyltin	----	0.5	%	99.2	123	114	79.9	83.8
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	96.7	90.7	63.2	101	96.6
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	98.1	63.0	116	96.1	95.3
EP131T: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.5	%	----	----	----	----	91.9
EP132T: Base/Neutral Extractable Surrogates - SD								
2-Fluorobiphenyl	321-60-8	10	%	----	----	----	----	101
Anthracene-d10	1719-06-8	10	%	----	----	----	----	103
4-Terphenyl-d14	1718-51-0	10	%	----	----	----	----	99.0



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	8.1	8.1	8.0	7.8	----
pH OX (23B)	----	0.1	pH Unit	4.8	6.4	6.8	6.6	----
EA029-B: Acidity Trail								
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	<2	<2	----
Titrateable Peroxide Acidity (23G)	----	2	mole H+ / t	32	5	<2	<2	----
Titrateable Sulfidic Acidity (23H)	----	2	mole H+ / t	32	5	<2	<2	----
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.020	% pyrite S	<0.020	<0.020	<0.020	<0.020	----
sulfidic - Titrateable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	0.052	<0.020	<0.020	<0.020	----
sulfidic - Titrateable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	0.052	<0.020	<0.020	<0.020	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	0.204	0.138	0.193	0.210	----
Peroxide Sulfur (23De)	----	0.020	% S	0.896	0.382	0.447	0.403	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	0.691	0.243	0.254	0.193	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	431	152	158	120	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	0.403	0.261	0.378	0.355	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	0.712	0.300	0.607	0.440	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	0.309	0.038	0.230	0.085	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	154	19	115	42	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	0.247	0.030	0.184	0.068	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	0.402	0.359	0.398	0.437	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	0.442	0.409	0.442	0.465	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	0.040	0.050	0.045	0.028	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	33	41	37	23	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EA029-E: Magnesium Values - Continued								
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	0.052	0.066	0.059	0.037	----
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO3	----	----	1.05	0.788	----
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	----	----	209	157	----
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	----	0.335	0.252	----
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	1.5	1.5	1.5	----
Net Acidity (sulfur units)	----	0.02	% S	0.26	0.09	<0.02	<0.02	----
Net Acidity (acidity units)	----	10	mole H+ / t	165	54	<10	<10	----
Liming Rate	----	1	kg CaCO3/t	12	4	<1	<1	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.69	0.24	0.25	0.19	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	431	152	158	120	----
Liming Rate excluding ANC	----	1	kg CaCO3/t	32	11	12	9	----
EA033-A: Actual Acidity								
pH KCl (23A)	----	0.1	pH Unit	8.1	8.1	8.1	7.9	----
Titrateable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	<2	<2	----
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	<0.02	<0.02	<0.02	----
EA033-B: Potential Acidity								
Chromium Reducible Sulfur (22B)	----	0.005	% S	0.696	0.290	0.212	0.167	----
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t	434	181	132	104	----
EA033-C: Acid Neutralising Capacity								
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3	3.31	3.01	2.81	2.20	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t	660	602	561	440	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	1.06	0.96	0.90	0.70	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	1.5	1.5	1.5	----
Net Acidity (sulfur units)	----	0.02	% S	<0.02	<0.02	<0.02	<0.02	----
Net Acidity (acidity units)	----	10	mole H+ / t	<10	<10	<10	<10	----
Liming Rate	----	1	kg CaCO3/t	<1	<1	<1	<1	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.70	0.29	0.21	0.17	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	434	181	132	104	----
Liming Rate excluding ANC	----	1	kg CaCO3/t	32	14	10	8	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	67.4	71.3	73.7	65.4	----
EA150: Particle Sizing								
+75µm	----	1	%	39	2	19	16	----
+150µm	----	1	%	37	2	18	15	----
+300µm	----	1	%	34	1	15	12	----
+425µm	----	1	%	32	1	13	9	----
+600µm	----	1	%	29	<1	9	6	----
+1180µm	----	1	%	26	<1	6	3	----
+2.36mm	----	1	%	25	<1	4	2	----
+4.75mm	----	1	%	22	<1	3	<1	----
+9.5mm	----	1	%	<1	<1	<1	<1	----
+19.0mm	----	1	%	<1	<1	<1	<1	----
+37.5mm	----	1	%	<1	<1	<1	<1	----
+75.0mm	----	1	%	<1	<1	<1	<1	----
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	38	56	45	45	----
Silt (2-60 µm)	----	1	%	21	42	35	37	----
Sand (0.06-2.00 mm)	----	1	%	16	2	16	16	----
Gravel (>2mm)	----	1	%	25	<1	4	2	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EA150: Soil Classification based on Particle Size - Continued								
Cobbles (>6cm)	----	1	%	<1	<1	<1	<1	----
EA152: Soil Particle Density								
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.29	2.40	2.37	2.13	----
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES								
Nickel	7440-02-0	1.0	mg/kg	----	----	26.4	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Aluminium	7429-90-5	50	mg/kg	10200	13800	10100	10600	----
Iron	7439-89-6	50	mg/kg	24600	34300	22400	44800	----
EG020-SD: Total Metals in Sediments by ICPMS								
Arsenic	7440-38-2	1.00	mg/kg	3.59	7.66	4.04	4.95	----
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----
Chromium	7440-47-3	1.0	mg/kg	18.8	28.8	22.0	18.8	----
Copper	7440-50-8	1.0	mg/kg	19.6	30.8	22.5	18.5	----
Lead	7439-92-1	1.0	mg/kg	12.1	22.8	14.0	11.2	----
Nickel	7440-02-0	1.0	mg/kg	17.6	19.9	21.8	18.0	----
Silver	7440-22-4	0.1	mg/kg	0.1	0.1	0.2	<0.1	----
Zinc	7440-66-6	1.0	mg/kg	64.0	112	75.1	63.0	----
EG035T: Total Recoverable Mercury by FIMS (Low Level)								
Mercury	7439-97-6	0.01	mg/kg	0.06	0.11	0.08	0.05	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	1.2	0.9	1.4	1.1	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	----	20	mg/kg	1100	1900	1410	970	----
EK062: Total Nitrogen as N (TKN + NOx)								
^ Total Nitrogen as N	----	20	mg/kg	1100	1900	1410	970	----
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	2	mg/kg	744	957	944	747	----

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011	
				Result	Result	Result	Result	Result	
EN82: Porewater Extraction									
Volume	----	1	mL	----	----	----	----	482	
EP003: Total Organic Carbon (TOC) in Soil									
Total Organic Carbon	----	0.02	%	2.09	2.18	1.74	1.97	----	
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	3	mg/kg	<3	<3	<3	<3	----	
C10 - C14 Fraction	----	3	mg/kg	10	14	16	9	----	
C15 - C28 Fraction	----	3	mg/kg	15	15	47	8	----	
C29 - C36 Fraction	----	5	mg/kg	10	8	23	5	----	
^ C10 - C36 Fraction (sum)	----	3	mg/kg	35	37	86	22	----	
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons									
C6 - C10 Fraction	C6_C10	3	mg/kg	<3	<3	<3	<3	----	
>C10 - C16 Fraction	----	3	mg/kg	6	11	15	7	----	
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	3.0	mg/kg	<3.0	<3.0	<3.0	<3.0	----	
>C16 - C34 Fraction	----	3	mg/kg	20	18	58	11	----	
>C34 - C40 Fraction	----	5	mg/kg	7	5	12	<5	----	
^ >C10 - C40 Fraction (sum)	----	3	mg/kg	33	34	85	18	----	
EP080-SD: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----	
Toluene	108-88-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----	
Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----	
meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----	
ortho-Xylene	95-47-6	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	----	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----	
Naphthalene	91-20-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----	
EP090: Organotin Compounds									



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EP090: Organotin Compounds - Continued								
Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	<1	<1	----
Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	<1	<1	----
Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	0.7	<0.5	<0.5	----
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Bromophos-ethyl	4824-78-6	10	µg/kg	<12	<12	<12	<12	----
Carbophenothion	786-19-6	10	µg/kg	<12	<12	<12	<12	----
Chlorfenvinphos (E)	18708-86-6	10.0	µg/kg	<12.0	<12.0	<12.0	<12.0	----
Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<12	<12	<12	<12	----
Chlorpyrifos	2921-88-2	10	µg/kg	<12	<12	<12	<12	----
Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<12	<12	<12	<12	----
Demeton-S-methyl	919-86-8	10	µg/kg	<12	<12	<12	<12	----
Diazinon	333-41-5	10	µg/kg	<12	<12	<12	<12	----
Dichlorvos	62-73-7	10	µg/kg	<12	<12	<12	<12	----
Dimethoate	60-51-5	10	µg/kg	<12	<12	<12	<12	----
Ethion	563-12-2	10	µg/kg	<12	<12	<12	<12	----
Fenamiphos	22224-92-6	10	µg/kg	<12	<12	<12	<12	----
Fenthion	55-38-9	10	µg/kg	<12	<12	<12	<12	----
Malathion	121-75-5	10	µg/kg	<12	<12	<12	<12	----
Azinphos Methyl	86-50-0	10	µg/kg	<12	<12	<12	<12	----
Monocrotophos	6923-22-4	10	µg/kg	<12	<12	<12	<12	----
Parathion	56-38-2	10	µg/kg	<12	<12	<12	<12	----
Parathion-methyl	298-00-0	10	µg/kg	<12	<12	<12	<12	----
Pirimphos-ethyl	23505-41-1	10	µg/kg	<12	<12	<12	<12	----
Prothiofos	34643-46-4	10	µg/kg	<12	<12	<12	<12	----
EP131A: Organochlorine Pesticides								
Aldrin	309-00-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
alpha-BHC	319-84-6	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EP131A: Organochlorine Pesticides - Continued								
beta-BHC	319-85-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
delta-BHC	319-86-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
4,4'-DDD	72-54-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
4,4'-DDE	72-55-9	0.50	µg/kg	0.95	1.53	<0.50	1.66	----
4,4'-DDT	50-29-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.50	µg/kg	0.95	1.53	<0.50	1.66	----
Dieldrin	60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
alpha-Endosulfan	959-98-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
beta-Endosulfan	33213-65-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endosulfan sulfate	1031-07-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Endosulfan (sum)	115-29-7	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endrin	72-20-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endrin aldehyde	7421-93-4	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Endrin ketone	53494-70-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Heptachlor	76-44-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Heptachlor epoxide	1024-57-3	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Hexachlorobenzene (HCB)	118-74-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	<0.25	<0.25	----
Methoxychlor	72-43-5	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
cis-Chlordane	5103-71-9	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
trans-Chlordane	5103-74-2	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Total Chlordane (sum)	----	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
Oxychlordane	27304-13-8	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.50	µg/kg	<0.50	<0.50	<0.50	<0.50	----
EP131B: Polychlorinated Biphenyls (as Aroclors)								
^ Total Polychlorinated biphenyls	----	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EP131B: Polychlorinated Biphenyls (as Aroclors) - Continued								
Aroclor 1016	12674-11-2	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----
Aroclor 1221	11104-28-2	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----
Aroclor 1232	11141-16-5	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----
Aroclor 1242	53469-21-9	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----
Aroclor 1248	12672-29-6	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----
Aroclor 1254	11097-69-1	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----
Aroclor 1260	11096-82-5	5.0	µg/kg	<31.2	<31.2	<31.2	<31.2	----
EP132B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	5	µg/kg	<5	29	<5	<5	----
2-Methylnaphthalene	91-57-6	5	µg/kg	<5	6	<5	<5	----
Acenaphthylene	208-96-8	4	µg/kg	14	14	11	<5	----
Acenaphthene	83-32-9	4	µg/kg	<5	<5	<5	<5	----
Fluorene	86-73-7	4	µg/kg	<5	<5	<5	<5	----
Phenanthrene	85-01-8	4	µg/kg	18	17	15	6	----
Anthracene	120-12-7	4	µg/kg	11	14	10	<5	----
Fluoranthene	206-44-0	4	µg/kg	51	58	42	18	----
Pyrene	129-00-0	4	µg/kg	54	64	46	20	----
Benz(a)anthracene	56-55-3	4	µg/kg	34	34	27	12	----
Chrysene	218-01-9	4	µg/kg	28	36	28	13	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	40	48	34	13	----
Benzo(k)fluoranthene	207-08-9	4	µg/kg	15	27	18	6	----
Benzo(e)pyrene	192-97-2	4	µg/kg	25	34	26	9	----
Benzo(a)pyrene	50-32-8	4	µg/kg	39	48	35	14	----
Perylene	198-55-0	4	µg/kg	173	140	180	22	----
Benzo(g,h,i)perylene	191-24-2	4	µg/kg	27	46	33	12	----
Dibenz(a,h)anthracene	53-70-3	4	µg/kg	8	9	8	<5	----



Analytical Results

Sub-Matrix: SEDIMENT
 (Matrix: SOIL)

Sample ID

				B5-1	B6-3	B5-1b	B5-1c	B4-0 Pore water
Sampling date / time				18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2508981-006	EB2508981-007	EB2508981-008	EB2508981-009	EB2508981-011
				Result	Result	Result	Result	Result
EP132B: Polynuclear Aromatic Hydrocarbons - Continued								
Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	22	32	23	8	----
Coronene	191-07-1	5	µg/kg	<5	11	7	<5	----
^ Sum of PAHs	----	4	µg/kg	559	667	543	153	----
^ Benzo(a)pyrene TEQ (zero)	----	4	µg/kg	59	72	54	18	----
^ Benzo(a)pyrene TEQ (half LOR)	----	4	µg/kg	59	72	54	20	----
^ Benzo(a)pyrene TEQ (LOR)	----	4	µg/kg	59	72	54	22	----
EP080-SD: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	77.9	86.0	78.7	80.7	----
Toluene-D8	2037-26-5	0.2	%	63.4	77.1	66.2	68.2	----
4-Bromofluorobenzene	460-00-4	0.2	%	79.4	90.3	80.3	88.3	----
EP090S: Organotin Surrogate								
Tripopyltin	----	0.5	%	36.5	70.4	100	116	----
EP130S: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	10	%	73.0	64.8	85.7	76.6	----
EP131S: OC Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.50	%	57.8	61.2	72.8	64.9	----
EP131T: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.5	%	80.0	74.4	90.6	80.6	----
EP132T: Base/Neutral Extractable Surrogates - SD								
2-Fluorobiphenyl	321-60-8	10	%	85.7	107	79.4	82.5	----
Anthracene-d10	1719-06-8	10	%	109	92.0	83.3	106	----
4-Terphenyl-d14	1718-51-0	10	%	106	81.4	81.2	98.3	----



Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	B5-0 Pore water	----	----	----	----
				Sampling date / time	18-Mar-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EB2508981-012	-----	-----	-----	-----	-----
					Result	----	----	----	----
EN82: Porewater Extraction									
Volume	----	1	mL	524	---	---	---	---	---



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	Trip blank	----	----	----	----
Sampling date / time					18-Mar-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EB2508981-010	-----	-----	-----	-----
					Result	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	----	----
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	----	----	----	----
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	----	----	----	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	----	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		105	----	----	----	----
Toluene-D8	2037-26-5	0.2	%		88.0	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		102	----	----	----	----



Surrogate Control Limits

Sub-Matrix: PORE WATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP090S: Organotin Surrogate			
Tripopyltin	----	24	116
EP131S: OC Pesticide Surrogate			
Dibromo-DDE	21655-73-2	14	166

Sub-Matrix: SEAWATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP090S: Organotin Surrogate			
Tripopyltin	----	24	116
EP131S: OC Pesticide Surrogate			
Dibromo-DDE	21655-73-2	14	166

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080-SD: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	51	145
Toluene-D8	2037-26-5	42	144
4-Bromofluorobenzene	460-00-4	58	142
EP090S: Organotin Surrogate			
Tripopyltin	----	35	130
EP130S: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	14	102
EP131S: OC Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	119
EP131T: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	10	106
EP132T: Base/Neutral Extractable Surrogates - SD			
2-Fluorobiphenyl	321-60-8	55	135
Anthracene-d10	1719-06-8	70	136
4-Terphenyl-d14	1718-51-0	57	127

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	53	134
Toluene-D8	2037-26-5	60	131
4-Bromofluorobenzene	460-00-4	59	127



Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry / Biology).

(SOIL) EP130S: Organophosphorus Pesticide Surrogate
(SOIL) EP131A: Organochlorine Pesticides
(SOIL) EP131S: OC Pesticide Surrogate
(WATER) EP131A: Organochlorine Pesticides
(WATER) EP131S: OC Pesticide Surrogate
(SOIL) EP131B: Polychlorinated Biphenyls (as Aroclors)
(SOIL) EP131T: PCB Surrogate
(SOIL) EP132B: Polynuclear Aromatic Hydrocarbons
(SOIL) EP132T: Base/Neutral Extractable Surrogates - SD
(SOIL) EP130A: Organophosphorus Pesticides (Ultra-trace)



QUALITY CONTROL REPORT

Work Order : **EB2508981**

Page : 1 of 21

Amendment : **1**

Client : **BMT COMMERCIAL AUSTRALIA PTY LTD**

Contact : **MACKENZIE STACEY**

Address : **PO BOX 203 SPRING HILL
BRISBANE QLD 4004**

Telephone : ----

Project : **B23621 PoB Monitoring 2019-2025**

Order number : **No PO Provided**

C-O-C number : ----

Sampler : **ANGUS WILLIAMS, CRAIG HEATHERINGTON, MACKENZIE
STACEY**

Site : ----

Quote number : **BN/016/19 V2**

No. of samples received : **12**

No. of samples analysed : **12**

Laboratory : **Environmental Division Brisbane**

Contact : **Nathan King**

Address : **2 Byth Street Stafford QLD Australia 4053**

Telephone : **+61-7-3552-8685**

Date Samples Received : **18-Mar-2025**

Date Analysis Commenced : **19-Mar-2025**

Issue Date : **15-Apr-2025**



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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	Position	Accreditation Category
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Edwandy Fadjjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Kim McCabe	Senior Inorganic Chemist	Brisbane Soil Preparation, Stafford, QLD
Layla Hafner	Acid Sulphate Soils - Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Tatijana Markoska	Senior Chemist - Organics	Brisbane Organics, Stafford, QLD



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)-SDH: 1M HCl-Extractable Metals by ICPAES (QC Lot: 6499663)									
EB2508894-008	Anonymous	EG005-SDH: Nickel	7440-02-0	1	mg/kg	17.2	16.5	4.2	0% - 50%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6447188)									
EB2508981-001	B2-0	EG005T: Aluminium	7429-90-5	50	mg/kg	2440	2470	1.0	0% - 20%
		EG005T: Iron	7439-89-6	50	mg/kg	8330	7940	4.8	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QC Lot: 6447186)									
EB2508981-001	B2-0	EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	0.02	# 0.38	184	0% - 20%
EA029-A: pH Measurements (QC Lot: 6456088)									
EB2508981-005	B5-0	EA029: pH KCl (23A)	----	0.1	pH Unit	8.1	8.1	0.0	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	6.6	6.6	0.0	0% - 20%
EA029-B: Acidity Trail (QC Lot: 6456088)									
EB2508981-005	B5-0	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
		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: 6456088)									
EB2508981-005	B5-0	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	0.145	0.141	3.1	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-C: Sulfur Trail (QC Lot: 6456088) - continued									
EB2508981-005	B5-0	EA029: Peroxide Sulfur (23De)	----	0.02	% S	0.451	0.446	1.0	0% - 20%
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	0.305	0.305	0.0	0% - 50%
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	190	190	0.0	0% - 50%
EA029-D: Calcium Values (QC Lot: 6456088)									
EB2508981-005	B5-0	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	0.314	0.298	5.3	0% - 50%
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.383	0.371	3.2	0% - 50%
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	0.069	0.073	5.6	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	0.055	0.059	5.6	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	34	36	5.6	No Limit
EA029-E: Magnesium Values (QC Lot: 6456088)									
EB2508981-005	B5-0	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	0.322	0.307	4.9	0% - 50%
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	0.405	0.388	4.2	0% - 20%
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	0.082	0.081	1.8	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	0.109	0.107	1.8	No Limit
		EA029: acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	68	67	1.8	No Limit
EA029-F: Excess Acid Neutralising Capacity (QC Lot: 6456088)									
EB2508981-005	B5-0	EA029: Excess Acid Neutralising Capacity (23Q)	----	0.02	% CaCO3	0.764	0.704	8.2	0% - 20%
		EA029: sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.02	% S	0.244	0.225	8.2	0% - 50%
		EA029: acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	152	140	8.2	0% - 50%
EA029-H: Acid Base Accounting (QC Lot: 6456088)									
EB2508981-005	B5-0	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	0.30	0.30	0.0	0% - 50%
		EA029: Liming Rate	----	1	kg CaCO3/t	<1	<1	0.0	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	14	14	0.0	0% - 50%
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	<10	0.0	No Limit
EA033-A: Actual Acidity (QC Lot: 6472613)									
EB2508981-005	B5-0	EA033: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	<0.02	0.0	No Limit
		EA033: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	0.0	No Limit
		EA033: pH KCl (23A)	----	0.1	pH Unit	8.2	8.2	0.0	0% - 20%
EB2510108-006	Anonymous	EA033: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	<0.02	0.0	No Limit
		EA033: 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 (%)
EA033-A: Actual Acidity (QC Lot: 6472613) - continued									
EB2510108-006	Anonymous	EA033: pH KCl (23A)	----	0.1	pH Unit	8.3	8.3	0.0	0% - 20%
EA033-B: Potential Acidity (QC Lot: 6472613)									
EB2508981-005	B5-0	EA033: Chromium Reducible Sulfur (22B)	----	0.005	% S	0.308	0.305	1.1	0% - 20%
		EA033: acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t	192	190	1.1	0% - 50%
EB2510108-006	Anonymous	EA033: Chromium Reducible Sulfur (22B)	----	0.005	% S	0.044	0.041	7.3	No Limit
		EA033: acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t	28	26	7.3	No Limit
EA033-C: Acid Neutralising Capacity (QC Lot: 6472613)									
EB2508981-005	B5-0	EA033: Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3	2.47	2.58	4.6	0% - 20%
		EA033: sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	0.79	0.83	4.6	0% - 20%
		EA033: acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t	493	516	4.6	0% - 20%
EB2510108-006	Anonymous	EA033: Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3	6.80	6.66	2.1	0% - 20%
		EA033: sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	2.18	2.13	2.1	0% - 20%
		EA033: acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t	1360	1330	2.1	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6447544)									
EB2508981-001	B2-0	EA055: Moisture Content	----	0.1	%	23.4	23.6	0.8	0% - 20%
ES2506937-042	Anonymous	EA055: Moisture Content	----	0.1	%	53.6	52.8	1.5	0% - 20%
EG020-SD: Total Metals in Sediments by ICPMS (QC Lot: 6447187)									
EB2508981-001	B2-0	EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020-SD: Silver	7440-22-4	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
		EG020-SD: Arsenic	7440-38-2	1	mg/kg	1.36	1.10	21.3	No Limit
		EG020-SD: Chromium	7440-47-3	1	mg/kg	7.1	7.0	0.0	No Limit
		EG020-SD: Copper	7440-50-8	1	mg/kg	3.0	2.5	17.4	No Limit
		EG020-SD: Lead	7439-92-1	1	mg/kg	2.9	2.9	0.0	No Limit
		EG020-SD: Nickel	7440-02-0	1	mg/kg	6.7	5.8	13.6	No Limit
		EG020-SD: Zinc	7440-66-6	1	mg/kg	20.2	17.9	12.2	0% - 20%
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 6447184)									
EB2508894-002	Anonymous	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EB2508981-005	B5-0	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	0.8	0.8	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 6448002)									
EB2508981-005	B5-0	EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	1270	1280	0.9	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 6448001)									
EB2508981-005	B5-0	EK067G: Total Phosphorus as P	----	2	mg/kg	885	807	9.2	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 (%)
EP003: Total Organic Carbon (TOC) in Soil (QC Lot: 6455490)									
EB2508981-001	B2-0	EP003: Total Organic Carbon	----	0.02	%	0.11	0.11	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6448718)									
EB2509096-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EB2509096-012	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6448718)									
EB2509096-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EB2509096-012	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 6448718)									
EB2509096-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EB2509096-012	Anonymous	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
		EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QC Lot: 6447180)									
EB2508894-002	Anonymous	EP080-SD: C6 - C9 Fraction	----	3	mg/kg	<3	<3	0.0	No Limit
EB2508894-029	Anonymous	EP080-SD: C6 - C9 Fraction	----	3	mg/kg	<3	<3	0.0	No Limit
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QC Lot: 6447191)									
EB2508894-002	Anonymous	EP071-SD-SV: C10 - C14 Fraction	----	3	mg/kg	30	18	50.0	0% - 50%
		EP071-SD-SV: C15 - C28 Fraction	----	3	mg/kg	47	50	4.9	0% - 50%
		EP071-SD-SV: C10 - C36 Fraction (sum)	----	3	mg/kg	126	111	12.7	0% - 20%
		EP071-SD-SV: C29 - C36 Fraction	----	5	mg/kg	49	43	12.2	No Limit
EB2508981-005	B5-0	EP071-SD-SV: C10 - C14 Fraction	----	3	mg/kg	24	13	58.8	No Limit
		EP071-SD-SV: C15 - C28 Fraction	----	3	mg/kg	58	# 28	68.3	0% - 50%
		EP071-SD-SV: C10 - C36 Fraction (sum)	----	3	mg/kg	140	# 57	84.3	0% - 20%
		EP071-SD-SV: C29 - C36 Fraction	----	5	mg/kg	58	# 16	112	0% - 50%
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QC Lot: 6447180)									
EB2508894-002	Anonymous	EP080-SD: C6 - C10 Fraction	C6_C10	3	mg/kg	<3	<3	0.0	No Limit
EB2508894-029	Anonymous	EP080-SD: C6 - C10 Fraction	C6_C10	3	mg/kg	<3	<3	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-SD / EP071-SD: Total Recoverable Hydrocarbons (QC Lot: 6447191)									
EB2508894-002	Anonymous	EP071-SD-SV: >C10 - C16 Fraction	----	3	mg/kg	11	11	0.0	No Limit
		EP071-SD-SV: >C16 - C34 Fraction	----	3	mg/kg	81	79	1.9	0% - 20%
		EP071-SD-SV: >C10 - C40 Fraction (sum)	----	3	mg/kg	115	111	3.5	0% - 20%
		EP071-SD-SV: >C34 - C40 Fraction	----	5	mg/kg	23	21	11.8	No Limit
EB2508981-005	B5-0	EP071-SD-SV: >C10 - C16 Fraction	----	3	mg/kg	12	9	31.3	No Limit
		EP071-SD-SV: >C16 - C34 Fraction	----	3	mg/kg	98	# 38	88.4	0% - 20%
		EP071-SD-SV: >C10 - C40 Fraction (sum)	----	3	mg/kg	140	# 57	84.3	0% - 20%
		EP071-SD-SV: >C34 - C40 Fraction	----	5	mg/kg	30	10	101	No Limit
EP080-SD: BTEXN (QC Lot: 6447180)									
EB2508894-002	Anonymous	EP080-SD: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Toluene	108-88-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Total Xylenes	----	0.2 (0.5)*	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080-SD: Naphthalene	91-20-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EB2508894-029	Anonymous	EP080-SD: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Toluene	108-88-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080-SD: Total Xylenes	----	0.2 (0.5)*	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080-SD: Naphthalene	91-20-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP090: Organotin Compounds (QC Lot: 6447185)									
EB2508981-001	B2-0	EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	<0.5	0.0	No Limit
		EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	<1	0.0	No Limit
		EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	<1	0.0	No Limit
EP130A: Organophosphorus Pesticides (Ultra-trace) (QC Lot: 6452723)									
EB2508981-005	B5-0	EP130: Bromophos-ethyl	4824-78-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Carbophenothion	786-19-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorfenvinphos (E)	18708-86-6	10 (12.0)*	µg/kg	<12.0	<12.0	0.0	No Limit
		EP130: Chlorfenvinphos (Z)	18708-87-7	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorpyrifos	2921-88-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Chlorpyrifos-methyl	5598-13-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Demeton-S-methyl	919-86-8	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Diazinon	333-41-5	10 (12)*	µg/kg	<12	<12	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 (%)
EP130A: Organophosphorus Pesticides (Ultra-trace) (QC Lot: 6452723) - continued									
EB2508981-005	B5-0	EP130: Dichlorvos	62-73-7	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Dimethoate	60-51-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Ethion	563-12-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Fenamiphos	22224-92-6	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Fenthion	55-38-9	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Malathion	121-75-5	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Azinphos Methyl	86-50-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Monocrotophos	6923-22-4	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Parathion	56-38-2	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Parathion-methyl	298-00-0	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Pirimphos-ethyl	23505-41-1	10 (12)*	µg/kg	<12	<12	0.0	No Limit
		EP130: Prothiofos	34643-46-4	10 (12)*	µg/kg	<12	<12	0.0	No Limit
EP131A: Organochlorine Pesticides (QC Lot: 6452722)									
EB2508981-005	B5-0	EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	<0.25	0.0	No Limit
		EP131A: cis-Chlordane	5103-71-9	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: trans-Chlordane	5103-74-2	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Total Chlordane (sum)	----	0.25 (0.50)*	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	2.41	1.88	25.0	No Limit
		EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5 (0.62)*	µg/kg	2.41	1.88	24.7	No Limit
		EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	<0.50	0.0	No Limit
		EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	<0.50	0.0	No Limit

EG035T: Total Mercury by FIMS (QC Lot: 6458369)

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 Work Order : EB2508981 Amendment 1
 Client : BMT COMMERCIAL AUSTRALIA PTY LTD
 Project : B23621 PoB Monitoring 2019-2025



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 (%)
EG035T: Total Mercury by FIMS (QC Lot: 6458369) - continued									
EB2508894-039	Anonymous	EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	0.0	No Limit
EB2508894-049	Anonymous	EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	0.0	No Limit
EG093T: Total Metals in Saline Water by ORC-ICPMS (QC Lot: 6451161)									
EB2508894-001	Anonymous	EG093A-T: Nickel	7440-02-0	0.5	µg/L	3.0	2.8	6.6	No Limit
EB2508894-030	Anonymous	EG093A-T: Nickel	7440-02-0	0.5	µg/L	3.1	3.1	0.0	No Limit
EG093T: Total Metals in Saline Water by ORC-ICPMS (QC Lot: 6458374)									
EB2508894-039	Anonymous	EG093A-T: Nickel	7440-02-0	0.5	µg/L	11.6	11.3	3.0	0% - 20%
EB2508894-048	Anonymous	EG093A-T: Nickel	7440-02-0	0.5	µg/L	3.2	3.2	0.0	No Limit
EP090: Organotin Compounds (Soluble) (QC Lot: 6460359)									
EP2504014-001	Anonymous	EP090S: Tributyltin	56573-85-4	2	ngSn/L	<2	<2	0.0	No Limit

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

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES (QCLot: 6499663)								
EG005-SDH: Nickel	7440-02-0	1	mg/kg	<1.0	12.2 mg/kg	93.1	70.0	128
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6447188)								
EG005T: Aluminium	7429-90-5	50	mg/kg	<50	6935 mg/kg	95.4	70.0	130
EG005T: Iron	7439-89-6	50	mg/kg	<50	23400 mg/kg	102	70.0	120
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QCLot: 6447186)								
EG035T-LL: Mercury	7439-97-6	0.01	mg/kg	<0.01	0.087 mg/kg	114	70.0	130
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel) (QCLot: 6447949)								
EN68a-G: Seawater Sampling Date	----	----	-	19/03/2025	----	----	----	----
EA029-A: pH Measurements (QCLot: 6456088)								
EA029: pH KCl (23A)	----	0.1	pH Unit	<0.1	4.7 pH Unit	98.4	70.0	130
EA029: pH OX (23B)	----	0.1	pH Unit	<0.1	4.5 pH Unit	95.6	70.0	130
EA029-B: Acidity Trail (QCLot: 6456088)								
EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	23.5 mole H+ / t	104	70.0	130
EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	46.5 mole H+ / t	105	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: 6456088)								
EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	0.065 % S	90.7	70.0	130
EA029: Peroxide Sulfur (23De)	----	0.02	% S	<0.020	0.165 % S	97.6	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	----	----	----	----
EA029-D: Calcium Values (QCLot: 6456088)								
EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	0.188 % Ca	83.8	70.0	130
EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	<0.020	0.185 % Ca	93.2	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: 6456088)								



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EA029-E: Magnesium Values (QCLot: 6456088) - continued								
EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	0.154 % Mg	115	70.0	130
EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	0.19 % Mg	93.0	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-F: Excess Acid Neutralising Capacity (QCLot: 6456088)								
EA029: Excess Acid Neutralising Capacity (23Q)	----	0.02	% CaCO3	<0.020	----	----	----	----
EA029: acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.02	% S	<0.020	----	----	----	----
EA029-H: Acid Base Accounting (QCLot: 6456088)								
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	----	----	----	----
EA033-A: Actual Acidity (QCLot: 6472613)								
EA033: pH KCl (23A)	----	----	pH Unit	----	4.7 pH Unit	95.7	80.0	120
EA033: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	23.5 mole H+ / t	108	80.0	120
EA033: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.02	----	----	----	----
EA033-B: Potential Acidity (QCLot: 6472613)								
EA033: Chromium Reducible Sulfur (22B)	----	0.005	% S	<0.005	0.283 % S	84.9	77.0	121
EA033: acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t	<10	----	----	----	----
EA033-C: Acid Neutralising Capacity (QCLot: 6472613)								
EA033: Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3	<0.01	10 % CaCO3	102	91.0	112
EA033: acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t	<10	----	----	----	----
EA033: sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S	<0.01	----	----	----	----
EA152: Soil Particle Density (QCLot: 6447519)								
EA152: Soil Particle Density (Clay/Silt/Sand)	----	----	g/cm3	----	2.68 g/cm3	100	80.0	120
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6447187)								
EG020-SD: Arsenic	7440-38-2	1	mg/kg	<1.00	33.25 mg/kg	96.8	80.0	124
EG020-SD: Cadmium	7440-43-9	0.1	mg/kg	<0.1	0.95 mg/kg	102	87.0	122



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6447187) - continued								
EG020-SD: Chromium	7440-47-3	1	mg/kg	<1.0	25.5 mg/kg	121	79.0	129
EG020-SD: Copper	7440-50-8	1	mg/kg	<1.0	103.55 mg/kg	106	85.0	118
EG020-SD: Lead	7439-92-1	1	mg/kg	<1.0	121 mg/kg	116	86.0	119
EG020-SD: Nickel	7440-02-0	1	mg/kg	<1.0	30.05 mg/kg	117	77.0	123
EG020-SD: Silver	7440-22-4	0.1	mg/kg	<0.1	0.55 mg/kg	101	70.0	130
EG020-SD: Zinc	7440-66-6	1	mg/kg	<1.0	209 mg/kg	109	71.0	127
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6447184)								
EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	2.5 mg/kg	97.5	83.2	111
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6448002)								
EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	<20	306 mg/kg	103	70.0	130
				<20	2300 mg/kg	91.4	88.0	112
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6448001)								
EK067G: Total Phosphorus as P	----	2	mg/kg	<2	142 mg/kg	119	70.0	130
				<2	567 mg/kg	93.0	88.0	112
EP003: Total Organic Carbon (TOC) in Soil (QCLot: 6455490)								
EP003: Total Organic Carbon	----	0.02	%	<0.02	0.55 %	101	80.0	120
				<0.02	32.3 %	97.4	80.0	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6448718)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	18 mg/kg	79.2	64.0	120
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6448718)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	22.5 mg/kg	76.3	58.1	124
EP080: BTEXN (QCLot: 6448718)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	89.1	68.0	107
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	78.0	69.0	108
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	77.6	68.0	109
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	82.0	70.0	114
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	86.6	74.0	116
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	93.0	74.0	109
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447180)								
EP080-SD: C6 - C9 Fraction	----	3	mg/kg	<3	18 mg/kg	92.4	66.0	120
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447191)								
EP071-SD-SV: C10 - C14 Fraction	----	3	mg/kg	<3	167 mg/kg	94.1	43.0	126
EP071-SD-SV: C15 - C28 Fraction	----	3	mg/kg	<3	216 mg/kg	88.8	66.0	140



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447191) - continued								
EP071-SD-SV: C29 - C36 Fraction	----	5	mg/kg	<5	----	----	----	----
EP071-SD-SV: C10 - C36 Fraction (sum)	----	3	mg/kg	<3	----	----	----	----
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447180)								
EP080-SD: C6 - C10 Fraction	C6_C10	3	mg/kg	<3	22.5 mg/kg	91.2	66.0	119
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447191)								
EP071-SD-SV: >C10 - C16 Fraction	----	3	mg/kg	<3	223 mg/kg	93.1	40.0	134
EP071-SD-SV: >C16 - C34 Fraction	----	3	mg/kg	<3	150 mg/kg	87.7	66.0	136
EP071-SD-SV: >C34 - C40 Fraction	----	5	mg/kg	<5	----	----	----	----
EP071-SD-SV: >C10 - C40 Fraction (sum)	----	3	mg/kg	<3	----	----	----	----
EP080-SD: BTEXN (QCLot: 6447180)								
EP080-SD: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	83.0	73.0	105
EP080-SD: Toluene	108-88-3	0.2	mg/kg	<0.2	1 mg/kg	87.6	73.0	105
EP080-SD: Ethylbenzene	100-41-4	0.2	mg/kg	<0.2	1 mg/kg	92.1	67.0	104
EP080-SD: meta- & para-Xylene	108-38-3 106-42-3	0.2	mg/kg	<0.2	2 mg/kg	95.7	66.0	106
EP080-SD: ortho-Xylene	95-47-6	0.2	mg/kg	<0.2	1 mg/kg	97.3	68.0	105
EP080-SD: Total Xylenes	----	0.2	mg/kg	<0.2	----	----	----	----
EP080-SD: Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	----	----
EP080-SD: Naphthalene	91-20-3	0.2	mg/kg	<0.2	1 mg/kg	95.0	72.0	115
EP090: Organotin Compounds (QCLot: 6447185)								
EP090: Monobutyltin	78763-54-9	1	µgSn/kg	<1	1.25 µgSn/kg	108	36.0	128
EP090: Dibutyltin	1002-53-5	1	µgSn/kg	<1	1.25 µgSn/kg	114	42.0	132
EP090: Tributyltin	56573-85-4	0.5	µgSn/kg	<0.5	1.25 µgSn/kg	119	52.0	139
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452723)								
EP130: Bromophos-ethyl	4824-78-6	10	µg/kg	<10	50 µg/kg	93.2	49.0	117
EP130: Carbophenothion	786-19-6	10	µg/kg	<10	50 µg/kg	80.5	54.0	104
EP130: Chlorfenvinphos (E)	18708-86-6	10	µg/kg	<10.0	5 µg/kg	80.1	48.0	156
EP130: Chlorfenvinphos (Z)	18708-87-7	10	µg/kg	<10	50 µg/kg	77.6	53.0	119
EP130: Chlorpyrifos	2921-88-2	10	µg/kg	<10	50 µg/kg	87.6	54.0	112
EP130: Chlorpyrifos-methyl	5598-13-0	10	µg/kg	<10	50 µg/kg	88.3	52.0	108
EP130: Demeton-S-methyl	919-86-8	10	µg/kg	<10	50 µg/kg	84.1	51.0	109
EP130: Diazinon	333-41-5	10	µg/kg	<10	50 µg/kg	86.8	57.0	121
EP130: Dichlorvos	62-73-7	10	µg/kg	<10	50 µg/kg	81.0	48.0	104
EP130: Dimethoate	60-51-5	10	µg/kg	<10	50 µg/kg	85.6	52.0	120



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452723) - continued								
EP130: Ethion	563-12-2	10	µg/kg	<10	50 µg/kg	95.2	51.0	121
EP130: Fenamiphos	22224-92-6	10	µg/kg	<10	50 µg/kg	78.4	50.0	120
EP130: Fenthion	55-38-9	10	µg/kg	<10	50 µg/kg	82.9	48.0	112
EP130: Malathion	121-75-5	10	µg/kg	<10	50 µg/kg	81.9	51.0	121
EP130: Azinphos Methyl	86-50-0	10	µg/kg	<10	50 µg/kg	80.6	45.0	127
EP130: Monocrotophos	6923-22-4	10	µg/kg	<10	50 µg/kg	81.4	48.0	128
EP130: Parathion	56-38-2	10	µg/kg	<10	50 µg/kg	90.6	49.0	125
EP130: Parathion-methyl	298-00-0	10	µg/kg	<10	50 µg/kg	81.9	51.0	119
EP130: Pirimphos-ethyl	23505-41-1	10	µg/kg	<10	50 µg/kg	93.1	48.0	120
EP130: Prothiofos	34643-46-4	10	µg/kg	<10	50 µg/kg	79.9	51.0	117
EP131A: Organochlorine Pesticides (QCLot: 6452722)								
EP131A: Aldrin	309-00-2	0.5	µg/kg	<0.50	5 µg/kg	75.5	38.0	139
EP131A: alpha-BHC	319-84-6	0.5	µg/kg	<0.50	5 µg/kg	75.5	17.6	136
EP131A: beta-BHC	319-85-7	0.5	µg/kg	<0.50	5 µg/kg	75.8	30.5	131
EP131A: delta-BHC	319-86-8	0.5	µg/kg	<0.50	5 µg/kg	90.1	37.0	140
EP131A: 4,4'-DDD	72-54-8	0.5	µg/kg	<0.50	5 µg/kg	54.3	25.9	141
EP131A: 4,4'-DDE	72-55-9	0.5	µg/kg	<0.50	5 µg/kg	71.2	35.0	129
EP131A: 4,4'-DDT	50-29-3	0.5	µg/kg	<0.50	5 µg/kg	57.7	23.4	138
EP131A: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.5	µg/kg	<0.50	----	----	----	----
EP131A: Dieldrin	60-57-1	0.5	µg/kg	<0.50	5 µg/kg	77.2	30.2	140
EP131A: alpha-Endosulfan	959-98-8	0.5	µg/kg	<0.50	5 µg/kg	73.8	38.0	140
EP131A: beta-Endosulfan	33213-65-9	0.5	µg/kg	<0.50	5 µg/kg	74.8	32.0	152
EP131A: Endosulfan sulfate	1031-07-8	0.5	µg/kg	<0.50	5 µg/kg	86.8	36.0	155
EP131A: Endosulfan (sum)	115-29-7	0.5	µg/kg	<0.50	----	----	----	----
EP131A: Endrin	72-20-8	0.5	µg/kg	<0.50	5 µg/kg	44.4	25.8	158
EP131A: Endrin aldehyde	7421-93-4	0.5	µg/kg	<0.50	5 µg/kg	62.2	20.1	118
EP131A: Endrin ketone	53494-70-5	0.5	µg/kg	<0.50	5 µg/kg	95.0	13.4	135
EP131A: Heptachlor	76-44-8	0.5	µg/kg	<0.50	5 µg/kg	93.7	39.0	155
EP131A: Heptachlor epoxide	1024-57-3	0.5	µg/kg	<0.50	5 µg/kg	91.7	34.0	148
EP131A: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/kg	<0.50	5 µg/kg	68.2	26.1	152
EP131A: gamma-BHC - (Lindane)	58-89-9	0.25	µg/kg	<0.25	5 µg/kg	83.5	31.2	137
EP131A: Methoxychlor	72-43-5	0.5	µg/kg	<0.50	5 µg/kg	73.4	36.0	152
EP131A: cis-Chlordane	5103-71-9	0.25	µg/kg	<0.25	5 µg/kg	83.2	36.0	142
EP131A: trans-Chlordane	5103-74-2	0.25	µg/kg	<0.25	5 µg/kg	48.8	29.5	138



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP131A: Organochlorine Pesticides (QCLot: 6452722) - continued								
EP131A: Total Chlordane (sum)	----	0.25	µg/kg	<0.25	----	----	----	----
EP131B: Polychlorinated Biphenyls (as Aroclors) (QCLot: 6452724)								
EP131B: Total Polychlorinated biphenyls	----	5	µg/kg	<5.0	50 µg/kg	81.1	45.0	115
EP131B: Aroclor 1016	12674-11-2	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1221	11104-28-2	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1232	11141-16-5	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1242	53469-21-9	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1248	12672-29-6	5	µg/kg	<5.0	----	----	----	----
EP131B: Aroclor 1254	11097-69-1	5	µg/kg	<5.0	50 µg/kg	81.1	45.0	115
EP131B: Aroclor 1260	11096-82-5	5	µg/kg	<5.0	----	----	----	----
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 6452744)								
EP132B-SD: Naphthalene	91-20-3	5	µg/kg	<5	25 µg/kg	82.1	63.0	129
EP132B-SD: 2-Methylnaphthalene	91-57-6	5	µg/kg	<5	25 µg/kg	82.0	64.0	128
EP132B-SD: Acenaphthylene	208-96-8	4	µg/kg	<4	25 µg/kg	89.3	65.0	129
EP132B-SD: Acenaphthene	83-32-9	4	µg/kg	<4	25 µg/kg	86.1	68.0	132
EP132B-SD: Fluorene	86-73-7	4	µg/kg	<4	25 µg/kg	81.7	68.0	124
EP132B-SD: Phenanthrene	85-01-8	4	µg/kg	<4	25 µg/kg	86.9	64.0	134
EP132B-SD: Anthracene	120-12-7	4	µg/kg	<4	25 µg/kg	87.8	65.0	131
EP132B-SD: Fluoranthene	206-44-0	4	µg/kg	<4	25 µg/kg	80.2	64.0	130
EP132B-SD: Pyrene	129-00-0	4	µg/kg	<4	25 µg/kg	80.6	67.0	133
EP132B-SD: Benz(a)anthracene	56-55-3	4	µg/kg	<4	25 µg/kg	90.8	62.0	130
EP132B-SD: Chrysene	218-01-9	4	µg/kg	<4	25 µg/kg	91.6	65.0	133
EP132B-SD: Benzo(b+j)fluoranthene	205-99-2 205-82-3	4	µg/kg	<4	25 µg/kg	85.2	68.0	120
EP132B-SD: Benzo(k)fluoranthene	207-08-9	4	µg/kg	<4	25 µg/kg	94.5	61.0	133
EP132B-SD: Benzo(e)pyrene	192-97-2	4	µg/kg	<4	25 µg/kg	90.7	63.0	127
EP132B-SD: Benzo(a)pyrene	50-32-8	4	µg/kg	<4	25 µg/kg	86.6	66.0	118
EP132B-SD: Perylene	198-55-0	4	µg/kg	<4	25 µg/kg	89.0	69.0	119
EP132B-SD: Benzo(g,h,i)perylene	191-24-2	4	µg/kg	<4	25 µg/kg	82.9	66.0	120
EP132B-SD: Dibenz(a,h)anthracene	53-70-3	4	µg/kg	<4	25 µg/kg	83.9	64.0	122
EP132B-SD: Indeno(1.2.3.cd)pyrene	193-39-5	4	µg/kg	<4	25 µg/kg	82.6	64.0	120
EP132B-SD: Coronene	191-07-1	5	µg/kg	<5	25 µg/kg	87.2	68.0	136
EP132B-SD: Sum of PAHs	----	4	µg/kg	<4	----	----	----	----

Sub-Matrix: WATER	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
		Spike	Spike Recovery (%)	Acceptable Limits (%)



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG035T: Total Mercury by FIMS (QCLot: 6451063)								
EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	0.002 mg/L	94.0	84.0	114
EG035T: Total Mercury by FIMS (QCLot: 6458369)								
EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	0.002 mg/L	95.6	84.0	114
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6451161)								
EG093A-T: Nickel	7440-02-0	0.5	µg/L	<0.5	10 µg/L	105	80.0	120
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6458374)								
EG093A-T: Nickel	7440-02-0	0.5	µg/L	<0.5	10 µg/L	97.6	80.0	120
EP090: Organotin Compounds (Soluble) (QCLot: 6460359)								
EP090S: Tributyltin	56573-85-4	2	ngSn/L	<2	147 ngSn/L	90.7	30.7	134
EP131A: Organochlorine Pesticides (QCLot: 6452691)								
EP131A: Aldrin	309-00-2	0.01	µg/L	<0.010	1.1 µg/L	77.4	34.0	145
EP131A: alpha-BHC	319-84-6	0.01	µg/L	<0.010	1.1 µg/L	112	27.2	131
EP131A: beta-BHC	319-85-7	0.01	µg/L	<0.010	1.1 µg/L	102	28.6	133
EP131A: delta-BHC	319-86-8	0.01	µg/L	<0.010	1.1 µg/L	93.4	36.0	131
EP131A: 4,4'-DDD	72-54-8	0.01	µg/L	<0.010	1.1 µg/L	108	36.0	142
EP131A: 4,4'-DDE	72-55-9	0.01	µg/L	<0.010	1.1 µg/L	109	30.4	112
EP131A: 4,4'-DDT	50-29-3	0.01	µg/L	<0.010	1.1 µg/L	102	29.5	142
EP131A: Dieldrin	60-57-1	0.01	µg/L	<0.010	1.1 µg/L	104	28.1	122
EP131A: alpha-Endosulfan	959-98-8	0.01	µg/L	<0.010	1.1 µg/L	107	34.0	119
EP131A: beta-Endosulfan	33213-65-9	0.01	µg/L	<0.010	1.1 µg/L	95.5	31.6	128
EP131A: Endosulfan sulfate	1031-07-8	0.01	µg/L	<0.010	1.1 µg/L	88.2	35.0	159
EP131A: Endrin	72-20-8	0.01	µg/L	<0.010	1.1 µg/L	114	21.5	165
EP131A: Endosulfan (sum)	115-29-7	0.01	µg/L	<0.010	----	----	----	----
EP131A: Endrin aldehyde	7421-93-4	0.01	µg/L	<0.010	1.1 µg/L	113	22.7	123
EP131A: Endrin ketone	53494-70-5	0.01	µg/L	<0.010	1.1 µg/L	109	16.3	144
EP131A: Heptachlor	76-44-8	0.005	µg/L	<0.005	1.1 µg/L	114	33.0	160
EP131A: Heptachlor epoxide	1024-57-3	0.01	µg/L	<0.010	1.1 µg/L	110	33.0	117
EP131A: Hexachlorobenzene (HCB)	118-74-1	0.01	µg/L	<0.010	1.1 µg/L	117	23.6	126
EP131A: gamma-BHC - (Lindane)	58-89-9	0.01	µg/L	<0.010	1.1 µg/L	110	28.7	134
EP131A: Methoxychlor	72-43-5	0.01	µg/L	<0.010	1.1 µg/L	112	29.5	150
EP131A: cis-Chlordane	5103-71-9	0.01	µg/L	<0.010	1.1 µg/L	114	27.0	116
EP131A: trans-Chlordane	5103-74-2	0.01	µg/L	<0.010	1.1 µg/L	95.9	31.2	119
EP131A: Total Chlordane (sum)	----	0.01	µg/L	<0.010	----	----	----	----



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP131A: Organochlorine Pesticides (QCLot: 6452691) - continued								
EP131A: Sum of DDD + DDE + DDT	72-54-8/72-5 5-9/50-2	0.01	µg/L	<0.010	----	----	----	----
EP131A: Organochlorine Pesticides (QCLot: 6462573)								
EP131A: Aldrin	309-00-2	0.01	µg/L	<0.010	1.1 µg/L	90.9	34.0	145
EP131A: alpha-BHC	319-84-6	0.01	µg/L	<0.010	1.1 µg/L	92.9	27.2	131
EP131A: beta-BHC	319-85-7	0.01	µg/L	<0.010	1.1 µg/L	85.5	28.6	133
EP131A: delta-BHC	319-86-8	0.01	µg/L	<0.010	1.1 µg/L	83.3	36.0	131
EP131A: 4,4'-DDD	72-54-8	0.01	µg/L	<0.010	1.1 µg/L	80.5	36.0	142
EP131A: 4,4'-DDE	72-55-9	0.01	µg/L	<0.010	1.1 µg/L	98.8	30.4	112
EP131A: 4,4'-DDT	50-29-3	0.01	µg/L	<0.010	1.1 µg/L	93.4	29.5	142
EP131A: Dieldrin	60-57-1	0.01	µg/L	<0.010	1.1 µg/L	104	28.1	122
EP131A: alpha-Endosulfan	959-98-8	0.01	µg/L	<0.010	1.1 µg/L	94.5	34.0	119
EP131A: beta-Endosulfan	33213-65-9	0.01	µg/L	<0.010	1.1 µg/L	93.4	31.6	128
EP131A: Endosulfan sulfate	1031-07-8	0.01	µg/L	<0.010	1.1 µg/L	116	35.0	159
EP131A: Endrin	72-20-8	0.01	µg/L	<0.010	1.1 µg/L	108	21.5	165
EP131A: Endosulfan (sum)	115-29-7	0.01	µg/L	<0.010	----	----	----	----
EP131A: Endrin aldehyde	7421-93-4	0.01	µg/L	<0.010	1.1 µg/L	111	22.7	123
EP131A: Endrin ketone	53494-70-5	0.01	µg/L	<0.010	1.1 µg/L	96.2	16.3	144
EP131A: Heptachlor	76-44-8	0.005	µg/L	<0.005	1.1 µg/L	88.9	33.0	160
EP131A: Heptachlor epoxide	1024-57-3	0.01	µg/L	<0.010	1.1 µg/L	95.0	33.0	117
EP131A: Hexachlorobenzene (HCB)	118-74-1	0.01	µg/L	<0.010	1.1 µg/L	97.9	23.6	126
EP131A: gamma-BHC - (Lindane)	58-89-9	0.01	µg/L	<0.010	1.1 µg/L	90.6	28.7	134
EP131A: Methoxychlor	72-43-5	0.01	µg/L	<0.010	1.1 µg/L	88.1	29.5	150
EP131A: cis-Chlordane	5103-71-9	0.01	µg/L	<0.010	1.1 µg/L	102	27.0	116
EP131A: trans-Chlordane	5103-74-2	0.01	µg/L	<0.010	1.1 µg/L	102	31.2	119
EP131A: Total Chlordane (sum)	----	0.01	µg/L	<0.010	----	----	----	----
EP131A: Sum of DDD + DDE + DDT	72-54-8/72-5 5-9/50-2	0.01	µg/L	<0.010	----	----	----	----

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**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES (QCLot: 6499663)							
EB2508894-027	Anonymous	EG005-SDH: Nickel	7440-02-0	25 mg/kg	81.0	70.0	130
EG035T: Total Recoverable Mercury by FIMS (Low Level) (QCLot: 6447186)							
EB2508981-002	BC-2	EG035T-LL: Mercury	7439-97-6	0.5 mg/kg	90.1	70.0	130
EG020-SD: Total Metals in Sediments by ICPMS (QCLot: 6447187)							
EB2508981-002	BC-2	EG020-SD: Arsenic	7440-38-2	50 mg/kg	86.7	70.0	130
		EG020-SD: Cadmium	7440-43-9	50 mg/kg	86.4	70.0	130
		EG020-SD: Chromium	7440-47-3	50 mg/kg	87.0	70.0	130
		EG020-SD: Copper	7440-50-8	250 mg/kg	87.1	70.0	130
		EG020-SD: Lead	7439-92-1	250 mg/kg	88.5	70.0	130
		EG020-SD: Nickel	7440-02-0	50 mg/kg	87.7	70.0	130
		EG020-SD: Zinc	7440-66-6	250 mg/kg	85.2	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6447184)							
EB2508894-003	Anonymous	EK059G: Nitrite + Nitrate as N (Sol.)	----	2.5 mg/kg	110	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 6448002)							
EB2508981-006	B5-1	EK061G: Total Kjeldahl Nitrogen as N	----	500 mg/kg	119	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 6448001)							
EB2508981-006	B5-1	EK067G: Total Phosphorus as P	----	100 mg/kg	112	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6448718)							
EB2509096-004	Anonymous	EP080: C6 - C9 Fraction	----	8 mg/kg	73.6	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6448718)							
EB2509096-004	Anonymous	EP080: C6 - C10 Fraction	C6_C10	8 mg/kg	74.2	70.0	130
EP080: BTEXN (QCLot: 6448718)							
EB2509096-004	Anonymous	EP080: Benzene	71-43-2	2 mg/kg	84.0	70.0	130
		EP080: Toluene	108-88-3	2 mg/kg	76.9	70.0	130
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447180)							
EB2508894-003	Anonymous	EP080-SD: C6 - C9 Fraction	----	8 mg/kg	72.4	70.0	130
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons (QCLot: 6447191)							
EB2508894-003	Anonymous	EP071-SD-SV: C10 - C14 Fraction	----	167 mg/kg	96.2	70.0	130
		EP071-SD-SV: C15 - C28 Fraction	----	216 mg/kg	92.1	70.0	130
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447180)							
EB2508894-003	Anonymous	EP080-SD: C6 - C10 Fraction	C6_C10	8 mg/kg	72.6	70.0	130
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons (QCLot: 6447191)							
EB2508894-003	Anonymous	EP071-SD-SV: >C10 - C16 Fraction	----	223 mg/kg	96.4	70.0	130
		EP071-SD-SV: >C16 - C34 Fraction	----	150 mg/kg	91.2	70.0	130



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-SD: BTEXN (QCLot: 6447180)							
EB2508894-003	Anonymous	EP080-SD: Benzene	71-43-2	2 mg/kg	75.4	70.0	130
		EP080-SD: Toluene	108-88-3	2 mg/kg	78.8	70.0	130
EP090: Organotin Compounds (QCLot: 6447185)							
EB2508981-002	BC-2	EP090: Monobutyltin	78763-54-9	1.25 µgSn/kg	50.8	20.0	130
		EP090: Dibutyltin	1002-53-5	1.25 µgSn/kg	67.5	20.0	130
		EP090: Tributyltin	56573-85-4	1.25 µgSn/kg	52.2	20.0	130
EP130A: Organophosphorus Pesticides (Ultra-trace) (QCLot: 6452723)							
EB2508981-005	B5-0	EP130: Bromophos-ethyl	4824-78-6	50 µg/kg	65.9	36.0	144
		EP130: Carbophenothion	786-19-6	50 µg/kg	70.7	38.0	120
		EP130: Chlorfenvinphos (E)	18708-86-6	5 µg/kg	53.7	49.0	157
		EP130: Chlorfenvinphos (Z)	18708-87-7	50 µg/kg	67.7	53.0	145
		EP130: Chlorpyrifos	2921-88-2	50 µg/kg	67.2	60.0	140
		EP130: Chlorpyrifos-methyl	5598-13-0	50 µg/kg	69.1	56.0	126
		EP130: Demeton-S-methyl	919-86-8	50 µg/kg	62.3	9.70	148
		EP130: Diazinon	333-41-5	50 µg/kg	64.8	60.0	122
		EP130: Dichlorvos	62-73-7	50 µg/kg	67.8	33.0	123
		EP130: Dimethoate	60-51-5	50 µg/kg	70.0	36.0	142
		EP130: Ethion	563-12-2	50 µg/kg	59.6	48.0	136
		EP130: Fenamiphos	22224-92-6	50 µg/kg	52.2	42.0	136
		EP130: Fenthion	55-38-9	50 µg/kg	67.9	35.0	131
		EP130: Malathion	121-75-5	50 µg/kg	79.0	55.0	141
		EP130: Azinphos Methyl	86-50-0	50 µg/kg	50.4	23.5	132
		EP130: Monocrotophos	6923-22-4	50 µg/kg	54.9	35.0	153
		EP130: Parathion	56-38-2	50 µg/kg	63.1	57.0	147
		EP130: Parathion-methyl	298-00-0	50 µg/kg	79.8	48.0	140
		EP130: Pirimphos-ethyl	23505-41-1	50 µg/kg	66.4	45.0	137
		EP130: Prothiofos	34643-46-4	50 µg/kg	82.8	51.0	137
EP131A: Organochlorine Pesticides (QCLot: 6452722)							
EB2508981-005	B5-0	EP131A: Aldrin	309-00-2	5 µg/kg	85.3	23.4	153
		EP131A: alpha-BHC	319-84-6	5 µg/kg	86.4	17.6	156
		EP131A: beta-BHC	319-85-7	5 µg/kg	63.7	24.9	153
		EP131A: delta-BHC	319-86-8	5 µg/kg	70.2	25.2	147
		EP131A: 4,4'-DDD	72-54-8	5 µg/kg	70.1	25.9	150
		EP131A: 4,4'-DDE	72-55-9	5 µg/kg	89.2	31.2	125
		EP131A: 4,4'-DDT	50-29-3	5 µg/kg	116	23.4	163
		EP131A: Dieldrin	60-57-1	5 µg/kg	108	30.2	140
		EP131A: alpha-Endosulfan	959-98-8	5 µg/kg	81.1	28.8	135
		EP131A: beta-Endosulfan	33213-65-9	5 µg/kg	102	22.6	141



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP131A: Organochlorine Pesticides (QCLot: 6452722) - continued							
EB2508981-005	B5-0	EP131A: Endosulfan sulfate	1031-07-8	5 µg/kg	78.6	16.1	156
		EP131A: Endrin	72-20-8	5 µg/kg	43.9	17.7	162
		EP131A: Endrin aldehyde	7421-93-4	5 µg/kg	81.0	20.1	116
		EP131A: Endrin ketone	53494-70-5	5 µg/kg	79.9	13.4	151
		EP131A: Heptachlor	76-44-8	5 µg/kg	93.8	23.8	170
		EP131A: Heptachlor epoxide	1024-57-3	5 µg/kg	102	28.3	140
		EP131A: Hexachlorobenzene (HCB)	118-74-1	5 µg/kg	73.3	17.7	144
		EP131A: gamma-BHC - (Lindane)	58-89-9	5 µg/kg	81.9	21.8	158
		EP131A: Methoxychlor	72-43-5	5 µg/kg	72.1	24.4	158
		EP131A: cis-Chlordane	5103-71-9	5 µg/kg	114	27.3	139
		EP131A: trans-Chlordane	5103-74-2	5 µg/kg	61.8	29.5	138
EP131B: Polychlorinated Biphenyls (as Aroclors) (QCLot: 6452724)							
EB2508981-005	B5-0	EP131B: Total Polychlorinated biphenyls	----	50 µg/kg	104	44.0	136
		EP131B: Aroclor 1254	11097-69-1	50 µg/kg	104	44.0	136
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 6452744)							
EB2509094-011	Anonymous	EP132B-SD: Naphthalene	91-20-3	25 µg/kg	96.6	70.0	130
		EP132B-SD: 2-Methylnaphthalene	91-57-6	25 µg/kg	88.4	70.0	130
		EP132B-SD: Acenaphthylene	208-96-8	25 µg/kg	118	70.0	130
		EP132B-SD: Acenaphthene	83-32-9	25 µg/kg	98.4	70.0	130
		EP132B-SD: Fluorene	86-73-7	25 µg/kg	98.4	70.0	130
		EP132B-SD: Phenanthrene	85-01-8	25 µg/kg	103	70.0	130
		EP132B-SD: Anthracene	120-12-7	25 µg/kg	108	70.0	130
		EP132B-SD: Fluoranthene	206-44-0	25 µg/kg	105	70.0	130
		EP132B-SD: Pyrene	129-00-0	25 µg/kg	102	70.0	130
		EP132B-SD: Benz(a)anthracene	56-55-3	25 µg/kg	107	70.0	130
		EP132B-SD: Chrysene	218-01-9	25 µg/kg	97.2	70.0	130
		EP132B-SD: Benzo(b+j)fluoranthene	205-99-2	25 µg/kg	110	70.0	130
			205-82-3				
		EP132B-SD: Benzo(k)fluoranthene	207-08-9	25 µg/kg	111	70.0	130
		EP132B-SD: Benzo(e)pyrene	192-97-2	25 µg/kg	109	70.0	130
		EP132B-SD: Benzo(a)pyrene	50-32-8	25 µg/kg	126	70.0	130
		EP132B-SD: Perylene	198-55-0	25 µg/kg	100	70.0	130
		EP132B-SD: Benzo(g,h,i)perylene	191-24-2	25 µg/kg	103	70.0	130
		EP132B-SD: Dibenz(a,h)anthracene	53-70-3	25 µg/kg	103	70.0	130
		EP132B-SD: Indeno(1.2.3.cd)pyrene	193-39-5	25 µg/kg	102	70.0	130
		EP132B-SD: Coronene	191-07-1	25 µg/kg	85.0	70.0	130

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	



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 Mercury by FIMS (QCLot: 6451063)							
EB2508894-002	Anonymous	EG035T-LL: Mercury	7439-97-6	0.002 mg/L	92.2	70.0	130
EG035T: Total Mercury by FIMS (QCLot: 6458369)							
EB2508894-040	Anonymous	EG035T-LL: Mercury	7439-97-6	0.002 mg/L	89.0	70.0	130
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6451161)							
EB2508894-002	Anonymous	EG093A-T: Nickel	7440-02-0	500 µg/L	99.6	70.0	130
EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6458374)							
EB2508894-040	Anonymous	EG093A-T: Nickel	7440-02-0	500 µg/L	98.0	70.0	130
EP090: Organotin Compounds (Soluble) (QCLot: 6460359)							
EP2504014-001	Anonymous	EP090S: Tributyltin	56573-85-4	147 ngSn/L	90.9	20.0	130



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EB2508981	Page	: 1 of 14
Amendment	: 1		
Client	: BMT COMMERCIAL AUSTRALIA PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MACKENZIE STACEY	Telephone	: +61-7-3552-8685
Project	: B23621 PoB Monitoring 2019-2025	Date Samples Received	: 18-Mar-2025
Site	: ----	Issue Date	: 15-Apr-2025
Sampler	: ANGUS WILLIAMS, CRAIG HEATHERINGTON, MACKENZIE STACEY	No. of samples received	: 12
Order number	: No PO Provided	No. of samples analysed	: 12

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



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
Duplicate (DUP) RPDs							
EG035T: Total Recoverable Mercury by FIMS (Low Level)	EB2508981--001	B2-0	Mercury	7439-97-6	184 %	0% - 20%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons	EB2508981--005	B5-0	C15 - C28 Fraction	----	68.3 %	0% - 50%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons	EB2508981--005	B5-0	C29 - C36 Fraction	----	112 %	0% - 50%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons	EB2508981--005	B5-0	C10 - C36 Fraction (sum)	----	84.3 %	0% - 20%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Recoverable Hydrocarbon	EB2508981--005	B5-0	>C16 - C34 Fraction	----	88.4 %	0% - 20%	RPD exceeds LOR based limits
EP080-SD / EP071-SD: Total Recoverable Hydrocarbon	EB2508981--005	B5-0	>C10 - C40 Fraction (sum)	----	84.3 %	0% - 20%	RPD exceeds LOR based limits

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Soil Particle Density	EA152	0	9	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Total Metals by ICP-AES	EG005T	0	9	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	19	5.26	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation



Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA029-A: pH Measurements								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	
EA029-B: Acidity Trail								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	
EA029-C: Sulfur Trail								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	
EA029-D: Calcium Values								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	
EA029-E: Magnesium Values								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	
EA029-F: Excess Acid Neutralising Capacity								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	
EA029-G: Retained Acidity								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	
EA029-H: Acid Base Accounting								
Snap Lock Bag - frozen (EA029) B5-0, B5-1c B6-3, B5-1b,	18-Mar-2025	24-Mar-2025	12-Dec-2027	✔	24-Mar-2025	22-Jun-2025	✔	



Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA033-A: Actual Acidity							
Snap Lock Bag - frozen (EA033) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	31-Mar-2025	18-Mar-2026	✓	31-Mar-2025	29-Jun-2025	✓
EA033-B: Potential Acidity							
Snap Lock Bag - frozen (EA033) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	31-Mar-2025	18-Mar-2026	✓	31-Mar-2025	29-Jun-2025	✓
EA033-C: Acid Neutralising Capacity							
Snap Lock Bag - frozen (EA033) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	31-Mar-2025	18-Mar-2026	✓	31-Mar-2025	29-Jun-2025	✓
EA033-D: Retained Acidity							
Snap Lock Bag - frozen (EA033) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	31-Mar-2025	18-Mar-2026	✓	31-Mar-2025	29-Jun-2025	✓
EA033-E: Acid Base Accounting							
Snap Lock Bag - frozen (EA033) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	31-Mar-2025	18-Mar-2026	✓	31-Mar-2025	29-Jun-2025	✓
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055) B2-0, BC-2, B4-4, B4-0, B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	----	----	----	19-Mar-2025	01-Apr-2025	✓
EA150: Particle Sizing							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H) B2-0, BC-2, B4-4, B4-0, B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	----	----	----	28-Mar-2025	14-Sep-2025	✓

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA150: Soil Classification based on Particle Size							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H)							
B2-0, BC-2,	18-Mar-2025	----	----	----	28-Mar-2025	14-Sep-2025	✓
B4-4, B4-0,							
B5-0, B5-1,							
B6-3, B5-1b,							
B5-1c							
EA152: Soil Particle Density							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA152)							
B2-0, BC-2,	18-Mar-2025	----	----	----	27-Mar-2025	14-Sep-2025	✓
B4-4, B4-0,							
B5-0, B5-1,							
B6-3, B5-1b,							
B5-1c							
EG005(ED093)-SDH: 1M HCl-Extractable Metals by ICPAES							
Soil Glass Jar - Unpreserved (EG005-SDH)							
B4-4, B5-1b	18-Mar-2025	10-Apr-2025	14-Sep-2025	✓	14-Apr-2025	14-Sep-2025	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
B2-0, BC-2,	18-Mar-2025	19-Mar-2025	14-Sep-2025	✓	20-Mar-2025	14-Sep-2025	✓
B4-4, B4-0,							
B5-0, B5-1,							
B6-3, B5-1b,							
B5-1c							
EG020-SD: Total Metals in Sediments by ICPMS							
Soil Glass Jar - Unpreserved (EG020-SD)							
B2-0, BC-2,	18-Mar-2025	19-Mar-2025	14-Sep-2025	✓	21-Mar-2025	14-Sep-2025	✓
B4-4, B4-0,							
B5-0, B5-1,							
B6-3, B5-1b,							
B5-1c							
EG035T: Total Recoverable Mercury by FIMS (Low Level)							
Soil Glass Jar - Unpreserved (EG035T-LL)							
B2-0, BC-2,	18-Mar-2025	19-Mar-2025	15-Apr-2025	✓	22-Mar-2025	15-Apr-2025	✓
B4-4, B4-0,							
B5-0, B5-1,							
B6-3, B5-1b,							
B5-1c							



Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Soil Glass Jar - Unpreserved (EK059G) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	19-Mar-2025	15-Apr-2025	✓	20-Mar-2025	21-Mar-2025	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Soil Glass Jar - Unpreserved (EK061G) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	19-Mar-2025	15-Apr-2025	✓	24-Mar-2025	16-Apr-2025	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Soil Glass Jar - Unpreserved (EK067G) B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	19-Mar-2025	15-Apr-2025	✓	24-Mar-2025	16-Apr-2025	✓
EN68: Seawater Elutriate Testing Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)							
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN68a-G) B4-0, B5-0	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	----	----	----
EN82: Porewater Extraction							
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN82) B4-0 - Pore water, B5-0 - Pore water	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	----	----	----
EP003: Total Organic Carbon (TOC) in Soil							
Pulp Bag (EP003) B2-0, BC-2, B4-4, B4-0, B5-0, B5-1, B6-3, B5-1b, B5-1c	18-Mar-2025	21-Mar-2025	15-Apr-2025	✓	21-Mar-2025	15-Apr-2025	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080) Trip blank	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	24-Mar-2025	01-Apr-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080) Trip blank	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	24-Mar-2025	01-Apr-2025	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080) Trip blank	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	24-Mar-2025	01-Apr-2025	✓



Matrix: **SOIL**

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

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080-SD / EP071-SD: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080-SD) B5-0, B6-3	B5-1,	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	20-Mar-2025	01-Apr-2025	✓
Soil Glass Jar - Unpreserved (EP080-SD) B5-1b,	B5-1c	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	21-Mar-2025	01-Apr-2025	✓
Soil Glass Jar - Unpreserved (EP071-SD-SV) B5-0, B6-3, B5-1c	B5-1, B5-1b,	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	31-Mar-2025	28-Apr-2025	✓
EP080-SD / EP071-SD: Total Recoverable Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080-SD) B5-0, B6-3	B5-1,	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	20-Mar-2025	01-Apr-2025	✓
Soil Glass Jar - Unpreserved (EP080-SD) B5-1b,	B5-1c	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	21-Mar-2025	01-Apr-2025	✓
Soil Glass Jar - Unpreserved (EP071-SD-SV) B5-0, B6-3, B5-1c	B5-1, B5-1b,	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	31-Mar-2025	28-Apr-2025	✓
EP080-SD: BTEXN								
Soil Glass Jar - Unpreserved (EP080-SD) B5-0, B6-3	B5-1,	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	20-Mar-2025	01-Apr-2025	✓
Soil Glass Jar - Unpreserved (EP080-SD) B5-1b,	B5-1c	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	21-Mar-2025	01-Apr-2025	✓
EP090: Organotin Compounds								
Soil Glass Jar - Unpreserved (EP090) B2-0, B4-4, B5-0, B6-3, B5-1c	BC-2, B4-0, B5-1, B5-1b,	18-Mar-2025	19-Mar-2025	01-Apr-2025	✓	24-Mar-2025	28-Apr-2025	✓
EP130A: Organophosphorus Pesticides (Ultra-trace)								
Soil Glass Jar - Unpreserved (EP130) B4-0,	B5-0	18-Mar-2025	20-Mar-2025	01-Apr-2025	✓	20-Mar-2025	29-Apr-2025	✓
Soil Glass Jar - Unpreserved (EP130) B2-0,	BC-2	18-Mar-2025	20-Mar-2025	01-Apr-2025	✓	25-Mar-2025	29-Apr-2025	✓
Soil Glass Jar - Unpreserved (EP130) B4-4, B6-3, B5-1c	B5-1, B5-1b,	18-Mar-2025	20-Mar-2025	01-Apr-2025	✓	26-Mar-2025	29-Apr-2025	✓



Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP131A: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP131A) B2-0, BC-2	18-Mar-2025	20-Mar-2025	01-Apr-2025	✓	25-Mar-2025	29-Apr-2025	✓	
Soil Glass Jar - Unpreserved (EP131A) B4-4, B5-0, B6-3, B5-1c B4-0, B5-1, B5-1b,	18-Mar-2025	20-Mar-2025	01-Apr-2025	✓	26-Mar-2025	29-Apr-2025	✓	
EP131B: Polychlorinated Biphenyls (as Aroclors)								
Soil Glass Jar - Unpreserved (EP131B) B5-0, B6-3, B5-1c B5-1, B5-1b,	18-Mar-2025	20-Mar-2025	01-Apr-2025	✓	25-Mar-2025	29-Apr-2025	✓	
EP132B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP132B-SD) B5-0, B6-3, B5-1c B5-1, B5-1b,	18-Mar-2025	21-Mar-2025	01-Apr-2025	✓	25-Mar-2025	30-Apr-2025	✓	

Matrix: **WATER**

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T-LL) B4-0, B5-0	19-Mar-2025	----	----	----	22-Mar-2025	16-Apr-2025	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T-LL) B4-0 - Pore water, B5-0 - Pore water	19-Mar-2025	----	----	----	24-Mar-2025	16-Apr-2025	✓
EG093T: Total Metals in Saline Water by ORC-ICPMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG093A-T) B4-0, B5-0	19-Mar-2025	21-Mar-2025	15-Sep-2025	✓	22-Mar-2025	15-Sep-2025	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG093A-T) B4-0 - Pore water, B5-0 - Pore water	19-Mar-2025	24-Mar-2025	15-Sep-2025	✓	24-Mar-2025	15-Sep-2025	✓
EP090: Organotin Compounds (Soluble)							
Amber Glass Bottle - Unpreserved (EP090S) B4-0, B5-0, B4-0 - Pore water, B5-0 - Pore water	19-Mar-2025	25-Mar-2025	26-Mar-2025	✓	26-Mar-2025	04-May-2025	✓
EP131A: Organochlorine Pesticides							
Amber Glass Bottle - Unpreserved (EP131A) B4-0, B5-0	19-Mar-2025	20-Mar-2025	26-Mar-2025	✓	21-Mar-2025	29-Apr-2025	✓
Amber Glass Bottle - Unpreserved (EP131A) B4-0 - Pore water, B5-0 - Pore water	19-Mar-2025	25-Mar-2025	26-Mar-2025	✓	26-Mar-2025	04-May-2025	✓



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chromium Suite for Acid Sulphate Soils	EA033	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organochlorine Pesticides (Ultra-trace)	EP131A	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Soil Particle Density	EA152	0	9	0.00	10.00	✗	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	1	7	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS (Low Level)	EG035T-LL	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Organic Carbon	EP003	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatile Fractions Only	EP071-SD-SV	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chromium Suite for Acid Sulphate Soils	EA033	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organochlorine Pesticides (Ultra-trace)	EP131A	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Soil Particle Density	EA152	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	2	5	40.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard



Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Control Samples (LCS) - Continued							
Total Mercury by FIMS (Low Level)	EG035T-LL	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Organic Carbon	EP003	2	9	22.22	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	2	5	40.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatile Fractions Only	EP071-SD-SV	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chromium Suite for Acid Sulphate Soils	EA033	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organochlorine Pesticides (Ultra-trace)	EP131A	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Seawater Elutriate Testing Procedure - Glass Leaching Vessel	EN68a-G	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS (Low Level)	EG035T-LL	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Organic Carbon	EP003	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatile Fractions Only	EP071-SD-SV	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
1M HCl Extractable Metals	EG005-SDH	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organochlorine Pesticides (Ultra-trace)	EP131A	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organophosphorus Pesticides (Ultra-trace)	EP130	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organotin Analysis	EP090	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAHs in Sediments by GCMS(SIM)	EP132B-SD	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB's (Ultra-trace)	EP131B	1	5	20.00	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		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS) - Continued							
TKN as N By Discrete Analyser	EK061G	1	5	20.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS (Low Level)	EG035T-LL	1	9	11.11	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	0	9	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Metals in Sediments by ICPMS	EG020-SD	1	9	11.11	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	5	20.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TPH - Semivolatile Fractions Only	EP071-SD-SV	1	15	6.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	11	9.09	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX in Sediments	EP080-SD	1	15	6.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	19	5.26	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	4	33	12.12	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	4	33	12.12	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Organochlorine Pesticides (Ultra-trace)	EP131A	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	19	5.26	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Organochlorine Pesticides (Ultra-trace)	EP131A	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	19	5.26	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Organochlorine Pesticides (Ultra-trace)	EP131A	0	33	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
Organotin Compounds (Soluble)	EP090S	1	19	5.26	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	2	33	6.06	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	2	33	6.06	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
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.
Chromium Suite for Acid Sulphate Soils	EA033	SOIL	In house: Referenced to Ahern et al 2004. This method covers the determination of Chromium Reducible Sulfur (SCR); pHKCl; titratable actual acidity (TAA); acid neutralising capacity by back titration (ANC); and net acid soluble sulfur (SNAS) which incorporates peroxide sulfur. It applies to soils and sediments (including sands) derived from coastal regions. 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).
Particle Size Analysis by Hydrometer	EA150H	SOIL	Particle Size Analysis by Hydrometer according to AS1289.3.6.3
Soil Particle Density	EA152	SOIL	Soil Particle Density by AS 1289.3.5.1: Methods of testing soils for engineering purposes - Soil classification tests - Determination of the soil particle density of a soil - Standard method
1M HCl Extractable Metals	EG005-SDH	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined via ICPAES following weak acid extraction. 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). LORs per NAGD. ALS is not NATA accredited for the analysis of Barium, Boron, Molybdenum and Strontium by this method.
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Metals in Sediments by ICPMS	EG020-SD	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector. Analyte list and LORs per NODG.
Total Mercury by FIMS (Low Level)	EG035T-LL	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)
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020. The ORC-ICPMS technique removes interfering species through a series of chemical reactions prior to ion detection. Ions are passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to measurement by a discrete dynode ion detector. This method is compliant with NEPM Schedule B(3).



Analytical Methods	Method	Matrix	Method Descriptions
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	SOIL	In house: Thermo Scientific Method D08727 and NEMI (National Environmental Method Index) Method ID: 9171. This method covers the determination of total oxidised nitrogen (NOx-N) and nitrate (NO3-N) by calculation, Combined oxidised Nitrogen (NO2+NO3) in a water extract is determined by direct colourimetry by Discrete Analyser.
TKN as N By Discrete Analyser	EK061G	SOIL	In house: Referenced to APHA 4500-Norg-D Soil samples are digested using Kjeldahl digestion followed by determination by Discrete Analyser.
Total Nitrogen as N (TKN + NOx) By Discrete Analyser	EK062G	SOIL	In house: Referenced to APHA 4500 Norg/NO3- Total Nitrogen is determined as the sum of TKN and Oxidised Nitrogen, each determined separately as N.
Total Phosphorus By Discrete Analyser	EK067G	SOIL	In house: Referenced to APHA 4500 P-B&F This procedure involves sulfuric acid digestion and quantification using Discrete Analyser.
Total Organic Carbon	EP003	SOIL	In house C-IR17. Dried and pulverised sample is reacted with acid to remove inorganic Carbonates, then combusted in a furnace in the presence of strong oxidants / catalysts. The evolved (Organic) Carbon (as CO2) is automatically measured by infra-red detector.
TPH - Semivolatile Fractions Only	EP071-SD-SV	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
TRH Volatiles/BTEX in Sediments	EP080-SD	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.
Organotin Analysis	EP090	SOIL	In house: Referenced to USEPA SW 846 - 8270 Prepared sample extracts are analysed by GC/MS coupled with high volume injection, and quantified against an established calibration curve.
Organotin Compounds (Soluble)	EP090S	SOIL	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by GC/MS coupled with high volume injection and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
Organophosphorus Pesticides (Ultra-trace)	EP130	SOIL	In house: Referenced to USEPA Method 3640 (GPC cleanup), 8141 (GC/FPD - Capillary Column) This technique is compliant with NEPM Schedule B(3)
Organochlorine Pesticides (Ultra-trace)	EP131A	SOIL	In house: Referenced to USEPA Method 3640 (GPC cleanup), 3620 (Florisil), 8081/8082 (GC/μECD/uECD). This method is compliant with NEPM Schedule B(3)
PCB's (Ultra-trace)	EP131B	SOIL	In house: Referenced to USEPA Method 3640 (GPC cleanup), 3620 (Florisil), 8081/8082 (GC/μECD/μECD) This technique is compliant with NEPM Schedule B(3)
PAHs in Sediments by GCMS(SIM)	EP132B-SD	SOIL	In house: Referenced to USEPA 8270 GCMS Capillary column, SIM mode using large volume programmed temperature vaporisation injection.
Preparation Methods	Method	Matrix	Method Descriptions
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



Preparation Methods	Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals - ORC	EN25-ORC	SOIL	In house: Referenced to USEPA SW846-3005. This is an Ultrapure Nitric acid digestion procedure used to prepare surface and ground water samples for analysis by ORC- ICPMS. This method is compliant with NEPM Schedule B(3)
1:5 solid / water leach for soluble analytes	EN34	SOIL	10 g of soil is mixed with 50 mL of reagent grade water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
Seawater Elutriate Testing Procedure - Glass Leaching Vessel	EN68a-G	SOIL	USEPA Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Guide, EPA-503/8-91/001, USEPA and US Army Corps of Engineers. ANZECC Interim Ocean Disposal Guidelines This Procedure outlines the preparation of leachate designed to simulate release of contaminants from sediment during the disposal of dredged material. Release can occur by physical processes or a variety of chemical changes such as oxidation of metal sulphides and release of contaminants adsorbed to particles or organic matter.
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).
1M HCl Extraction for Metals in Sediments (1 hour)	EN71	SOIL	In house: Referenced to In house, Allen (1993). 1g of sample is leached at room temperature for 1 hour in 10% hydrochloric acid. The resultant extract is filtered and bulked for analysis of extracted metals.
Porewater Extraction	EN82	SOIL	Extraction of porewater from sediment samples using centrifuge.
Dry and Pulverise (up to 100g)	GEO30	SOIL	#
Sep. Funnel Extraction of Liquids (Ultra-trace pesticides.)	ORG14-UTP	SOIL	In house: Referenced to USEPA 3510 Samples are extracted into dichloromethane, concentrated and exchanged into an appropriate solvent for GPC and florisil cleanup as required. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In house: Mechanical agitation (tumbler). 20g of sample, Na ₂ SO ₄ and surrogate are extracted with 150mL 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/ Sample Cleanup	ORG17A-UTP	SOIL	In house: Mechanical agitation (tumbler). 20g of sample, Na ₂ SO ₄ and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. Samples are extracted, concentrated (by KD) and exchanged into an appropriate solvent for GPC and florisil cleanup as required.
Tumbler Extraction of Solids for LVI (Non-concentrating)	ORG17D	SOIL	In house: 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 50mL 1:1 DCM/Acetone by end over end tumbling. An aliquot is concentrated by nitrogen blowdown to a reduced volume for analysis if required.
Organotin Sample Preparation	ORG34	SOIL	In house. A specified volume of sample is spiked with surrogate, acidified and vacuum filtered. Reagents and solvent are added and the mixture tumbled. The butyltin compounds is derivatised, extracted and the substitution reaction completed. The extract is transferred to a separatory funnel and further extracted two times with petroleum ether. The resultant extracts are combined and concentrated for analysis.
Organotin Sample Preparation	ORG35	SOIL	In house: 20g sample is spiked with surrogate and leached in a methanol:acetic acid:UHP water mix and vacuum filtered. Reagents and solvents are added to the sample and the mixture tumbled. The butyltin compounds are simultaneously derivatised and extracted. The extract is further extracted with petroleum ether. The resultant extracts are combined and concentrated for analysis.



CERTIFICATE OF ANALYSIS

Work Order : **EB2509150**
Client : **BMT COMMERCIAL AUSTRALIA PTY LTD**
Contact : **MACKENZIE STACEY**
Address : **PO BOX 203 SPRING HILL**
BRISBANE QLD 4004
Telephone : **----**
Project : **01295 PoB Monitoring 2019-2025**
Order number : **No PO Provided**
C-O-C number : **----**
Sampler : **MACKENZIE STACEY**
Site : **----**
Quote number : **BN/016/19 V2**
No. of samples received : **5**
No. of samples analysed : **5**

Page : **1 of 2**
Laboratory : **Environmental Division Brisbane**
Contact : **Nathan King**
Address : **2 Byth Street Stafford QLD Australia 4053**
Telephone : **+61-7-3552-8685**
Date Samples Received : **18-Mar-2025 13:00**
Date Analysis Commenced : **17-Apr-2025**
Issue Date : **17-Apr-2025 11:42**



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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
Kim McCabe	Senior Inorganic Chemist	Brisbane External Subcontracting, Stafford, QLD



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.

- Radiological work undertaken by ALS Laboratory Group (Ceska Lipa) under CAI accreditation No. L1163. Report No. PR2535730. NATA and CAI accreditations' are both recognised under ILAC.

Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	B5-0	B5-1	B6-3	B5-1b	B5-1c
Sampling date / time					18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00	18-Mar-2025 00:00
Compound	CAS Number	LOR	Unit	EB2509150-001	EB2509150-002	EB2509150-003	EB2509150-004	EB2509150-005	
				Result	Result	Result	Result	Result	
Radionuclides / Activity									
Gross alpha	----	500	Bq/kg DW	1040	520	700	690	1130	
Gross beta	----	500	Bq/kg DW	570	<500	570	510	540	



QUALITY CONTROL REPORT

Work Order	: EB2509150	Page	: 1 of 3
Client	: BMT COMMERCIAL AUSTRALIA PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MACKENZIE STACEY	Contact	: Nathan King
Address	: PO BOX 203 SPRING HILL BRISBANE QLD 4004	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: +61-7-3552-8685
Project	: 01295 PoB Monitoring 2019-2025	Date Samples Received	: 18-Mar-2025
Order number	: No PO Provided	Date Analysis Commenced	: 17-Apr-2025
C-O-C number	: ----	Issue Date	: 17-Apr-2025
Sampler	: MACKENZIE STACEY		
Site	: ----		
Quote number	: BN/016/19 V2		
No. of samples received	: 5		
No. of samples analysed	: 5		



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
Kim McCabe	Senior Inorganic Chemist	Brisbane External Subcontracting, Stafford, QLD



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

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%.

- **No Laboratory Duplicate (DUP) Results are required to be reported.**



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.

- **No Method Blank (MB) or Laboratory Control Spike (LCS) Results are required to be reported.**

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.

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**
-



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EB2509150	Page	: 1 of 4
Client	: BMT COMMERCIAL AUSTRALIA PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MACKENZIE STACEY	Telephone	: +61-7-3552-8685
Project	: 01295 PoB Monitoring 2019-2025	Date Samples Received	: 18-Mar-2025
Site	: ----	Issue Date	: 17-Apr-2025
Sampler	: MACKENZIE STACEY	No. of samples received	: 5
Order number	: No PO Provided	No. of samples analysed	: 5

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.
- **NO** Matrix Spike outliers occur.
- For all regular sample matrices, where applicable to the methodology, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



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:

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation



Quality Control Parameter Frequency Compliance

- No Quality Control data available for this section.



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
Gross Alpha and Beta activity in solids	EA250	SOIL	In house: Referenced to ISO 9697 / CSN 757611. Determination of Gross Alpha and Beta activity in soil and sediment by Thick Source method. An appropriate mass of sample is dried and pulverised prior to direct activity counting. (If required, Potassium may be determined separately and results corrected accordingly for 40K.) Analysis is performed by ALS (Czech Republic) who hold technical accreditation #1163 for Gross alpha and beta activity under CAI. CAI are a European accreditation body, equivalent to NATA in Australila and recognised internationally by NATA under ILAC.

Annex E Secondary Labs—Eurofins

ANALYSIS REPORT SOIL

PROJECT NO: EW250760

Customer: EUROFINS ENVIRONMENT TESTIN

Address: 1/21 Smallwood Place MURARRIE
QLD 4172

Attention: James McCann

Phone: 07 39024600

Fax:

Email: JamesMcCann@eurofins.com

Date of Issue:**26/03/2025**

Report No:

1

Date Received:

20/03/2025

Matrix:

Soil

Location:

PO: AU0014247727 RE

Sampler ID:

Client

Date of Sampling:

14/03/2025

Sample Condition:

Acceptable

Results apply to the samples as submitted. All pages of this report have been checked and approved for release.



Signed: Lisa Nies



NATA Accredited Laboratory 20956

Accredited for compliance with ISO/IEC 17025 - Testing

This analysis relates to the sample submitted and it is the client's responsibility to make certain the sample is representative of the matrix to be tested.

Samples will be discarded one month after the date of this report. Please advise if you wish to have your sample/s returned.

ANALYSIS REPORT

PROJECT NO: EW250760

Location: PO: AU0014247727 REF: 1199074

CLIENT SAMPLE ID					25-Ma0040388	25-Ma0040389		
					B10-6C	B6-2C		
DEPTH								
Test Parameter	Method Description	Method Reference	Units	LOR	250760-1	250760-2		
Gravel 2.36-4.75mm	Sieve	AS1289.3.6.3	%	na	1.1	<0.1		
Very Coarse Sand 1.18-2.36mm	Sieve	AS1289.3.6.3	%	na	<0.1	<0.1		
Coarse Sand 0.6-1.18mm	Sieve	AS1289.3.6.3	%	na	<0.1	0.3		
Medium Sand 0.3-0.6mm	Sieve	AS1289.3.6.3	%	na	2.0	6.5		
Fine Sand 0.15-0.30mm	Sieve	AS1289.3.6.3	%	na	9.9	24.0		
Very Fine Sand 0.075-0.15mm	Sieve	AS1289.3.6.3	%	na	10.5	9.9		
Coarse Silt 0.02-0.075mm	Hydrometer	AS1289.3.6.3	%	na	46.9	30.0		
Fine Silt 0.002-0.020mm	Hydrometer	AS1289.3.6.3	%	na	5.9	6.9		
Clay <0.002mm	Hydrometer	AS1289.3.6.3	%	na	23.6	22.4		

This Analysis Report shall not be reproduced except in full without the written approval of the laboratory.

Soils are air dried at 40°C and ground <2mm.

NB: LOR is the Lowest Obtainable Reading.

DOCUMENT END

ANALYTICAL REPORT

PREPARED FOR

Attn: Data Reports
Eurofins Environment Testing AUS & NZ
6 Monterey Road
Dandenong, Victoria 3175

Generated 4/10/2025 10:31:21 AM

JOB DESCRIPTION

1199074

JOB NUMBER

160-57535-1

Eurofins St. Louis

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



Authorized for release by
Casey Robertson, Project Manager
Casey.Robertson@et.eurofinsus.com
(314)298-8566

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4/10/2025 10:31:21 AM

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Case Narrative

Client: Eurofins Environment Testing AUS & NZ
Project: 1199074

Job ID: 160-57535-1

Job ID: 160-57535-1

Eurofins St. Louis

Job Narrative 160-57535-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition, all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy or unless requested as wet weight by the client.

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

The matrix for the Method Blank and LCS/LCSD is as close to the samples as can be reasonably achieved. Detailed information can be found in the most current revision of the associated SOP.

This laboratory report is confidential and is intended for the sole use of Eurofins Environment Testing and its client.

Receipt

The sample was received on 3/24/2025 2:05 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved. The temperature of the cooler at receipt time was 12.2°C.

Receipt Exceptions

The following sample was received at the laboratory without a sample collection time documented on the chain of custody: 25-Ma0040388/B10-6C (160-57535-1). The laboratory was instructed to use a sample collection time of 12:00am.

Method 9310 - Gross Alpha / Beta (GFPC)

Sample 25-Ma0040388/B10-6C (160-57535-1) was analyzed for Gross Alpha / Beta (GFPC). The sample was dried on 3/24/2025, prepared on 3/27/2025 and analyzed on 4/6/2025.

No analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins St. Louis

☒ **BRISBANE**

Email: EnviroSampleQLD@eurofins.com

PERTH

Email: EnviroSampleWA@eurofins.com

MELBOURNE

Email: EnviroSampleVic@eurofins.com

SYDNEY

Email: EnviroSampleNSW@eurofins.com

Purchase Order for External Analysis - AU

1199074

Results Required: **ASAP**

Eurofins Contact:

Address: 13715 Rider Trail North

Earth City, MO, 63045

Telephone: 912-354-7858

Fax:

Report results to: James McCann
Brisbane - 1/21 Smallwood Place
Ph: +61 7 3902 4600

Send invoices to:



160-57535 Chain of Custody

Total No. Samples: 1

Note: Please identify samples using Eurofins | Environment Testing ID and

Chain of Custody

Relinquished by: JENNIFER BRIDLE Date/Time: 19/03/2025
Received by: *M. Pirodda* Date/Time: MAR 24 2025 1405
Relinquished by: _____ Date/Time: _____
Received by: _____ Date/Time: _____

Sample Receipt Advice (Receiving Lab Use Only)

☐ All Samples Received in Good Condition Average sample temp on receipt: (°C) _____
☐ All Documentation in Proper Order
☐ Samples Received with an Attempt to Chill For all enquires please quote Ref. No. _____
☐ Samples Received Within Holding Times
 Please complete this section and email a scan copy to EnviroReportsAU@eurofins.com

Last modified on: 08 January 2020

Approved on: 08 January 2020

Last modified by: T. Lakeland

Approved by: M. Ritchie

Editorial Committee: F. Sanjaia, Dr. R Symons, T. Lakeland, H.Le, A. Kanthasamy, M. Ritchie

Next required review date: 08 January 2023



Login Sample Receipt Checklist

Client: Eurofins Environment Testing AUS & NZ

Job Number: 160-57535-1

Login Number: 57535

List Source: Eurofins St. Louis

List Number: 1

Creator: Pinette, Meadow L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	No time on COC or sample containers
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Eurofins Environment Testing AUS & NZ
Project/Site: 1199074

Job ID: 160-57535-1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method Summary

Client: Eurofins Environment Testing AUS & NZ
Project/Site: 1199074

Job ID: 160-57535-1

Method	Method Description	Protocol	Laboratory
9310	Gross Alpha / Beta (GFPC)	SW846	EET SL
Dry and Grind	Preparation, Dry and Grind	None	EET SL
Thin_Layer	Preparation, Thin Layer Technique	None	EET SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Eurofins Environment Testing AUS & NZ
Project/Site: 1199074

Job ID: 160-57535-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-57535-1	25-Ma0040388/B10-6C	Solid	03/14/25 00:00	03/24/25 14:05

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: Eurofins Environment Testing AUS & NZ
Project/Site: 1199074

Job ID: 160-57535-1

Client Sample ID: 25-Ma0040388/B10-6C

Lab Sample ID: 160-57535-1

Date Collected: 03/14/25 00:00

Matrix: Solid

Date Received: 03/24/25 14:05

Method: SW846 9310 - Gross Alpha / Beta (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.538		0.234	0.241	0.370	0.292	Bq/g	03/27/25 09:30	04/06/25 12:02	1
Gross Beta	0.480		0.127	0.135	0.370	0.153	Bq/g	03/27/25 09:30	04/06/25 12:02	1

QC Sample Results

Client: Eurofins Environment Testing AUS & NZ
Project/Site: 1199074

Job ID: 160-57535-1

Method: 9310 - Gross Alpha / Beta (GFPC)

Lab Sample ID: MB 160-709488/1-A
Matrix: Solid
Analysis Batch: 710966

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 709488

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.03503	U	0.0621	0.0622	0.370	0.151	Bq/g	03/27/25 09:30	04/06/25 11:51	1
Gross Beta	0.02146	U	0.0475	0.0476	0.370	0.0811	Bq/g	03/27/25 09:30	04/06/25 11:51	1

Lab Sample ID: LCS 160-709488/2-A
Matrix: Solid
Analysis Batch: 711519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 709488

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Gross Alpha	1.00	0.6783		0.271	0.370	0.304	Bq/g	68	60 - 140
Gross Beta	0.992	0.7934		0.179	0.370	0.177	Bq/g	80	60 - 140

Lab Sample ID: 160-57535-1 DU
Matrix: Solid
Analysis Batch: 710967

Client Sample ID: 25-Ma0040388/B10-6C
Prep Type: Total/NA
Prep Batch: 709488

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Gross Alpha	0.538		0.1374	U	0.180	0.370	0.300	Bq/g	0.95	1
Gross Beta	0.480		0.5434		0.144	0.370	0.159	Bq/g	0.23	1

QC Association Summary

Client: Eurofins Environment Testing AUS & NZ
Project/Site: 1199074

Job ID: 160-57535-1

Rad

Leach Batch: 709101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57535-1	25-Ma0040388/B10-6C	Total/NA	Solid	Dry and Grind	
160-57535-1 DU	25-Ma0040388/B10-6C	Total/NA	Solid	Dry and Grind	

Prep Batch: 709488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57535-1	25-Ma0040388/B10-6C	Total/NA	Solid	Thin_Layer	709101
MB 160-709488/1-A	Method Blank	Total/NA	Solid	Thin_Layer	
LCS 160-709488/2-A	Lab Control Sample	Total/NA	Solid	Thin_Layer	
160-57535-1 DU	25-Ma0040388/B10-6C	Total/NA	Solid	Thin_Layer	709101

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
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Sample Receipt Advice

Company name: BMT Commercial Australia Pty Ltd
Contact name: Mackenzie Stacey
Project name: POB MONITORING 2019-2025
Project ID: 01295
Turnaround time: 30 Day
Date/Time received: Mar 18, 2025 2:40 PM
Eurofins reference: 1199074

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

Testing has been added as requested from the client.

Contact

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

James McCann on phone : 0499 810 009 or by email: James.McCann@eurofinsanz.com

Results will be delivered electronically via email to Mackenzie Stacey - mackenzie.stacey@apac.bmt.org.

Note: A copy of these results will also be delivered to the general BMT Commercial Australia Pty Ltd email address.

BMT Commercial Australia Pty Ltd
Level 8, 200 Creek St
Brisbane
QLD 4000



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: **Mackenzie Stacey**

Report **1199074-S**
Project name **POB MONITORING 2019-2025**
Project ID **01295**
Received Date **Mar 18, 2025**

Client Sample ID			B10-6C	B6-2C
Sample Matrix			Soil	Soil
Eurofins Sample No.			B25- Ma0040388	B25- Ma0040389
Date Sampled			Mar 14, 2025	Mar 14, 2025
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	-
TRH C10-C14	20	mg/kg	< 20	-
TRH C15-C28	50	mg/kg	< 50	-
TRH C29-C36	50	mg/kg	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-
BTEX				
Benzene	0.1	mg/kg	< 0.1	-
Toluene	0.1	mg/kg	0.2	-
Ethylbenzene	0.1	mg/kg	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	63	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-
TRH >C10-C16 less Naphthalene (F2)* ^{N01}	50	mg/kg	< 50	-
TRH C6-C10	20	mg/kg	< 20	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 0.1	-
Total PCB*	0.1	mg/kg	< 0.1	-
Dibutylchloroendate (surr.)	1	%	104	-
Tetrachloro-m-xylene (surr.)	1	%	115	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
TRH >C10-C16	50	mg/kg	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-

Client Sample ID			B10-6C	B6-2C
Sample Matrix			Soil	Soil
Eurofins Sample No.			B25-Ma0040388	B25-Ma0040389
Date Sampled			Mar 14, 2025	Mar 14, 2025
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons (NAGD)				
2-Methylnapthalene	0.005	mg/kg	< 0.005	-
Acenaphthene	0.005	mg/kg	< 0.005	-
Acenaphthylene	0.005	mg/kg	< 0.005	-
Anthracene	0.005	mg/kg	0.011	-
Benz(a)anthracene	0.005	mg/kg	0.021	-
Benzo(a)pyrene	0.005	mg/kg	0.014	-
Benzo(b&j)fluoranthene	0.005	mg/kg	0.012	-
Benzo(e)pyrene	0.005	mg/kg	< 0.005	-
Benzo(g,h,i)perylene	0.005	mg/kg	0.006	-
Benzo(k)fluoranthene	0.005	mg/kg	0.013	-
Chrysene	0.005	mg/kg	0.028	-
Coronene	0.005	mg/kg	< 0.005	-
Dibenz(a,h)anthracene	0.005	mg/kg	< 0.005	-
Fluoranthene	0.005	mg/kg	0.037	-
Fluorene	0.005	mg/kg	< 0.005	-
Indeno(1.2.3-cd)pyrene	0.005	mg/kg	0.005	-
Naphthalene	0.005	mg/kg	< 0.005	-
Perylene	0.005	mg/kg	< 0.005	-
Phenanthrene	0.005	mg/kg	0.027	-
Pyrene	0.005	mg/kg	0.043	-
Total PAH*	0.005	mg/kg	0.22	-
2-Fluorobiphenyl (surr.)	1	%	112	-
p-Terphenyl-d14 (surr.)	1	%	141	-
Organochlorine Pesticides (NAGD)				
4,4'-DDD	0.001	mg/kg	< 0.001	< 0.001
4,4'-DDE	0.001	mg/kg	< 0.001	< 0.001
4,4'-DDT	0.001	mg/kg	< 0.001	< 0.001
α-HCH	0.001	mg/kg	< 0.001	< 0.001
β-HCH	0.001	mg/kg	< 0.001	< 0.001
Aldrin	0.001	mg/kg	< 0.001	< 0.001
δ-HCH	0.001	mg/kg	< 0.001	< 0.001
Chlordanes - Total	0.001	mg/kg	< 0.001	< 0.001
Dieldrin	0.001	mg/kg	< 0.001	< 0.001
Endosulfan I	0.001	mg/kg	< 0.001	< 0.001
Endosulfan II	0.001	mg/kg	< 0.001	< 0.001
Endosulfan sulphate	0.001	mg/kg	< 0.001	< 0.001
Endrin	0.001	mg/kg	< 0.001	< 0.001
Endrin aldehyde	0.001	mg/kg	< 0.001	< 0.001
Endrin ketone	0.001	mg/kg	< 0.001	< 0.001
γ-HCH (Lindane)	0.001	mg/kg	< 0.001	< 0.001
Heptachlor	0.001	mg/kg	< 0.001	< 0.001
Heptachlor epoxide	0.001	mg/kg	< 0.001	< 0.001
Hexachlorobenzene	0.001	mg/kg	< 0.001	< 0.001
Methoxychlor	0.001	mg/kg	< 0.001	< 0.001
Toxaphene	0.001	mg/kg	< 0.001	< 0.001
Aldrin and Dieldrin (Total)*	0.001	mg/kg	< 0.001	< 0.001
DDT + DDE + DDD (Total)*	0.001	mg/kg	< 0.001	< 0.001
Tetrachloro-m-xylene (surr.)	1	%	101	59
Dibutylchlorendate (surr.)	1	%	119	68

Client Sample ID			B10-6C	B6-2C
Sample Matrix			Soil	Soil
Eurofins Sample No.			B25-Ma0040388	B25-Ma0040389
Date Sampled			Mar 14, 2025	Mar 14, 2025
Test/Reference	LOR	Unit		
Polychlorinated Biphenyls (NAGD)				
Aroclor-1016	0.005	mg/kg	< 0.005	-
Aroclor-1221	0.005	mg/kg	< 0.005	-
Aroclor-1232	0.005	mg/kg	< 0.005	-
Aroclor-1242	0.005	mg/kg	< 0.005	-
Aroclor-1248	0.005	mg/kg	< 0.005	-
Aroclor-1254	0.005	mg/kg	< 0.005	-
Aroclor-1260	0.005	mg/kg	< 0.005	-
Total PCB*	0.005	mg/kg	< 0.005	-
Dibutylchlorendate (surr.)	1	%	119	-
Tetrachloro-m-xylene (surr.)	1	%	101	-
Organophosphorus Pesticides (NAGD)				
Azinphos-methyl	0.1	mg/kg	< 0.1	< 0.1
Bolstar	0.1	mg/kg	< 0.1	< 0.1
Chlorfenvinphos	0.1	mg/kg	< 0.1	< 0.1
Chlorpyrifos	0.1	mg/kg	< 0.1	< 0.1
Chlorpyrifos-methyl	0.1	mg/kg	< 0.1	< 0.1
Coumaphos	0.1	mg/kg	< 0.1	< 0.1
Demeton-O	0.1	mg/kg	< 0.1	< 0.1
Demeton-S	0.1	mg/kg	< 0.1	< 0.1
Diazinon	0.1	mg/kg	< 0.1	< 0.1
Dichlorvos	0.1	mg/kg	< 0.1	< 0.1
Dimethoate	0.1	mg/kg	< 0.1	< 0.1
Disulfoton	0.1	mg/kg	< 0.1	< 0.1
EPN	0.1	mg/kg	< 0.1	< 0.1
Ethion	0.1	mg/kg	< 0.1	< 0.1
Ethoprop	0.1	mg/kg	< 0.1	< 0.1
Ethyl parathion	0.1	mg/kg	< 0.1	< 0.1
Fenitrothion	0.1	mg/kg	< 0.1	< 0.1
Fensulfothion	0.1	mg/kg	< 0.1	< 0.1
Fenthion	0.1	mg/kg	< 0.1	< 0.1
Malathion	0.1	mg/kg	< 0.1	< 0.1
Merphos	0.1	mg/kg	< 0.1	< 0.1
Methyl parathion	0.1	mg/kg	< 0.1	< 0.1
Mevinphos	0.1	mg/kg	< 0.1	< 0.1
Monocrotophos	0.1	mg/kg	< 0.1	< 0.1
Naled	0.1	mg/kg	< 0.1	< 0.1
Omethoate	0.1	mg/kg	< 0.1	< 0.1
Phorate	0.1	mg/kg	< 0.1	< 0.1
Pirimiphos-methyl	0.1	mg/kg	< 0.1	< 0.1
Pyrazophos	0.1	mg/kg	< 0.1	< 0.1
Ronnel	0.1	mg/kg	< 0.1	< 0.1
Terbufos	0.1	mg/kg	< 0.1	< 0.1
Tetrachlorvinphos	0.1	mg/kg	< 0.1	< 0.1
Tokuthion	0.1	mg/kg	< 0.1	< 0.1
Trichloronate	0.1	mg/kg	< 0.1	< 0.1
Triphenylphosphate (surr.)		%	131	60

Client Sample ID			B10-6C	B6-2C
Sample Matrix			Soil	Soil
Eurofins Sample No.			B25-Ma0040388	B25-Ma0040389
Date Sampled			Mar 14, 2025	Mar 14, 2025
Test/Reference	LOR	Unit		
Organotins (as Sn) - ultra trace				
Dibutyltin as Sn (ultra trace)	1	ug/kg	< 1	-
Monobutyltin as Sn (ultra trace)	1	ug/kg	< 1	-
Tributyltin as Sn (ultra trace)	1	ug/kg	< 1	-
Tripropyltin as Sn (surr.)	1	%	97	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1
Chromium (trivalent)	5	mg/kg	27	26
Nitrate & Nitrite (as N)	5	mg/kg	< 5	-
Nitrate (as N)	5	mg/kg	< 5	-
Nitrite (as N)	5	mg/kg	< 5	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	880	-
Total Nitrogen (as N)*	10	mg/kg	880	-
Total Organic Carbon	0.1	%	0.9	2.6
Phosphorus	5	mg/kg	340	-
Radioactivity - gross Alpha & Beta			See attached	-
Particle Size Distribution by Sieve and Hydrometer			See Attached	See Attached
Heavy Metals				
Aluminium	20	mg/kg	9100	9000
Antimony	10	mg/kg	< 10	< 10
Arsenic	2	mg/kg	5.1	4.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	27	26
Cobalt	5	mg/kg	10	11
Copper	5	mg/kg	17	12
Iron	20	mg/kg	21000	21000
Lead	5	mg/kg	8.6	7.5
Manganese	5	mg/kg	330	280
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	15	17
Selenium	2	mg/kg	< 2	< 2
Silver	2	mg/kg	< 2	< 2
Vanadium	10	mg/kg	34	43
Zinc	5	mg/kg	85	48
Acid Sulfate Soils Field pH Test				
pH-F (Field pH test)*	0.1	pH Units	7.5	-
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	6.2	-
Reaction Ratings ^{S05}	0	comment	4.0	-
Actual Acidity (NLM-3.2)				
pH-KCL (NLM-3.1)	0.1	pH Units	8.5	-
Titrateable Actual Acidity (NLM-3.2)	2	mol H+/t	< 2	-
Titrateable Actual Acidity (NLM-3.2)	0.003	% pyrite S	< 0.003	-
Potential Acidity - Titrateable Peroxide				
pH-OX	0.1	pH Units	7.6	-
Titrateable Peroxide Acidity (s-TPA)	0.02	% pyrite S	< 0.02	-
Titrateable Peroxide Acidity (a-TPA)	2	mol H+/t	< 2	-
Titrateable Sulfidic Acidity (a-TSA)	2	mol H+/t	< 2	-
Titrateable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	< 0.02	-

Client Sample ID			B10-6C	B6-2C
Sample Matrix			Soil	Soil
Eurofins Sample No.			B25-Ma0040388	B25-Ma0040389
Date Sampled			Mar 14, 2025	Mar 14, 2025
Test/Reference	LOR	Unit		
Extractable Sulfur				
Sulfur - KCl Extractable	0.005	% S	0.070	-
Peroxide Extractable Sulfur	0.005	% S	0.24	-
HCl Extractable Sulfur	0.005	% S	N/A	-
Potential Acidity (SPOS)				
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	0.17	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	110	-
Retained Acidity (S-NAS)				
Net Acid soluble sulfur (SNAS) NLM-4.1	0.005	% S	N/A	-
Net Acid soluble sulfur (s-SNAS) NLM-4.1 ^{S02}	0.005	% S	N/A	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	N/A	-
HCl Extractable Sulfur Correction Factor	1	factor	2.0	-
Extractable Calcium				
Calcium - KCl Extractable	0.005	% Ca	0.27	-
Calcium - Peroxide	0.005	% Ca	0.58	-
Calcium - Acid Reacted	0.005	% Ca	0.31	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	0.25	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	160	-
Extractable Magnesium				
Magnesium - KCl Extractable	0.005	% Mg	0.16	-
Magnesium - Peroxide	0.005	% Mg	0.24	-
Magnesium - Acid Reacted	0.005	% Mg	0.077	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	0.10	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	63	-
Acid Neutralising Capacity (ANCE)				
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	1.1	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	0.35	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	220	-
Acid Neutralising Capacity (ANCbt)				
ANC Fineness Factor		factor	1.5	-
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	0.01	% CaCO3	1.7	-
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2) ^{S03}	0.02	% S	0.53	-
Acid Neutralising Capacity - (a-ANCbt) (NLM-5.2)	2	mol H+/t	330	-
Net Acidity (Including ANC)				
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	10	mol H+/t	< 10	-
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	< 0.02	-
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	< 1	-
s-CRS Suite - Net Acidity - NASSG (including ANC)	0.02	% S	N/A	-
CRS Suite - Net Acidity - NASSG (Including ANC)	10	mol H+/t	N/A	-
CRS Suite - Liming Rate - NASSG (Including ANC) ^{S01}	1	kg CaCO3/t	N/A	-
Extraneous Material				
<2mm Fraction	0.005	g	34	-
>2mm Fraction	0.005	g	10	-
Analysed Material	0.1	%	77	-
Extraneous Material	0.1	%	23	-
Net Acidity (Excluding ANC)				
s-CRS Suite - Net Acidity - NASSG (Excluding ANC)	0.02	% S	N/A	-
CRS Suite - Net Acidity - NASSG (Excluding ANC)	10	mol H+/t	N/A	-
CRS Suite - Liming Rate - NASSG (Excluding ANC)	1	kg CaCO3/t	N/A	-

Client Sample ID			B10-6C	B6-2C
Sample Matrix			Soil	Soil
Eurofins Sample No.			B25-Ma0040388	B25-Ma0040389
Date Sampled			Mar 14, 2025	Mar 14, 2025
Test/Reference	LOR	Unit		
Potential Acidity - Chromium Reducible Sulfur				
Chromium Reducible Sulfur (s-SCr) (NLM-2.1) ^{S04}	0.005	% S	0.15	-
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	3	mol H+/t	95	-

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	Brisbane	Mar 19, 2025	14 Days
BTEX - Method: USEPA SW846 8260	Brisbane	Mar 19, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Brisbane	Mar 19, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Brisbane	Mar 19, 2025	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Brisbane	Mar 19, 2025	28 Days
Polycyclic Aromatic Hydrocarbons (NAGD) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (NAGD)	Melbourne	Mar 20, 2025	14 Days
Organochlorine Pesticides (NAGD) - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Mar 21, 2025	14 Days
Polychlorinated Biphenyls (NAGD) - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)(low level)	Melbourne	Mar 20, 2025	14 Days
Organophosphorus Pesticides (NAGD) - Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS (USEPA 8270)	Melbourne	Mar 21, 2025	14 Days
Organotins (as Sn) - ultra trace - Method: LTM-ORG-2400 Determination of organotins in solid & aqueous samples by LC-ICP-MS	Melbourne	Mar 20, 2025	14 Days
Total Organic Carbon - Method: LTM-INO-4060 Total Organic Carbon in water and soil	Melbourne	Mar 26, 2025	28 Days
Phosphorus - Method: LTM-MET-3010 Alkali Metals Sulfur Silicon and Phosphorus by ICP-AES	Melbourne	Mar 20, 2025	180 Days
NAGD Metals Table 1 - Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)	Melbourne	Mar 21, 2025	28 Days
Acid Sulfate Soils Field pH Test - Method: LTM-GEN-7060 Determination of field pH (pHF) and field pH peroxide (pHFOX) tests	Brisbane	Mar 19, 2025	7 Days
Chromium (speciated)			
Chromium (hexavalent) - Method: LTM-INO-4230 Hexavalent Chromium by UV-Vis - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Mar 21, 2025	28 Days
Heavy Metals - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Mar 20, 2025	28 Days
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N) - Method: LTM-INO-4120 Analysis of NOx NO2 NH3 by FIA	Melbourne	Mar 20, 2025	28 Days
Nitrate (as N) - Method: LTM-INO-4120 Analysis of NOx NO2 NH3 by FIA	Melbourne	Mar 20, 2025	28 Days
Nitrite (as N) - Method: LTM-INO-4450 Nitrogens by Discrete Analyser	Melbourne	Mar 20, 2025	28 Days
Total Kjeldahl Nitrogen (as N) - Method: APHA 4500-Norg B,D Total Kjeldahl Nitrogen by FIA	Melbourne	Mar 20, 2025	28 Days
SPOCAS Suite			
SPOCAS Suite - Method: LTM-GEN-7050	Brisbane	Mar 19, 2025	6 Week
Chromium Suite - NASSG (Excluding ANC) - Method: LTM-GEN-7070 Chromium Reducible Sulfur Suite	Brisbane	Mar 19, 2025	6 Week
Extraneous Material - Method: LTM-GEN-7050/7070	Brisbane	Mar 19, 2025	6 Week



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Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

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Company Name: BMT Commercial Australia Pty Ltd
Address: Level 8, 200 Creek St
Brisbane
QLD 4000

Project Name: POB MONITORING 2019-2025
Project ID: 01295

Order No.:
Report #: 1199074
Phone: 07 3831 6744
Fax: 07 3832 3627

Received: Mar 18, 2025 2:40 PM
Due: Mar 21, 2025
Priority: 3 Day
Contact Name: Mackenzie Stacey

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Arsenic	Cadmium	Copper	HOLD*	Lead	Nickel	Particle Size Distribution by Sieve and Hydrometer	Phosphorus	Radiactivity - gross Alpha & Beta	Total Organic Carbon	Zinc	Polychlorinated Biphenyls	Acid Sulfate Soils Field pH Test	Total Nitrogen Set (as N)	Chromium (Speciated)	NAGD Metals Table 1	SPOCAS Suite	Chromium Suite - NASSG (Excluding ANC)	Eurofins Suite B1	Polycyclic Aromatic Hydrocarbons (Trace level)	Suite B14: OCP/OPP (trace level)	Organotins
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X		X	X		X		X	X			X	X	X				X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780									X								X	X				X	X	X			
External Laboratory												X		X													
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID																						
1	B10-6B	Mar 14, 2025		Soil	B25-Ma0040387				X																		
2	B10-6C	Mar 14, 2025		Soil	B25-Ma0040388	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	B6-2C	Mar 14, 2025		Soil	B25-Ma0040389							X			X					X	X					X	X
Test Counts						1	1	1	1	1	1	2	1	1	2	1	1	1	1	2	2	1	1	1	1	2	2

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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	
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	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
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							
Polycyclic Aromatic Hydrocarbons (NAGD)							
2-Methylnaphthalene	mg/kg	< 0.005			0.005	Pass	
Acenaphthene	mg/kg	< 0.005			0.005	Pass	
Acenaphthylene	mg/kg	< 0.005			0.005	Pass	
Anthracene	mg/kg	< 0.005			0.005	Pass	
Benz(a)anthracene	mg/kg	< 0.005			0.005	Pass	
Benzo(a)pyrene	mg/kg	< 0.005			0.005	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.005			0.005	Pass	
Benzo(e)pyrene	mg/kg	< 0.005			0.005	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.005			0.005	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.005			0.005	Pass	
Chrysene	mg/kg	< 0.005			0.005	Pass	
Coronene	mg/kg	< 0.005			0.005	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.005			0.005	Pass	
Fluoranthene	mg/kg	< 0.005			0.005	Pass	
Fluorene	mg/kg	< 0.005			0.005	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.005			0.005	Pass	
Naphthalene	mg/kg	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perylene	mg/kg	< 0.005			0.005	Pass	
Phenanthrene	mg/kg	< 0.005			0.005	Pass	
Pyrene	mg/kg	< 0.005			0.005	Pass	
Method Blank							
Organotins (as Sn) - ultra trace							
Dibutyltin as Sn (ultra trace)	ug/kg	< 1			1	Pass	
Monobutyltin as Sn (ultra trace)	ug/kg	< 1			1	Pass	
Tributyltin as Sn (ultra trace)	ug/kg	< 1			1	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Nitrate & Nitrite (as N)	mg/kg	< 5			5	Pass	
Nitrate (as N)	mg/kg	< 5			5	Pass	
Nitrite (as N)	mg/kg	< 5			5	Pass	
Total Organic Carbon	%	< 0.1			0.1	Pass	
Phosphorus	mg/kg	< 5			5	Pass	
Method Blank							
Heavy Metals							
Aluminium	mg/kg	< 20			20	Pass	
Antimony	mg/kg	< 10			10	Pass	
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Cobalt	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 20			20	Pass	
Lead	mg/kg	< 5			5	Pass	
Manganese	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Vanadium	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Organochlorine Pesticides (NAGD)							
4,4'-DDD	mg/kg	< 0.001			0.001	Pass	
4,4'-DDE	mg/kg	< 0.001			0.001	Pass	
4,4'-DDT	mg/kg	< 0.001			0.001	Pass	
α-HCH	mg/kg	< 0.001			0.001	Pass	
β-HCH	mg/kg	< 0.001			0.001	Pass	
Aldrin	mg/kg	< 0.001			0.001	Pass	
δ-HCH	mg/kg	< 0.001			0.001	Pass	
Chlordanes - Total	mg/kg	< 0.001			0.001	Pass	
Dieldrin	mg/kg	< 0.001			0.001	Pass	
Endosulfan I	mg/kg	< 0.001			0.001	Pass	
Endosulfan II	mg/kg	< 0.001			0.001	Pass	
Endosulfan sulphate	mg/kg	< 0.001			0.001	Pass	
Endrin	mg/kg	< 0.001			0.001	Pass	
Endrin aldehyde	mg/kg	< 0.001			0.001	Pass	
Endrin ketone	mg/kg	< 0.001			0.001	Pass	
γ-HCH (Lindane)	mg/kg	< 0.001			0.001	Pass	
Heptachlor	mg/kg	< 0.001			0.001	Pass	
Heptachlor epoxide	mg/kg	< 0.001			0.001	Pass	
Hexachlorobenzene	mg/kg	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Methoxychlor	mg/kg	< 0.001			0.001	Pass	
Toxaphene	mg/kg	< 0.001			0.001	Pass	
Method Blank							
Polychlorinated Biphenyls (NAGD)							
Aroclor-1016	mg/kg	< 0.005			0.005	Pass	
Aroclor-1221	mg/kg	< 0.005			0.005	Pass	
Aroclor-1232	mg/kg	< 0.005			0.005	Pass	
Aroclor-1242	mg/kg	< 0.005			0.005	Pass	
Aroclor-1248	mg/kg	< 0.005			0.005	Pass	
Aroclor-1254	mg/kg	< 0.005			0.005	Pass	
Aroclor-1260	mg/kg	< 0.005			0.005	Pass	
Total PCB*	mg/kg	< 0.005			0.005	Pass	
Method Blank							
Organophosphorus Pesticides (NAGD)							
Azinphos-methyl	mg/kg	< 0.1			0.1	Pass	
Bolstar	mg/kg	< 0.1			0.1	Pass	
Chlorfenvinphos	mg/kg	< 0.1			0.1	Pass	
Chlorpyrifos	mg/kg	< 0.1			0.1	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.1			0.1	Pass	
Coumaphos	mg/kg	< 0.1			0.1	Pass	
Demeton-O	mg/kg	< 0.1			0.1	Pass	
Demeton-S	mg/kg	< 0.1			0.1	Pass	
Diazinon	mg/kg	< 0.1			0.1	Pass	
Dichlorvos	mg/kg	< 0.1			0.1	Pass	
Dimethoate	mg/kg	< 0.1			0.1	Pass	
Disulfoton	mg/kg	< 0.1			0.1	Pass	
EPN	mg/kg	< 0.1			0.1	Pass	
Ethion	mg/kg	< 0.1			0.1	Pass	
Ethoprop	mg/kg	< 0.1			0.1	Pass	
Ethyl parathion	mg/kg	< 0.1			0.1	Pass	
Fenitrothion	mg/kg	< 0.1			0.1	Pass	
Fensulfothion	mg/kg	< 0.1			0.1	Pass	
Fenthion	mg/kg	< 0.1			0.1	Pass	
Malathion	mg/kg	< 0.1			0.1	Pass	
Merphos	mg/kg	< 0.1			0.1	Pass	
Methyl parathion	mg/kg	< 0.1			0.1	Pass	
Mevinphos	mg/kg	< 0.1			0.1	Pass	
Monocrotophos	mg/kg	< 0.1			0.1	Pass	
Naled	mg/kg	< 0.1			0.1	Pass	
Omethoate	mg/kg	< 0.1			0.1	Pass	
Phorate	mg/kg	< 0.1			0.1	Pass	
Pirimiphos-methyl	mg/kg	< 0.1			0.1	Pass	
Pyrazophos	mg/kg	< 0.1			0.1	Pass	
Ronnel	mg/kg	< 0.1			0.1	Pass	
Terbufos	mg/kg	< 0.1			0.1	Pass	
Tetrachlorvinphos	mg/kg	< 0.1			0.1	Pass	
Tokuthion	mg/kg	< 0.1			0.1	Pass	
Trichloronate	mg/kg	< 0.1			0.1	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	71			70-130	Pass	
TRH C10-C14	%	91			70-130	Pass	
LCS - % Recovery							
BTEX							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzene	%	75			70-130	Pass	
Toluene	%	83			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	91			70-130	Pass	
Xylenes - Total*	%	92			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH C6-C10	%	70			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	105			70-130	Pass	
Aroclor-1260	%	73			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	91			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (NAGD)							
Acenaphthene	%	101			70-130	Pass	
Acenaphthylene	%	81			70-130	Pass	
Anthracene	%	71			70-130	Pass	
Benz(a)anthracene	%	111			70-130	Pass	
Benzo(a)pyrene	%	115			70-130	Pass	
Benzo(b&j)fluoranthene	%	105			70-130	Pass	
Benzo(e)pyrene	%	85			70-130	Pass	
Benzo(g,h,i)perylene	%	102			70-130	Pass	
Benzo(k)fluoranthene	%	89			70-130	Pass	
Chrysene	%	102			70-130	Pass	
Coronene	%	98			70-130	Pass	
Dibenz(a,h)anthracene	%	94			70-130	Pass	
Fluoranthene	%	82			70-130	Pass	
Fluorene	%	95			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	111			70-130	Pass	
Naphthalene	%	71			70-130	Pass	
Perylene	%	94			70-130	Pass	
Phenanthrene	%	113			70-130	Pass	
Pyrene	%	72			70-130	Pass	
LCS - % Recovery							
Organotins (as Sn) - ultra trace							
Dibutyltin as Sn (ultra trace)	%	84			70-130	Pass	
Monobutyltin as Sn (ultra trace)	%	105			70-130	Pass	
Tributyltin as Sn (ultra trace)	%	84			70-130	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	95			70-130	Pass	
Nitrate & Nitrite (as N)	%	114			70-130	Pass	
Nitrite (as N)	%	91			70-130	Pass	
Total Organic Carbon	%	112			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Aluminium	%	107			80-120	Pass	
Antimony	%	98			80-120	Pass	
Arsenic	%	105			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	106			80-120	Pass	
Cobalt	%	102			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Copper	%	100			80-120	Pass	
Iron	%	109			80-120	Pass	
Lead	%	90			80-120	Pass	
Manganese	%	114			80-120	Pass	
Mercury	%	85			80-120	Pass	
Nickel	%	102			80-120	Pass	
Selenium	%	93			80-120	Pass	
Silver	%	99			80-120	Pass	
Vanadium	%	107			80-120	Pass	
Zinc	%	107			80-120	Pass	
LCS - % Recovery							
Actual Acidity (NLM-3.2)							
pH-KCL (NLM-3.1)	%	99			80-120	Pass	
Titrateable Actual Acidity (NLM-3.2)	%	98			80-120	Pass	
LCS - % Recovery							
Potential Acidity - Chromium Reducible Sulfur							
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)	%	100			80-120	Pass	
LCS - % Recovery							
Organochlorine Pesticides (NAGD)							
4.4'-DDD	%	94			70-130	Pass	
4.4'-DDE	%	78			70-130	Pass	
4.4'-DDT	%	99			70-130	Pass	
a-HCH	%	124			70-130	Pass	
b-HCH	%	87			70-130	Pass	
Aldrin	%	74			70-130	Pass	
d-HCH	%	89			70-130	Pass	
Chlordanes - Total	%	98			70-130	Pass	
Dieldrin	%	90			70-130	Pass	
Endosulfan I	%	81			70-130	Pass	
Endosulfan II	%	93			70-130	Pass	
Endosulfan sulphate	%	82			70-130	Pass	
Endrin	%	95			70-130	Pass	
Endrin aldehyde	%	72			70-130	Pass	
Endrin ketone	%	94			70-130	Pass	
g-HCH (Lindane)	%	90			70-130	Pass	
Heptachlor	%	102			70-130	Pass	
Heptachlor epoxide	%	106			70-130	Pass	
Hexachlorobenzene	%	81			70-130	Pass	
Methoxychlor	%	76			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (NAGD)							
Aroclor-1016	%	119			70-130	Pass	
Aroclor-1260	%	94			70-130	Pass	
Total PCB*	%	106			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides (NAGD)							
Diazinon	%	108			70-130	Pass	
Dimethoate	%	101			70-130	Pass	
Ethion	%	91			70-130	Pass	
Fenitrothion	%	96			70-130	Pass	
Methyl parathion	%	122			70-130	Pass	
Mevinphos	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C6-C9	B25-Ma0037943	NCP	%	71		70-130	Pass	
TRH C10-C14	B25-Ma0039927	NCP	%	116		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	B25-Ma0037943	NCP	%	77		70-130	Pass	
Toluene	B25-Ma0037943	NCP	%	85		70-130	Pass	
Ethylbenzene	B25-Ma0037943	NCP	%	96		70-130	Pass	
m&p-Xylenes	B25-Ma0037943	NCP	%	94		70-130	Pass	
o-Xylene	B25-Ma0037943	NCP	%	94		70-130	Pass	
Xylenes - Total*	B25-Ma0037943	NCP	%	94		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
TRH C6-C10	B25-Ma0037943	NCP	%	78		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	B25-Ma0037923	NCP	%	82		70-130	Pass	
Aroclor-1260	B25-Ma0037923	NCP	%	89		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
TRH >C10-C16	B25-Ma0039927	NCP	%	116		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides (NAGD)				Result 1				
4,4'-DDD	M25-Ma0033057	NCP	%	108		70-130	Pass	
4,4'-DDE	M25-Ma0033057	NCP	%	75		70-130	Pass	
4,4'-DDT	M25-Ma0033057	NCP	%	120		70-130	Pass	
a-HCH	M25-Ma0033057	NCP	%	102		70-130	Pass	
b-HCH	M25-Ma0033057	NCP	%	104		70-130	Pass	
Aldrin	M25-Ma0033057	NCP	%	71		70-130	Pass	
d-HCH	M25-Ma0033057	NCP	%	74		70-130	Pass	
Chlordanes - Total	M25-Ma0033057	NCP	%	107		70-130	Pass	
Dieldrin	M25-Ma0033057	NCP	%	102		70-130	Pass	
Endosulfan I	M25-Ma0033057	NCP	%	80		70-130	Pass	
Endosulfan II	M25-Ma0033057	NCP	%	81		70-130	Pass	
Endosulfan sulphate	M25-Ma0033057	NCP	%	70		70-130	Pass	
Endrin	M25-Ma0033057	NCP	%	75		70-130	Pass	
Endrin aldehyde	M25-Ma0033057	NCP	%	92		70-130	Pass	
Endrin ketone	M25-Ma0033057	NCP	%	118		70-130	Pass	
g-HCH (Lindane)	M25-Ma0033057	NCP	%	84		70-130	Pass	
Heptachlor	M25-Ma0033057	NCP	%	85		70-130	Pass	
Heptachlor epoxide	M25-Ma0033057	NCP	%	117		70-130	Pass	
Hexachlorobenzene	M25-Ma0033057	NCP	%	73		70-130	Pass	
Methoxychlor	M25-Ma0033057	NCP	%	119		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls (NAGD)				Result 1				
Aroclor-1016	M25-Ma0045863	NCP	%	106		70-130	Pass	
Aroclor-1260	M25-Ma0045863	NCP	%	117		70-130	Pass	
Total PCB*	M25-Ma0045863	NCP	%	111		70-130	Pass	
Spike - % Recovery								
Organophosphorus Pesticides (NAGD)				Result 1				
Diazinon	M25-Ma0042598	NCP	%	106		70-130	Pass	
Ethion	M25-Ma0042598	NCP	%	121		70-130	Pass	
Fenitrothion	M25-Ma0042598	NCP	%	85		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Methyl parathion	M25-Ma0042598	NCP	%	91			70-130	Pass	
Mevinphos	M25-Ma0042598	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Antimony	M25-Ma0041083	NCP	%	114			75-125	Pass	
Arsenic	M25-Ma0041083	NCP	%	121			75-125	Pass	
Cadmium	M25-Ma0041083	NCP	%	112			75-125	Pass	
Chromium	M25-Ma0041083	NCP	%	123			75-125	Pass	
Cobalt	M25-Ma0041083	NCP	%	121			75-125	Pass	
Copper	M25-Ma0041083	NCP	%	111			75-125	Pass	
Lead	M25-Ma0041083	NCP	%	91			75-125	Pass	
Manganese	M25-Ma0041083	NCP	%	108			75-125	Pass	
Mercury	M25-Ma0041083	NCP	%	92			75-125	Pass	
Nickel	M25-Ma0041083	NCP	%	120			75-125	Pass	
Selenium	M25-Ma0041083	NCP	%	95			75-125	Pass	
Silver	M25-Ma0041083	NCP	%	105			75-125	Pass	
Vanadium	M25-Ma0031922	NCP	%	123			75-125	Pass	
Zinc	M25-Ma0041083	NCP	%	122			75-125	Pass	
Spike - % Recovery									
				Result 1					
Chromium (hexavalent)	M25-Ma0047691	NCP	%	91			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	B25-Ma0037942	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	B25-Ma0039927	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	B25-Ma0039927	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	B25-Ma0039927	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	B25-Ma0037942	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	B25-Ma0037942	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	B25-Ma0037942	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	B25-Ma0037942	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	B25-Ma0037942	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	B25-Ma0037942	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	B25-Ma0037942	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	B25-Ma0037942	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1221	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1232	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1242	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1248	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1254	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1260	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Total PCB*	B25-Ma0029057	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	B25-Ma0039927	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	B25-Ma0039927	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	B25-Ma0039927	NCP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate								
Polycyclic Aromatic Hydrocarbons (NAGD)				Result 1	Result 2	RPD		
2-Methylnaphthalene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Acenaphthene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Acenaphthylene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Anthracene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Benz(a)anthracene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Benzo(a)pyrene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Benzo(b&j)fluoranthene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Benzo(e)pyrene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Benzo(g,h,i)perylene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Benzo(k)fluoranthene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Chrysene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Coronene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Dibenz(a,h)anthracene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Fluoranthene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Fluorene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Naphthalene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Perylene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Phenanthrene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Pyrene	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Duplicate								
Organochlorine Pesticides (NAGD)				Result 1	Result 2	RPD		
4,4'-DDD	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
4,4'-DDE	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
4,4'-DDT	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
a-HCH	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
b-HCH	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Aldrin	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
d-HCH	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Chlordanes - Total	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Dieldrin	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Endosulfan I	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Endosulfan II	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Endosulfan sulphate	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Endrin	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Endrin aldehyde	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Endrin ketone	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
g-HCH (Lindane)	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Heptachlor	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Heptachlor epoxide	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Hexachlorobenzene	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Methoxychlor	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Toxaphene	M25-Ma0043958	NCP	mg/kg	< 0.001	< 0.001	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls (NAGD)				Result 1	Result 2	RPD		
Aroclor-1016	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Aroclor-1221	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Aroclor-1232	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Aroclor-1242	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Aroclor-1248	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Aroclor-1254	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Aroclor-1260	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass
Total PCB*	M25-Ma0043958	NCP	mg/kg	< 0.005	< 0.005	<1	30%	Pass

Duplicate								
Organophosphorus Pesticides (NAGD)				Result 1	Result 2	RPD		
Azinphos-methyl	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bolstar	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Chlorfenvinphos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Chlorpyrifos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Chlorpyrifos-methyl	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Coumaphos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Demeton-O	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Demeton-S	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Diazinon	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Dichlorvos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Dimethoate	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Disulfoton	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
EPN	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethoprop	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethyl parathion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Fenitrothion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Fensulfthion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Fenthion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Malathion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Merphos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Methyl parathion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Mevinphos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Monocrotophos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Naled	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Omethoate	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Phorate	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Pirimiphos-methyl	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Pyrazophos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ronnel	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Terbufos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Tetrachlorvinphos	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Tokuthion	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Trichloronate	M25-Ma0043958	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Organotin (as Sn) - ultra trace				Result 1	Result 2	RPD		
Dibutyltin as Sn (ultra trace)	L25-Ma0007110	NCP	ug/kg	< 1	< 1	<1	30%	Pass
Monobutyltin as Sn (ultra trace)	L25-Ma0007110	NCP	ug/kg	< 1	< 1	<1	30%	Pass
Tributyltin as Sn (ultra trace)	L25-Ma0007110	NCP	ug/kg	< 1	< 1	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M25-Ma0042591	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Nitrate & Nitrite (as N)	M25-Ma0033117	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nitrate (as N)	M25-Ma0033117	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nitrite (as N)	M25-Ma0033117	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Total Organic Carbon	M25-Ma0043951	NCP	%	3.4	4.1	20	30%	Pass
Phosphorus	M25-Ma0037770	NCP	mg/kg	1700	1600	7.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Aluminium	M25-Ma0041078	NCP	mg/kg	6800	8200	19	30%	Pass
Antimony	M25-Ma0041078	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Arsenic	M25-Ma0041078	NCP	mg/kg	4.1	4.9	17	30%	Pass
Cadmium	M25-Ma0041078	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M25-Ma0041078	NCP	mg/kg	11	14	21	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Cobalt	M25-Ma0041078	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Copper	M25-Ma0041078	NCP	mg/kg	9.1	9.0	1.0	30%	Pass
Iron	M25-Ma0041078	NCP	mg/kg	8200	10000	23	30%	Pass
Lead	M25-Ma0041078	NCP	mg/kg	15	17	11	30%	Pass
Manganese	M25-Ma0041078	NCP	mg/kg	190	230	20	30%	Pass
Mercury	M25-Ma0041078	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	M25-Ma0041078	NCP	mg/kg	5.7	6.8	19	30%	Pass
Selenium	M25-Ma0041078	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M25-Ma0041078	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Vanadium	M25-Ma0041078	NCP	mg/kg	15	18	19	30%	Pass
Zinc	M25-Ma0041078	NCP	mg/kg	60	60	<1	30%	Pass
Duplicate								
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD		
pH-F (Field pH test)*	M25-Ma0055600	NCP	pH Units	6.0	6.1	pass	20%	Pass
Duplicate								
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD		
pH-KCL (NLM-3.1)	B25-Ma0040388	CP	pH Units	8.5	8.5	<1	20%	Pass
Titrateable Actual Acidity (NLM-3.2)	B25-Ma0040388	CP	mol H+/t	< 2	< 2	<1	20%	Pass
Titrateable Actual Acidity (NLM-3.2)	B25-Ma0040388	CP	% pyrite S	< 0.003	< 0.003	<1	30%	Pass
Duplicate								
Potential Acidity - Titrateable Peroxide				Result 1	Result 2	RPD		
pH-OX	B25-Ma0040388	CP	pH Units	7.6	7.6	1.0	20%	Pass
Titrateable Peroxide Acidity (s-TPA)	B25-Ma0040388	CP	% pyrite S	< 0.02	< 0.02	<1	30%	Pass
Titrateable Peroxide Acidity (a-TPA)	B25-Ma0040388	CP	mol H+/t	< 2	< 2	<1	20%	Pass
Titrateable Sulfidic Acidity (a-TSA)	B25-Ma0040388	CP	mol H+/t	< 2	< 2	<1	30%	Pass
Titrateable Sulfidic Acidity (s-TSA)	B25-Ma0040388	CP	% pyrite S	< 0.02	< 0.02	<1	30%	Pass
Duplicate								
Extractable Sulfur				Result 1	Result 2	RPD		
Sulfur - KCl Extractable	B25-Ma0040388	CP	% S	0.070	0.070	1.0	30%	Pass
Peroxide Extractable Sulfur	B25-Ma0040388	CP	% S	0.24	0.23	4.0	20%	Pass
HCl Extractable Sulfur	B25-Ma0040388	CP	% S	N/A	N/A	N/A	20%	Pass
Duplicate								
Potential Acidity (SPOS)				Result 1	Result 2	RPD		
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	B25-Ma0040388	CP	% S	0.17	0.16	6.0	30%	Pass
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	B25-Ma0040388	CP	mol H+/t	110	100	6.0	30%	Pass
Duplicate								
Retained Acidity (S-NAS)				Result 1	Result 2	RPD		
Net Acid soluble sulfur (SNAS) NLM-4.1	B25-Ma0040388	CP	% S	N/A	N/A	N/A	30%	Pass
Net Acid soluble sulfur (s-SNAS) NLM-4.1	B25-Ma0040388	CP	% S	N/A	N/A	N/A	30%	Pass
Net Acid soluble sulfur (a-SNAS) NLM-4.1	B25-Ma0040388	CP	mol H+/t	N/A	N/A	N/A	30%	Pass
Duplicate								
Extractable Calcium				Result 1	Result 2	RPD		
Calcium - KCl Extractable	B25-Ma0040388	CP	% Ca	0.27	0.27	<1	30%	Pass
Calcium - Peroxide	B25-Ma0040388	CP	% Ca	0.58	0.56	4.0	20%	Pass
Calcium - Acid Reacted	B25-Ma0040388	CP	% Ca	0.31	0.29	7.0	30%	Pass
Calcium - Acid Reacted (s-aCa)	B25-Ma0040388	CP	% S	0.25	0.23	7.0	30%	Pass
Calcium - Acid Reacted (a-aCa)	B25-Ma0040388	CP	mol H+/t	160	140	7.0	30%	Pass

Duplicate								
Extractable Magnesium				Result 1	Result 2	RPD		
Magnesium - KCl Extractable	B25-Ma0040388	CP	% Mg	0.16	0.16	<1	30%	Pass
Magnesium - Peroxide	B25-Ma0040388	CP	% Mg	0.24	0.23	4.0	20%	Pass
Magnesium - Acid Reacted	B25-Ma0040388	CP	% Mg	0.077	0.067	14	30%	Pass
Magnesium - Acid Reacted (s-aCa)	B25-Ma0040388	CP	% S	0.10	0.088	14	30%	Pass
Magnesium - Acid Reacted (a-aCa)	B25-Ma0040388	CP	mol H+/t	63	55	14	30%	Pass
Duplicate								
Acid Neutralising Capacity (ANCE)				Result 1	Result 2	RPD		
Acid Neutralising Capacity - (ANCE)	B25-Ma0040388	CP	% CaCO ₃	1.1	1.1	3.0	30%	Pass
Acid Neutralising Capacity - (a-ANCE)	B25-Ma0040388	CP	mol H+/t	220	210	3.0	30%	Pass
Duplicate								
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD		
ANC Fineness Factor	B25-Ma0040388	CP	factor	1.5	1.5	<1	30%	Pass
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	B25-Ma0040388	CP	% CaCO ₃	1.7	1.7	5.0	20%	Pass
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2)	B25-Ma0040388	CP	% S	0.53	0.56	5.0	30%	Pass
Duplicate								
Net Acidity (Including ANC)				Result 1	Result 2	RPD		
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	B25-Ma0040388	CP	mol H+/t	< 10	< 10	<1	30%	Pass
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	B25-Ma0040388	CP	% S	< 0.02	< 0.02	<1	30%	Pass
SPOCAS - Liming rate - ASSMAC	B25-Ma0040388	CP	kg CaCO ₃ /t	< 1	< 1	<1	30%	Pass
s-CRS Suite - Net Acidity - NASSG (including ANC)	B25-Ma0040388	CP	% S	N/A	N/A	N/A	30%	Pass
CRS Suite - Net Acidity - NASSG (Including ANC)	B25-Ma0040388	CP	mol H+/t	N/A	N/A	N/A	30%	Pass
CRS Suite - Liming Rate - NASSG (Including ANC)	B25-Ma0040388	CP	kg CaCO ₃ /t	N/A	N/A	N/A	30%	Pass
Duplicate								
Net Acidity (Excluding ANC)				Result 1	Result 2	RPD		
s-CRS Suite - Net Acidity - NASSG (Excluding ANC)	B25-Ma0040388	CP	% S	N/A	N/A	N/A	30%	Pass
CRS Suite - Net Acidity - NASSG (Excluding ANC)	B25-Ma0040388	CP	mol H+/t	N/A	N/A	N/A	20%	Pass
CRS Suite - Liming Rate - NASSG (Excluding ANC)	B25-Ma0040388	CP	kg CaCO ₃ /t	N/A	N/A	N/A	30%	Pass
Duplicate								
Potential Acidity - Chromium Reducible Sulfur				Result 1	Result 2	RPD		
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)	B25-Ma0040388	CP	% S	0.15	0.16	5.0	20%	Pass
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	B25-Ma0040388	CP	mol H+/t	95	100	5.0	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

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.
S01	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'
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5
S03	Acid Neutralising Capacity is only required if the pHKCl is greater than or equal to pH 6.5
S04	Acid Sulfate Soil Samples have a 24 hour holding time unless frozen or dried within that period
S05	Field Screen uses the following fizz rating to classify the rate the samples reacted to the peroxide: 1.0; No reaction to slight. 2.0; Moderate reaction. 3.0; Strong reaction with persistent froth. 4.0; Extreme reaction.

Authorised by:

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Edward Lee	Senior Analyst-Organic
Emily Rosenberg	Senior Analyst-Metal
Jonathon Angell	Senior Analyst-Organic
Jonathon Angell	Senior Analyst-SPOCAS
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Luke Holt	Senior Analyst-Inorganic
Mary Makarios	Senior Analyst-Inorganic
Mary Makarios	Senior Analyst-Metal
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Glenn Jackson
Managing Director

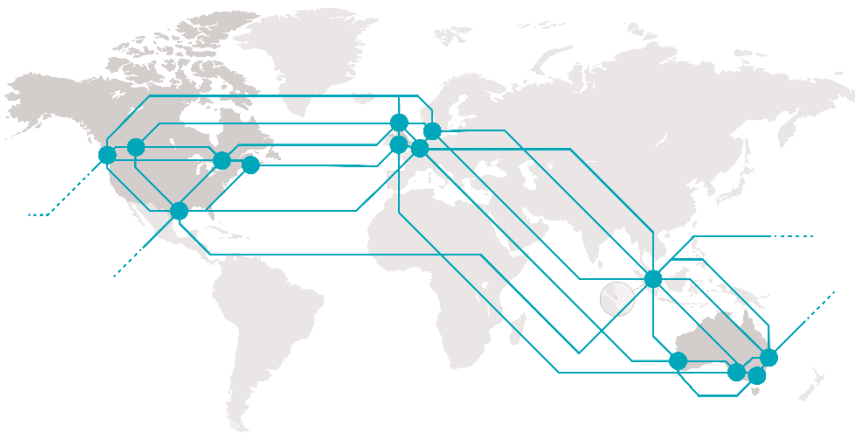
Final Report – this report replaces any previously issued Report

- 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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