

# John Holland Group Ltd Pty

## Detailed Site Investigation – Reedy Creek Tributary, Eastern Creek NSW 2766

**Prepared for:**

John Holland Group Ltd Pty

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S-05667.DSI.M7.008\_Reedy Creek Tributary\_Final\_V2

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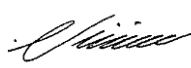
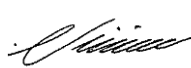
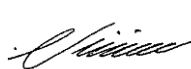
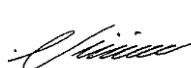
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## DOCUMENT CONTROL

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## EXECUTIVE SUMMARY

EDP Consultants Pty Ltd (EDP) was engaged by John Holland Pty Ltd (John Holland) to undertake a Detailed Site Investigation (DSI) within an area named Reedy Creek Tributary (the site), part of the M7-M12 Integration Project. The site is situated in the inner median under the M7 Motorway, at Eastern Creek NSW 2766.

The Site area is to be affected by excavation and the construction works planned for the area consist of the installation, working platforms and excavation of permanent bridge piles as part of the M7-M12 Integration Project.

This DSI will form part of a broader contamination soil assessment within the M7 Widening and has been prepared to satisfy the NSW M7 Condition of Approval (NSW M7 CoA) (SSI -663-Mod-6), Revised Environmental Management Measures (REMMS) and developed in accordance with Transport for NSW (TfNSW) Specification D&C G36 Environmental Protection.

The objectives of the DSI were to comply with SSI 663 M7 CoA D67 and Revised Environmental Management Measure C2, which requires the preparation of a report in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended in April 2013)* (NEPM 2013) to characterise the extent of contamination within the site. The desired outcomes of the investigation were to determine whether concentrations of contaminants would preclude assessed soils for use/re-use within the M7-M12 Integration project and whether the land is suitable (for the intended final land use) or can be made suitable through remediation.

This intrusive assessment involved the soil sampling of two deep boreholes concurrent with a geotechnical assessment advanced by a drill rig to a depth consistent with the surface of the bedrock.

Soil analytical results were compared against the adopted human health and ecological criteria for the site, in accordance with NEPM 2013, the HEPA PFAS National Environmental Management Plan V2 2020 (NEMP 2020) and other applicable guidelines.

A Tier I Qualitative review of the data set presented no exceedances of the adopted human health risk criteria for health investigation levels (HILs) and health screening levels (HSLs) for commercial and industrial criteria identified in any soil samples collected and analysed.

Based on the review of the site history, desktop assessment, site inspections, intrusive investigation and analytical results forming this DSI, EDP makes the following conclusions:

- All other testing showed chemical concentrations below the adopted criteria and the absence of asbestos at surface and subsurface
- Analytical results indicated no evidence of contamination presenting an unacceptable risk to human health or the environment for the proposed use under commercial/industrial land use settings.
- Although contamination was not identified onsite, all future unknown instances of contamination would be appropriately managed under the site's unexpected finds procedure and asbestos management plan as references below:
  - M7-M12 Integration project Construction Environmental Management Plan – Appendix B: Construction Contamination Land Management Sub-plan – Appendix B: Asbestos Management Plan (M7I2UDC-JHGRP-M7A-EN-PLN-000077\_CCLMP\_RevE\_AppB).
  - M7-M12 Integration project Construction Environmental Management Plan - Appendix B4: Construction Soil and Water Management Sub-plan – Appendix N: Asbestos Management Plan (M7-M12 UDC-JHGRP-M7A-EN-PLN-000718\_CSWMP\_RevH\_AppN).
  - Saline soils have been identified in areas of the site. To meet the requirements of M7 REMM C6, saline soils will not be re-used within M7 Widening (SSI-663-Mod-6) construction footprint. Saline soils generated from M7 Widening (SSI-663-Mod-6) are considered low risk and acceptable for placement within lands that have a final land-use setting of commercial / industrial in accordance with the NEPM, 2013 and NEMP, 2020.

- Lower explosive limit (LEL) gas monitoring for hazardous ground gases should be undertaken to verify no elevated gas readings are detected during piling works.

Based on the findings of this report, areas previously identified as moderate and/or high risk in the Contamination Impact Assessment (CIA) (AECOM 2022) conducted for the site under Condition 1A of Schedule 1, soils within the investigation extent of the site are considered low risk and acceptable for re-use during the construction of the M7-M12 Integration project and for the final intended land use. The preparation of this DSI is deemed to satisfy the NSW M7 CoA D67, Revised Environmental Management Measure C2.

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## 1. INTRODUCTION

EDP Consultants Pty Ltd (EDP) was engaged by John Holland Pty Ltd (John Holland) to undertake a Detailed Site Investigation (DSI) within an area named Reedy Creek Tributary (the site), part of the M7-M12 Integration Project. The Site is situated in the inner median under the M7 Motorway, north of the intersection with Old Wallgrove Road overpass, Eastern Creek, NSW 2766. The site area is to be affected by excavation and the construction works planned for the area include the installation of working platforms and excavation of permanent bridge piles as part of the M7-M12 Integration Project.

The Project has Commonwealth approval by the Federal Minister for the Environment under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act, EPBC 2018/8286) and the NSW Minister for Planning under the Environment Protection and Planning Act (EP&A Act, SSI 9364 and SSI-663-Mod-6). The Project is being delivered by the Western Sydney Orbital Company (WSO Co) and John Holland.

This DSI will form part of a broader contamination soil assessment within the M7 Widening and has been prepared to satisfy the NSW M7 Condition of Approval (NSW M7 CoA) (SSI -663-Mod-6, Revised Environmental Management Measures (REMMS) and has been developed in accordance with Transport for NSW (TfNSW) Specification D&C G36 Environmental Protection.

The subject area (The Site) of this assessment includes the bridge structures area, comprising two areas of approximately 75 m<sup>2</sup> each located on northbound and southbound batters of Reedy Creek Tributary Bridge (Infra 25.92 (NB) & 25.96(SB)), and is situated at M7 Motorway bridge between chainage kilometre (km) 18,370 and km18,410.

It is specified by the relative Lot 3 on Deposited Plan (DP) 1041745. The Site location and boundaries of the area subject to this assessment are provided in **Figures 1, 2 and 3** in **Appendix A**.

## 2. PURPOSE & OBJECTIVES

As mentioned, this DSI has been prepared to satisfy requirements of the NSW M7 CoA (SSI 663-Mod-6), conditions D66, D67, D68 and D69 and M7 REMMS C3, C5 and C6, presented within **Section 4** of this report.

The objectives of the DSI were to:

- Assess the nature and extent of contamination at the site based on historical site usage by performing a desktop analysis and site history review and collecting and analysing sufficient and representative data from all relevant media (soil);
- Preparation of this DSI report that documents the findings of the investigation, the data quality and limitations in general accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended in April 2013) (NEPM 2013); and
- Within the DSI, assess the potential risks to human health and the environment posed by any identified contamination, considering the current and proposed land uses and realistic linkages between exposure pathways and receptors to determine whether concentrations of contaminants would preclude the intended final land use, or whether the site can be made suitable for the proposed land use through remediation or management.

## 3. BACKGROUND

The M7-M12 Integration project includes the M12 East package and the widening of the M7 Motorway (Mod 6 Widening).

The main features of the M7 Widening involves:

- Widening the M7 Motorway into the existing median for a length of approximately 26 km along the Westlink M7, from about 140 metres (m) south of the Kurrajong Road overhead bridge at Prestons (southern

end) extending to Richmond Road interchange in Oakhurst/Glendenning (northern end), excluding the section between M4 Motorway/ Westlink M7 (Light Horse) Interchange; and

- Widening of 43 existing northbound and southbound bridges on the Westlink M7 at 23 locations within the centre median and on the outside of the bridges on the approach to the M4 Motorway from Old Wallgrove Road

The M7 Widening project has been the subject of a Contamination Impact Assessment (CIA) report developed by AECOM (2022) to address the relevant Secretary's Environmental Assessment Requirements (SEARs) issued for the proposed modification.

The CIA report has been prepared to assess the potential contamination impacts of construction and operation of the proposed modification on human and ecological receptors; identify potential acid sulfate soil and soil salinity impacts; assess the impacts on soil and land resources (particularly soil erosion and sediment transport); and to identify appropriate mitigation and management measures to address the impacts identified.

Potential existing areas of contamination were identified within the study area, including the area that comprises the site, which could potentially have an adverse impact on human or ecological health if disturbed during construction or remaining during operation of the proposed roadway.

The assessment performed by AECOM and reviewed in detail by EDP concluded that the area that encompasses the Site poses a moderate likelihood for risk of contamination due to the historical use of the land and its surrounding areas.

EDP was engaged by John Holland to conduct four individual DSIs within the median strip of the M7 Widening, excluding under bridges, the existing bridge structures and embankments. The Site is situated within construction Zone C; the EDP report produced and submitted that encompassed this zone is entitled 'Detailed Site Investigation M7 Widening – Zone C – Sydney NSW', report S-05667.DSI.M7\_Zone C\_Final, dated 25 January 2023 (EDP 2023).

Greater details on the findings of the AECOM assessment and additional investigation reports pertaining to the site are provided in **Section 06**.

## 4. COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

### 4.1 Technical Framework

The assessment was undertaken in accordance with the following:

- Australian Standard (AS 4482.1-2005) Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds I;
- Australian Standard (AS 4482.2-1999) Guide to the sampling and investigation of potentially contaminated soils – Volatile substances I;
- Australian Standard (AS 4964-2004) Method for the qualitative identification of asbestos in bulk samples;
- Cooperative Research Centre for Contamination Assessment and Remediation of the Environment: Technical Report No. 10, Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater Part 1: Technical development document, 2011 (CRC Care, 2011);
- Cooperative Research Centre for Contamination Assessment and Remediation of the Environment: Technical Report No.39 Risk-based management and remediation guidance for benzo(a)pyrene 2017 (CRC Care, 2017);
- Department of Land and Water Conservation: Site Investigations for Urban Salinity (DLWC, 2002);
- Environmental Procedure Management of Wastes on Transport for New South Wales Services Land (Roads & Maritime, 2014);

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<sup>1</sup> As 4482.1-2005 and AS 4482.2-199 are currently under revision. These standards have been referenced for completeness.

- Managing asbestos in or on soil (SafeWork NSW, 2014);
- National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual (Water Quality Australia, 2018);
- National Acid Sulfate Soils Guidance: National acid sulfate soils sampling and identification methods manual (Water Quality Australia, 2018);
- NSW Department of Infrastructure, Planning and Natural Resources (DIPNR) 'Site Investigations for Urban Salinity 2002' (DIPNR, 2002);
- NSW Department of Infrastructure, Planning and Natural Resources (DIPNR): Western Sydney Regional Organisation of Councils Ltd (WSROC) 'Western Sydney Salinity Code of Practice, 2003' (WSROC, 2003);
- National Environment Protection (Assessment of Site Contamination) Measure 1999 (as revised 2013) (NEPM, 2013);
- Other guidelines made or approved under section 105 of the Contaminated Land Management Act 1997;
- PFAS - National Environmental Management Plan Version 2.0 (HEPA, January 2020);
- Roads and Maritime Guideline for the Management of Contamination (September 2013);
- Roads & Maritime Services Environmental Incident Classification and Reporting Procedure (2017);
- Soil and Landscape Issues in Environmental Impact Assessment (Gray, 2000);
- State Environmental Planning Policy (resilience and hazards) 2021;
- TfNSW draft Asbestos in Soils Management Procedure (2020);
- TfNSW Environmental Incident Procedure (EMF-13-PC-0001) (2021);
- The NSW EPA (2017) Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd Edition) (updated from NSW EPA 2006 version);
- The NSW EPA (2020) Consultants Reporting on Contaminated Land;
- The NSW EPA (2017) Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997;
- The NSW EPA (2022) Sampling Design Part I – Application;
- The NSW EPA (2016) Environmental Guidelines: Solid Waste Landfills (Second Edition) (NSW EPA 2016);
- The NSW Government: Managing asbestos in or on soil 2014;
- Urban and regional salinity guidance given in the Local Government Salinity Initiative booklets, which includes Site Investigations for Urban Salinity (DLWC, 2002);
- How to manage and control asbestos in the workplace – Code of Practice (Safe Work Australia, July 2020);
- How to safely remove asbestos – Code of Practice (Safe Work Australia, July 2020);
- National Environment Protection (Assessment of Site Contamination) Measure (1999) Amendment 2013 (NEPM 2013); and
- WA Department of Health Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia 2009 (DOH, 2009); and
- Safe Work Australia (2024) Workplace Exposure Standards for Airborne Contaminants (Safe Work Australia 2024).

## 4.2 Ministers Conditions of Approval

This contamination assessment has been prepared to satisfy the NSW M7 CoA (SSI 663-Mod-6) and M7 Revised Management Measure (REMMs).

### NSW M7 CoA D67

*“Detailed Site Investigations to confirm moderate and high risk contaminated sites identified in Preliminary Site Investigation in Condition 1A of Schedule 1 must be prepared, or reviewed and approved by a Contaminated Land Consultant certified under either the Environment Institute of Australia or New Zealand’s “Certified Environmental*

Practitioner” (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia “Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.

The Detailed Site Investigations must be undertaken before ground disturbance in areas identified in the documents under Condition 1A of Schedule 1 as moderate to high-risk contamination”.

#### NSW M7 CoA D69

“A Detailed Site Investigation Report must be prepared and submitted to the Planning Secretary for information following the completion of Detailed Site Investigations required by Condition D67 and:

(a) be prepared (or reviewed and approved) by a Contaminated Land Consultant certified under either the Environment Institute of Australia or New Zealand’s “Certified Environmental Practitioner” (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia “Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme;

(b) be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997 (NSW); and

(c) be reviewed by a NSW EPA-accredited Site Auditor (if a Detailed Site Investigation identifies moderate or high-risk contamination). The Site Auditor must issue interim audit advice stating whether the Detailed Site Investigations appropriately categorises risk, the appropriateness of the Report and any proposed management measures. The Detailed Site Investigation Report and interim audit advice must be submitted to the Planning Secretary for information.

Nothing in this condition prevents the Proponent from preparing individual Site Contamination Reports for separate sites”.

#### M7 REMMs C2

“A Sampling, Analysis and Quality Plan will be prepared ahead of detailed site investigations, focusing on potential source areas of potential contamination where the likelihood risk of contamination is moderate to high, and additional areas to give further understanding of potential contamination impacts. The results from the site investigations will be assessed against criteria contained within the National Environment Protection (Assessment of Site Contamination) Measure (2013) and other applicable NSW statutory guidelines to assess whether remediation is required or other management measures during construction”.

#### M7 REMMs C3

“Remediation will be undertaken where assessed as required based on the outcome of DSIs. Works will be performed in accordance with the hierarchy of preferred strategies in the Guidelines for the NSW Site A Remediation will be undertaken where assessed as required based on the outcome of DSIs. Works will be performed in accordance with the hierarchy of preferred strategies in the Guidelines for the NSW Site Auditor Scheme (NSW EPA, 2017c) and CRC CARE Pty Ltd (CRC, CARE, 2020) National Remediation Framework. Where practical, remediation works will be integrated with excavation and development works performed during construction and address requirements of SEPP 55 auditor Scheme (NSW EPA, 2017c) and CRC CARE Pty Ltd (CRC, CARE, 2020) National Remediation Framework. Where practical, remediation works will be integrated with excavation and development works performed during construction and address requirements of SEPP 55”.

#### M7 REMMs C4

“Contamination within the Westlink M7 lease area will be managed in accordance with the existing or updated Operational Environmental Management Plan (OEMP).

Pre-construction contamination condition surveys will be undertaken on all sites intended to be used as construction ancillary facilities. Post-construction contamination condition surveys will be undertaken on all ancillary facilities and any contamination caused by the use of the site as a construction ancillary facility remediated to a standard suitable for the identified land use. Remediation will be undertaken by the construction contractor prior to operation of the modification”.



## M7 REMMs C5

*“Prior to ground disturbance in areas of potential inland acid sulfate soil occurrence, testing will be carried out to determine the actual presence of acid sulfate soils. This measure is especially applicable to areas on waterbodies where disturbance of sediments and surrounding soil is to occur. If acid sulfate soils are encountered, they will be managed in accordance with the Acid Sulfate Soil Manual (Acid Sulfate Soil Management Advisory Committee, 1998) and Guidelines for the Management of Acid Sulfate Materials: Acid Sulfate Soils, Acid Sulfate Rock and Monosulfidic Black Ooze (NSW Roads & Traffic Authority, 2005b)”.*

## M7 REMMs C6

*“Prior to ground disturbance in high probability salinity areas, testing will be carried out to determine the presence of saline soils. If salinity is encountered, excavated soils will not be reused and will be managed in accordance with Book 4, Dryland Salinity: Productive Use of Saline Land and Water (NSW DECC, 2008c). Erosion controls will be implemented in accordance with the Managing Urban Stormwater: Soils and Construction Volume 1 (DPIE, 2004)”.*

## 4.3 TfNSW Requirements

This DSI has been developed in accordance with Transport for NSW (TfNSW) Specification D&C G36 Environmental Protection.

### Clause 4.2

*“Engage a consultant certified under either the Environment Institute of Australia and New Zealand’s certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) to carry out a Stage 2 Site Contamination Assessment in accordance with the Planning Approval, the findings and recommendations of the Stage 1 Site Contamination Assessment carried out as part of the Environmental Assessment Documentation and detailed design contamination investigation reports and in accordance with the Contaminated Land Management Act Guidelines.”*

*The Stage 2 Site Contamination Assessment must be completed seven days prior to works that would result in the disturbance of potentially contaminated or contaminated soils, materials, groundwater or sediments and submitted to TfNSW and the Principal.*

*The Stage 2 Site Contamination Assessment Report must provide details on:*

- (a) primary sources of contamination, for example potentially contaminating activities, infrastructure (such as underground storage tanks, fuel line, sumps or sewer lines) or site practices;*
- (b) contaminant dispersal in air, hazardous ground gases, surface water, groundwater, soil vapour, separate phase contaminants, sediments, infrastructure (e.g. concrete), biota, soil and dust;*
- (c) contaminant characterisation and behaviour (volatility, leachability, speciation, degradation products and physical and chemical conditions on-site which may affect how contaminants behave);*
- (d) potential effects of contaminants on human health, including the health of occupants of built structures (for example arising from risks to service lines from hydrocarbons in groundwater, or risks to concrete from acid sulphate soils) and the environment;*
- (e) potential and actual contaminant migration routes including potential preferential pathways;*
- (f) the adequacy and completeness of all information available for use in the assessment of risk and for making decisions on management requirements, including an assessment of uncertainty;*
- (g) the review and update of the conceptual site model from the preliminary and detailed site investigations;*
- (h) nature and extent of any existing remediation (such as impervious surface cappings); and/or*
- (i) whether the land is suitable (for the intended final land use) or can be made suitable through remediation”.*

### Annexure B (B1) - Contaminated Materials – If Encountered

Information documents provided at tender do not suggest the presence of contaminants on the site. Where encountered, the provisions under this clause would be enacted.

*Notwithstanding anything to the contrary, you are to determine the nature and extent of all contaminated materials (including asbestos) and their associated treatments.*

*Part of the Site may contain contaminated materials (refer to Clause 4.2). Your Occupational Hygienist or suitably qualified Geotechnical Design Representative (refer to TfNSW D&C R44 Clause 1.8) must undertake inspections and any required tests of all suspected contaminated materials and assess the nature and extent of the contamination and provide suitable directions for the management/ treatment of all suspected contaminated materials”.*

#### Annexure B (B2) - Topsoil

*Your Geotechnical Design Representative (refer to TfNSW D&C R44 Clause 1.8) and Occupational Hygienist must undertake any required investigations/ inspections of all areas where you propose to remove topsoil. Invite the Principal to witness all such investigations/ inspections”.*

## 5. SCOPE OF WORKS

To fulfil the objectives described in **Section 2**, the following was proposed as part of the DSI:

- Review of the existing and historical environmental reports for the M7 and subject area;
- Review of site history and historical aerial photographs of the area;
- Review of environmental data source report (Enviro-Screen Reports - Land Insight and Resources (LIR), ref-LI-3925) and available online environmental data;
- Accompaniment of geotechnical assessment during advancement of two boreholes using drill rig to a maximum depth up to surface of underlying bedrock;
- Collection of soil samples at depths as deemed appropriate by the field scientist;
- Indicative assessment of sub-surface ground gas concentrations by screening open boreholes in the field with a calibrated ground gas monitor;
- Submission of all samples to a National Association of Testing Authorities (NATA) accredited laboratory in chilled conditions under standard chain of custody (CoC) documentation for the analysis required;
- Completion of a Tier 1 Qualitative review of the soil analytical results against the adopted human health and ecological criteria for the site, in accordance with NEPM 2013 and the HEPA PFAS National Environmental Management Plan V2 2020 (NEMP 2020);
- Development of an updated Conceptual Site Model (CSM) for the site area to address and rectify data gaps that require additional environmental information; and
- Preparation of this DSI report presenting the findings of the investigation in accordance with relevant guidelines for contaminated lands assessment and in accordance with M7 NSW CoA D67 detailing practices, contaminant dispersal, contaminant characterisation and behaviour, potential effects of contaminants on human health, including the health of occupants of built structures, potential and actual contaminant migration routes, including potential preferential pathways, the adequacy and completeness of all information available for use in the assessment of risk and for making decisions on management requirements, the review and update of the conceptual site model from the preliminary and detailed site investigations; nature and extent of any existing remediation and/or whether the land is suitable (for the intended final land use) or can be made suitable through remediation.

## 6. PREVIOUS INVESTIGATIONS

The following previous environmental investigation reports provided to EDP were reviewed in detail as part of this assessment.

### 6.1 TfNSW Westlink M7 Widening Modification Report (AECOM, 2022) – Chapter 7.1.1a and 7.1.1b (App L1, L2 and L3) Contamination Impact Assessment

The CIA was undertaken to identify the potential for contamination to be present within areas to be impacted by the construction and operation of the M7 widening project. The study area for the assessment comprised a 100 m buffer of the construction footprint and the ancillary compounds located outside the Westlink M7 lease boundary.

The study was prepared to assess the potential contamination impacts of construction and operation of the proposed modification on the identified human and ecological receptors, as well as to identify potential acid sulfate soil and soil salinity impacts; assess the impacts on soil and land resources (particularly soil erosion and sediment transport), and to identify appropriate mitigation and management measures to address the impacts identified.

Potential existing areas of contamination were identified within the study area that could potentially have an adverse impact on human or ecological health if disturbed during construction of the M7 Widening or remains during operation of the M7 Motorway. The sources of contamination include the demolition of former buildings that comprised hazardous building materials (lead-based paint and asbestos-containing materials [ACM]), former market gardens, illegal waste dumping, past industrial land uses, service stations and landfills, and use of the existing Westlink M7.

The study provided a 'likelihood risk of contamination assessment' for each potentially contaminating activity identified within or proximal to the study boundary, ranging from low to moderate to high risk.

AECOM concluded that the area that encompasses the Site poses a high likelihood for risk of contamination due to the historical and current use of the surrounding areas of the land as waste management facilities, Veolia Environmental Services Pty Ltd and Suez Recycling, within influencing distance to the east.

### 6.2 EDP Detailed Site Investigation M7 Widening - Zone C – Sydney NSW (EDP 2024)

EDP was engaged by John Holland to conduct a DSI of the M7 Widening project, the DSI has been divided into four separate construction areas, labelled Zones A to D. The Site is situated within construction zone C, the EDP report which captures the investigation work undertaken within this zone is entitled 'Detailed Site Investigation M7 Widening – Zone C – Sydney NSW', report S-05667.DSI.M7\_Zone C\_Final, dated 25 January 2024 (EDP 2024).

The primary objective of the DSI was to characterise the extent of contamination within the site to determine whether concentrations of contaminants would preclude the assessed soils for use/re-use within the M7-M12 Integration project and determine as to whether the land is suitable (for the intended final land use) or could be made suitable through remediation.

This intrusive assessment involved the excavation of 67 boreholes across Zone C and soil sampling across the investigation area to a maximum depth of 1.5 mbgl. A Tier I Qualitative review of the dataset was undertaken against the criteria for the protection of human health and the environment specified within the site specific SAQP, referencing and in accordance with the NEPM 2013, the HEPA PFAS National Environmental Management Plan V2 2020 (NEMP 2020), and other applicable guidelines.

Chemical analytical results presented no exceedances of the adopted health investigation levels (HILs) nor the health screening levels (HSLs) for continued commercial and industrial land use.

Based on the findings of the report, areas previously identified as moderate and/or high risk in the Contamination Impact Assessment (CIA) (AECOM 2022) conducted for the site under Condition 1A of Schedule 1, soils within

the investigation extent of the Zone C median strip were considered low risk and acceptable for re-use during the construction of the M7-M12 Integration project and suitable for the final intended land use.

## 7. SITE INFORMATION

### 7.1 Site Identification Summary

Site identification details are summarised in **Table I**, and the site's location and extent are presented in **Figure 1** and **Figure 2**, provided in **Appendix A**.

**Table I: Site Identification**

| Site Identification               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Address:                     | Reedy Creek Tributary Bridge - Infra 25.92 (NB) & 25.96(SB) - Situated in the inner median under the M7 Motorway, north of the overpass of Old Wallgrove Road and M7 Motorway, Eastern Creek NSW 2766.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Local Government Area:            | Blacktown City Council                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Lot and DP number:                | Lots 3 on Deposited Plan (DP) 1041745                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Current Zoning:                   | SP2 Infrastructure - Classified Road                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Current Site Description:         | <p>The Site comprises the existing M7 Motorway bridges structures, northbound and southbound embankments, an area localised between the Motorway.</p> <p>Two batters are present on either side of the bridge structure, in the northern and southern ends. Each batter measures approximately 15 m in width and 20 m in height, which only 5 m of the highest section of each batter connected to M7 Westlink median is part of this assessment.</p> <p>The batter was noted to be a grassed area between two bridge structures, characterised by a steep decline towards the south and large rocks were present. The batter connects to the M7 Westlink Median strip which is overlain by a grass surface and trees. Some fly tipping was observed on the median strip surface including plastic and municipal waste.</p>                                        |
| Former Land Use:                  | Based upon available historical aerial photography, the proposed construction footprint has been historically largely used for agricultural and rural purposes since the 1940s, with increased rural/industrial development observed from 1998. Construction of the M7 Motorway began in 2004 and was completed by the 2013 aerial photograph. The most notable land changes as part of these works included clearing and increasing commercial/industrial developments within surrounding areas following the development of the roadway.                                                                                                                                                                                                                                                                                                                         |
| Current and Surrounding Land Use: | <p>An overview of the surrounding land use is as follows:</p> <p><b>Blacktown City Council LGA</b> – The site runs parallel to the M7 Cycleway eastern creek and Wallgrove Road. The western and eastern portions of this study area predominantly consist of urban land uses supporting industrial and commercial purposes, although there are areas dedicated to public recreation and environmental conservation.</p> <p>The site sits within the suburb of Eastern Creek, NSW, and is bound to the:</p> <ul style="list-style-type: none"> <li>• <b>North by</b> vegetated median of the M7 Motorway followed by a slip road onto the Motorway;</li> <li>• <b>West by</b> Wallgrove Road followed by an industrial facility complex;</li> <li>• <b>East by</b> vegetation, followed by former landfill; and</li> <li>• <b>South by</b> M7 motorway.</li> </ul> |

## 7.2 Historical Aerial Photograph Review

Historical aerial images surrounding the site are provided in **Appendix B** and are described in **Table 2**. Between 1975 and 1991, some development of building structures can be noted to have occurred. From 2004 onwards, construction works for the M7 Motorway and further building developments to the northwest of the site can be observed. The M7 Motorway can be seen in completion by 2013, with no evidence of further construction works taking place.

**Table 2: Historical Land Use**

| Year | Description of Site                                                                                                                                                                                      | Surrounding Development                                                                                                                                                                                                                                        |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1947 | The site consists of vacant land with a watercourse running through the site from west to east. Some vegetations appears to the western portion of the site boundary. No structures are present on-site. | Vacant land with sporadic and sparse bushland recorded to the north.<br>Cleared pasture lands and are observed throughout the area. Unsealed tracks are present to west of the site in the current alignment of Wallgrove Road.                                |
| 1965 | There were no significant changes to the site.                                                                                                                                                           | All the trees on the land, to the north of the site, have been cleared. A small cluster of residential buildings and a dam are present to the south of the site. A new unsealed track is observed to the north of the site and some clearing on the northeast. |
| 1975 | There were no significant changes to the site.                                                                                                                                                           | There were no significant changes to the site, with exception of more development is observed on the land east of the site.                                                                                                                                    |
| 1984 | There were no significant changes to the site.                                                                                                                                                           | The buildings previously observed to the south of the site are not now recorded and dam has been backfilled.                                                                                                                                                   |
| 1991 | Some subtle changes on the creek course, and depth. There were no significant changes to the site, with exception of vegetation regeneration on the creek bank.                                          | Landfill activities/ filling to north and northeast to the site appears to being active at the time of the image, with visible filling layers being built.                                                                                                     |
| 1998 | There were no significant changes to the site, with exception of vegetation regeneration.                                                                                                                | Landfill activities/ filling to east of the site appears to have ceased, it is observed vegetation growth on the filling layers.                                                                                                                               |
| 2004 | Earthwork including clearing and/ or filling associated with the development of the Westlink M7 motorway are observed across the site entirely.                                                          | Earthwork associated with the development of the M7 motorway are observed across the north and south. There has also been significant development to the land south of the site.                                                                               |
| 2005 | Majority of the M7 construction has been completed, including the construction of the bridge over the site and Reedy Creek Tributary.                                                                    | The area directly to the west of the site has significant commercial development recorded whilst the site directly south of the site has been completely developed into part of the Westlink M7.                                                               |
| 2013 | The Westlink M7 is completed.                                                                                                                                                                            | Continue development in the surrounding, including the construction of the bridge directly south of the site has now been completed. Reduction of vegetation due to construction is visible surrounding the site.                                              |

| Year | Description of Site                                 | Surrounding Development              |
|------|-----------------------------------------------------|--------------------------------------|
| 2024 | The site in its current conditions can be observed. | No significant changes are observed. |

Associated potential contamination issues identified during the historical aerial photography review include the following:

- Diffuse pesticide and herbicide use;
- Isolated waste disposal;
- Imported fill from unknown and unverified sources;
- Historical landfill in the surrounding area.

### 7.3 Environmental Setting

Site information was gathered from previous reports, available online environmental data and the LIR (LIR, 2023) report in **Appendix C**. Environmental setting details are summarised in **Table 3**.

**Table 3: Environmental Settings**

| Environmental Settings         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Topography:                    | A review of the NSW Government National Map online database ( <a href="http://www.nationalmap.gov.au/">http://www.nationalmap.gov.au/</a> ) indicated that the site was located at an elevation of approximately 55 m Australian Height Datum (AHD). At the time of the assessment, the site appeared to be relatively level, with a slight decline in a south-easterly direction leading to Reedy Creek, affluent of Eastern Creek.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Surface water and Groundwater: | <p>Based on project geological conditions, project groundwater investigations and registered groundwater works, two main groundwater system types exist in the study area as follows:</p> <ul style="list-style-type: none"> <li>• Unconfined to semi confined alluvial groundwater systems associated with Eastern Creek; and</li> <li>• Semi confined groundwater systems within the bedrock (Wianamatta Group Shale and Hawkesbury Sandstone).</li> </ul> <p>The bedrock groundwater systems are characterised as semi-confined dual porosity systems (granular flow and fracture flow). The upper major hydrostratigraphic unit comprises the Wianamatta Shale which overlies a lower major hydrostratigraphic unit consisting of the Hawkesbury Sandstone.</p> <p>The Wianamatta Group shales are characterised by saline groundwater which is not considered to be a viable groundwater source. Two aquifer systems, shallow and deep, form part of the Wianamatta Shales. The upper ‘regolith’ aquifer system.</p> <p>A search of the Water NSW Real-time data record did not identify any groundwater bores within a 500 m radius of the site. The closest groundwater bore was advancement for monitoring purposes, located approximately 1000 m south-east of the site. The bore was drilled to 24.6 mgbgl with no information of the standing water levels.</p> <p>Groundwater flow directions are anticipated to be similar to a subdued version of the topographic surface.</p> <p>EDP notes that groundwater was encountered at boreholes advanced across the site to a maximum depth of 6.0 mgbgl with groundwater intercepted at 4.0 mgbgl</p> |
| Regional Geology:              | Most of the construction footprint within Bringelly Shale bedrock (Triassic aged and part of the Wianamatta Shale Group) is described as shale and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Environmental Settings | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | carbonaceous claystone. Other areas of the project include quaternary-aged and Recent alluvium sediments. The alluvium deposits are reported as being relatively thin, occurring between about 2.5 metres below ground level (mbgl) to 7.0 mbgl.                                                                                                                                                                                                                                                                                                  |
| Sensitive Receptors:   | The identified sensitive receptor within a buffer of 200 m of the study area is: <ul style="list-style-type: none"> <li>• Reedy and Eastern Creek;</li> <li>• Water courses, lakes, dams and waterholes; and</li> <li>• Shared pathway-cycleway</li> </ul>                                                                                                                                                                                                                                                                                        |
| Acid Sulfate Soils:    | The Atlas of Australian Acid Sulfate Soils (ASRIS) database presented in LIR (2023) indicated an extremely low probability of acid sulfate soils occurring beneath the site—high probability of occurrence within upper 1 m in wet and riparian areas                                                                                                                                                                                                                                                                                             |
| Salinity:              | Based upon available mapping there is a moderate salinity hazard associated with hydrogeological landscapes and Australian drylands ecosystems are present onsite.<br>Hawkesbury Sandstone groundwater salinity decreases to 1,000 mg/L to 3,000 mg/L, where greater than 1,200 mg/L is considered unpalatable to humans, and greater than 2,000 mg/L is considered unpalatable for most livestock (SAEPA, 2019). Salinity potential is defined as moderate, defined as where Wianamatta Group Shales or tertiary alluvial terraces are present.. |

## 7.4 Public Records and Potentially Contaminated Areas

Public Records and Potentially Contaminated Areas are summarised in **Table 4**

**Table 4: Public Records and Potentially Contaminated Areas**

| Per- and Polyfluoroalkyl Substances (PFAS):        | A review of the NSW EPA Per-and Polyfluoroalkyl Substances (PFAS) Investigation Program as part of the LIR did not identify the site or any location within a 2,000 m radius as an area of study. |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NSW EPA Contaminated Land Public Records Register: | The NSW EPA Contaminated Land Record of Notices indicated no current or former notices under Section 58 of the CLM Act 1997 in a 1,000 m buffer of the study area.                                |
| NSW EPA List of Notified Sites:                    | The NSW EPA record of licenced sites reported identified with no current or historical licenced operations under the POEO Act within or adjoining the study area                                  |



## 8. PRELIMINARY CONCEPTUAL SITE MODEL

**Table 5: Preliminary Conceptual Site Model**

| Location                                                                                                    | Activity                                                                                                            | Contaminants of Concern                                                                                                                                | Potential Exposure Pathways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Potential Human and Environmental Receptors                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Assessment of Risk                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Within the construction footprint, various locations                                                        | Demolition or removal of former building structures<br><br>Areas of disturbed terrain and potential illegal dumping | <ul style="list-style-type: none"> <li>Heavy metals, TRH, PAH, BTEX, PCBs, OCP/OPP, PFAS<sup>2</sup> and Asbestos (non-friable and friable)</li> </ul> | <ul style="list-style-type: none"> <li>Downward migration and leaching of contaminants via infiltration of rainwater through the underlying geology</li> <li>Lateral migration via groundwater to surface water and off-site</li> <li>Overland flow of surface water to off-site soils and surface water</li> <li>Absorption or adsorption to fauna and vegetation through contact and diffusion in soil</li> <li>Dispersion of airborne particulates due to wind</li> <li>Inhalation, ingestion, dermal contact</li> </ul> | <u>Human receptors:</u> <ul style="list-style-type: none"> <li>Current site maintenance workers and visitors</li> <li>Future construction and maintenance workers, site users and visitors</li> <li>Current and future site users on neighbouring properties</li> </ul> <u>Environmental Receptors:</u> <ul style="list-style-type: none"> <li>Transient fauna or macroinvertebrates</li> <li>Vegetation</li> <li>Groundwater</li> <li>Surface waters such as Reedy Creek tributary.</li> </ul> | <u>Health:</u> <b>Moderate</b> – SPR linkages potentially complete<br><br><u>Environment:</u> <b>Moderate</b> – SPR linkage potentially complete for surface water (Reedy Creek Tributary) and groundwater. Low risk to ecology and sensitive ecology not envisaged in the median. |
| Excavation and Stockpiling of Actual and/or Potential Acid Sulfate Soils or soils with high salinity hazard | Stockpiling during M7 Westlink construction                                                                         | <ul style="list-style-type: none"> <li>Actual Acid Sulfate and Potential Acid Sulfate (ASS/PASS)</li> <li>Saline and sodic soils</li> </ul>            | <ul style="list-style-type: none"> <li>Migration of acidic or saline leachate/runoff to surface water or infiltration to groundwater</li> </ul>                                                                                                                                                                                                                                                                                                                                                                             | <u>Environmental Receptors:</u> <ul style="list-style-type: none"> <li>Surface-dependant floral and faunal ecosystems, including transient and macroinvertebrate species</li> </ul>                                                                                                                                                                                                                                                                                                             | <u>Health:</u> <b>Low</b> – Unlikely impact of AASS/PASS or saline soils on human health<br><br><u>Environment:</u> <b>Moderate</b> – SPR linkages potentially                                                                                                                     |

<sup>2</sup> List of Acronyms: Total Recoverable Hydrocarbons (TRH), Polycyclic Aromatic Hydrocarbons (PAH), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), Polychlorinated Biphenyls (PCBs), Organochlorine Pesticides / Organophosphorus Pesticides (OCP/OPP), Per- and Poly-fluoroalkyl Substances (PFAS)



| Location                                                                                   | Activity                                                                         | Contaminants of Concern                                                                        | Potential Exposure Pathways                                                                                                                                                                                           | Potential Human and Environmental Receptors                                                                                                                                                                                                                                                                                           | Assessment of Risk                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                            |                                                                                  |                                                                                                | <ul style="list-style-type: none"> <li>• Rill and gully erosion, salinisation and scarring of the landscape</li> <li>• Dispersion of airborne particulates due to wind</li> </ul>                                     | <ul style="list-style-type: none"> <li>• Groundwater</li> <li>• Surface waters such as Reedy Creek tributary.</li> </ul>                                                                                                                                                                                                              | complete for surface water (Reedy Creek Tributary), groundwater and ecology                                                                                                                                                                                                         |
| Installation of piles and working platforms in ASS/PASS or soils with high salinity hazard | Construction of piles and working platforms (temporary and permanent structures) | <ul style="list-style-type: none"> <li>• ASS/PASS</li> <li>• Saline and sodic soils</li> </ul> | <ul style="list-style-type: none"> <li>• Infiltration of acidic or saline leachate into groundwater</li> <li>• Wicking of saline water into bridge structure</li> <li>• Acid corrosion of bridge structure</li> </ul> | <u>Human Receptors:</u> <ul style="list-style-type: none"> <li>• Site maintenance workers or visitors coming into contact with impacted bridge structures</li> <li>• Weakening of bridge structures affecting bridge users</li> </ul> <u>Environmental Receptors:</u> <ul style="list-style-type: none"> <li>• Groundwater</li> </ul> | <u>Health:</u> Low – The area will not be readily accessible on foot by the general public, with site maintenance workers to follow site WHS plans and documentation.<br><u>Environment:</u> Low – risk to be managed in design of piles/working platforms and installation method. |

| Location                                                   | Activity                                                 | Contaminants of Concern                                                                  | Potential Exposure Pathways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Potential Human and Environmental Receptors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Assessment of Risk                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Within the construction footprint and adjoining study area | Areas of disturbed terrain and potential illegal dumping | Heavy metals, TRH, PAH, BTEX, PCBs, OCP/OPP, PFAS and Asbestos (non-friable and friable) | <ul style="list-style-type: none"> <li>• Downward migration and leaching of contaminants via infiltration of rainwater through the soil</li> <li>• Lateral migration via groundwater to surface water and off-site</li> <li>• Overland flow of surface water to off-site soils and surface water</li> <li>• Absorption or adsorption to fauna and vegetation through contact and diffusion in soil</li> <li>• Dispersion of airborne particulates due to wind</li> <li>• Inhalation, ingestion, dermal contact</li> </ul> | <p><u>Human Receptors:</u></p> <ul style="list-style-type: none"> <li>• Current site maintenance workers and visitors</li> <li>• Future occupants, construction and maintenance workers, site users and visitors</li> <li>• Current and future site users on neighbouring properties</li> </ul> <p><u>Environmental Receptors:</u></p> <ul style="list-style-type: none"> <li>• Transient fauna or macroinvertebrates</li> <li>• Vegetation</li> <li>• Groundwater</li> <li>• Surface waters such as Reedy Creek tributary.</li> </ul> | <p><u>Health:</u> <b>Moderate</b> – SPR linkages potentially complete</p> <p><u>Environment:</u> <b>Moderate</b> – SPR linkages potentially complete for surface water (Reedy Creek Tributary) and groundwater. There is a low risk to ecology given the localised footprint of piles and batters, and sensitive ecology not envisaged in bridge widening areas.</p> |

| Location                                                   | Activity                                                                                                                                               | Contaminants of Concern                                                                                                                                                                                                                | Potential Exposure Pathways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Potential Human and Environmental Receptors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Assessment of Risk                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Within the construction footprint and adjoining study area | <ul style="list-style-type: none"> <li>Waste management facility</li> <li>Eastern Creek Waste Centre</li> <li>Eastern Creek former landfill</li> </ul> | <p>Heavy metals, TRH, PAH, BTEX, PCBs, OCP/OPP, PFAS and Asbestos (non-friable and friable)</p> <p>Landfill soil or leachate (Heavy metals, TRH, PAH, BTEX, PCBs, PFAS, nutrients, ammonia, phenols, asbestos)</p> <p>Landfill Gas</p> | <ul style="list-style-type: none"> <li>Downward migration and leaching of contaminants via infiltration of rainwater through the soil</li> <li>Lateral migration via groundwater to surface water and off-site</li> <li>Overland flow of surface water to off-site soils and surface water</li> <li>Absorption or adsorption to fauna and vegetation through contact and diffusion in soil</li> <li>Dispersion of airborne particulates due to wind</li> <li>Inhalation, asphyxiation, ingestion, dermal contact</li> <li>Explosion risk</li> </ul> | <p><u>Human receptors:</u></p> <ul style="list-style-type: none"> <li>Current site maintenance workers and visitors</li> <li>Future occupants, construction and maintenance workers, site users and visitors</li> <li>Current and future site users on neighbouring properties</li> <li>Property and structures from gas accumulation (explosion)</li> </ul> <p><u>Environmental Receptors:</u></p> <ul style="list-style-type: none"> <li>Transient fauna or macroinvertebrates</li> <li>Vegetation</li> <li>Groundwater</li> </ul> <p>Surface waters such as Creeks and tributaries within the Eastern Creek Catchment</p> | <p><u>Health:</u> <b>Moderate</b> – SPR linkages potentially complete</p> <p><u>Environment:</u> <b>Moderate</b> – SPR linkages potentially complete for surface water and groundwater. Low risk to ecology given localised footprint of piles and sensitive ecology not envisaged in construction footprint</p> |

## 9. DATA QUALITY OBJECTIVES

Systematic planning and verification are critical to successful implementation of an environmental assessment to ensure that the data is reliable and representative. A process for establishing data quality objectives (DQOs) for an investigation has been defined by the United States Environmental Protection Agency (US EPA). That process has been adopted by Australian Standard AS4482.1-2005 and referenced in NEPM 2013 and NSW EPA 2022 Sampling Design guidelines. DQOs ensure that:

- The study objectives are set;
- Appropriate types of data are collected (based on potential sources of contamination and CoPC); and
- The tolerance levels are set for potential decision-making errors.

The DQO process is a seven-step iterative planning approach used to plan for environmental data collection activities. It provides a systematic approach for defining the criteria that a data collection design should satisfy, including when, where and how to collect samples or measurements, determination of tolerable decision error rates and the number of samples or measurements that should be collected. The seven-step process for this investigation is discussed and summarised in **Table 6**.

**Table 6: Data Quality Objectives**

| Process                                            | DQO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Step 1:<br/>State the Problem</b>               | John Holland are undertaking works on the subject site as part of the wider M7-M12 widening project. There is currently limited site-specific information relating to the contamination status within the subject site and therefore the contamination risk to the proposed development on the site (both during the development and during the operational phase) is not suitably defined.                                                                                                                                                                     |
| <b>Step 2:<br/>Identify the Decisions</b>          | The decisions to be made based on the results of the investigation were as follows: <ul style="list-style-type: none"> <li>• Are CoPC as defined in the Preliminary CSM (see <b>Section 8</b>) present within soil, and if so, do they present an unacceptable risk to human health and the environment based on the proposed commercial/industrial land use?</li> <li>• If contamination is present, is further investigation required or does the site require remediation and/or a management?</li> </ul>                                                    |
| <b>Step 3:<br/>Identify Inputs in the Decision</b> | The inputs required to make the above decisions were as follows: <ul style="list-style-type: none"> <li>• Desktop information (including mapping, databases and historical information sources);</li> <li>• Background information from previous investigations on and adjacent to the site;</li> <li>• Derivation of data quality objectives based upon project objectives;</li> <li>• Selection of appropriate Tier 1 soil assessment criteria;</li> <li>• Visual observations; and</li> <li>• Field monitoring and laboratory analytical results.</li> </ul> |
| <b>Step 4:<br/>Define Boundaries of the Study</b>  | The geographical limits appropriate for the data collection and decision making in this investigation comprised the soils to a depth consistent with the surface of bedrock approximately 8.15 mbgl, as shown on <b>Figure 3 of Appendix A</b> .<br><br>The temporal boundaries of the investigation works are the 27 February 2024 to 28 February 2024.                                                                                                                                                                                                        |
| <b>Step 5:<br/>Develop a Decision Rule</b>         | The adopted site assessment criteria for the CoPC within the investigation area assessed during this investigation are outlined in <b>Section Error! Reference source not found.</b> of the report and presented in the tables provided in <b>Appendix F</b> . Based on the objectives of the DSI and with reference to the potential future use of the site as commercial/industrial, the criteria for commercial/industrial land use were deemed appropriate for the assessment.                                                                              |

| Process                                                            | DQO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                    | <p><b><u>Human-Health Based Criteria</u></b></p> <ul style="list-style-type: none"> <li>• Where the data sets are not sufficiently populated to allow calculation of the 95% UCLmean, or do not follow a discernible distribution, then the individual results must be less than the adopted criteria. If all the individual results are below the adopted criteria, then no additional assessment and/or management is required. Where individual results exceed that adopted criteria, then further assessment and/or management is required.</li> <li>• In accordance with the NEPM 2013, where 95% UCLmean of the average concentration for each soil analyte can be calculated, then the 95% UCLmean must be below the adopted criteria; no single analyte concentration exceeds 250% of the adopted criteria; the standard deviation of the results must be less than 50% of the adopted criteria; and the normal distribution will only be used where the coefficient of variance is not greater than 1.2.</li> <li>• Allowances to these decision rules apply where alternative 95% UCL methods that are not based on normal or log-normal distributions are adopted. Where 95% UCLmean results exceed the aforementioned criteria, then further assessment and/or management is required.</li> <li>• Asbestos contamination will be assessed based on exceedance of individual results, as statistical assessment is not applicable.</li> </ul> <p><b><u>Ecological-Based Criteria</u></b></p> <p>The same approach as adopted above for the assessment against human health-based criteria will be applied to the assessment against ecological criteria.</p>                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>Step 6:</b><br/><b>Specify Limits on Decision Errors</b></p> | <p>The acceptable limits on decision errors applied during the assessment on the site and the manner of addressing possible decision errors were developed based on the DQIs of:</p> <ul style="list-style-type: none"> <li>• <b>Accuracy:</b> a measure of the bias in the analytical results and can often be attributed to field contamination, insufficient preservation or sample preparation, or inappropriate analytical techniques. Accuracy of the analytical data assessed by consideration of laboratory control samples and laboratory spikes;</li> <li>• <b>Comparability:</b> a qualitative parameter expressing the confidence with which one data set can be compared with another. This should be achieved through consistent sampling and, analytical testing and reporting techniques.</li> <li>• <b>Completeness:</b> a measure of the amount of useable data (expressed as %) from a data collection activity. Sufficient data is required to enable an assessment of the Decision Rules.</li> <li>• <b>Representativeness:</b> the confidence (expressed qualitatively) that data are representative of each media present on the site. Data representativeness should be achieved by the collection of samples at an appropriate pattern and density as well as consistent and repeatable sampling techniques and procedures.</li> <li>• <b>Precision:</b> a quantitative measure of the variability (or reproducibility) of data. The RPD must be adopted to assess the precision of data between duplicate sample pairs. An acceptance criterion of <math>\pm 50\%</math> for organic field duplicates should be adopted. However, it should be noted that exceedances of this criteria are common for heterogeneous soil or fill or for low analyte concentrations.</li> </ul> <p><b><u>Acceptance Limits for Decision Errors</u></b></p> <p>The acceptable limits for the assessment works will be follows:</p> <ul style="list-style-type: none"> <li>• Individual or 95% UCLmean concentrations below the adopted criteria;</li> </ul> |

| Process                            | DQO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    | <ul style="list-style-type: none"> <li>95% of the data satisfy the DQIs determined for completeness, representativeness, precision and accuracy of both field and laboratory data. Therefore, the limit on the decision error will be 5% that a conclusive statement may be incorrect; and</li> <li>A comprehensive QA/QC program undertaken including representative sampling and sampling at an appropriate density for the purpose of the investigation.</li> </ul>                                                                                                                                         |
| <b>Step 7: Optimise the Design</b> | A systematic based sampling pattern was designed based on the assessment of the findings of the desktop investigation. A suite of general CoPC was adopted for the assessment to provide characterisation of the status of soil/ vapour contamination based on the assessment of the potential source of contamination associated with historic uncontrolled filling, poor demolition of structures and degradation of building materials at the site, cross-contamination arising from stockpile storage at the site, and close proximity to a former landfill with unknown material and EPA regulated sites. |

## 9.1 Data Quality Indicators

The DQIs based on the DQOs for the assessment are presented in **Table 7**.

**Table 7: Data Quality Objectives**

| DQO                                                         | Requirement                                                             | DQI                                       |
|-------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------|
| <b>Precision</b>                                            |                                                                         |                                           |
| Standard operating procedures appropriate and complied with | The sampling methods comply with industry standard and guidelines       | Meet requirement                          |
| Field duplicates                                            | 1 per 10 primary samples for chemical contaminants (excluding asbestos) | RPDs <30% (raised for low concentrations) |
| Laboratory duplicates                                       | 1 per batch per analyte                                                 | RPDs < 50 %                               |
| <b>Accuracy</b>                                             |                                                                         |                                           |
| Trip blanks                                                 | 1 per batch of samples                                                  | Results < PQL                             |
| Trip spikes                                                 | 1 per batch of samples                                                  | Recoveries 70 to 130%                     |
| Rinsate blanks                                              | 1 per day of sampling                                                   | Results < PQL                             |
| Field blanks                                                | 1 per batch of samples                                                  | Results < PQL                             |
| Laboratory matrix spikes                                    | 1 per batch per volatile/semi-volatile analyte                          | Recoveries 70% to 130%                    |
| Laboratory surrogate spikes                                 | 1 per volatile/semi-volatile analyte sample (as appropriate)            | Recoveries 70% to 130%                    |
| Laboratory control samples                                  | At least 1 per batch per analyte tested                                 | Result < PQL                              |
| <b>Representativeness</b>                                   |                                                                         |                                           |
| Sampling methodology – preservation                         | Appropriate for the sample type and analysis                            | Meet requirement                          |
| Samples extracted and analysed within holding times         | Specific to each analyte                                                | Meet requirement                          |
| Field equipment calibration                                 | All field equipment calibrated, and calibration records provided        | Meet requirement                          |

| DQO                                       | Requirement                                               | DQI              |
|-------------------------------------------|-----------------------------------------------------------|------------------|
| Laboratory method blanks                  | At least 1 per batch per analyte tested                   | Result < PQL     |
| <b>Comparability</b>                      |                                                           |                  |
| Sampling approach                         | Consistent with each sample                               | Meet requirement |
| Analysis methodology                      | Consistent methodology for each sample                    | Meet requirement |
| Handling conditions and sampler           | Consistent for each sample                                | Meet requirement |
| Field observations and analytical results | Field observations support analytical results             | Meet requirement |
| Consistent laboratory reporting limit     | Consistent for each sample                                | Meet requirement |
| <b>Completeness</b>                       |                                                           |                  |
| Sampling staff                            | Consistent sampling staff used                            | Meet requirement |
| Laboratory accreditation                  | NATA accredited laboratories and methods used             | Meet requirement |
| Accredited methods                        | NATA accredited methods used appropriate for each analyte | Meet requirement |
| NEPM 2013 laboratory methods              | Laboratory methods consistent with the NEPM 2013          | Meet requirement |
| CoC documentation                         | Appropriately completed                                   | Meet requirement |
| Field sampling decontamination            | Appropriately completed                                   | Meet requirement |

## 10. METHODOLOGY

### 10.1 Site Mobilisation and Sampling

The assessment was undertaken on 27 and 28 February 2024 by experienced EDP staff. The methodology utilised for the assessment was as follows:

- Selection of sampling locations across the investigation area based on:
  - Visual inspection for indications of contamination during the site inspection, including but not limited to staining, odours, demolition waste and asbestos, limited due to grown vegetation in the area; and
  - Proposed locations marked by a surveyor. Locations cleared under John Holland permit to excavate and intrusive works.
- Sampling by drill rig, accompanying geotechnical assessment:
  - On two separate days, 27 and 28 February 2024, the event targeted the completion of excavation of one borehole per day, concurrent with geotechnical assessment by drill rig using solid flight auger, to depth of bedrock.
- Collection of soil samples for chemical analysis and characterisation was undertaken at each sampling location as follows:
  - At the surface, typically 0-500 mm;
  - From both emplaced fill and natural material in depth up to 1,000 mm;
  - Visual inspection for indications of contamination, including but not limited to staining, odours, demolition waste, asbestos or the presence of acid sulfate soils (ASS);
  - Field screening of soil samples using a calibrated photo-ionisation detector (PID) for assessment of potential volatile contamination;

- Soil samples were collected in pre-labelled sampling containers provided by the laboratory, ensuring sufficient samples were collected and were preserved appropriately for the required analysis. Samples are placed in glass jars with Teflon lined lids, zip lock bags and/or HDPE jars depending on the analyses proposed;
  - ASS sampling occurred at 0.50 m depth intervals within natural material. ASS field screening tests for pH<sub>f</sub> and pH<sub>fox</sub> were undertaken as soon as possible after collection, in accordance with the Water Quality Australia (2018) procedures;
  - Field duplicates and triplicate samples were collected and labelled as to not identify their corresponding primary sample.
- Logging of soil conditions at each sample location;
  - At completion of boreholes reinstatement of sampling locations with site won materials and nominal compaction;
  - All soil samples for chemical analysis were stored in chilled conditions on ice prior to dispatch and during transportation to the nominated laboratory under EDP and industry standard CoC procedures; and
  - Analysis of soil samples for contaminants of potential concern (CoPC) at a NATA-accredited laboratory;

Photographs taken during the assessment are also provided in **Appendix D**. The locations of the boreholes are shown on **Figure 2** provided in **Appendix A**. The soil conditions encountered at borehole are provided in the field logs provided in **Appendix E**.

#### 10.1.1 Asbestos in Soil Sampling

A range of representative 50 g soil samples were collected across from the fill soils during the assessment in accordance with NEPM 2013 to provide an indication of the presence of asbestos, including AF within the soil. A total of 18 soil samples were scheduled for asbestos in soil analysis in accordance with NEPM 2013 and AS4964-2004.

#### 10.1.2 Acid Sulfate Soils Field Screening

##### pH Field

As per the Water Quality Australia (2018), the pH<sub>f</sub> of AASS tends to be ≤4, while the pH<sub>f</sub> of PASS tends to be neutral. pH<sub>f</sub> is useful as a preliminary screen to provide an indication of the likely presence and severity of AASS. It must be noted that pH<sub>f</sub> is a qualitative method only and is not a substitute for laboratory analysis in the identification of ASS for assessment purposes.

- pH readings of pH ≤4, indicates that AASS is present with the sulfides having been oxidised in the past, resulting in acid soil (and soil pore water) conditions; and
- pH values >4 and <5.5 are acid and may be the result of some previous or limited oxidation of sulfides but is not confirmatory of AASS.

##### pH Field Oxidation

As outlined in the Water Quality Australia (2018), the measurement of the change in the pH<sub>fox</sub> following oxidation can give a useful indication of the presence of sulfidic material and can give an early indication of the distribution of sulfide down a core/ profile or across the site.

The pH after oxidation test is not a substitute for analytical test results, but rather is useful as a preliminary screening tool. If the pH<sub>fox</sub> value is at least one unit below field pH<sub>f</sub>, it may indicate PASS. The greater the difference between the two measurements, the more indicative the value is of PASS. The lower the final pH<sub>fox</sub> value is, the better the indication of a positive result.

- If the pH<sub>fox</sub> is <3 and there was a strong reaction to the peroxide, there is a high level of certainty that PASS are present. The more the pH<sub>fox</sub> drops below 3, the more positive the indication that sulfides are present;



- A pHfox of 3-4 is less positive and laboratory analyses are needed to confirm if sulfides are present. Sands particularly may give confusing field test results and must be confirmed by laboratory analysis;
- For pHfox of 4-5 the test is neither positive nor negative. Sulfides may be present either in small quantities and be poorly reactive under quick test field conditions. In some cases, the sample may contain shell/carbonate that neutralises some or all acid produced by oxidation. In other cases, the pHfox value may be due to the production of organic acids and there may be no sulfides present. In these cases, analysis for sulfur using the CRS Suite is recommended; and
- For pHfox >5 and little or no drop in pH from the field value, little net acid generating ability is indicated. However, the sulfur trail of the SCR methods should be used to check some samples to confirm the absence of oxidisable sulfides.

### 10.1.3 Hazardous Gas Emission Screening Methodology

- Prior to beginning the surface gas assessment, the MiniRAE 3000 was zeroed and calibrated in accordance with the manufacturer's instructions.
- Although the recommended screening method for near surface gases involves recording concentrations from a distance of approximately 5 cm above the ground surface, as part of this investigation EDP undertook sampling from within the top of borehole opening at surface. This method was adopted to give a conservation concentration of gas production by reducing and flux impacts between ground level and 5 cm. The surface gas screen was conducted in general accordance with Section 3.4.4 and Appendix A4.5.2 of NSW EPA, 2020.
- Given the potential source of gas is a diffuse off-site source (assessment area is not over a landfill) and the broad zone of influence the off-site landfill may have on the median, representative gas readings were taken at every borehole.

## 11. LABORATORY ANALYSIS

SGS Australia Pty Ltd and ALS Environmental were engaged as the primary and secondary laboratories for laboratory analysis, respectively. The laboratories are NATA accredited for the analysis undertaken. Primary samples were submitted for analysis of CoPC as outlined in Error! Reference source not found.. A summary of analytical results is tabulated and presented in **Appendix F**, laboratory certificates presented in **Appendix G**.

**Table 8: Analytical Schedule and Rationale**

| Medium | No. Analysed | CoPC                           | Frequency                     | Rationale                                                                                 |
|--------|--------------|--------------------------------|-------------------------------|-------------------------------------------------------------------------------------------|
| Soils  | 18           | Heavy metals, TRH, BTEXN, PAHs | Targeted Areas                | To characterise the contamination status of the soils across the site.                    |
| Soils  | 10           | OCP, OPP, PCB                  | Targeted Areas                | To characterise the contamination status of the soils across targeted areas.              |
| Soils  | 14           | PFAS                           | Targeted areas                | To characterise the contamination status of the soils across targeted areas.              |
| Soils  | 18           | Asbestos                       | Targeted Areas and fill soils | To provide an indication of the presence of asbestos within the fill soils, including AF. |
| Soils  | 13           | Salinity                       | Targeted areas                | To characterise the nature of the soils across targeted areas.                            |
| Soils  | 18           | pHf-pHfox                      | Targeted areas                | To characterise the nature of the soils across targeted areas.                            |

## 12. ADOPTED SOIL ASSESSMENT CRITERIA

### 12.1 Framework

To assess the significance and potential risk of contaminant concentrations in soil, reference was primarily made to NEPM 2013, specifically ‘Schedule B1 Guideline on Investigation Levels for Soil and Groundwater’ (Schedule B1) for assessment criteria, where available. Schedule B1 provides a framework for investigating and screening levels based on human health and ecological risks. Reference was also made to the PFAS NEMP 2020 for human health and ecological screening levels regarding PFAS and TfNSW Specification D&C G36 regarding the presence and absence of asbestos-containing material. In the absence of relative criteria in NEPM 2013, reference was made to other nationally or state-endorsed guidelines.

Based on the objectives of the DSI and concerning the potential for future commercial/industrial use, the site criteria for commercial/industrial land use were deemed appropriate.

### 12.2 Soil Assessment Criteria

Soil health investigation levels (HILs), soil health screening levels (HSLs), ecological investigation levels (EILs) and ecological screening levels (ESLs) adopted from Schedule B1 of NEPM 2013 to assess the significance of human health and ecological risk associated with chemical contaminants in soil and the potential requirement for remediation and/or management:

- Soil HILs were used to assess human health risk via relevant exposure pathways of exposure for metals and organic substances. HILs are concentrations below which contaminants in soils are not considered to affect human health adversely and are based on differing land use scenarios. HIL-D for commercial/industrial land use will be adopted.
- Soil HSLs for selected petroleum compounds and fractions are considered applicable to assessing human health risks via vapour intrusion and inhalation. HSL-D for commercial/industrial land use will be adopted with fine and coarse-grained soil types and depths of 0 m to 2 m selected based on the site’s soil characteristics and proposed excavation.
- EILs for selected metals and organic substances will be used for assessing risk to terrestrial ecosystems. EILs depend on specific soil physicochemical properties and land use scenarios and generally apply to the top 2.0 m of soil. Generic EILs for aged arsenic, fresh naphthalene and DDT were adopted. EILs were calculated for chromium (III), lead, copper, nickel, and zinc using the NEPM toolbox with inputting the pH and cation exchange capacity results presented in the eSpade website. An average pH of 5.5 and an average CEC of 10 meq/100 were adopted for the calculation of EILs.
- ESLs for selected petroleum hydrocarbons will be used for assessing risk to terrestrial ecosystems. Concentrations of contaminants above which further appropriate investigation and evaluation are generally required. ESLs, like EILs, depend on specific soil physicochemical properties and land use scenarios and generally apply to the top 2.0 m. ESLs for coarse- and fine-grained soils will be adopted for an urban residential and public open space and commercial/industrial land use; and
- Where exceedances of benzo(a)pyrene criteria are identified in comparison to the primary NEPM 2013, CRC Care, risk-based management, and remediation guidance for benzo(a)pyrene (CRC Care 2017) will be adopted as a comparison guideline. CRC Care is a high-reliability guideline that derives its screening levels from a larger database with more species and test results. As such, derived values of benzo(a)pyrene in CRC Care (2017) can be considered high reliability.

The adopted assessment criteria for the CoPCs are presented in **Table 9**.

**Table 9: Adopted Assessment Criteria**

| CoPC                                                  | Adopted Assessment Criteria |
|-------------------------------------------------------|-----------------------------|
| <b>NEPM 2013 Human Health Investigation Levels I:</b> |                             |
| Arsenic                                               | 3,000 mg/kg                 |
| Cadmium                                               | 900 mg/kg                   |

| CoPC                                                                | Adopted Assessment Criteria                                |
|---------------------------------------------------------------------|------------------------------------------------------------|
| Chromium VI                                                         | 3,600 mg/kg                                                |
| Copper                                                              | 240,000 mg/kg                                              |
| Lead                                                                | 1,500 mg/kg                                                |
| Mercury                                                             | 730 mg/kg                                                  |
| Nickel                                                              | 6,000 mg/kg                                                |
| Zinc                                                                | 400,000 mg/kg                                              |
| Total PAHs                                                          | 4,000 mg/kg                                                |
| Benzo(a)pyrene TEQ                                                  | 40 mg/kg                                                   |
| PCBs                                                                | 7 mg/kg                                                    |
| OCPs                                                                | 50 to 3,600 mg/kg                                          |
| Phenol                                                              | 240,000 mg/kg                                              |
| Pentachlorophenol                                                   | 660 mg/kg                                                  |
| Cresols                                                             | 25,000 mg/kg                                               |
| <b>NEPM 2013 Soil Health Screening Levels for Vapour Intrusion:</b> |                                                            |
| Benzene – coarse/fine soils                                         | 3 mg/kg (SAND) and 4 to 20 mg/kg (CLAY)                    |
| Toluene – coarse/fine soils                                         | No limit (SAND and CLAY)                                   |
| Ethylbenzene – coarse/fine soils                                    | No limit (SAND and CLAY)                                   |
| Xylenes – coarse/fine soils                                         | 230 mg/kg (shallow SAND) and no limit (<1 m SAND and CLAY) |
| TRH F1 (C6-C10)                                                     | 260 to 630 mg/kg (SAND) and 310 to 480 mg/kg (CLAY)        |
| TRH F2 (C10-C16)                                                    | No limit (SAND and CLAY)                                   |
| <b>NEPM 2013 Ecological Investigation Levels:</b>                   |                                                            |
| Arsenic                                                             | 160 mg/kg                                                  |
| Chromium                                                            | 670 mg/kg                                                  |
| Copper                                                              | 210 mg/kg                                                  |
| Lead                                                                | 1,800 mg/kg                                                |
| Nickel                                                              | 68 mg/kg                                                   |
| Zinc                                                                | 171 mg/kg                                                  |
| Dichlorodiphenyltrichloroethane (DDT)                               | 640 mg/kg                                                  |
| Naphthalene                                                         | 370 mg/kg                                                  |
| <b>NEPM 2013 Ecological Screening Levels:</b>                       |                                                            |
| TRH F1 (C6-C10) – coarse/fine soils                                 | 215 mg/kg                                                  |
| TRH F2 (C10-C16) – coarse/fine soils                                | 170 mg/kg                                                  |
| TRH F3 (C16-C34) – coarse/fine soils                                | 1,700 / 2,500 mg/kg                                        |
| TRH F4 (C34-C40) – coarse/fine soils                                | 3,300 / 6,600 mg/kg                                        |
| Benzene – coarse/fine soils                                         | 75 / 95 mg/kg                                              |
| Toluene – coarse/fine soils                                         | 135 / 135 mg/kg                                            |
| Ethylbenzene – coarse/fine soils                                    | 165 / 185 mg/kg                                            |
| Xylenes – coarse/fine soils                                         | 180 / 95 mg/kg                                             |
| Benzo(a)pyrene – coarse/fine soils                                  | 0.7 / 0.7 mg/kg                                            |
| Benzo(a)pyrene (CRC Care)                                           | 172 mg/kg (high reliability)                               |
| <b>PFAS NEMP (2020). Human Health Investigation Levels:</b>         |                                                            |
| Sum of PFOS and PFHxS                                               | 20 mg/kg                                                   |
| PFOA                                                                | 50 mg/kg                                                   |
| <b>PFAS NEMP (2020). Ecological Guidelines Values:</b>              |                                                            |
| Direct exposure PFOS                                                | 1 mg/kg                                                    |

| CoPC                                                      | Adopted Assessment Criteria |
|-----------------------------------------------------------|-----------------------------|
| Indirect exposure PFOS                                    | 0.01 mg/kg                  |
| Direct exposure PFOA                                      | 10 mg/kg                    |
| <b>TfNSW draft Asbestos in Soils Management Procedure</b> |                             |
| Bonded ACM                                                | Not present                 |
| Fibrous Asbestos (FA) and Asbestos Fines (AF)             | Not detected                |
| All forms of asbestos                                     | Not present                 |

1. VOC/SVOC criteria will be adopted from US EPA HSLs where NEPM guidance is not available

2. Generic EILs for aged arsenic, lead, DDT, and naphthalene were adopted. Ambient background concentrations (ABCs) from Olszwoy et al 1995 and conservative added contamination limits (ACLs) from NEPM 2013 were used to calculate chromium (III), copper, nickel, and zinc for commercial and industrial land use. EILs may be updated following the collection of site-specific data.

## 12.3 Asbestos in Soil

Asbestos contamination in soil can occur in a range of forms, sizes and degrees of deterioration. For the purpose of the assessment, NEPM 2013 divides asbestos contamination into the following:

- **Bonded ACM:** non-friable asbestos materials bound in a matrix, in sound condition that cannot pass through a 7 mm sieve, e.g., vinyl tiles, fibre cement fragments;
- **Fibrous asbestos (FA):** friable asbestos material such as weathered ACM and loose fibrous material (insulation products); and
- **Asbestos fines (AF):** free fibres of asbestos, small fibre bundles, and ACM fragments that can pass through a 7 mm sieve.

According to the TfNSW draft Asbestos in Soils Management Procedure (TfNSW, 2020), the procedure for areas that are present or suspected to be contaminated with ACM during the DSI involves visual inspection of the soil profile. It may include (although not necessarily) the collection of soil samples for laboratory analysis. Data from this investigation is used to refine the lateral and vertical extent of areas impacted by ACM, to estimate the volume of ACM-impacted soil, and to develop appropriate construction management and remediation measures.

## 12.4 Trigger Criteria for Acid Sulfate Soils

The acid sulfate management plan for M7-M12 Integration project, determined that action criteria are based on the percentage of oxidisable sulfur or Total Potential Acidity (TPA), for broad categories of soil. The suspension peroxide oxidation combined acidity and sulfur (sPOCAS) or chromium reducible sulfur (SCR) suite of analysis is used to assess soil for the presence of ASS. Where soils containing concentrations at or above the action criteria are disturbed, an ASS Management Plan is needed as there is a potential for the soil to generate acid, and specific management may be required. The ASS Action Criteria for each type of material is summarised in **Table 10**.

**Table 10: ASS Action Criteria**

| Type of Material                      |                                 | Action Criteria 1-1000 tonnes ASS disturbed                     |                                                      | Action Criteria if more than-1000 tonnes ASS disturbed           |                                                        |
|---------------------------------------|---------------------------------|-----------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------|
| Texture range. McDonald et al. (1990) | Approx. clay content (%<0.02mm) | Sulfur trail % S oxidisable (oven-dry basis) e.g., STOS or SPOS | Acid trail mol H+/T (oven-dry basis) e.g. TPA or TSA | Sulfur trail % S oxidisable (oven-dry basis), e.g., STOS or SPOS | Acid trail mol H+/T (oven-dry basis), e.g., TPA or TSA |
| Coarse Texture                        | <5                              | 0.03                                                            | 18                                                   | 0.03                                                             | 18                                                     |
| Sands to loamy sands                  | 5 - 40                          | 0.06                                                            | 36                                                   | 0.03                                                             | 18                                                     |
| Medium Texture                        | >40                             | 0.1                                                             | 62                                                   | 0.03                                                             | 18                                                     |

## 12.5 Salinity

Laboratory testing of soil salinity (electrical conductivity of a sample with one part soil to five parts waters, EC1:5) is converted into conductivity of a saturated soil extract (ECe) by a multiplication factor to consider the influence of soil texture (Taylor, 1996). The salinity action criteria for each class are located in **Table 11**. In accordance with the Department of Land and Water Conservation 2002 – *Site Investigations for Urban Salinity*, a soil is often considered saline if it has an ECe of 4 dS/m. For the purposes of satisfying M7 REMMs C6, this value has been adopted in determining soils which are considered ‘saline’.

**Table 11: Salinity Action Criteria**

| Class             | ECe (dS/m) | Comments                                            |
|-------------------|------------|-----------------------------------------------------|
| Non-saline        | < 2        | Salinity efforts are mostly negligible              |
| Slightly saline   | 2-4        | Yields of very sensitive crops may be affected      |
| Moderately saline | 4-8        | Yields of many crops may be affected                |
| Highly saline     | 8-16       | Only tolerant crops yield satisfactorily            |
| Extremely saline  | >16        | Only a few very tolerant crops yield satisfactorily |

## 12.6 Aesthetics

There are no quantifiable guidelines in determining if soils are appropriately aesthetic. However, the NEPM 2013 indicates that professional judgement concerning the quantity, type and distribution of foreign materials and/or odours regarding the specific land use should be employed. The following scenarios (but not limited to) would trigger further aesthetic assessment:

- Hydrocarbon sheen on surface water.
- Anthropogenic soil staining; and
- Odorous soils, i.e., petroleum hydrocarbon odours or hydrogen sulfidic odours in soil.

To assess the potential risk of contaminant concentrations in soil, reference was primarily made to ASC NEPM for assessment criteria, where available. ASC NEPM Schedule B1 provides a framework for investigating and screening levels based on human health and ecological risks.

Soil health investigation levels (HILs), soil health screening levels (HSLs), ecological investigation levels (EILs) and ecological screening levels (ESLs) adopted from Schedule B1 of ASC NEPM to assess the significance of

human health and ecological risk associated with chemical contaminants in soil and the potential requirement for remediation and/or management.

- Schedule B1 defines Industrial/Commercial D land uses as including commercial/industrial such as shops, offices, factories, and industrial sites. It is proposed that the site be used as an ancillary facility during the works as part of the M7-M12 Integration project. As such, the Industrial/Commercial D assessment criteria are considered appropriate for determining future site suitability during this assessment.

## 12.7 Hazardous Ground Gas

To assess the significance of recordable concentrations of hydrogen sulphide, carbon monoxide, carbon dioxide and methane across the site surface, the Assessment and Management of Hazardous Ground Gas (NSW EPA, 2020) was referenced, specifically the work health and safety exposure standards for methane, carbon monoxide, carbon dioxide and hydrogen sulfide in Table 11 and Section 3.6.2 of the NSW EPA, 2020 for surface emission criterion.

**Table 12: Gas Screening Criteria**

| Borehole                      | Methane<br>CH <sub>4</sub> (%) | Carbon<br>Dioxide<br>CO <sub>2</sub> (%) | Oxygen<br>O <sub>2</sub> (%) | Carbon<br>Monoxide<br>CO (ppm) | Hydrogen<br>Sulfide<br>H <sub>2</sub> S (ppm) |
|-------------------------------|--------------------------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------------|
| Workplace Exposure Standards  | _ <sup>B</sup>                 | 5000 <sup>A</sup>                        | -                            | 30 <sup>A</sup>                | 10                                            |
| Sub surface emission criteria | I <sup>C</sup>                 | -                                        | -                            | -                              | -                                             |

- A - Where concentrations were reported in the guidance as percentages, these have been converted to ppm
- B - Criteria for methane in confined spaces. Calculated based on 5% of LEL of methane at 5% v/v in air (i.e. 0.25% v/v)
- C - From Section 3.6.2 of NSW EPA, 2020 for landfill sites subject to an EPL (i.e. 0.05% v/v)

## 12.8 Field Observations and Data

### 12.8.1 Site Observations

The following observations were noted based on the visual inspection of the ground surface across the site during the site inspections:

- The area of investigation consists of undeveloped land with mulch and grass covering the ground surfaces across the entire site; and
- No foreign material, visible surface staining, potential asbestos containing material, odours or any evidence of contamination were observed within the area.

### 12.8.2 Subsurface Profile

#### Geotechnical Assessment – Pile boreholes

EDP accompanied Macquarie Geotechnical (Macgeo) during the geotechnical assessment, with two boreholes (BH098 and BH099) advanced and sampled to a depth consistent with the surface of bedrock of approximately 8.15 mbgl.

The soil profile within BH098 comprised of:

- FILL: Clayey SAND, red/grey, with gravel, low to medium plasticity;
- NATURAL: Silty CLAY, light brown, high plasticity; and
- NATURAL: Gravelly CLAY, dark brown, high plasticity.

The soil profile within BH099 comprised of:

- FILL: Silty CLAY, dark brown mottled grey, with gravel, medium to high plasticity;
- FILL: Sandy CLAY, dark brown mottled red, medium to high plasticity;
- FILL: Silty CLAY, light brown and grey, with gravel, medium to high plasticity; and
- NATURAL: CLAY, yellow and grey, medium to high plasticity.

No ACM, discolouration, staining, hydrocarbon odour or sulfidic ores was noted in any of the boreholes advanced within the site.

Photographs taken during the assessment are provided in **Appendix D** and borehole logs are provided in **Appendix E**.

### 12.8.3 VOC Field Screening

Concentrations of volatile contaminants assessed in the field using the PID during the soil assessment conducted during the site inspections generally ranged from 0.2 to 7.0 parts per million (ppm). Indicating the absence of gross volatile contaminant impact within the soil materials across the site.

Calibration certificates for the equipment used in the field are provided in **Appendix H**.

### 12.8.4 Acid Sulfate Soils - pH<sub>f</sub> and pH<sub>fox</sub> Field Screening

A total of 18 selected samples were field screened to be assessed for ASS from two sampling locations.

None of the sampling locations showed any evidence of presence of ASS as per the National acid sulfate soils identification (WQA 2018), such as odour, presence of shells or appearance. Nevertheless, soil samples were collected within the two sampling locations and analysed for presence of ASS by way of an initial ASS field screen (in accordance with ASS Guidelines (WQA 2018)). A review of analytical results indicated the following:

- pH<sub>f</sub> (pH prior to oxidation) ranged between 5.8 and 7.2;
- pH<sub>fox</sub> (pH post oxidation) ranged between 5.4 and 7.3 (nil samples recorded pH<sub>fox</sub> less than 3); and
- The observed reaction of soil samples varied for all samples were low, indicating no elevated risk of acid generation in oxidised at the site.

Based on the review of the acid sulfate screen analytical results, additional analysis was not deemed by EDP to be required to determine the risk of site soils being ASS.

Calibration certificates for the equipment used in the field are provided in **Appendix H**.

### 12.8.5 Salinity

Across the site, 13 targeted samples were collected for salinity assessment complying with M7 REMMS C5 and C6. Sampling was conducted in accordance with WSROC, 2003. For the purpose of this discussion, the results were divided by 1,000 to convert to dS/m and multiplied by a multiplication factor to consider the influence of soil texture (Taylor, 1996).

According to Construction Environmental Management Plan - Appendix B4 - Construction Soil and Water Management Sub-plan - Appendix L: Acid Sulfate Soils and Salinity Management Plan for the M7-M12 Integration project, a conversion factor of seven is adopted. A conversion factor of seven is applied for medium clays which is reflective of the soil types found in western Sydney and across the M7-M12 project alignment. The analytical results are presented in dS/m in **Table 13**.

**Table 13: Salinity Summary Table**

| Sample ID        | Depth (mbgl) | Multiplication Factor | EC (µS/cm) | Ece (dS/m) | Salinity        |
|------------------|--------------|-----------------------|------------|------------|-----------------|
| EDP-M7.BH99A-0.2 | 0.2          | 7                     | 273*       | 0.6        | Non-saline      |
| EDP-M7.BH99A-0.5 | 0.5          | 7                     | NT         | NT         | NA              |
| EDP-M7.BH99A-2.0 | 2.0          | 7                     | 1,340*     | 2.8        | Slightly saline |

|                      |     |   |        |     |                   |
|----------------------|-----|---|--------|-----|-------------------|
| EDP-M7.BH99A-2.5     | 2.5 | 7 | 1,060* | 2.2 | Slightly saline   |
| EDP-M7.BH99A-3.5     | 3.5 | 7 | 502*   | 1.0 | Non-saline        |
| EDP-M7.BH99A-5.0     | 5.0 | 7 | NT     | NT  | NA                |
| EDP-M7.BH99A-5.5     | 5.5 | 7 | 2,390* | 4.9 | Moderately saline |
| EDP-M7.BH99A-6.5     | 6.5 | 7 | 2,640* | 5.4 | Moderately saline |
| EDP-DSI.M7.BH98A-0.2 | 0.2 | 7 | 91     | 0.6 | Non-saline        |
| EDP-DSI.M7.BH98A-0.5 | 0.5 | 7 | 280    | 2.0 | Slightly saline   |
| EDP-DSI.M7.BH98A-1.0 | 1.0 | 7 | NT     | NT  | NA                |
| EDP-DSI.M7.BH98A-2.0 | 2.0 | 7 | 510    | 3.6 | Slightly saline   |
| EDP-DSI.M7.BH98A-3.0 | 3.0 | 7 | NT     | NT  | NA                |
| EDP-DSI.M7.BH98A-3.5 | 3.5 | 7 | 650    | 4.6 | Moderately saline |
| EDP-DSI.M7.BH98A-4.0 | 4.0 | 7 | NT     | NT  | NA                |
| EDP-DSI.M7.BH98A-5.0 | 5.0 | 7 | 640    | 4.5 | Moderately saline |
| EDP-DSI.M7.BH98A-6.0 | 6.0 | 7 | 600    | 4.2 | Moderately saline |
| EDP-DSI.M7.BH98A-7.0 | 7.0 | 7 | 740    | 5.2 | Moderately saline |

▪ \* Calculated – Laboratory results reported in mg/kg, data converted to dS/m according to conversion presented in Appendix I of DLWC (2002).

▪ NT – Not tested

▪ NA – Not applicable

Calculated E<sub>Ce</sub> resulted in concentrations varying from 0.6 dS/m to 5.4 dS/m within soil samples collected. Soil at the site would be considered from ranging from 'non-saline' to 'slightly saline' on surface soils to 'moderate saline' in depth below 2.5 m bgl.

## 12.9 Asbestos

A total of 18 soil samples were analysed for asbestos in accordance with AS4964, the methodology is detailed in the laboratory reports presented in **Appendix G**.

The laboratory results showed the following:

- Asbestos was not detected at concentrations above the LOR of 0.1 g/kg with asbestos not reported in any form or concentration (presence/absence) in any soil samples collected and analysed; and
- No respirable fibres were detected within any of the soil samples analysed.

## 12.10 Chemical Analysis

### 12.10.1 Soil Chemical Analytical Results

A review of the analytical results for the chemical contaminants analysed indicated that the analytical concentrations of CoPC were generally less than the laboratory practical quantitative limits (PQLs) with the results less than the adopted investigation and screening levels.

Statistical analysis was performed for datasets with contaminants reporting concentrations above the adopted ecological criteria resulting in concentrations below the adopted criteria.



The results are detailed in the attached NATA certificate of analysis provided in **Appendix F** with the results and assessment criteria summarised in **Table G1** provided in **Appendix G**. The sampling locations are shown on **Figure 1** provided in **Appendix A**.

## 12.11 Hazardous Ground Gas

Indicative HGG monitoring was undertaken via monitoring of completed open boreholes with a calibrated ground gas meter. The intent of the monitoring was to determine the concentration of methane, carbon dioxide, carbon monoxide, oxygen and hydrogen sulfide in subsurface to establish potential risk of sub-surface migration of ground gases.

No detections for carbon monoxide, hydrogen sulfide or methane were identified in any of the screened boreholes. Oxygen readings were 20.9 % (which falls within the normal range for atmospheric concentrations). Carbon dioxide readings were 400 ppm (i.e. 0.04 % volume). All other results were below adopted criteria. The results are summarised in **Table 14** below.

**Table 14: Hazardous Gas Summary Table**

| Sample ID                                   | Date       | O2 (%) | CH4 (%v/v) | CO (ppm)  | CO2(%v/v)  | H2S(ppm)  |
|---------------------------------------------|------------|--------|------------|-----------|------------|-----------|
| <b>NSW EPA (2016) Solid Waste Landfills</b> |            | -      | <b>1.0</b> | -         | <b>1.5</b> | -         |
| <b>Safe Work Australia 2024</b>             |            | -      |            | <b>30</b> | <b>0.5</b> | <b>10</b> |
| BH98A                                       | 28/02/2024 | 20.9   | 0          | 0         | 0.04       | 0         |
| BH99A                                       | 27/02/2024 | 20.9   | 0          | 0         | 0.04       | 0         |

## 13. QUALITY ASSURANCE AND QUALITY CONTROL

EDP implements project-specific quality assurance/quality control (QA/QC) procedures to improve transparency, consistency, comparability, completeness, and confidence in the data collected. The field and laboratory QA/QC procedures, results and compliance with data quality indicators (DQIs) define the acceptable level of error required for this assessment.

The field and laboratory QA/QC procedures adopted and the summary of results for the assessments at the site are provided in **Appendix I**, with data quality objectives (DQOs), requirements and DQIs discussed.

Based on the QA/QC procedures, the data was deemed suitable for this investigation.

## I4. CONCEPTUAL SITE MODEL

Table 15: Conceptual Site Model

| Location                                                                                                    | Activity                                                                                                            | Contaminants of Concern                                                                                                                     | Potential Exposure Pathways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Potential Human and Environmental Receptors                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Assessment of Risk                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Within the construction footprint, various locations                                                        | Demolition or removal of former building structures<br><br>Areas of disturbed terrain and potential illegal dumping | <ul style="list-style-type: none"> <li>Heavy metals, TRH, PAH, BTEX, PCBs, OCP/OPP, PFAS and Asbestos (non-friable and friable)</li> </ul>  | <ul style="list-style-type: none"> <li>Downward migration and leaching of contaminants via infiltration of rainwater through the underlying geology</li> <li>Lateral migration via groundwater to surface water and off-site</li> <li>Overland flow of surface water to off-site soils and surface water</li> <li>Absorption or adsorption to fauna and vegetation through contact and diffusion in soil</li> <li>Dispersion of airborne particulates due to wind</li> <li>Inhalation, ingestion, dermal contact</li> </ul> | <p><u>Human receptors:</u></p> <ul style="list-style-type: none"> <li>Current site maintenance workers and visitors</li> <li>Future construction and maintenance workers, site users and visitors</li> <li>Current and future site users on neighbouring properties</li> </ul> <p><u>Environmental Receptors:</u></p> <ul style="list-style-type: none"> <li>Transient fauna or macroinvertebrates</li> <li>Vegetation</li> <li>Groundwater</li> <li>Surface waters such as Reedy Creek tributary.</li> </ul> | <p><u>Health:</u> <b>Moderate</b> – Likelihood of potentially undiscovered asbestos material - SPR - linkages potentially complete</p> <p><u>Environment:</u> <b>Low</b> – SPR linkage potentially complete for surface water (Reedy Creek Tributary) and groundwater. Low risk to ecology and sensitive ecology not envisaged in the median.</p> |
| Excavation and Stockpiling of Actual and/or Potential Acid Sulfate Soils or soils with high salinity hazard | Stockpiling during M7 Westlink construction                                                                         | <ul style="list-style-type: none"> <li>Actual Acid Sulfate and Potential Acid Sulfate (ASS/PASS)</li> <li>Saline and sodic soils</li> </ul> | <ul style="list-style-type: none"> <li>Migration of acidic or saline leachate/runoff to surface water or infiltration to groundwater</li> <li>Rill and gully erosion, salinisation and scarring of the landscape</li> <li>Dispersion of airborne particulates due to wind</li> </ul>                                                                                                                                                                                                                                        | <p><u>Environmental Receptors:</u></p> <ul style="list-style-type: none"> <li>Surface-dependant floral and faunal ecosystems, including transient and macroinvertebrate species</li> <li>Groundwater</li> <li>Surface waters such as Reedy Creek tributary.</li> </ul>                                                                                                                                                                                                                                        | <p><u>Health:</u> <b>Low</b> – Unlikely impact of AASS/PASS or saline soils on human health</p> <p><u>Environment:</u> <b>Moderate</b> – SPR linkages potentially complete for surface water (Reedy Creek Tributary), groundwater and ecology</p>                                                                                                 |

| Location                                                                                   | Activity                                                                         | Contaminants of Concern                                                                        | Potential Exposure Pathways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Potential Human and Environmental Receptors                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Assessment of Risk                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Installation of piles and working platforms in ASS/PASS or soils with high salinity hazard | Construction of piles and working platforms (temporary and permanent structures) | <ul style="list-style-type: none"> <li>• ASS/PASS</li> <li>• Saline and sodic soils</li> </ul> | <ul style="list-style-type: none"> <li>• Infiltration of acidic or saline leachate into groundwater</li> <li>• Wicking of saline water into bridge structure</li> <li>• Acid corrosion of bridge structure</li> </ul>                                                                                                                                                                                                                                                                                                     | <u>Human Receptors:</u> <ul style="list-style-type: none"> <li>• Site maintenance workers or visitors coming into contact with impacted bridge structures</li> <li>• Weakening of bridge structures affecting bridge users</li> </ul> <u>Environmental Receptors:</u> <ul style="list-style-type: none"> <li>• Groundwater</li> </ul>                                                                                                                                                                                    | <u>Health: Low</u> – The area will not be readily accessible on foot by the general public, with site maintenance workers to follow site WHS plans and documentation.<br><u>Environment: Moderate</u> – Assuming soil from proposed excavation works to introduce saline soils to the surface, however risk to be managed in design of piles/working platforms and installation method. |
| Within the construction footprint and adjoining study area                                 | Areas of disturbed terrain and potential illegal dumping                         | Heavy metals, TRH, PAH, BTEX, PCBs, OCP/OPP, PFAS and Asbestos (non-friable and friable)       | <ul style="list-style-type: none"> <li>• Downward migration and leaching of contaminants via infiltration of rainwater through the soil</li> <li>• Lateral migration via groundwater to surface water and off-site</li> <li>• Overland flow of surface water to off-site soils and surface water</li> <li>• Absorption or adsorption to fauna and vegetation through contact and diffusion in soil</li> <li>• Dispersion of airborne particulates due to wind</li> <li>• Inhalation, ingestion, dermal contact</li> </ul> | <u>Human Receptors:</u> <ul style="list-style-type: none"> <li>• Current site maintenance workers and visitors</li> <li>• Future occupants, construction and maintenance workers, site users and visitors</li> <li>• Current and future site users on neighbouring properties</li> </ul> <u>Environmental Receptors:</u> <ul style="list-style-type: none"> <li>• Transient fauna or macroinvertebrates</li> <li>• Vegetation</li> <li>• Groundwater</li> <li>• Surface waters such as Reedy Creek tributary.</li> </ul> | <u>Health: Low</u> – SPR linkages potentially complete<br><u>Environment: Low</u> – SPR linkages potentially complete for surface water (Reedy Creek Tributary) and groundwater. There is a low risk to ecology given the localised footprint of piles and batters, and sensitive ecology not envisaged in bridge widening areas.                                                       |

| Location                                                   | Activity                                                                                                                                               | Contaminants of Concern                                                                                                                                                                                                 | Potential Exposure Pathways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Potential Human and Environmental Receptors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Assessment of Risk                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Within the construction footprint and adjoining study area | <ul style="list-style-type: none"> <li>Waste management facility</li> <li>Eastern Creek Waste Centre</li> <li>Eastern Creek former landfill</li> </ul> | Heavy metals, TRH, PAH, BTEX, PCBs, OCP/OPP, PFAS and Asbestos (non-friable and friable)<br>Landfill soil or leachate (Heavy metals, TRH, PAH, BTEX, PCBs, PFAS, nutrients, ammonia, phenols, asbestos)<br>Landfill Gas | <ul style="list-style-type: none"> <li>Downward migration and leaching of contaminants via infiltration of rainwater through the soil</li> <li>Lateral migration via groundwater to surface water and off-site or through migration through the unsaturated zone (landfill gas)</li> <li>Overland flow of surface water to off-site soils and surface water</li> <li>Absorption or adsorption to fauna and vegetation through contact and diffusion in soil</li> <li>Dispersion of airborne particulates due to wind</li> <li>Inhalation, asphyxiation, ingestion, dermal contact</li> <li>Explosion risk</li> </ul> | <u>Human receptors:</u> <ul style="list-style-type: none"> <li>Current site maintenance workers and visitors</li> <li>Future occupants, construction and maintenance workers, site users and visitors</li> <li>Current and future site users on neighbouring properties</li> <li>Property and structures from gas accumulation (explosion)</li> </ul> <u>Environmental Receptors:</u> <ul style="list-style-type: none"> <li>Transient fauna or macroinvertebrates</li> <li>Vegetation</li> <li>Groundwater</li> </ul> Surface waters such as Creeks and tributaries within the Eastern Creek Catchment | <u>Health: Moderate</u> – Potential for migrating landfill gas from neighbouring waste facility. SPR linkages potentially complete<br><u>Environment: Low</u> – SPR linkages potentially complete for surface water and groundwater. Low risk to ecology given localised footprint of piles and sensitive ecology not envisaged in construction footprint |

## 15. CONSTRAINTS TO THE ASSESSMENT

Given the dense vegetation and grass cover, there is a general limitation on the visual inspection of the project area, which may have unidentified contamination that could have been reasonably identified during the site walkover inspection and investigation.

The planned excavation covers an area of approximately 75 m<sup>2</sup> on the highest section each of bridge batters, area connected to the median strip of M7 Westlink Motorway, in accordance with excavation design provided by John Holland. Sampling was limited to borehole locations performed as per shown in **Figure 3 of Appendix A**, due to difficulties in accessing the area and safety requirements on working in steep terrain. Consequently, the contamination status of fill materials extending beyond borehole was not inspected and tested and is considered unknown at the time of preparing this report. Further inspection, sampling and laboratory analysis may be required during constructions works (e.g. during working platform construction and piling works).

## 16. DISCUSSION AND CONCLUSION

Based on the review of the site history, desktop assessment, site inspections, intrusive investigation and analytical results forming this DSI, EDP makes the following conclusions:

- A Tier I Qualitative review of the analytical data set has shown no identified risks to the development from a human health nor an ecological perspective with all results below the respective criteria for ongoing commercial/ industrial land usage. However, the potential for migration of landfill gas from the adjacent landfill facility to the east cannot be excluded with the dataset collected to date;
- Physical characteristics of soils across the site, specifically acid sulfate potential have not shown evidence of PASS/AASS. However, soils presented salinity ranging from 'non-saline' and 'slightly saline' in soils higher than 2.5 mbgl to 'moderate saline' in soils greater than 2.5 mbgl. According to DLWC (2002), soils are considered saline if ECe higher than 4 dS/m or 'moderate saline'. In compliance with M7 REMM C6, soils which are saline are precluded from reuse presented in **Section 4**. Consequently, excavated or piled soils deeper than 2.5 m within Infra 25.92 (NB) & 25.96(SB) bridges are not acceptable for re-use during the construction of the M7-M12 Integration project and must be managed as per M7-M12 Integration project John Holland Construction Contamination Management Sub Plan - Appendix L: Acid Sulfate Soils and Salinity Management Plan.– Appendix B5: Construction Contaminated Land Management M7-M12 Integration Project (M712UDC-JHGRP-M7A-EN-PLN-000007-CCLMP\_RevC); and
- Excluding deeper saline soils, fill and soil within the investigation extent of the site are considered low risk and acceptable for re-use during the construction of the M7-M12 Integration project and for the final intended land use. Based on the findings of this report, areas previously identified as moderate and/or high risk in the CIA (AECOM 2022) conducted for the site under Condition 1A of Schedule 1, have been confirmed as low risk (subject to occupational hygiene monitoring controls to be implemented to assess landfill gas risk).

The preparation of this DSI is deemed to satisfy the NSW M7 CoA, Revised Environmental Management Measures EIS as presented in **Section 4**.

## 17. RECOMMENDATIONS

Based on the findings of this DSI, EDP requires that the following recommendations are implemented to ensure the low risk for commercial/industrial land use conclusion is upheld or can be confirmed. This includes the following:

- Given the absence of identified contamination onsite, any future unknown instances of contamination discovered during the course of the construction works would be appropriately managed under the site's unexpected finds procedure and asbestos management plan as referenced below:
  - John Holland Construction Contamination Management Sub Plan - Appendix B: Unexpected Contaminated Land Finds Procedure – Appendix B5: Construction Contaminated Land

Management M7-M12 Integration Project (M7I2UDC-JHGRP-M7A-EN-PLN-000007-CCLMP\_RevC).

- John Holland Construction Contamination Management Sub Plan - Appendix C: Asbestos Management Plan - Appendix B5: Construction Contaminated Land Management M7-M12 Integration Project (M7I2UDC-JHGRP-M7A-EN-PLN-000007-CCLMP\_RevC); and
  - Saline soils have been identified in areas of the site. To meet the requirements of M7 REMM C6, saline soils will not be re-used within M7 Widening (SSI-663-Mod-6) construction footprint. Saline soils generated from M7 Widening (SSI-663-Mod-6) are considered low risk and acceptable for placement within lands that have a final land-use setting of commercial / industrial in accordance with the NEPM, 2013 and NEMP, 2020.
  - Due to the proximity of the works to landfill facilities immediately to the east, it is recommended that a site-specific landfill gas monitoring protocol be followed to assess and management of risk to workers and equipment during the excavation work deeper than 1 m and the piling phase of works. The protocol to be followed is outlined below:
    - Prior to moving the piling rig/establishing a new location, the following will be conducted:
      - Measure the LEL at the ground surface where the auger will make contact with the ground and at a height of 1.5 m above the ground surface.
      - Measure the LEL at the ground surface where the piling rig cabin and engine will be located and at a height of 1.5 m above the ground surface.
      - If any readings for gases exceed the Action Levels (outlined below), then move to an alternative location or allow additional time for ventilation and remeasure the LEL. Once the reading is below the Action Levels then works in that area can commence.
    - All intended operators of the gas detectors are to be trained in the use of the detector. A record sheet will be set up and completed for each bore, including the bore number, date(s) of boring, depths of gas measurements, gas readings, and actions taken.
    - Whilst boring, gas measurements will be continually taken from the surface directly adjacent to the bore opening with the use of an appropriate gas detector.
    - The suggested Action Levels for piling and other boring works are as follows:
      - Methane – equal to or more than 1%v/v (one fifth of the explosive limit of methane).
      - Carbon dioxide – equal to or more than 0.5%v/v (source: TWA for carbon dioxide – Safe Work Australia 2018).
      - Oxygen – equal to or less than 19.5%v/v (source: safe oxygen level - Safe Work Australia 2020).
      - Carbon monoxide – equal to or more than 30ppm (source: TWA for carbon monoxide - Safe Work Australia 2018).
      - Hydrogen sulfide – equal to or more than 10ppm (source: TWA for hydrogen sulfide - Safe Work Australia 2018).
      - Volatile organic compounds – PID reading equal to or more than 10ppm (source: TWA for naphthalene – Safe Work Australia 2018).
    - If any readings for gases exceed the Action Levels, the works will cease until the reading falls below the Action Levels. All identified exceedances and their subsequent management are to be recorded as per the environmental incident reporting procedure presented in the CEMP.
    - If exceedances are identified, preparation of hazardous ground gas management plan may be required to document formal management responses.
  - If the future use of the site is proposed to change to a more sensitive land use, a review of the results with a comparison against human health and ecological criteria for the proposed new land use must be undertaken.

## STATEMENT OF LIMITATIONS

This document has been prepared in response to specific instructions from the client to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards and practices of the time the work was undertaken. No other warranty, expressed or implied, is made regarding the professional advice in this report.

The report has been prepared for the use by the client, and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, EDP advise that the report should only be relied upon by the client and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and EDP should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

EDP is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

### Sampling Risks

EDP acknowledges that any scientifically designed sampling program cannot guarantee all subsurface contamination will be detected. Sampling programs are designed based on known or suspected site conditions and the extent and nature of the sampling and analytical programs will be designed to achieve a level of confidence in the detection of known or suspected subsurface contamination. The sampling and analytical programs adopted will be those that maximises the probability of identifying contaminants. The client must therefore accept a level of risk associated with the possible failure to detect certain subsurface contamination where the sampling and analytical program misses such contamination. EDP will detail the nature and extent of the sampling and analytical program used in the investigation in the investigation report provided.

Environmental site assessments identify actual subsurface conditions only at those points where samples are taken and when they are taken. Soil contamination can be expected to be non-homogeneous across the stratified soils where present on site, and the concentrations of contaminants may vary significantly within areas where contamination has occurred. In addition, the migration of contaminants through groundwater and soils may follow preferential pathways, such as areas of higher permeability, which may not be intersected by sampling events. Subsurface conditions including contaminant concentrations can also change over time. For this reason, the results should be regarded as representative only.

The client recognises that sampling of subsurface conditions may result in some cross contamination. All care will be taken and the industry standards used to minimise the risk of such cross contamination occurring, however, the client recognises this risk and waives any claims against EDP and agrees to defend, indemnify and hold EDP harmless from any claims or liability for injury or loss which may arise as a result of alleged cross contamination caused by sampling.

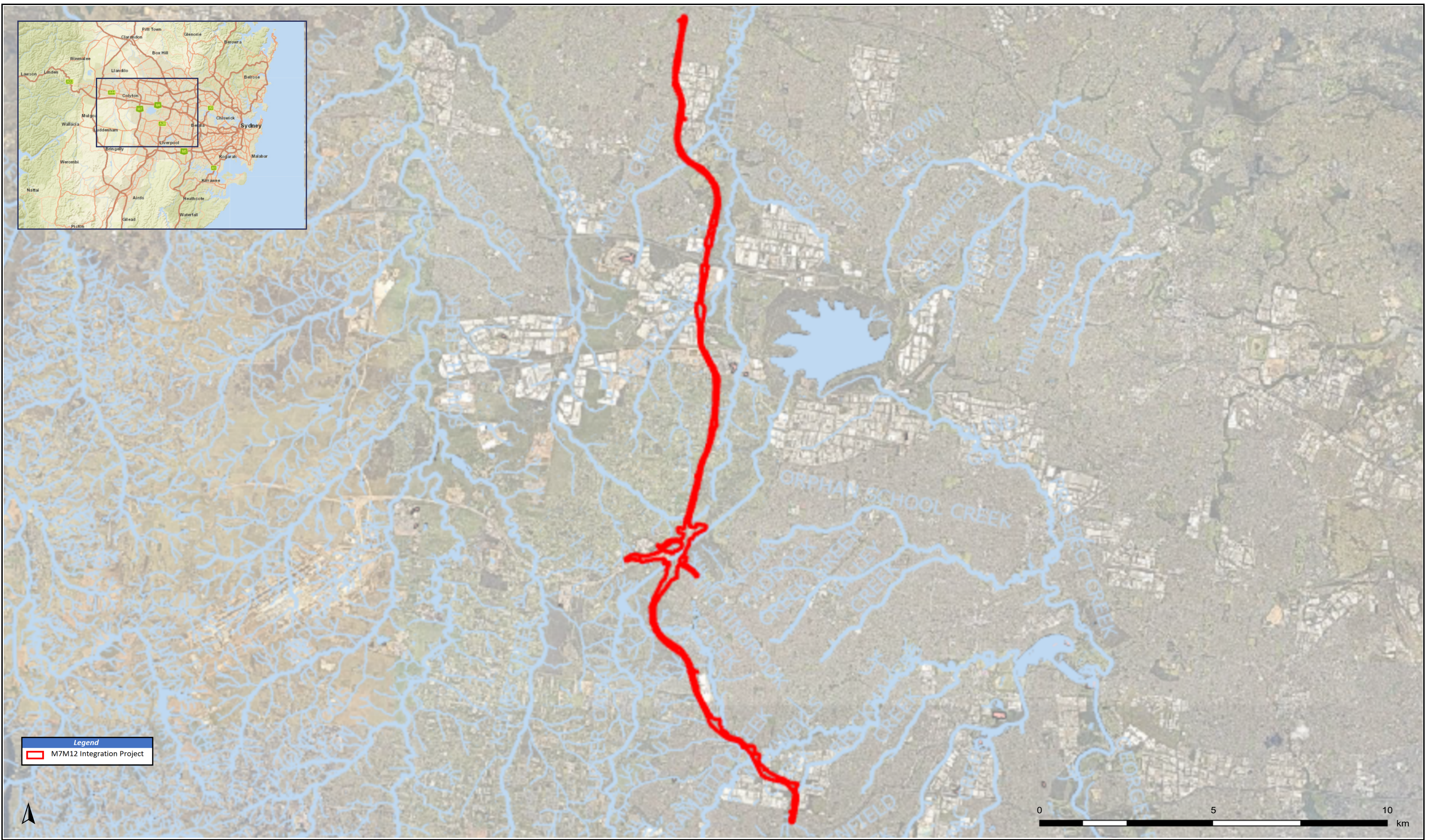
### Reliance on Information Provided by Others

EDP notes that where information has been provided by other parties in order for the works to be undertaken, EDP cannot guarantee the accuracy or completeness of this information the client therefore waives any claim against the company and agrees to indemnify EDP for any loss, claim or liability arising from inaccuracies or omissions in information provided to EDP by third parties. No indications were found during our investigations that information contained in this report, as provided to EDP, is false.

**Recommendations for Further Study** - The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of the client and EDP recognises that that the client will consider their specific needs and the business risks involved. EDP does not accept any liability for losses incurred as a result of the client not accepting the recommendations made within this report.

## APPENDIX A: FIGURES

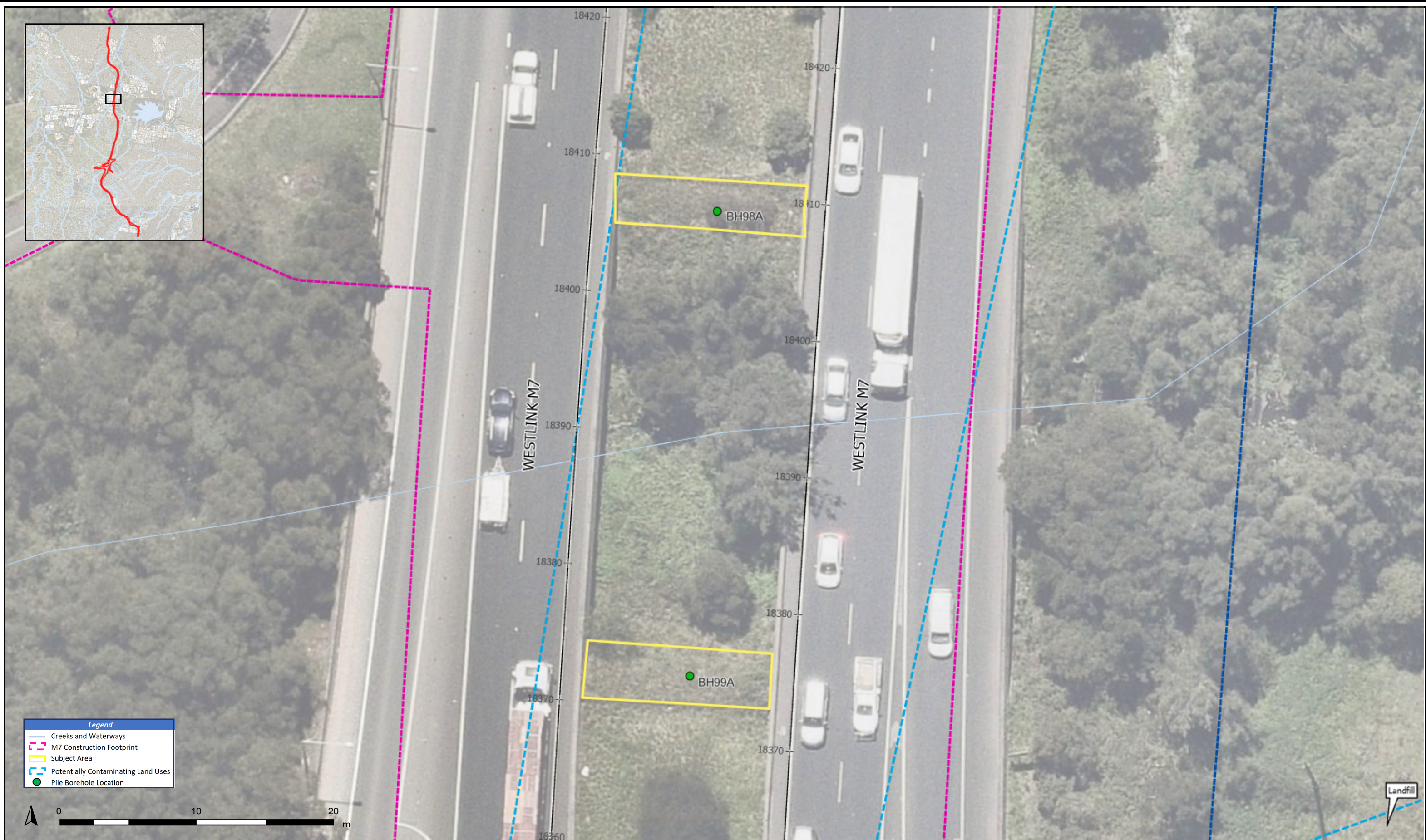














## APPENDIX B: HISTORICAL AERIAL PHOTOGRAPHS

|                |                                                                            |
|----------------|----------------------------------------------------------------------------|
| Site Details:  | M7-M12 Integration Project - Reedy Creek Tributary, Eastern Creek NSW 2766 |
| EDP Reference: | S-05667.DSI.M7.008_Reedy Creek Tributary                                   |



Historical Photograph 1: Aerial image of subject area in 1947. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.



Historical Photograph 2: Detailed aerial image of subject area in 1965. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.



Historical Photograph 3: Aerial image of subject area in 1975. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.



Historical Photograph 4: Aerial image of subject area in 1984. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.

|                |                                                                            |
|----------------|----------------------------------------------------------------------------|
| Site Details:  | M7-M12 Integration Project - Reedy Creek Tributary, Eastern Creek NSW 2766 |
| EDP Reference: | S-05667.DSI.M7.008_Reedy Creek Tributary                                   |



Historical  
Photograph 5:

Aerial image of subject area in 1991. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.



Historical  
Photograph 6:

Detailed aerial image of subject area in 1998. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.



Historical  
Photograph 7:

Aerial image of subject area in 2004. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.



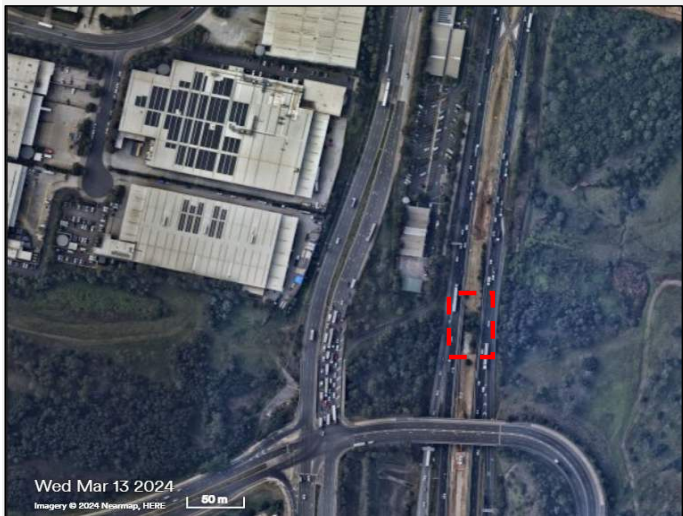
Historical  
Photograph 8:

Detailed aerial image of subject area in 2005. Source: portal.spatial.nsw.gov.au.  
Dashed red outlines approximate site location.

|                |                                                                            |
|----------------|----------------------------------------------------------------------------|
| Site Details:  | M7-M12 Integration Project - Reedy Creek Tributary, Eastern Creek NSW 2766 |
| EDP Reference: | S-05667.DSI.M7.008_Reedy Creek Tributary                                   |



|                          |                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Historical Photograph 9: | Aerial image of subject area in 2013. Source: portal.spatial.nsw.gov.au.<br>Dashed red outlines approximate site location. |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------|



|                           |                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------|
| Historical Photograph 10: | Detailed aerial image of subject area in 2024. Source: nearmap<br>Dashed red outlines approximate site location. |
|---------------------------|------------------------------------------------------------------------------------------------------------------|

End of Photographic Log



## APPENDIX C: LAND INSIGHT REPORT



## APPENDIX C: LAND INSIGHT REPORT

# Enviro-Screen Report

Westlink M7 Motorway  
Chainage 18000 - 23000  
Western Sydney, NSW  
11 Dec 2023

Report n°:  
LI-3925 ESR



# Understanding your report

Thank you for ordering your report from Land Insight. If you have any feedback, questions or queries, please get in touch with us at [orders@landinsight.co.au](mailto:orders@landinsight.co.au).

Your Report has been produced by Land Insight and contains information related to current and historical land use information, environmental risks and hazards.

The information presented in this report includes Land Insights' comprehensive research into current and historical land use derived from Land Insight's proprietary National Land Use Atlas (NLUA), environmental risk information and data available from public databases, third party providers, local and state authorities. The report also includes detailed property and soil setting information, hydrogeology, identification of potential pollution and contamination along with ground and natural hazards. The records identified are presented within a 200 to 2000m radius (buffer zone) from the boundaries of the Property searched, depending on the screened constraint. The report is separated and grouped into easy to navigate sections as per Summary below:

|                                                                                     |                  |                                                        |                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------|------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Section 1</b> | <b>PROPERTY SETTING</b>                                | Sensitive Receptors, Planning Controls, Zoning, Heritage, Soil and Land Information, Geology and Topography                                                                                                                               |
|    | <b>Section 2</b> | <b>HYDROGEOLOGY</b>                                    | Groundwater Bores and Other Borehole investigations, Groundwater Dependent Ecosystems (GDE), Aquifer and Wetland, Other Hydrogeology information.                                                                                         |
|  | <b>Section 3</b> | <b>ENVIRONMENTAL REGISTERS, LICENCES AND INCIDENTS</b> | Contaminated Land Public Register, Licences, Audits and Orders, Sites Regulated by Other Jurisdictional Body (Former Gaswork sites / PFAS sites, UXO Areas), Historical Landfills, Derelict Mines and National Pollutant Inventory (NPI). |
|  | <b>Section 4</b> | <b>POTENTIALLY CONTAMINATED AREAS</b>                  | Potentially Contaminating activities (Industries, businesses and activities that may cause contamination), Historical Potentially Contaminating activities and Historical Land Use.                                                       |
|  | <b>Section 5</b> | <b>NATURAL HAZARDS</b>                                 | Erosion hazard, Flood hazards, Bushfire prone land and Bushfire history.                                                                                                                                                                  |

**This report includes** data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact [orders@landinsight.co.au](mailto:orders@landinsight.co.au).

**This report does not include** information derived from a physical inspection. It is important to note that a site inspection can present information relevant to other risks and hazards that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators and data sources, the data displayed within this report is only current from date of production. While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information and/or data provided.

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# Data maintenance schedule

| Dataset name                                                                                         | Update frequency | Dataset buffer |
|------------------------------------------------------------------------------------------------------|------------------|----------------|
| <b>Section 1 - Property Setting</b>                                                                  |                  |                |
| Sensitive Receptors                                                                                  | Quarterly        | 200m           |
| Planning Controls ( <i>Zoning, Planning Instruments, Other planning information</i> )                | Quarterly        | 500m           |
| State and Local Heritage                                                                             | Quarterly        | 200m           |
| Commonwealth, National and World Heritage Areas                                                      | Annually         | 200m           |
| Soil Landscape and Land Use Information                                                              | Annually         | 500m           |
| Salinity Hazard                                                                                      | Annually         | 500m           |
| Radon Level                                                                                          | Annually         | 500m           |
| State, Local and National Acid Sulfate Soil (ASS)                                                    | Annually         | 500m           |
| Geology                                                                                              | Annually         | 500m           |
| Naturally Occurring Asbestos Potential                                                               | Annually         | 500m           |
| Topography                                                                                           | As required      | 500m           |
| <b>Section 2 - Hydrogeology</b>                                                                      |                  |                |
| Groundwater Aquifers                                                                                 | Annually         | 2000m          |
| Wetlands                                                                                             | Annually         | 2000m          |
| Groundwater Bores                                                                                    | Annually         | 2000m          |
| Drinking Water Catchments                                                                            | Annually         | 500m           |
| Groundwater Prohibition/Restricted Use/Exclusion Zones                                               | Annually         | 500m           |
| Hydrogeologic Units                                                                                  | Annually         | 500m           |
| Groundwater Dependent Ecosystems                                                                     | Annually         | 500m           |
| Other Borehole Locations ( <i>Coal Seam Gas, Petroleum Wells, other boreholes</i> )                  | Annually         | 500m           |
| <b>Section 3 - Environmental Registers, Licences and Incidents</b>                                   |                  |                |
| Contaminated Land Public Register                                                                    | Monthly          | 1000m          |
| Licences, Approvals, Audits, Authorisations & Assessments                                            |                  |                |
| Licences                                                                                             | Monthly          | 1000m          |
| Surrendered Licences                                                                                 | Monthly          | 1000m          |
| Clean Up Notices, Penalty Notices and Orders                                                         | Monthly          | 1000m          |
| Permissions                                                                                          | Monthly          | 1000m          |
| Audits                                                                                               | Monthly          | 1000m          |
| Authorisations                                                                                       | Monthly          | 1000m          |
| Sites Regulated by other Jurisdictional Body                                                         |                  |                |
| Contaminated Legacy Areas ( <i>James Hardies Asbestos, Pasminco Smelter and Uranium sites</i> )      | Quarterly        | 2000m          |
| Defence 3 Year Regional Contamination Investigation Program (RCIP)                                   | Quarterly        | 2000m          |
| Defence Sites - Current and Former                                                                   | Ongoing          | 2000m          |
| Unexploded Ordnance (UXO) Sites - Department of Defence (DoD)                                        | Annually         | 2000m          |
| Former Gasworks Sites                                                                                | Ongoing          | 2000m          |
| PFAS Investigation Sites ( <i>EPA PFAS Investigation Program/s, AirServices Australia etc.</i> )     | Monthly          | 2000m          |
| NPI Industrial Facilities                                                                            | Annually         | 2000m          |
| <b>Section 4 - Potentially Contaminated Areas</b>                                                    |                  |                |
| Potentially Contaminating Activities (PCA) ( <i>Petrol Stations, Dry cleaners, Waste sites etc</i> ) | Ongoing          | 500m           |
| Historical Business Directory ( <i>Commercial and Trade Directory Data from 1990-2020</i> )          | Not required     | 200m           |
| <b>Section 5 - Natural Hazards</b>                                                                   |                  |                |
| Bushfire Prone Areas                                                                                 | Bi-annual        | 500m           |
| Bushfire History                                                                                     | Bi-annual        | 500m           |
| Erosion Hazard                                                                                       | Bi-annual        | 500m           |
| Flood Hazard                                                                                         | Ongoing          | 500m           |



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Land Insight Product Guide and Terms and Conditions



## Section 1 Property Setting

### 1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

| Sensitive receptor                 | Type                  | Distance (m) | Direction  |
|------------------------------------|-----------------------|--------------|------------|
| Reedy Creek                        | Minor Water           | 0.0          | Onsite     |
| Morreau Reserve                    | Park grounds          | 32.2         | South-west |
| Blacktown International Sportspark | Sports and Recreation | 143.4        | North-east |

### 1.2a PLANNING CONTROLS

Map 1.2a (500m Buffer)

#### Zoning

| Zoning | Type                       | Details                                                            | Distance (m) | Direction  |
|--------|----------------------------|--------------------------------------------------------------------|--------------|------------|
| SP2    | Infrastructure             | Blacktown Local Environmental Plan 2015                            | 0.0          | Onsite     |
| E4     | General Industrial         | Blacktown Local Environmental Plan 2015                            | 11.7         | North-east |
| R4     | High Density Residential   | Blacktown Local Environmental Plan 2015                            | 14.7         | South-west |
| R3     | Medium Density Residential | Blacktown Local Environmental Plan 2015                            | 14.7         | South-west |
| R2     | Low Density Residential    | Blacktown Local Environmental Plan 2015                            | 16.9         | South-west |
| IN1    | General Industrial         | State Environmental Planning Policy (Industry and Employment) 2021 | 36.4         | West       |
| C3     | Environmental Management   | Blacktown Local Environmental Plan 2015                            | 41.7         | South-west |
| SP1    | Special Activities         | Blacktown Local Environmental Plan 2015                            | 104.3        | West       |
| RE1    | Public Recreation          | Blacktown Local Environmental Plan 2015                            | 221.7        | West       |

| Zoning | Type                       | Details                                                            | Distance (m) | Direction  |
|--------|----------------------------|--------------------------------------------------------------------|--------------|------------|
| MU1    | Mixed Use                  | Blacktown Local Environmental Plan 2015                            | 228.1        | South-west |
| C2     | Environmental Conservation | State Environmental Planning Policy (Industry and Employment) 2021 | 307.9        | West       |
| SP2    | Infrastructure             | Fairfield Local Environmental Plan 2013                            | 391.8        | South      |

## 1.2b PLANNING OVERLAYS

## Map 1.2b (500m Buffer)

### Environmental Planning Instruments

| Name                                 | Type                             | Details                                                                    | Distance (m) | Direction  |
|--------------------------------------|----------------------------------|----------------------------------------------------------------------------|--------------|------------|
| HORIZONTAL                           | Obstacle Limitation Surface      | State Environmental Planning Policy (Precincts—Western Parkland City) 2021 | 0.0          | Onsite     |
| HORIZONTAL SECTION                   | Obstacle Limitation Surface      | State Environmental Planning Policy (Precincts—Western Parkland City) 2021 | 0.0          | Onsite     |
| Wildlife Buffer Zone, 13 km          | Local Provisions                 | State Environmental Planning Policy (Precincts—Western Parkland City) 2021 | 0.0          | Onsite     |
| Wind Turbine Buffer Zone, 30 km      | Local Provisions                 | State Environmental Planning Policy (Precincts—Western Parkland City) 2021 | 0.0          | Onsite     |
| Buffer Area                          | Coal Seam Gas Exclusions         | State Environmental Planning Policy (Resources and Energy) 2021            | 0.0          | Onsite     |
| Minimum Lot Size (sq m): 1000-1999   | Lot Size                         | Blacktown Local Environmental Plan 2015                                    | 11.7         | North-east |
| Land Within a Residential Zone       | Coal Seam Gas Exclusions         | State Environmental Planning Policy (Resources and Energy) 2021            | 14.7         | South-west |
| Maximum Building Height (m): 13-14.9 | Height of Building               | Blacktown Local Environmental Plan 2015                                    | 14.7         | South-west |
| Maximum Building Height (m): 10-10.9 | Height of Building               | Blacktown Local Environmental Plan 2015                                    | 14.7         | South-west |
| Design Excellence, Design Excellence | Local Provisions                 | Blacktown Local Environmental Plan 2015                                    | 15.2         | South-west |
| Maximum Building Height (m): 9-9.9   | Height of Building               | Blacktown Local Environmental Plan 2015                                    | 16.9         | South-west |
| Minimum Lot Size (sq m): 450-474     | Lot Size                         | Blacktown Local Environmental Plan 2015                                    | 16.9         | South-west |
| Industrial Release Area              | Industrial Release Area          | State Environmental Planning Policy (Industry and Employment) 2021         | 36.4         | West       |
| Classified Road (SP2)                | Land Reservation Acquisition     | Blacktown Local Environmental Plan 2015                                    | 62.0         | South      |
| Proposed Road                        | Infrastructure                   | State Environmental Planning Policy (Industry and Employment) 2021         | 162.5        | West       |
| Bulk Water Supply Infrastructure     | Bulk Water Supply Infrastructure | State Environmental Planning Policy (Precincts—Western Parkland City) 2021 | 359.7        | South      |
| Classified Road (SP2)                | Land Reservation Acquisition     | Fairfield Local Environmental Plan 2013                                    | 452.6        | South      |

### Other Planning Information

| Name | Category | Details | Distance (m) | Direction |
|------|----------|---------|--------------|-----------|
| -    | -        | -       | -            | -         |



## 1.3 HERITAGE

## Map 1.3 (200m Buffer)

### State and Local Heritage Registers

| Site ID | Site Name                      | Type                    | Details                                       | Distance (m) | Direction  |
|---------|--------------------------------|-------------------------|-----------------------------------------------|--------------|------------|
| 01756   | Rooty Hill, The                | State Heritage Register | Landscape                                     | 12.6         | West       |
| 2       | The Rooty Hill                 | Heritage Register       | Item - Landscape. Significance is State.      | 12.6         | West       |
| 00345   | Government Depot Site (former) | State Heritage Register | Complex / Group                               | 41.7         | South-west |
| A123    | Archaeological site - Ruins    | Heritage Register       | Item - Archaeological. Significance is State. | 41.7         | South-west |
| I106    | Rooty Hill Railway Station     | Heritage Register       | Item - General. Significance is Local.        | 156.5        | South-west |

### Australian Heritage Database Register

| Site ID        | Site Name | Type | Details | Distance (m) | Direction |
|----------------|-----------|------|---------|--------------|-----------|
| Not identified | -         | -    | -       | -            | -         |

Commonwealth Heritage List, National Heritage List and World Heritage Area.

## 1.4a SOIL AND LAND USE INFORMATION

## Map 1.4a (500m Buffer)

### Soil Landscape

| Code | Name        | Soil Group | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Distance (m) | Direction |
|------|-------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| REbt | Blacktown   | Residual   | <p>Landscape—gently undulating rises on Wianamatta Group shales. Local relief to 30 m, slopes usually &gt;5%. Broad rounded crests and ridges with gently inclined slopes. Cleared Eucalypt woodland and tall open-forest (dry sclerophyll forest).</p> <p>Soils—shallow to moderately deep (&gt;100 cm) hardsetting mottled texture contrast soils, red and brown podzolic soils (Dr3.21, Dr3.31, Db2.11, Db2.21) on crests grading to yellow podzolic soils (Dy2.11, Dy3.11) on lower slopes and in drainage lines.</p> <p>Limitations—localised seasonal waterlogging, localised water erosion hazard, moderately reactive highly plastic subsoil, localised surface movement potential.</p>                                                                      | 0.0          | Onsite    |
| ALsc | South Creek | Alluvial   | <p>Landscape—floodplains, valley flats and drainage depressions of the channels on the Cumberland Plain. Usually flat with incised channels; mainly cleared.</p> <p>Soils—often very deep layered sediments over bedrock or relict soils. Where pedogenesis has occurred structured plastic clays (Uf6.13) or structured loams (Um6.1) in and immediately adjacent to drainage lines; red and yellow podzolic soils (Dr5.11, Dy2.41, Dr2.21) are most common terraces with small areas of structured grey clays (Gn4.54), leached clay (Uf4.42) and yellow solodic soils (Dy4.42, Dy5.23).</p> <p>Limitations—flood hazard, seasonal waterlogging, localised permanently high watertables, localised water erosion hazard, localised surface movement potential.</p> | 0.0          | Onsite    |

| Code | Name      | Soil Group | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Distance (m) | Direction |
|------|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| ERlu | Luddenham | Erosional  | <p>Landscape—undulating to rolling low hills on Wianamatta Group shales, often associated with Minchinbury Sandstone. Local relief 50–80 m, slopes 5–20%. Narrow ridges, hillcrests and valleys. Extensively cleared tall open forest (wet sclerophyll forest).</p> <p>Soils—shallow (&lt;100 cm) dark podzolic soils (Dd3.51) or massive earthy clays (Uf6.71) on crests; moderately deep (70–150 cm) red podzolic soils (Dr2.11, Dr2.41, Dr3.11) on upper slopes; moderately deep (&lt;150 cm) yellow podzolic soils (Dy4.22) and prairie soils (Gn3.26) on lower slopes and drainage lines.</p> <p>Limitations—water erosion hazard, localised steep slopes, localised mass movement hazard, localised shallow soils, localised surface movement potential; localised impermeable highly plastic subsoil, moderately reactive.</p> | 393.0        | South     |

### Salinity

| Salinity Hazard     | Type                                                      | Details                                     | Distance (m) | Direction |
|---------------------|-----------------------------------------------------------|---------------------------------------------|--------------|-----------|
| Very High           | Hydrogeological Landscapes                                | Western Sydney Hydrogeological Landscapes   | 0.0          | Onsite    |
| High hazard or risk | Australian Dryland Salinity Assessment (1:2,500,000) 2001 | High hazard or risk in 2000, 2020, and 2050 | 0.0          | Onsite    |

### Radon

| Radon Level (Bq/m <sup>3</sup> ) | Distance (m) | Direction |
|----------------------------------|--------------|-----------|
| 5                                | 0.0          | Onsite    |
| 4                                | 0.0          | Onsite    |

Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

## 1.4b ACID SULFATE SOIL

### Map 1.4b (500m Buffer)

#### State and Local Acid Sulfate Soil Registers

| Name           | Classification | Description | Distance (m) | Direction |
|----------------|----------------|-------------|--------------|-----------|
| Not identified | -              | -           | -            | -         |

To ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage, development consent may be required for the carrying out of works within areas and land shown on the Acid Sulfate Soils Map.

#### National Acid Sulfate Soil Register

| Name                                   | Classification                          | Description                                                          | Distance (m) | Direction |
|----------------------------------------|-----------------------------------------|----------------------------------------------------------------------|--------------|-----------|
| Atlas of Australian Acid Sulfate Soils | Extremely low probability of occurrence | Acid sulfate soil generally within upper 1m in wet / riparian areas. | 0.0          | Onsite    |

Source: ASRIS Atlas of Australian Sulfate Soils (CSIRO). Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics.

## 1.5 GEOLOGY AND TOPOGRAPHY

## Map 1.5 (500m Buffer)

### Geology

| Map Sheet                                | Code   | Formation                                            | Age                                             | Group                            | Dominant Lithology       | Description                                                                                                                      | Distance (m) | Direction  |
|------------------------------------------|--------|------------------------------------------------------|-------------------------------------------------|----------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------|------------|
| NSW Seamless Geology version 2.2 May2022 | Twib   | Bringelly Shale                                      | Middle Triassic (base) to Middle Triassic (top) | Wianamatta Group                 | Shale                    | Shale, carbonaceous claystone, laminite, lithic sandstone, rare coal.                                                            | 0.0          | Onsite     |
| NSW Seamless Geology version 2.2 May2022 | Q_af   | Alluvial floodplain deposits                         | Quaternary (base) to Now (top)                  | Alluvium                         | Clastic sediment         | Silt, very fine- to medium-grained lithic to quartz-rich sand, clay.                                                             | 0.0          | Onsite     |
| NSW Seamless Geology version 2.2 May2022 | MZui_v | Ungrouped Mesozoic igneous units - breccia           | Jurassic (base) to Cretaceous (top)             | Ungrouped Mesozoic igneous units | Undifferentiated breccia | Volcanic breccia, varying amounts of sedimentary breccia, and basalt.                                                            | 168.1        | South-west |
| NSW Seamless Geology version 2.2 May2022 | QH_hf  | Anthropogenic deposits - fill on Quaternary deposits | Holocene (base) to Now (top)                    | Anthropogenic deposits           | Anthropogenic material   | Land surface raised >1m above natural level by placement of fill on undifferentiated Quaternary deposits over an extensive area. | 178.9        | East       |

### Naturally Occurring Asbestos Potential (NOA)

| Category       | On the Property? | Within Buffer? |
|----------------|------------------|----------------|
| Not identified | -                | -              |

### Topography

|                     |              |
|---------------------|--------------|
| Topography (Onsite) | 36 - 60 mAHD |
|---------------------|--------------|



## Section 2 Hydrogeology



### 2.1 GDE & HYDROGEOLOGY CONSTRAINTS

Map 2.1 (2000m Buffer)

#### Aquifer Type

| Type                                                       | Distance (m) | Direction |
|------------------------------------------------------------|--------------|-----------|
| Porous, extensive aquifers of low to moderate productivity | 0.0          | Onsite    |

#### Groundwater Protection Areas

| Name           | Water Plan Area | Distance (m) | Direction |
|----------------|-----------------|--------------|-----------|
| Not identified | -               | -            | -         |

#### Wetlands

| Name | Description | Distance (m) | Direction  |
|------|-------------|--------------|------------|
|      | Dam         | 361.8        | West       |
|      | Quarry      | 1238.4       | South-east |

#### Groundwater Dependent Ecosystems (GDE) - Aquatic (Surface)

| Potential      | Distance (m) | Direction |
|----------------|--------------|-----------|
| Not identified | -            | -         |

Aquatic - Ecosystems that rely on the Surface expression of groundwater.



## Groundwater Dependent Ecosystems (GDE) - Terrestrial (Subsurface)

| Potential                                         | Distance (m) | Direction  |
|---------------------------------------------------|--------------|------------|
| Moderate potential GDE - from national assessment | 0.0          | Onsite     |
| High potential GDE - from national assessment     | 75.1         | North-east |
| Low potential GDE - from national assessment      | 400.8        | West       |

Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.

## Groundwater Licences (Western Australia)

| Map ID         | WRI number | Allocation (KL) | Address | All Parties | Distance (m) | Direction |
|----------------|------------|-----------------|---------|-------------|--------------|-----------|
| Not identified | -          | -               | -       | -           | -            | -         |

## Groundwater Bores

| Map ID | Groundwater Bore ID | Authorised Purpose                       | Completion Date | Drilled Depth (m) | Final Depth (m) | SWL (m) | Salinity (mg/l) | Yield (L/s) | Distance (m) | Direction  |
|--------|---------------------|------------------------------------------|-----------------|-------------------|-----------------|---------|-----------------|-------------|--------------|------------|
| 26     | GW112687            | Monitoring                               | 05/06/2002      | 6.0               | 6.0             | Null    | Null            | Null        | 112.2        | North-east |
| 27     | GW112688            | Monitoring                               | 05/06/2002      | 6.0               | 6.0             | Null    | Null            | Null        | 309.9        | North-east |
| 25     | GW112686            | Monitoring                               | 05/06/2002      | 0.0               | 5.5             | Null    | Null            | Null        | 326.9        | North-east |
| 29     | GW115527            | Null                                     | Null            | 0.0               | 342.0           | 31.8    | Null            | 1.5         | 441.4        | North-east |
| 1      | GW104060            | Monitoring                               | 22/08/2001      | 24.6              | 24.6            | Null    | Null            | Null        | 577.3        | South-east |
| 24     | GW112685            | Monitoring                               | 05/06/2002      | 0.0               | 5.2             | Null    | Null            | Null        | 600.1        | North-east |
| 10     | GW115022            | Monitoring                               | 01/06/2011      | 0.0               | 10.5            | 2.5     | Null            | Null        | 605.3        | West       |
| 11     | GW115023            | Monitoring                               | 31/05/2011      | 9.0               | 9.0             | 2.6     | Null            | Null        | 605.4        | West       |
| 12     | GW115024            | Monitoring                               | 01/06/2011      | 0.0               | 10.5            | 2.6     | Null            | Null        | 620.0        | West       |
| 9      | GW115021            | Monitoring                               | 30/05/2011      | 9.0               | 9.0             | 2.4     | Null            | Null        | 644.2        | West       |
| 14     | GW104061            | Monitoring                               | 22/08/2001      | 24.5              | 24.5            | Null    | Null            | Null        | 778.8        | South-east |
| 23     | GW112684            | Monitoring                               | 05/06/2002      | 6.0               | 6.0             | Null    | Null            | Null        | 798.0        | North-east |
| 18     | GW112682            | Monitoring                               | 06/05/2002      | 5.0               | 5.0             | Null    | Null            | Null        | 867.6        | North-east |
| 28     | GW112689            | Monitoring                               | 05/06/2002      | 2.0               | 2.0             | Null    | Null            | Null        | 968.5        | North-east |
| 19     | GW112683            | Monitoring                               | 06/05/2002      | 4.6               | 4.6             | Null    | Null            | Null        | 1021.0       | North-east |
| 13     | GW018361            | Water supply, Manufacturing and industry | 01/01/1961      | 217.9             | 217.9           | Null    | Null            | Null        | 1046.4       | West       |
| 22     | GW111850            | Monitoring                               | 17/02/2012      | 8.0               | 8.0             | Null    | Null            | Null        | 1205.0       | North-east |
| 21     | GW111849            | Monitoring                               | 17/02/2012      | 8.0               | 8.0             | Null    | Null            | Null        | 1279.4       | North-east |
| 4      | GW114927            | Monitoring                               | 07/08/2015      | 18.0              | 18.0            | Null    | Null            | Null        | 1283.1       | West       |
| 2      | GW114519            | Monitoring                               | 04/08/2014      | 8.0               | 12.0            | Null    | Null            | Null        | 1293.5       | West       |

| Map ID | Groundwater Bore ID | Authorised Purpose | Completion Date | Drilled Depth (m) | Final Depth (m) | SWL (m) | Salinity (mg/l) | Yield (L/s) | Distance (m) | Direction  |
|--------|---------------------|--------------------|-----------------|-------------------|-----------------|---------|-----------------|-------------|--------------|------------|
| 5      | GW114928            | Monitoring         | 10/10/2011      | 11.5              | 11.5            | Null    | Null            | Null        | 1297.5       | West       |
| 3      | GW114926            | Monitoring         | 07/08/2015      | 13.5              | 13.5            | Null    | Null            | Null        | 1303.6       | West       |
| 16     | GW104062            | Monitoring         | 23/08/2001      | 24.4              | 24.4            | 17.0    | Null            | 0.1         | 1336.5       | South-east |
| 20     | GW111848            | Monitoring         | 17/02/2012      | 11.0              | 11.0            | Null    | Null            | Null        | 1582.5       | North-east |
| 15     | GW104063            | Monitoring         | 23/08/2001      | 27.4              | 27.4            | Null    | Null            | Null        | 1640.9       | South-east |
| 7      | GW114588            | Monitoring         | 01/06/2011      | 8.5               | 8.5             | Null    | Null            | Null        | 1802.4       | East       |
| 8      | GW114589            | Monitoring         | 01/06/2011      | 11.0              | 11.0            | Null    | Null            | Null        | 1815.2       | East       |
| 17     | 21210070            | Unknown            | Null            | Null              | Null            | Null    | Null            | Null        | 1829.4       | North-west |
| 6      | GW114587            | Monitoring         | 01/06/2011      | 8.0               | 8.0             | Null    | Null            | Null        | 1842.1       | East       |

Note: The use of the symbol "-" or "Null" indicates that no records were found.

### Groundwater Bores Driller Lithology Details

| Groundwater Bore ID | From Depth - To Depth (m)                                                                                                                                                                                                                                                                                                                                                  | Lithology | Distance (m) | Direction  |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------|------------|
| GW112687            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 112.2        | North-east |
| GW112688            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 309.9        | North-east |
| GW112686            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 326.9        | North-east |
| GW115527            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 441.4        | North-east |
| GW104060            | 0m-0.3m Topsoil<br>0.3m-3m Brown clay<br>3m-5m Brown shale<br>5m-24.6m Grey shale                                                                                                                                                                                                                                                                                          |           | 577.3        | South-east |
| GW112685            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 600.1        | North-east |
| GW115022            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 605.3        | West       |
| GW115023            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 605.4        | West       |
| GW115024            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 620.0        | West       |
| GW115021            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 644.2        | West       |
| GW104061            | 0m-0.5m Fill<br>0.5m-1m Topsoil<br>1m-6m Weathered siltstone<br>6m-24.5m Grey shale                                                                                                                                                                                                                                                                                        |           | 778.8        | South-east |
| GW112684            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 798.0        | North-east |
| GW112682            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 867.6        | North-east |
| GW112689            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 968.5        | North-east |
| GW112683            | Null                                                                                                                                                                                                                                                                                                                                                                       |           | 1021.0       | North-east |
| GW018361            | 0m-14.02m Topsoil clay<br>14.02m-16.45m Basalt<br>16.45m-45.72m Shale grey<br>45.72m-60.96m Shale light grey<br>60.96m-61.56m Shale grey<br>61.56m-64m Basalt<br>64m-72.54m Shale black<br>72.54m-92.04m Shale grey<br>92.04m-99.06m Sandstone<br>99.06m-137.16m Shale grey<br>137.16m-150.87m Shale grey<br>150.87m-194.46m Sandstone white<br>194.46m-195.68m Shale grey |           | 1046.4       | West       |

| Groundwater Bore ID | From Depth – To Depth (m)                                                                                                                                                                                                                                                                           | Lithology | Distance (m) | Direction  |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------|------------|
|                     | 195.68m-217.62m Sandstone white<br>217.62m-217.93m Shale grey                                                                                                                                                                                                                                       |           |              |            |
| GW111850            | Null                                                                                                                                                                                                                                                                                                |           | 1205.0       | North-east |
| GW111849            | Null                                                                                                                                                                                                                                                                                                |           | 1279.4       | North-east |
| GW114927            | 0m-2.7m Silty Clay,Red Brown Mottled L.Plasticity<br>2.7m-2.9m Silty Clay Grading Into Eathered Shale<br>2.9m-12m Shale,Weathered Bedrock,Dark Grey,Dry<br>12m-18m As Above But Hard.                                                                                                               |           | 1283.1       | West       |
| GW114519            | 0m-0.3m Silty Clay<br>0.3m-1m Silty Clay<br>1m-8m Shale                                                                                                                                                                                                                                             |           | 1293.5       | West       |
| GW114928            | 0m-0.15m Fill<br>0.15m-0.35m Silty Clay,Light Brown L/M Plasticity<br>0.35m-3.2m Shale Grey Brown<br>3.2m-6.3m As Above But Softer<br>6.3m-9.5m Shale, Dark Grey,Hard, Dry<br>9.5m-11.5m As Above But Wet.                                                                                          |           | 1297.5       | West       |
| GW114926            | 0m-0.15m Fill<br>0.15m-1.7m Silty Clay Red Brown, L.Plasticity<br>1.7m-2.2m Silty Clay Dark Brown<br>2.2m-3m Shale, Light Brown<br>3m-4.7m Shale Light Brown Hard<br>4.7m-6.8m Shale Grey Brown<br>6.8m-12m Shale, Dark Grey,Dry<br>12m-13.5m Shale, Dark Grey, Wet                                 |           | 1303.6       | West       |
| GW104062            | 0m-0.5m Fill<br>0.5m-4m Brown clay<br>4m-6m Brown shale<br>6m-11m Grey shale<br>11m-24.4m Hard shale                                                                                                                                                                                                |           | 1336.5       | South-east |
| GW111848            | Null                                                                                                                                                                                                                                                                                                |           | 1582.5       | North-east |
| GW104063            | 0m-3m Brown clay<br>3m-5m Grey clay<br>5m-6m Brown shale<br>6m-27.4m Grey shale                                                                                                                                                                                                                     |           | 1640.9       | South-east |
| GW114588            | 0m-0.5m Fill,Gravel,Coarse,No Odour<br>0.5m-1.3m Sandy Clay Brown Soft,Dry,M/Grained<br>1.3m-2.1m Sandy Clay Light Yellow,Grey Mottling<br>2.1m-2.7m Clay Dark Grey,M/Plasticity<br>2.7m-4.1m Clay L/Grey,Firm ,Dry, No Odour<br>4.1m-8.52m Clay,Grey With Orange Mottles,Shale Frags.              |           | 1802.4       | East       |
| GW114589            | 0m-0.1m Concrete<br>0.1m-0.7m Fill.Gravel Coarse,No Odour<br>0.7m-1.4m Sandy Clay Soft M/Plasticity,Dry<br>1.4m-2.1m Sandy Clay.Light Yellow,Dry,Moist<br>2.1m-2.8m Clay Dark Grey,No Odour<br>2.8m-4m Clay Dark Grey With Orange And Red Mottles<br>4m-11m Clay With Orange Mottles,Shale Frag,Dry |           | 1815.2       | East       |
| 21210070            | Null                                                                                                                                                                                                                                                                                                |           | 1829.4       | North-west |
| GW114587            | 0m-0.3m Clayey Silt<br>0.3m-1.3m Gravelly Sandy Clay Grey And Red<br>1.3m-5m Clay,Light Brown.Moist<br>5m-8m Clay Dark Grey Brown ,Moist                                                                                                                                                            |           | 1842.1       | East       |

Note: The use of the symbol "-" or "Null" indicates that no records were found.

## 2.2 GROUNDWATER AND OTHER BORES

## Map 2.2 (2000m Buffer)

### Groundwater Restricted Use Zones

| Name / Number  | Address | Site History | Description | Distance (m) | Direction |
|----------------|---------|--------------|-------------|--------------|-----------|
| Not identified | -       | -            | -           | -            | -         |

### Groundwater Salinity

| Class              | Salinity Value | Source                           | Distance (m) | Direction |
|--------------------|----------------|----------------------------------|--------------|-----------|
| Saline (>3000mg/L) | > 3000         | Office of Water, New South Wales | 0.0          | Onsite    |
| No Data            | No Data        | Sinclair Knight Merz             | 1781.4       | East      |

### Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

| Borehole ID | Purpose  | Project                         | Client/ License | Date Drilled | Depth (m) | Distance (m) | Direction |
|-------------|----------|---------------------------------|-----------------|--------------|-----------|--------------|-----------|
| TP6A        | Test Pit | SydneyMetroDatabase             | Null            | Null         | 2.5       | 0.0          | Onsite    |
| TP5A        | Test Pit | SydneyMetroDatabase             | Null            | Null         | 2.0       | 0.0          | Onsite    |
| TP6         | Test Pit | SydneyMetroDatabase             | Null            | Null         | 2.2       | 0.0          | Onsite    |
| TP7         | Test Pit | SydneyMetroDatabase             | Null            | Null         | 2.9       | 0.0          | Onsite    |
| TP5         | Test Pit | SydneyMetroDatabase             | Null            | Null         | 2.2       | 0.0          | Onsite    |
| BH23        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 31/01/2013   | 3.0       | 39.4         | West      |
| BH15        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 01/02/2013   | 5.0       | 49.7         | West      |
| BH16        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 30/01/2013   | 15.0      | 64.2         | West      |
| BH17        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 30/01/2013   | 14.5      | 66.3         | West      |
| BH18        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 25/01/2013   | 14.9      | 74.4         | West      |
| BH19        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 25/01/2013   | 12.0      | 75.5         | West      |
| BH20        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 25/01/2013   | 10.6      | 81.7         | West      |
| BH33        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 13/02/2013   | 12.6      | 86.3         | West      |
| BH21        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 25/01/2013   | 13.6      | 90.0         | West      |
| BH32        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 13/02/2013   | 10.5      | 94.7         | West      |
| TP02        | Test Pit | Old Wallgrove Rd, Eastern Creek | RMS             | 07/03/2013   | 1.5       | 103.4        | West      |
| DCP02       | Null     | Old Wallgrove Rd, Eastern Creek | RMS             | 07/03/2013   | 1.5       | 103.4        | West      |
| BH30        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 24/01/2013   | 12.0      | 110.3        | West      |
| BH22        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 23/01/2013   | 3.0       | 110.6        | West      |
| BH25        | Borehole | Old Wallgrove Rd, Eastern Creek | RMS             | 31/01/2013   | 3.0       | 110.9        | West      |
| DCP03       | Null     | Old Wallgrove Rd, Eastern Creek | RMS             | 07/03/2013   | 1.6       | 114.0        | West      |



| Borehole ID   | Purpose  | Project                                                                        | Client/ License | Date Drilled | Depth (m) | Distance (m) | Direction  |
|---------------|----------|--------------------------------------------------------------------------------|-----------------|--------------|-----------|--------------|------------|
| TP03          | Test Pit | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 07/03/2013   | 2.3       | 114.0        | West       |
| BH29          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 23/01/2012   | 12.0      | 116.1        | West       |
| BH28          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 22/01/2013   | 12.2      | 117.9        | West       |
| BH24          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 23/01/2013   | 3.0       | 119.4        | West       |
| BH31          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 23/01/2013   | 15.0      | 121.7        | West       |
| BH27          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 22/01/2013   | 8.0       | 128.4        | West       |
| BH39          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 22/01/2013   | 15.1      | 132.2        | West       |
| OW1           | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 21/03/2011   | 1.8       | 173.9        | West       |
| BH14          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 23/01/2013   | 4.0       | 179.9        | West       |
| OW1TP         | Test Pit | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 21/03/2011   | 2.3       | 232.0        | West       |
| BH02-01/08/15 | Borehole | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 01/08/2015   | 7.2       | 268.9        | West       |
| BH37          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 31/01/2013   | 1.5       | 270.1        | West       |
| TfNSW14       | Null     | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 23/10/2015   | 0.0       | 277.0        | South-west |
| TfNSW13       | Null     | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 22/10/2015   | 0.0       | 277.0        | South-west |
| Null          | Null     | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 22/10/2015   | 0.0       | 277.0        | South-west |
| Null          | Null     | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 23/10/2015   | 0.0       | 277.0        | South-west |
| BH03-02/08/15 | Borehole | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 02/08/2015   | 10.5      | 277.0        | South-west |
| BH07          | Borehole | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 13/08/2015   | 14.8      | 288.8        | West       |
| BH03          | Borehole | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 23/05/2015   | 12.0      | 289.6        | South-west |
| BH12          | Borehole | Old Wallgrove Rd, Eastern Creek                                                | RMS             | 23/01/2013   | 5.0       | 301.1        | West       |
| BH08          | Borehole | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 14/08/2015   | 15.9      | 302.9        | West       |
| BH01-01/08/15 | Borehole | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations | TfNSW           | 01/08/2015   | 11.8      | 304.0        | South-west |
| BH02          | Borehole | Transport Access Projects (TAP) - Harris                                       | TfNSW           | 24/05/2015   | 8.8       | 304.3        | South-west |

| Borehole ID | Purpose                 | Project                                                                                        | Client/ License | Date Drilled | Depth (m) | Distance (m) | Direction  |
|-------------|-------------------------|------------------------------------------------------------------------------------------------|-----------------|--------------|-----------|--------------|------------|
|             |                         | Park, Toongabbie, Rooty Hill Stations                                                          |                 |              |           |              |            |
| BH11        | Borehole                | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations                 | TfNSW           | 16/08/2015   | 9.0       | 305.1        | South-west |
| OW2TP       | Test Pit                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 21/03/2011   | 2.4       | 311.0        | West       |
| BH10        | Borehole                | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations                 | TfNSW           | 16/08/2015   | 13.9      | 311.1        | South-west |
| OW2         | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 21/03/2011   | 1.8       | 312.8        | West       |
| BH01        | Borehole                | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations                 | TfNSW           | 24/05/2015   | 14.0      | 313.3        | West       |
| BH36        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 23/01/2013   | 3.0       | 316.5        | West       |
| BH09        | Borehole                | Transport Access Projects (TAP) - Harris Park, Toongabbie, Rooty Hill Stations                 | TfNSW           | 15/08/2015   | 2.0       | 333.5        | South-west |
| DCP05       | Intrusive Investigation | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 07/03/2013   | 1.8       | 357.6        | West       |
| TP05        | Test Pit                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 07/03/2013   | 1.8       | 357.6        | West       |
| DCP04       | Intrusive Investigation | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 07/03/2013   | 1.9       | 393.7        | West       |
| TP04        | Test Pit                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 07/03/2013   | 1.5       | 393.7        | West       |
| DCP04A      | Intrusive Investigation | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 07/03/2013   | 1.2       | 398.7        | West       |
| BH35        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 01/02/2013   | 10.9      | 415.0        | West       |
| BH34        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 23/01/2013   | 8.3       | 440.9        | West       |
| BH11        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 30/01/2013   | 3.0       | 457.0        | West       |
| OW3         | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 21/03/2011   | 1.8       | 486.2        | West       |
| OW3TP       | Test Pit                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 21/03/2011   | 1.2       | 487.1        | West       |
| PAI_BH4     | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill | NECS            | 03/03/2003   | 8.0       | 506.8        | North-east |
| BH10        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 30/01/2013   | 3.0       | 576.1        | West       |
| PAI_BH2     | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill | NECS            | 27/02/2003   | 8.0       | 611.8        | North-east |
| OW4         | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 21/03/2011   | 1.7       | 635.4        | West       |
| OW4TP       | Test Pit                | Old Wallgrove Rd, Eastern Creek                                                                | RMS             | 21/03/2011   | 2.3       | 635.8        | West       |
| MSL_93/5    | Borehole                | Eastern Creek Data 1                                                                           | Null            | Null         | 0.0       | 668.0        | East       |

| Borehole ID | Purpose                 | Project                                                                                                             | Client/ License                                                                                                       | Date Drilled | Depth (m) | Distance (m) | Direction  |
|-------------|-------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------|-----------|--------------|------------|
| PAI_BH3     | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill                      | NECS                                                                                                                  | 28/02/2003   | 8.0       | 763.1        | North-east |
| PAI_BH1     | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill                      | NECS                                                                                                                  | 28/02/2003   | 8.0       | 777.2        | North-east |
| OW5TP       | Test Pit                | Old Wallgrove Rd, Eastern Creek                                                                                     | RMS                                                                                                                   | 21/03/2011   | 1.2       | 789.7        | West       |
| BH08        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                                     | RMS                                                                                                                   | 22/01/2013   | 0.8       | 800.1        | West       |
| PAI_BH105   | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill                      | NECS                                                                                                                  | 23/05/2005   | 3.0       | 824.5        | North      |
| MSL_93/2    | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 829.9        | South-east |
| BH07        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                                     | RMS                                                                                                                   | 30/01/2013   | 2.8       | 839.7        | West       |
| PAI_BH104   | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill                      | NECS                                                                                                                  | 23/05/2005   | 3.0       | 847.7        | North      |
| OW5         | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                                     | RMS                                                                                                                   | 21/03/2011   | 1.1       | 859.1        | West       |
| PAI_BH103   | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill                      | NECS                                                                                                                  | 23/05/2005   | 3.0       | 871.5        | North      |
| MSL_93/1    | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 880.2        | East       |
| MSL_80/2    | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 887.1        | East       |
| MSL_01/303  | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 897.6        | East       |
| PAI_BH102   | Borehole                | Geological and Groundwater Assessment - Regional Distribution Centre ReadyMix Site: Rooty Hill                      | NECS                                                                                                                  | 23/05/2005   | 1.8       | 906.5        | North      |
| MSL_93/7    | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 915.7        | East       |
| MSL_80/1    | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 917.7        | East       |
| GT0002533   | Intrusive Investigation | A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD). | Drilling, Soil Sample Analysis, Review existing documentation located at Rooty Hill High School : geotechnical invest | 01/01/2006   | 0.0       | 930.6        | West       |
| PAI_BH101   | Borehole                | Geological and Groundwater Assessment - Regional                                                                    | NECS                                                                                                                  | 23/05/2005   | 2.5       | 932.9        | North      |

| Borehole ID    | Purpose             | Project                                                           | Client/ License                  | Date Drilled | Depth (m) | Distance (m) | Direction  |
|----------------|---------------------|-------------------------------------------------------------------|----------------------------------|--------------|-----------|--------------|------------|
|                |                     | Distribution Centre ReadyMix Site: Rooty Hill                     |                                  |              |           |              |            |
| OW6TP          | Test Pit            | Old Wallgrove Rd, Eastern Creek                                   | RMS                              | 21/03/2011   | 0.9       | 933.6        | West       |
| OW6            | Borehole            | Old Wallgrove Rd, Eastern Creek                                   | RMS                              | 21/03/2011   | 1.1       | 935.2        | West       |
| COAL_DMROOTHIL | Mineral Exploration | DPI Minerals Borehole Register - Department Of Mineral Resources, | Department Of Mineral Resources, | Null         | 217.9     | 939.2        | West       |
| 028598         | Mineral Exploration | ROOTY HILL                                                        | Department Of Mineral Resources  | Null         | 217.9     | 939.3        | West       |
| MSL_93/6       | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 941.1        | East       |
| MSL_01/317     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 944.4        | East       |
| MSL_00/206     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 949.5        | East       |
| MSL_01/316     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 986.8        | East       |
| ECC_BH701      | Borehole            | Proposed New Waste Cell No 5 Eastern Creek                        | Waste Assets Management Corp     | 16/12/2010   | 15.0      | 1003.8       | East       |
| ECC_BH703      | Borehole            | Proposed New Waste Cell No 5 Eastern Creek                        | Waste Assets Management Corp     | 16/12/2010   | 5.0       | 1026.9       | East       |
| MSL_93/3       | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1028.8       | South-east |
| MSL_93/4       | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1028.9       | South-east |
| MSL_00/208     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1040.9       | East       |
| MSL_00/207     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1047.2       | East       |
| MSL_01/315     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1052.6       | East       |
| ECC_BH705      | Borehole            | Proposed New Waste Cell No 5 Eastern Creek                        | Waste Assets Management Corp     | 16/12/2010   | 5.0       | 1052.8       | East       |
| MSL_01/312     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1065.0       | East       |
| OW7            | Borehole            | Old Wallgrove Rd, Eastern Creek                                   | RMS                              | 21/03/2011   | 1.1       | 1075.9       | West       |
| MSL_80/3       | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1080.1       | East       |
| OW7TP          | Test Pit            | Old Wallgrove Rd, Eastern Creek                                   | RMS                              | 21/03/2011   | 2.0       | 1081.6       | West       |
| ECC_BH702      | Borehole            | Proposed New Waste Cell No 5 Eastern Creek                        | Waste Assets Management Corp     | 16/12/2010   | 15.0      | 1085.7       | East       |
| MSL_01/320     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1107.3       | East       |
| MSL_01/309     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1120.7       | East       |
| MSL_01/313     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1146.0       | East       |
| MSL_01/318     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1158.8       | East       |
| MSL_01/306     | Borehole            | Eastern Creek Data 1                                              | Null                             | Null         | 0.0       | 1183.3       | East       |
| TP8            | Test Pit            | SydneyMetroDatabase                                               | Null                             | Null         | 1.3       | 1188.8       | North      |
| BH05           | Borehole            | Old Wallgrove Rd, Eastern Creek                                   | RMS                              | 30/01/2013   | 5.0       | 1190.5       | West       |



| Borehole ID | Purpose  | Project                                                        | Client/ License              | Date Drilled | Depth (m) | Distance (m) | Direction |
|-------------|----------|----------------------------------------------------------------|------------------------------|--------------|-----------|--------------|-----------|
| ECC_BH704   | Borehole | Proposed New Waste Cell No 5 Eastern Creek                     | Waste Assets Management Corp | 16/12/2010   | 8.0       | 1201.7       | East      |
| MSL_01/314  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1213.1       | East      |
| MSL_01/310  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1213.3       | East      |
| MSL_80/5    | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1223.4       | East      |
| OW8TP       | Test Pit | Old Wallgrove Rd, Eastern Creek                                | RMS                          | 21/03/2011   | 2.3       | 1227.9       | West      |
| OW8         | Borehole | Old Wallgrove Rd, Eastern Creek                                | RMS                          | 21/03/2011   | 1.6       | 1231.4       | West      |
| MSL_01/319  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1243.9       | East      |
| MSL_01/307  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1263.8       | East      |
| MSL_00/201  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1274.7       | East      |
| MSL_01/311  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1277.1       | East      |
| MSL_80/4    | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1293.0       | East      |
| MSL_00/205  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1309.4       | East      |
| MSL_01/308  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1353.6       | East      |
| OW9         | Borehole | Old Wallgrove Rd, Eastern Creek                                | RMS                          | 21/03/2011   | 1.4       | 1378.1       | West      |
| OW9TP       | Test Pit | Old Wallgrove Rd, Eastern Creek                                | RMS                          | 21/03/2011   | 2.1       | 1379.1       | West      |
| MSL_00/204  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1386.5       | East      |
| BH6         | Borehole | Proposed New Aggregation Node Depot, Roberts Rd, Eastern Creek | Emerson Network PowerPty Ltd | 25/10/2011   | 3.3       | 1414.5       | West      |
| TP4         | Test Pit | SydneyMetroDatabase                                            | Null                         | Null         | 3.0       | 1432.5       | South     |
| MSL_01/305  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1433.4       | East      |
| BH5         | Borehole | Proposed New Aggregation Node Depot, Roberts Rd, Eastern Creek | Emerson Network PowerPty Ltd | 24/10/2011   | 1.2       | 1434.4       | West      |
| BH3         | Borehole | Proposed New Aggregation Node Depot, Roberts Rd, Eastern Creek | Emerson Network PowerPty Ltd | 24/10/2011   | 0.7       | 1450.6       | West      |
| BH02        | Borehole | Old Wallgrove Rd, Eastern Creek                                | RMS                          | 24/01/2013   | 5.5       | 1454.5       | West      |
| BH4         | Borehole | Proposed New Aggregation Node Depot, Roberts Rd, Eastern Creek | Emerson Network PowerPty Ltd | 25/10/2011   | 3.6       | 1458.3       | West      |
| BH2         | Borehole | Proposed New Aggregation Node Depot, Roberts Rd, Eastern Creek | Emerson Network PowerPty Ltd | 24/10/2011   | 3.6       | 1464.5       | West      |
| MSL_01/301  | Borehole | Eastern Creek Data 1                                           | Null                         | Null         | 0.0       | 1475.5       | East      |
| BH1         | Borehole | Proposed New Aggregation Node Depot, Roberts Rd, Eastern Creek | Emerson Network PowerPty Ltd | 24/10/2011   | 0.8       | 1490.4       | West      |

| Borehole ID | Purpose                 | Project                                                                                                             | Client/ License                                                                                                       | Date Drilled | Depth (m) | Distance (m) | Direction  |
|-------------|-------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------|-----------|--------------|------------|
| BH01 / MW01 | Borehole                | Great Western Distribution Centre                                                                                   | Great Western Distribution Centre                                                                                     | 23/03/2012   | 6.0       | 1505.2       | East       |
| BH02 / MW02 | Borehole                | Great Western Distribution Centre                                                                                   | Great Western Distribution Centre                                                                                     | 23/03/2012   | 6.0       | 1506.0       | East       |
| BH03 / MW03 | Borehole                | Great Western Distribution Centre                                                                                   | Great Western Distribution Centre                                                                                     | 23/03/2012   | 6.0       | 1514.8       | East       |
| BH01        | Borehole                | Old Wallgrove Rd, Eastern Creek                                                                                     | RMS                                                                                                                   | 13/02/2013   | 4.5       | 1515.3       | West       |
| RMS01       | Null                    | Old Walgrove Road                                                                                                   | RMS                                                                                                                   | 08/05/2014   | 0.0       | 1515.3       | West       |
| Null        | Null                    | Old Walgrove Road                                                                                                   | RMS                                                                                                                   | 08/05/2014   | 0.0       | 1515.3       | West       |
| MSL_01/304  | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 1516.2       | East       |
| MSL_01/302  | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 1524.9       | East       |
| MSL_00/202  | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                  | Null         | 0.0       | 1583.3       | East       |
| GT0000538   | Intrusive Investigation | A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD). | Drilling, Soil Sample Analysis, Standard Penetration Test (SPT) located at Chifley College Senior Campus : proposed d | 01/01/2012   | 0.0       | 1674.5       | West       |
| GT0000537   | Intrusive Investigation | A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD). | Site Inspection, Review existing documentation located at Chifley College Senior Campus : preliminary site contaminat | 01/01/2000   | 0.0       | 1674.5       | West       |
| GT0000536   | Intrusive Investigation | A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD). | Test Pits, Soil Sample Analysis located at Chifley College Senior Campus : geotechnical investigation / Peter Shun, G | 01/01/2000   | 0.0       | 1674.7       | West       |
| GT0003177   | Intrusive Investigation | A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD). | Drilling, Standard Penetration Test (SPT), Soil Sample Analysis, Core sample analysis located at Western Sydney Inter | 01/01/2010   | 0.0       | 1708.5       | East       |
| TP2         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                         | 29/07/2011   | 4.8       | 1731.1       | South-east |
| TP3         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                         | 29/07/2011   | 4.1       | 1732.7       | South-east |
| TP4         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                         | 29/07/2011   | 4.2       | 1743.1       | South-east |
| TP9         | Test Pit                | Characterisation of Soil Stockpile -                                                                                | Veolia Environmental Services                                                                                         | 29/07/2011   | 4.1       | 1758.5       | South-east |

| Borehole ID | Purpose                 | Project                                                                                                             | Client/ License                                                                                                        | Date Drilled | Depth (m) | Distance (m) | Direction  |
|-------------|-------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------|-----------|--------------|------------|
|             |                         | Horsley Park Landfill Site                                                                                          |                                                                                                                        |              |           |              |            |
| TP10        | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.2       | 1762.3       | South-east |
| TP5         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.3       | 1765.3       | South-east |
| TP8         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.1       | 1769.9       | South-east |
| TP6         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.3       | 1770.5       | South-east |
| TP7         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.7       | 1779.1       | South-east |
| TP12        | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.5       | 1788.7       | South-east |
| TP11        | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.1       | 1789.7       | South-east |
| TP1         | Test Pit                | Characterisation of Soil Stockpile - Horsley Park Landfill Site                                                     | Veolia Environmental Services                                                                                          | 29/07/2011   | 4.8       | 1791.2       | South-east |
| MSL_00/203  | Borehole                | Eastern Creek Data 1                                                                                                | Null                                                                                                                   | Null         | 0.0       | 1820.0       | East       |
| TP9         | Test Pit                | SydneyMetroDatabase                                                                                                 | Null                                                                                                                   | Null         | 2.6       | 1978.5       | North      |
| GT0002796   | Intrusive Investigation | A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD). | Test Pits, Soil Sample Analysis located at Sydney's Eastern Creek raceway : site investigation - Geotechnical Engineer | 01/01/1995   | 0.0       | 1995.3       | East       |

Note: The use of the symbol "-" or "Null" indicates that no records were found.



## Section 3 Environmental Registers, Licences and Incidents



### 3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

#### Contaminated Sites

| Register Type                  | Site Name                                              | Address                                   | Description     | Details                               | Distance (m) | Direction  |
|--------------------------------|--------------------------------------------------------|-------------------------------------------|-----------------|---------------------------------------|--------------|------------|
| Sites Notified as Contaminated | Infrabuild NSW Pty Ltd (formerly OneSteel NSW Pty Ltd) | 22 Kellogg ROAD ROOTY HILL                | Other Industry  | Regulation under CLM Act not required | 18.0         | North-east |
| Sites Notified as Contaminated | 7-Eleven (former Mobil) Service Station                | 815 Great Western HIGHWAY MINCHINBURY     | Service Station | Regulation under CLM Act not required | 582.7        | West       |
| Sites Notified as Contaminated | 7-Eleven (former Mobil) Service Station                | 106 Rooty Hill Road South ROAD ROOTY HILL | Service Station | Regulation under CLM Act not required | 643.0        | South-west |

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

| Table 3.1.1 Contaminated Land Public Register |                                             |                                                                                     |
|-----------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------|
| State                                         | Regulatory Body                             | Information included in this search (by state)                                      |
| ACT                                           | EPA (Environment Protection Authority)      | Contaminated Land Search Register of Contaminated Sites                             |
| NSW                                           | EPA (Environment Protection Authority)      | Sites Notified as Contaminated Records of Notices                                   |
| NT                                            | EPA (Environment Protection Authority)      | Contaminated Land Audit Pollution Abatement Notice                                  |
| QLD                                           | DES (Department of Environment and Science) | Contaminated Land Search (Environmental Management and Contaminated Land Registers) |

| Table 3.1.1 Contaminated Land Public Register |                                                         |                                                                           |
|-----------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------|
| <b>SA</b>                                     | EPA (Environment Protection Authority)                  | Site Contamination Index                                                  |
| <b>TAS</b>                                    | EPA (Environment Protection Authority)                  | Regulated Sites and Premises<br>Lutana and Parts of Hobarts Eastern Shore |
| <b>VIC</b>                                    | EPA (Environment Protection Authority)                  | Priority Sites Register<br>Pollution Abatement Notice                     |
| <b>WA</b>                                     | DWER (Department of Water and Environmental Regulation) | Contaminated Sites Database                                               |

This search contains information retrieved from the relevant state authority, agency/department, or government authority that notifies and identifies contaminated land. The list only contains contaminated sites that the regulatory body is aware of or that have been notified by owners or occupiers as contaminated land. The sites are recorded on the register at various stages of the assessment and/or remediation process. If a site is not on the list, it does not necessarily mean the site is not contaminated.

## 3.2 LICENCES, APPROVALS & ASSESSMENTS

## Map 3.2 (500m Buffer)

### Licences

| Licence N° | Type   | Licence holder                       | Location Name                         | Premise Address                   | Activity                                           | Dist. (m)* | Direct     |
|------------|--------|--------------------------------------|---------------------------------------|-----------------------------------|----------------------------------------------------|------------|------------|
| 12517      | Issued | SUEZ RECYCLING & RECOVERY PTY LTD    | EASTERN CREEK ORRF                    | WALLGROVE ROAD, EASTERN CREEK NSW | Non-thermal treatment of general waste             | 0.0        | Onsite     |
| 12517      | Issued | SUEZ RECYCLING & RECOVERY PTY LTD    | EASTERN CREEK ORRF                    | WALLGROVE ROAD, EASTERN CREEK NSW | Composting                                         | 0.0        | Onsite     |
| 5272       | Issued | WASTE ASSETS MANAGEMENT CORPORATION  | EASTERN CREEK WASTE MANAGEMENT CENTRE | WALLGROVE ROAD, EASTERN CREEK NSW | Waste disposal by application to land              | 0.0        | Onsite     |
| 5272       | Issued | WASTE ASSETS MANAGEMENT CORPORATION  | EASTERN CREEK WASTE MANAGEMENT CENTRE | WALLGROVE ROAD, EASTERN CREEK NSW | Non-thermal treatment of general waste             | 0.0        | Onsite     |
| 6125       | Issued | INFRABUILD NSW PTY LTD               | ONESTEEL SYDNEY STEEL MILL            | 22 KELLOGG ROAD, ROOTY HILL NSW   | Metal processing                                   | 18.1       | North-east |
| 6125       | Issued | INFRABUILD NSW PTY LTD               | ONESTEEL SYDNEY STEEL MILL            | 22 KELLOGG ROAD, ROOTY HILL NSW   | Iron or steel production (scrap metal)             | 18.1       | North-east |
| 6125       | Issued | INFRABUILD NSW PTY LTD               | ONESTEEL SYDNEY STEEL MILL            | 22 KELLOGG ROAD, ROOTY HILL NSW   | General chemicals storage                          | 18.1       | North-east |
| 6125       | Issued | INFRABUILD NSW PTY LTD               | ONESTEEL SYDNEY STEEL MILL            | 22 KELLOGG ROAD, ROOTY HILL NSW   | Crushing, grinding or separating                   | 18.1       | North-east |
| 6125       | Issued | INFRABUILD NSW PTY LTD               | ONESTEEL SYDNEY STEEL MILL            | 22 KELLOGG ROAD, ROOTY HILL NSW   | Chemical storage waste generation                  | 18.1       | North-east |
| 6125       | Issued | INFRABUILD NSW PTY LTD               | ONESTEEL SYDNEY STEEL MILL            | 22 KELLOGG ROAD, ROOTY HILL NSW   | Metal waste generation                             | 18.1       | North-east |
| 6125       | Issued | INFRABUILD NSW PTY LTD               | ONESTEEL SYDNEY STEEL MILL            | 22 KELLOGG ROAD, ROOTY HILL NSW   | Non-thermal treatment of hazardous and other waste | 18.1       | North-east |
| 11798      | Issued | EASTERN CREEK OPERATIONS PTY LIMITED | UR-3R FACILITY                        | WALLGROVE ROAD, EASTERN CREEK NSW | Composting                                         | 61.9       | South      |
| 11798      | Issued | EASTERN CREEK OPERATIONS PTY LIMITED | UR-3R FACILITY                        | WALLGROVE ROAD, EASTERN CREEK NSW | Non-thermal treatment of general waste             | 61.9       | South      |



| Licence N° | Type        | Licence holder                                    | Location Name                           | Premise Address                          | Activity                                | Dist. (m)* | Direct     |
|------------|-------------|---------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------|------------|------------|
| 11798      | Issued      | EASTERN CREEK OPERATIONS PTY LIMITED              | UR-3R FACILITY                          | WALLGROVE ROAD, EASTERN CREEK NSW        | Recovery of general waste               | 61.9       | South      |
| 11798      | Issued      | EASTERN CREEK OPERATIONS PTY LIMITED              | UR-3R FACILITY                          | WALLGROVE ROAD, EASTERN CREEK NSW        | Waste storage - other types of waste    | 61.9       | South      |
| 10042      | Issued      | EDL LFG (NSW) PTY LTD                             | EASTERN CREEK WASTE MANAGEMENT CENTRE   | WALLGROVE ROAD, EASTERN CREEK NSW        | Generation of electrical power from gas | 104.0      | East       |
| 11509      | Surrendered | INTERNATIONAL THEME PARK PTY LTD                  | INTERNATIONAL THEME PARK PTY LTD        | INTERNATIONAL THEME PARK PTY LTD         | Helicopter-related activity             | 104.3      | West       |
| 12454      | Issued      | ALUMINIUM SPECIALTIES GROUP PTY. LTD.             | ALUMINIUM SPECIALTIES GROUP PTY LIMITED | 3 ALSPEC PLACE, EASTERN CREEK NSW        | Metal waste generation                  | 104.9      | West       |
| 20672      | Surrendered | HOLCIM (AUSTRALIA) PTY LTD                        | HOLCIM (AUSTRALIA) PTY LTD              | 21 Kellogg Road, ROOTY HILL, NSW 2766    | Land-based extractive activity          | 271.6      | North-east |
| 546        | Issued      | THE AUSTRAL BRICK CO PTY LTD                      | AUSTRAL BRICK, PLANTS 1, 2 & 3.         | 738-780 WALLGROVE ROAD, HORSLEY PARK NSW | Mining for minerals                     | 461.9      | South      |
| 546        | Issued      | THE AUSTRAL BRICK CO PTY LTD                      | AUSTRAL BRICK, PLANTS 1, 2 & 3.         | 738-780 WALLGROVE ROAD, HORSLEY PARK NSW | Land-based extractive activity          | 461.9      | South      |
| 546        | Issued      | THE AUSTRAL BRICK CO PTY LTD                      | AUSTRAL BRICK, PLANTS 1, 2 & 3.         | 738-780 WALLGROVE ROAD, HORSLEY PARK NSW | Crushing, grinding or separating        | 461.9      | South      |
| 546        | Issued      | THE AUSTRAL BRICK CO PTY LTD                      | AUSTRAL BRICK, PLANTS 1, 2 & 3.         | 738-780 WALLGROVE ROAD, HORSLEY PARK NSW | Concrete works                          | 461.9      | South      |
| 546        | Issued      | THE AUSTRAL BRICK CO PTY LTD                      | AUSTRAL BRICK, PLANTS 1, 2 & 3.         | 738-780 WALLGROVE ROAD, HORSLEY PARK NSW | Ceramics production                     | 461.9      | South      |
| 546        | Issued      | THE AUSTRAL BRICK CO PTY LTD                      | AUSTRAL BRICK, PLANTS 1, 2 & 3.         | 738-780 WALLGROVE ROAD, HORSLEY PARK NSW | Ceramic waste generation                | 461.9      | South      |
| 11584      | Issued      | VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD | HORSLEY PARK WASTE MANAGEMENT FACILITY  | Wallgrove Road, HORSLEY PARK NSW         | Composting                              | 767.9      | South      |
| 11584      | Issued      | VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD | HORSLEY PARK WASTE MANAGEMENT FACILITY  | Wallgrove Road, HORSLEY PARK NSW         | Non-thermal treatment of general waste  | 767.9      | South      |
| 11584      | Issued      | VEOLIA ENVIRONMENTAL SERVICES                     | HORSLEY PARK WASTE MANAGEMENT FACILITY  | Wallgrove Road, HORSLEY PARK NSW         | Waste disposal by application to land   | 767.9      | South      |

| Licence N° | Type        | Licence holder                                    | Location Name                                                                                                          | Premise Address                                                                                           | Activity                                                               | Dist. (m)* | Direct     |
|------------|-------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------|------------|
|            |             | (AUSTRALIA) PTY LTD                               |                                                                                                                        |                                                                                                           |                                                                        |            |            |
| 20339      | Issued      | VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD | HORSLEY PARK RESOURCE RECOVERY FACILITY                                                                                | Wallgrove Road, HORSLEY PARK NSW                                                                          | Recovery of general waste                                              | 767.9      | South      |
| 20339      | Issued      | VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD | HORSLEY PARK RESOURCE RECOVERY FACILITY                                                                                | Wallgrove Road, HORSLEY PARK NSW                                                                          | Waste storage - other types of waste                                   | 767.9      | South      |
| 1310       | Issued      | HOLCIM (AUSTRALIA) PTY LTD                        | HUMES BLACKTOWN                                                                                                        | 604 WOODSTOCK AVENUE, ROOTY HILL NSW                                                                      | Concrete works                                                         | 810.0      | North      |
| 12569      | Issued      | LMS ENERGY PTY LTD                                | Eastern Creek 2 Gas Utilisation Facility                                                                               | Ferrers Road, EASTERN CREEK NSW                                                                           | Generation of electrical power otherwise than from coal, diesel or gas | 830.4      | East       |
| 3511       | Issued      | MICHAEL MIZZI                                     | GEORGE BORG PIGGERY                                                                                                    | 66-104 BURLEY ROAD, HORSLEY PARK NSW                                                                      | Pig accommodation                                                      | 966.7      | South      |
| 13421      | Issued      | UGL REGIONAL LINX PTY LTD                         | Country Regional Network                                                                                               | COUNTRY REGIONAL NETWORK, ORANGE, NSW, 2800                                                               | Railway infrastructure operations                                      | Not mapped | Not mapped |
| 11875      | Surrendered | ACCIONA INFRASTRUCTURE PROJECTS AUSTRALIA PTY LTD | WESTLINK M7 FROM CONNECTION WITH M5 AT CAMDEN VALLEY WAY TO CONNECTION WITH M2 AT BAULKHAM HILLS, BLACKTOWN, NSW, 2148 | FROM CONNECTION WITH M5 AT CAMDEN VALLEY WAY TO CONNECTION WITH M2 AT BAULKHAM HILLS, BLACKTOWN, NSW 2148 | Crushing, grinding or separating Road construction Concrete works      | Not mapped | Not mapped |

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

\* Not mapped - Licences that are applied to larger areas and/or without specific definition; such as waterways, forests etc will still be identified in the search results but will not be show within the map.

## Audits

| N°             | Type | Licence holder | Location Name | Premise Address | Activity | Dist. (m)* | Direction |
|----------------|------|----------------|---------------|-----------------|----------|------------|-----------|
| Not identified | -    | -              | -             | -               | -        | -          | -         |

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

## Clean Up, Penalty Notices and Orders

| Nº         | Type            | Licence holder                                    | Location Name                          | Premise Address                          | Details                                                       | Dist. (m)* | Direction  |
|------------|-----------------|---------------------------------------------------|----------------------------------------|------------------------------------------|---------------------------------------------------------------|------------|------------|
| 1512765    | Penalty Notice  | SUEZ RECYCLING & RECOVERY PTY LTD                 | EASTERN CREEK ORRF                     | WALLGROVE ROAD, KINGSGROVE DC            | Contravene any condition of licence - not noise - corporation | 0.0        | Onsite     |
| 1522267    | Penalty Notice  | SUEZ RECYCLING & RECOVERY PTY LTD                 | EASTERN CREEK ORRF                     | WALLGROVE ROAD, KINGSGROVE DC            | Contravene any condition of licence - not noise - corporation | 0.0        | Onsite     |
| 1505903    | Penalty Notice  | WASTE ASSETS MANAGEMENT CORPORATION               | EASTERN CREEK WASTE MANAGEMENT CENTRE  | WALLGROVE ROAD, KINGSGROVE DC            | Contravene any condition of licence - not noise - corporation | 0.0        | Onsite     |
| 1539697    | Penalty Notice  | SUEZ RECYCLING & RECOVERY PTY LTD                 | EASTERN CREEK ORRF                     | WALLGROVE ROAD, KINGSGROVE DC            | Contravene condition of licence - Corporation                 | 0.0        | Onsite     |
| 1507601    | Penalty Notice  | WASTE ASSETS MANAGEMENT CORPORATION               | EASTERN CREEK WASTE MANAGEMENT CENTRE  | WALLGROVE ROAD, EASTERN CREEK, NSW 2766  | Contravene section by emission of odours - Corporation        | 0.0        | Onsite     |
| 1115192    | Clean Up Notice | WASTE ASSETS MANAGEMENT CORPORATION               | EASTERN CREEK WASTE MANAGEMENT CENTRE  | WALLGROVE ROAD, EASTERN CREEK, NSW, 2766 | s.91 Clean Up Notice                                          | 0.0        | Onsite     |
| 1533413    | Clean Up Notice | SUEZ RECYCLING & RECOVERY PTY LTD                 | EASTERN CREEK ORRF                     | WALLGROVE ROAD,                          | s.91 Clean Up Notice                                          | 0.0        | Onsite     |
| 3085772297 | Penalty Notice  | INFRABUILD NSW PTY LTD                            | ONESTEEL SYDNEY STEEL MILL             | 22 Kellogg ROAD ROOTY HILL               | Contravene any condition of licence - not noise - corporation | 18.1       | North-east |
| 1507607    | Penalty Notice  | EASTERN CREEK OPERATIONS PTY LIMITED              | UR-3R FACILITY                         | WALLGROVE ROAD, HORSLEY PARK             | Contravene section by emission of odours - Corporation        | 61.9       | South      |
| 1555616    | Penalty Notice  | EASTERN CREEK OPERATIONS PTY LIMITED              | UR-3R FACILITY                         | WALLGROVE ROAD, HORSLEY PARK             | Contravene section by emission of odours - Corporation        | 61.9       | South      |
| 1046507    | Clean Up Notice | EASTERN CREEK OPERATIONS PTY LIMITED              | UR-3R FACILITY                         | WALLGROVE ROAD, EASTERN CREEK, NSW, 2766 | s.91 Clean Up Notice                                          | 61.9       | South      |
| 1511275    | Clean Up Notice | INVOCARE AUSTRALIA PTY LIMITED                    | Pinegrove Memorial Park                | 28 Walgrove Rd,                          | s.91 Clean Up Notice                                          | 104.3      | West       |
| 1539972    | Penalty Notice  | VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD | HORSLEY PARK WASTE MANAGEMENT FACILITY | Wallgrove Road, GRANVILLE                | Contravene section by emission of odours - Corporation        | 767.9      | South      |

| Nº         | Type            | Licence holder                                    | Location Name                                   | Premise Address                                 | Details                                                                  | Dist. (m)* | Direction  |
|------------|-----------------|---------------------------------------------------|-------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------|------------|------------|
| 1607359    | Clean Up Notice | VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD | HORSLEY PARK WASTE MANAGEMENT FACILITY          | Wallgrove Road, HORSLEY PARK, NSW, 2175         | s.91 Clean Up Notice                                                     | 767.9      | South      |
| 1518534    | Clean Up Notice | MICHAEL ANGELO MIZZI                              | GEORGE BORG PIGGERY                             | 66-104 BURLEY ROAD,                             | s.91 Clean Up Notice                                                     | 986.0      | South-west |
| 3173530351 | Penalty Notice  | HAMED KAAB                                        | 763-783 WALLGROVE ROAD, HORSLEY PARK, NSW, 2175 | 763-783 WALLGROVE ROAD, HORSLEY PARK, NSW, 2175 | Not state name/address when requested by authorised officer - Individual | 993.3      | South      |

*If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.*

## Contaminated Legacy Areas

| Site Name      | Description | Distance (m) | Direction |
|----------------|-------------|--------------|-----------|
| Not identified | -           | -            | -         |

Includes known contaminated areas such as James Hardies Asbestos waste legacy areas, Pasminco Smelter and Uranium processing site.

## Defence, Military Sites and UXO Areas

| Site name                   | Type*                         | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Distance (m) | Direction |
|-----------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| Wallgrove Defence Base      | Defence Area / Military Sites | During World War 2, the Wallgrove Army Camp was used for training soldiers before they were sent overseas. The camp housed around 5000 troops. A number of units trained, or formed their headquarters at Wallgrove during WWII. In July 1940, the 2/18th Australian Infantry Battalion, 2/19th Australian Infantry Battalion and 2/20th Australian Infantry Battalion, established their headquarters at Wallgrove. After World War 2, the Wallgrove Army Camp was later used as a migrant hostel. Some of the original camp site was used by the Australian Defence Force until the 1990s. (Blacktown City Council)                                                                                                                                                                                                                                                           | 0.0          | Onsite    |
| Wallgrove                   | Unexploded Ordnance (UXO)     | Potential presence of UXO: Slight potential - This site was used as a Grenade Range during WWII. (Source: Defence's National Unexploded Ordnance Program (NUXOP))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 171.0        | West      |
| Wallgrove Aerodrome         | Defence Area / Military Sites | Wallgrove Aerodrome was a RAAF training site and as an overshoot runway for the nearby Schofields airbase during World War II. The aerodrome was built in 1942 and the runway was 5000ft (1524m) long and 150ft (45.72m) wide was constructed of compressed gravel with aircraft hides and taxi ways to the south. The runway extended on the southern side of Bungaribee Creek, in a southwesterly direction from close to the junction of Eastern and Bungaribee Creeks, crossing Doonside Road and ending near McCormack Street (Arndell Park). After World War II the aerodrome was closed in 1946 and reverted to farmland. A number of former revetments are still in existence and the runway can still be located. An industrial area has been built over the southern end of the aerodrome. (Source: <a href="https://en.wikipedia.org">https://en.wikipedia.org</a> ) | 236.3        | East      |
| Former Prospect Rifle Range | Defence Area / Military Sites | This site was used as a WWII rifle range (Small Arms Ammunition (SAA). No evidence has been identified that it was used for any potential UXO producing activities. Operating from ~1939-1986 (Source: Department of Defence Australia)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1810.5       | East      |



| Site name | Type*                     | Details                                                                                                                                                                                                                                                                 | Distance (m) | Direction |
|-----------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| Prospect  | Unexploded Ordnance (UXO) | Potential presence of UXO: Other - This site was used as a WWII rifle range (Small Arms Ammunition (SAA). No evidence has been identified that it was used for any potential UXO producing activities. (Source: Defence's National Unexploded Ordnance Program (NUXOP)) | 1813.5       | East      |

\*RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)

#### Former Gasworks Sites

| Site name      | Description | Distance (m) | Direction |
|----------------|-------------|--------------|-----------|
| Not identified | -           | -            | -         |

#### PFAS Sites

| Site name                 | Type                              | Details                                                       | Distance (m) * | Direction |
|---------------------------|-----------------------------------|---------------------------------------------------------------|----------------|-----------|
| Mount Druitt Fire Station | Potential historical use of PFAS. | Fire station built in 1970. Potential historical use of PFAS. | 1564.6         | West      |

### 3.3b OTHER POTENTIAL HAZARD SOURCES

#### Map 3.3b (500m Buffer)

#### Mines and Quarries (current and historical)

| Site name                         | Description                                                                                                                                                                                                                                                                                                                                                                                                             | Status  | Distance (m) | Direction |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|-----------|
| Eastern Creek Waste Depot         | Clays - Bringelly Shale   Site operated as waste depot by Waste Recycling & Processing Service of NSW. Clay/shale is extracted to create void space and some of the excavated materials (mainly light-firing) are sold to brick manufacturers. Estimated pale firing resource of abt 2Mt. (The Geological Survey of NSW, Department of Primary Industries)                                                              | Current | 0.0          | Onsite    |
| Wallgrove                         | Major commodities: clay/shale - structural - Bringelly Shale   Area bound by Reedy Creek, Wallgrove Road & Prospect water supply pipe lines was; investigated in 1969. Area has 2 pits for clay extraction for pipe manufacture by Punchbowl Brick & Pipe (late 1960s & early 1970s). Rehabilitated. Observed through analysis of historical aerial imagery until early 2000's.(source: various, Land Insight Research) | Former  | 85.5         | West      |
| Austral Bricks (Plant 1, Plant 2) | Brick manufacturer. Major commodities: clay/shale - structural - Austral operate 3 sites in the Horsley Park-Wallgrove area (SITES 1147, 1148 & 1145). All production from all Austral Wallgrove sites recorded herein. Operated since about 1961. Two pits (plants 1 & 2) (The Geological Survey of NSW)                                                                                                               | Current | 461.9        | South     |

### Landfills (current and historical)

| Site name                             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Status  | Distance (m) | Direction |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|-----------|
| Waste Management Centre               | Distinct land anomalies bearing resemblance to landfilling and/or other forms of land disturbance and disposal. Analysis of historical aerial imagery captured between early 1990's and ~2005. (Land Insight research)                                                                                                                                                                                                                                                              | Former  | 0.0          | Onsite    |
| Eastern Creek Waste Management Centre | Eastern Creek Resource Recovery Park in Sydney's west is home to two innovative waste processing facilities: an ORRF, diverting organics from landfill and converting them into valuable resources for healthy plant growth; and an ARRT, which uses advanced specialist technologies to recover and recycle more from waste. Together, these facilities lead the change from traditional waste disposal to economically sustainable resource recovery solutions. (Veolia Jun 2023) | Current | 0.0          | Onsite    |

### National Pollutant Inventory (NPI)

| Facility name                                           | Address                                                             | Primary ANZSIC Class                                                                                | Latest report | Distance (m) | Direction  |
|---------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------|--------------|------------|
| Eastern Creek Waste Management Centre (closed landfill) | Wallgrove Road, Eastern Creek                                       | Solid waste landfill - closed 2002                                                                  | 2011/2012     | 0.0          | Onsite     |
| Eastern Creek Waste Management Centre                   | Wallgrove Road, Eastern Creek                                       | Solid waste landfilling.                                                                            | 2017/2018     | 0.0          | Onsite     |
| Eastern Creek                                           | Eastern Creek Waste Management Centre Wallgrove Road, Eastern Creek | Electricity generation n.e.c.                                                                       | 2020/2021     | 15.1         | East       |
| InfraBuild Sydney Steel Mill                            | 22 Kellogg Road, Rooty Hill                                         | Making steel using an electric arc furnace and continuous caster. Manufacturer of structural steel. | 2020/2021     | 16.7         | North-east |
| UR-3R facility                                          | Wallgrove Road, Eastern Creek                                       | Waste treatment - recycling of household waste                                                      | 2009/2010     | 63.3         | South      |
| Coca-Cola Amatil Eastern Creek                          | 9 Rousell Rd, Eastern Creek                                         | Warehousing and distribution of beverages. Production of PET preforms and HDPE closures             | 2019/2020     | 259.7        | West       |
| Austral Brick Plants 1,2,3 Horsley Park                 | 738-780 Wallgrove Road, Horsley Park                                | Mining, crushing, extrusion, drying, firing, packaging (brick making).                              | 2020/2021     | 463.2        | South      |



## Section 4 Potentially Contaminated Areas



### 4.1 POTENTIALLY CONTAMINATING ACTIVITIES

Map 4.1 (200m Buffer)

#### Liquid Fuel Facilities

| Site name                  | Category                           | Description    | Address                                | Status* | Dist. (m)* | Direction |
|----------------------------|------------------------------------|----------------|----------------------------------------|---------|------------|-----------|
| Premiair Fuels Pty Ltd     | Petrol Stations and Fuel Terminals | Petrol Station | 26 Clay Pl, Eastern Creek NSW 2766     | Current | 37.6       | West      |
| bp Truckstop Eastern Creek | Petrol Stations and Fuel Terminals | Petrol Station | 1 Wallgrove Rd, Eastern Creek NSW 2766 | Current | 120.6      | West      |

#### Waste Management Facilities & Recycling Centres

| Site name                             | Category                       | Description              | Address                              | Status* | Dist. (m)* | Direction |
|---------------------------------------|--------------------------------|--------------------------|--------------------------------------|---------|------------|-----------|
| Eastern Creek Waste Management Centre | Waste and Recycling Facilities | Waste management service | Wallgrove Rd, Eastern Creek NSW 2766 | Current | 15.3       | East      |

**\*Status:** Information is current as when this report was created.

The operational status of the business is determined using the available data sources and does not indicate real-time conditions at the site.

Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued within 2 years from the date of this report.

Liquid Fuel Facilities Datasets, representing the spatial locations of liquid fuel depots, refineries, terminals and petrol stations present in the Australian Government National Liquid Fuel Facilities Dataset and Petrol stations identified by Land Insights. Waste Management Facilities, representing the spatial locations of reprocessing facilities, transfer stations and landfills present in the Australian Government National Waste Management Facilities Dataset and Waste/Recycling facilities identified by Land Insights.

A more comprehensive list of all Potentially Contaminating Activities is available in the Due Diligence Insight report.

## 4.2 HISTORICAL BUSINESS DIRECTORIES

(not mapped)

| YEAR | Activity                                 | Name                       | Address                                                         | Positional accuracy | Distance (m) | Direction  |
|------|------------------------------------------|----------------------------|-----------------------------------------------------------------|---------------------|--------------|------------|
| 1970 | Earth Moving Equipment                   | East A A & M               | 93 Eastern Road, Rooty Hill, NSW                                | Address             | 42.9         | North-east |
| 2010 | Florists - Products & Supplies           | Linton Fresh Flowers       | Warehouse 102A Wallgrove Rd HORSLEY PARK 2175 NSW               | Address             | 58.6         | West       |
| 2005 | Florists--W'sale                         | Linton Fresh Flowers       | Warehouse 102a Wallgrove Rd, HORSLEY PARK, NSW, 2175            | Address             | 59.4         | West       |
| 1980 | Florists - W'sale                        | Glansante Anthony          | 102 Wallgrove Road, Horsley Park, NSW                           | Address             | 59.4         | West       |
| 1970 | Florists-W'sale                          | Glansante Anthony          | 102 Wallgrove Road, Horsley Park, NSW                           | Address             | 59.4         | West       |
| 2015 | Tyre Retailers                           | Bridgestone Select         | 2 Clay Pl Eastern Creek NSW 2766                                | Address             | 82.1         | West       |
| 2010 | Tyre Retailers                           | Bridgestone Select         | 2 Clay Pl EASTERN CREEK 2766 NSW                                | Address             | 89.3         | West       |
| 2010 | Welding                                  | Micks Mobile Welding       | 27 Mavis St ROOTY HILL 2766 NSW                                 | Address             | 106.8        | South-west |
| 2005 | Welding Services                         | Micks Mobile Welding       | 27 Mavis St, ROOTY HILL, NSW, 2766                              | Address             | 106.8        | South-west |
| 2015 | Welding                                  | Micks Mobile Welding       | 27 Mavis St Rooty Hill NSW 2766                                 | Address             | 107.6        | South-west |
| 2015 | Stone Masons Stonework & Masonry         | Bekic Stone Art            | Lot 2 Woolgrove Rd Eastern Creek NSW 2766                       | Address             | 165.4        | West       |
| 2015 | Glass Processing & Manufacturing         | C R Laurence               | 9 Shale Pl Eastern Creek NSW 2766                               | Address             | 167.3        | West       |
| 1980 | Nurserymen - W'sale                      | Cecil Park Orchids         | 1 Wallgrove Road, Cecil Park, NSW                               | Address             | 172.6        | West       |
| 2015 | Plastic Products M/Factrs & W/Salers     | Australian Sheet Traders   | 2/ 5 Clay Pl Eastern Creek NSW 2766                             | Address             | 187.8        | West       |
| 2010 | Plastic Products M/factrs & W/salers     | Australian Sheet Traders   | 2/ 5 Clay Pl EASTERN CREEK 2766 NSW                             | Address             | 191.1        | West       |
| 1965 | Publishers                               | John Hinton Pty Ltd        | 76, CArcher, NSW                                                | Address             | 191.4        | West       |
| 2010 | Car Replacement Parts                    | Boyded Distribution        | 5 Wonderland Dr EASTERN CREEK 2766 NSW                          | Address             | 193.9        | West       |
| 2010 | Sheet Metal Workers                      | Emolior Industries Pty Ltd | Unit 2 2 Shale Pl EASTERN CREEK 2766 NSW                        | Address             | 196.0        | West       |
| 1970 | Bitumen Products                         | Pioneer Asphalts Pty Ltd   | Great Western Highway, Wallgrove, NSW                           | Street              |              | West       |
| 1990 | Cemeteries                               | Pine Grove Memorial Park   | Cnr. Great Western Highway & Wallgrove Road, Eastern Creek, NSW | Street              |              | West       |
| 1990 | Cremation                                | Pine Grove Memorial Park   | Cnr Great Western Highway & Wallgrove Road, Eastern Creek, NSW  | Street              |              | West       |
| 2005 | Cemeteries; Cremation; Funeral Directors | Pine Grove Memorial Park   | Cnr Great Western Hwy & Wallgrove Rd, EASTERN CREEK, NSW, 2766  | Street              |              | West       |

| YEAR | Activity                                                                                                            | Name                                              | Address                                                        | Positional accuracy | Distance (m) | Direction |
|------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------|---------------------|--------------|-----------|
| 1970 | Asphalt Mfrs.                                                                                                       | Pioneer Asphalts Pty Ltd                          | Great Western Highway, Wallgrove,NSW                           | Street              |              | West      |
| 1970 | Road Contractors                                                                                                    | Pioneer Asphalts Pty Ltd                          | Great Western Highway, Wallgrove,NSW                           | Street              |              | West      |
| 1980 | Paving - Asphalt &/or Bitumen                                                                                       | Pioneer Asphalts Pty Ltd                          | Great Western Highway, Wallgrove,NSW                           | Street              |              | West      |
| 1980 | Paving - Asphalt &/or Bitumen                                                                                       | Pioneer Asphalts Pty Ltd                          | Great Western Highway, Wallgrove,NSW                           | Street              |              | West      |
| 1990 | Cremation                                                                                                           | Pine Grove Memorial Park                          | Cnr. Great Western Highway & Wallgrove Road, Eastern Creek,NSW | Street              |              | West      |
| 1980 | Sand, Soil & Gravel Supplies                                                                                        | Pioneer Concrete (NSW) Pty Ltd - Wallgrove Quarry | Great Western Highway, Wallgrove,NSW                           | Street              |              | West      |
| 2005 | Excavating & Earth Moving Contractors                                                                               | Aerolift Industries Pty Ltd                       | Wallgrove Rd, EASTERN CREEK,NSW,2766                           | Street              |              | West      |
| 1980 | Dairies                                                                                                             | Reen John F.                                      | Dog Kennel Road, Eastern Creek,NSW                             | Street              |              | West      |
| 1970 | Dairies                                                                                                             | Shamrock Dairy                                    | Dog Kennel Road, Eastern Creek,NSW                             | Street              |              | West      |
| 1970 | Dairies                                                                                                             | Reen John F                                       | Dog Kennel Road, Eastern Creek,NSW                             | Street              |              | West      |
| 2005 | Furniture Mfrs' Supplies; Kitchens, Renovations & Equipment; Laminates & Laminated Panels; Cabinet Makers' Supplies | Nover & Co Pty Ltd, Eastern creek                 | Western Sydney, EASTERN CREEK, NSW,2766                        | Street              |              | West      |
| 1990 | Waste Reduction & Disposal Services                                                                                 | Waste Management Authority Of NSW                 | Wallgrove Road, Eastern Creek,NSW                              | Street              |              | West      |
| 2010 | Waste Reduction & Disposal Equipment & Machinery                                                                    | Waste Service Nsw                                 | Wallgrove Rd EASTERN CREEK 2766 NSW                            | Street              |              | West      |
| 1980 | Graziers                                                                                                            | Morris B N                                        | Reedy Creek, The Lagoon,NSW                                    | Street              |              | West      |
| 2010 | Waste Reduction & Disposal Equipment & Machinery                                                                    | Waste & Recycling Centre                          | Wallgrove Rd EASTERN CREEK 2766 NSW                            | Street              |              | West      |
| 2015 | Waste Reduction & Disposal Equipment & Machinery                                                                    | Waste & Recycling Centre                          | Wallgrove Rd Eastern Creek NSW 2766                            | Street              |              | West      |
| 2015 | Recyclers                                                                                                           | Waste Service NSW                                 | Wallgrove Rd Eastern Creek NSW 2766                            | Street              |              | West      |
| 1980 | Quarries                                                                                                            | Pioneer Concrete (NSW) Pty Ltd - Wallgrove Quarry | Great Western Highway, Wallgrove,NSW                           | Street              |              | West      |



| YEAR | Activity                                                                                      | Name                                        | Address                          | Positional accuracy | Distance (m) | Direction |
|------|-----------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------|---------------------|--------------|-----------|
| 1980 | General Stores                                                                                | Shuttleworth R N                            | Belmore Road, Eastern Creek, NSW | Street              |              | West      |
| 2005 | Go-Kart Hire; Function Centres & Organisers; Event Management; Sports Promoters & Consultants | Eastern Creek International Karting Raceway | EASTERN CREEK, NSW, 2766         | Suburb              |              | West      |
| 2005 | Furniture Removals & Storage                                                                  | Rooty Hill Removals & Storage               | EASTERN CREEK, NSW, 2766         | Suburb              |              | West      |
| 2005 | Ceilings; Plasterers--Plasterboard Fixers                                                     | Telik Ceiling Systems Pty Ltd               | EASTERN CREEK, NSW, 2766         | Suburb              |              | West      |
| 2005 | Plasterers--Plasterboard Fixers                                                               | Telik Ceiling Systems Pty Ltd.              | EASTERN CREEK, NSW, 2766         | Suburb              |              | West      |
| 2005 | Water Beds                                                                                    | 'All Round' Professional Waterbed Services  | EASTERN CREEK, NSW, 2766         | Suburb              |              | West      |
| 2005 | Motor Body Trimmers; Canopies--Motor & Boat                                                   | Unique Marine & Auto Upholstery             | EASTERN CREEK, NSW, 2766         | Suburb              |              | West      |

Land Insight uses a number of address geocoding techniques and has characterised them based on completeness (match rates) and positional accuracy. When a historical street address is incomplete or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. An explanation of the positional accuracy records is defined in the table below.

| Historical data positional accuracy and georeferencing results explanation |                                               |                                                                                                                            |
|----------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Positional accuracy                                                        | Georeferenced                                 | Description                                                                                                                |
| Address                                                                    | Located to the address level                  | <i>When street address and names fully match.</i>                                                                          |
| Street                                                                     | Located to the street centroid                | <i>When street names match but no exact address was found. Location is approximate.</i>                                    |
| Place                                                                      | Located to the structure, building or complex | <i>When building, residential complex or structure name match but no exact address was found. Location is approximate.</i> |
| Suburb                                                                     | Located to the suburb area                    | <i>When suburb name match but no exact address was found. Location is approximate.</i>                                     |

The data used in this section was extracted from range of historical commercial trade directories and business listings. The business addresses were geocoded using historical information and the accuracy of the data may vary due to changes to the physical address at a given locality over time or the quality of the original records. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. On this basis, reliance on the historic listing data should be considered when assessing the risk of contamination from an activity at the site. The presence of a business listing does not definitively confirm the actual activity that has occurred at the site. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at [info@landinsight.co](mailto:info@landinsight.co).

Historical business directory listings have been filtered to match activities and industries identified as PCAs in Section 4.1. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.





## Section 5 Natural Hazards



### 5.1 Fire Hazard

#### Map 5.1 (500m Buffer)

#### Bushfire Prone Areas

| Category            | Type                  | Details                                                                                                                                                                                                                   | Distance (m) | Direction |
|---------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| Bushfire Prone Area | Vegetation Buffer     | Vegetation Buffer - Bush Fire Prone is an area of land that can support a bush fire or is likely to be subject to bush fire attack. Bush Fire Prone Land areas becomes the trigger for planning for bush fire protection. | 0.0          | Onsite    |
| Bushfire Prone Area | Vegetation Category 2 | Bushfire Prone Area - Vegetation Category 2 is considered to be a lower bush fire risk. Bush Fire Prone Areas becomes the trigger for planning for bush fire protection.                                                  | 0.0          | Onsite    |
| Bushfire Prone Area | Vegetation Category 1 | Bushfire Prone Area - Vegetation Category 1 is considered to be the highest risk for bush fire. Bush Fire Prone Areas becomes the trigger for planning for bush fire protection.                                          | 2.8          | North     |

#### Bushfire History

| Type     | Season  | Details               | Distance (m) | Direction |
|----------|---------|-----------------------|--------------|-----------|
| Wildfire | 2002-03 | Eastern Creek Raceway | 11.1         | East      |

## 5.2 Flood Hazard

### Map 5.2 (500m Buffer)

#### Flood Planning Area

| Category       | Type | Details | Distance (m) | Direction |
|----------------|------|---------|--------------|-----------|
| Not identified | -    | -       | -            | -         |

#### Other Flood Studies

| Category                 | Type                         | Details                              | Distance (m) | Direction |
|--------------------------|------------------------------|--------------------------------------|--------------|-----------|
| Flood Inundation Studies | Probable Maximum Flood (PMF) | Blacktown City Council Flood Mapping | 0.0          | Onsite    |

#### Flood History

| Type           | Season | Details | Distance (m) | Direction |
|----------------|--------|---------|--------------|-----------|
| Not identified | -      | -       | -            | -         |

The list provided is not comprehensive and does not consider all flood history. It only includes the information that is currently available.

## 5.3 Erosion Hazard

### Map 5.3 (500m Buffer)

#### Erosion Hazard

| Category              | Type                                  | Details      | Distance (m) | Direction  |
|-----------------------|---------------------------------------|--------------|--------------|------------|
| Landslip Erosion Risk | Very severe limitations               | Very High    | 0.0          | Onsite     |
|                       | Very slight to negligible limitations | Very Low     | 0.0          | Onsite     |
|                       | Not assessed                          | Not Assessed | 262.2        | West       |
| Water Erosion Risk    | Severe limitations                    | High         | 0.0          | Onsite     |
|                       | Moderate to severe limitations        | Moderate     | 126.4        | North-west |
|                       | Not assessed                          | Not Assessed | 262.2        | West       |
| Wind Erosion Risk     | Very slight to negligible limitations | Very Low     | 0.0          | Onsite     |
|                       | Not assessed                          | Not Assessed | 262.2        | West       |

**Table 5.2.1 – Flood Hazard definitions and explanations**

**Annual Exceedance Probability (AEP)** - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance

|         |                                                                                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.2%AEP | A flood event of this size is considered rare but may still occur. A flood of size or larger has a 1 in 500 chance or a 0.2% probability of occurring in any year |
| 1% AEP  | A flood of this size or larger has a 1 in 100 chance or a 1% probability of occurring in any year                                                                 |
| 2% AEP  | A flood of this size or larger has a 1 in 50 chance or a 2% probability of occurring in any year.                                                                 |
| 5% AEP  | A flood of this size or larger has a 1 in 20 chance or a 5% probability of occurring in any year                                                                  |
| 20%AEP  | A flood of this size or larger has a 1 in 5 chance or a 20% probability of occurring in any year.                                                                 |

**Table 5.2.1 – Flood Hazard definitions and explanations**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Average Recurrence Interval (ARI).</b> The long-term average number of years between the occurrence of a flood as big as, or larger than, the selected event. For example, floods reaching a height as great as, or greater than, the 20 year ARI flood event will occur on average once every 20 years                                                                                                                                                           |
| <b>Flood Liable Land</b> - Synonymous with flood prone land, i.e. land susceptible to flooding by the Probable Maximum Flood (PMF) event. Note that the term flood liable land covers the whole floodplain, not just the part below the flood planning level                                                                                                                                                                                                         |
| <b>Flood Planning Area (FPA)</b> – Councils develop Flood Planning Areas (FPAs) as part of Flood Overlay mapping to guide future building and development in flood prone areas. The FPAs are designed to recognise the flood hazard for different flooding types.                                                                                                                                                                                                    |
| <b>Flood Hazard</b> - Flood hazard is a combination of frequency of flooding, the flood depth, and the speed or velocity at which the water can travel.                                                                                                                                                                                                                                                                                                              |
| <b>Probable Maximum Flood (PMF)</b> - The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of $10^{-4}$ to $10^{-7}$ (once in 10,000 to 10,000,000 years) |





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Sydney NSW 2000 Australia  
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[www.landinsight.co](http://www.landinsight.co)



# Appendix A

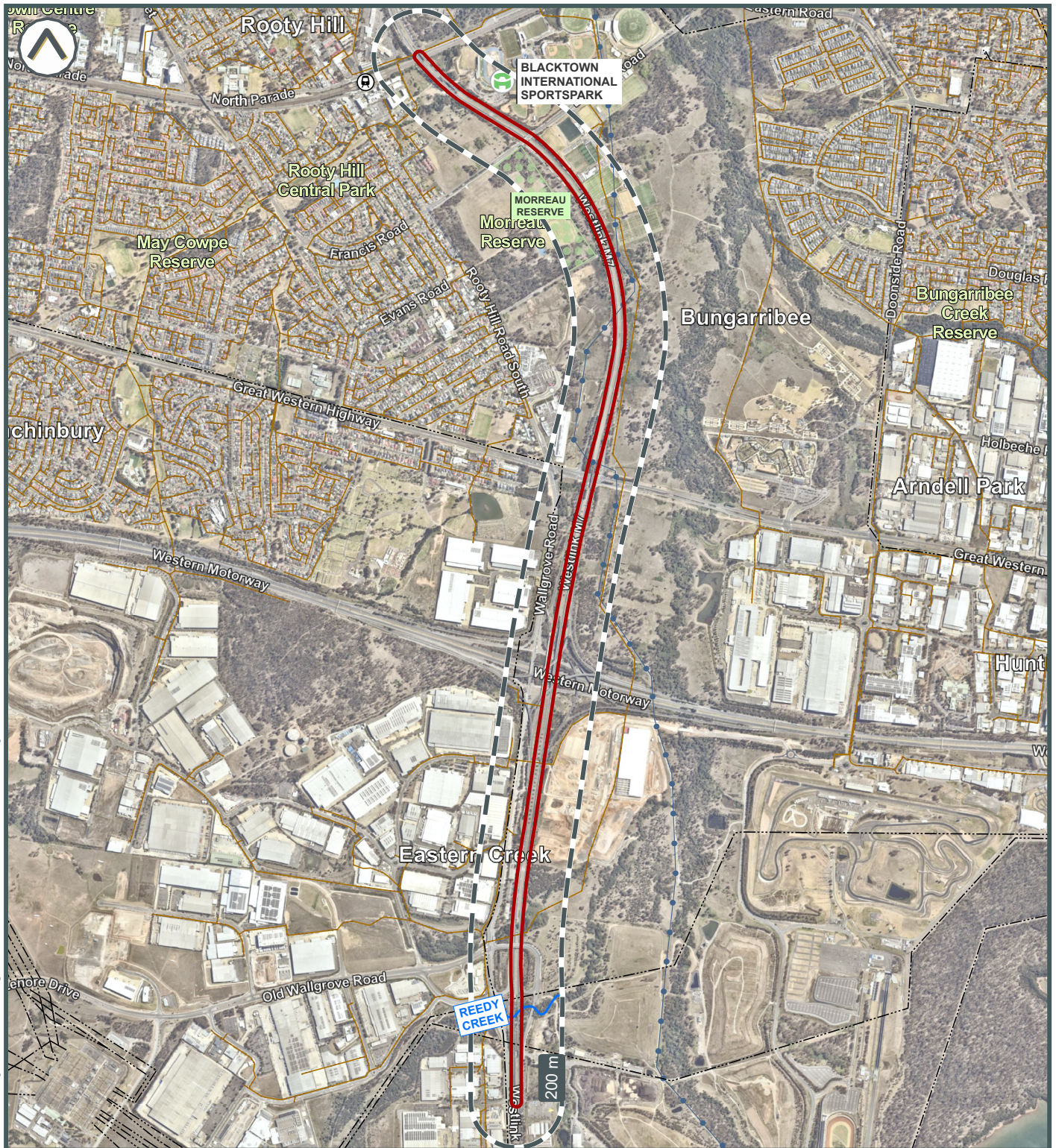
## REPORT MAPS

Westlink M7 Motorway Chainage 18000 - 23000  
Western Sydney, NSW





Subject Area and Sensitive Receptors



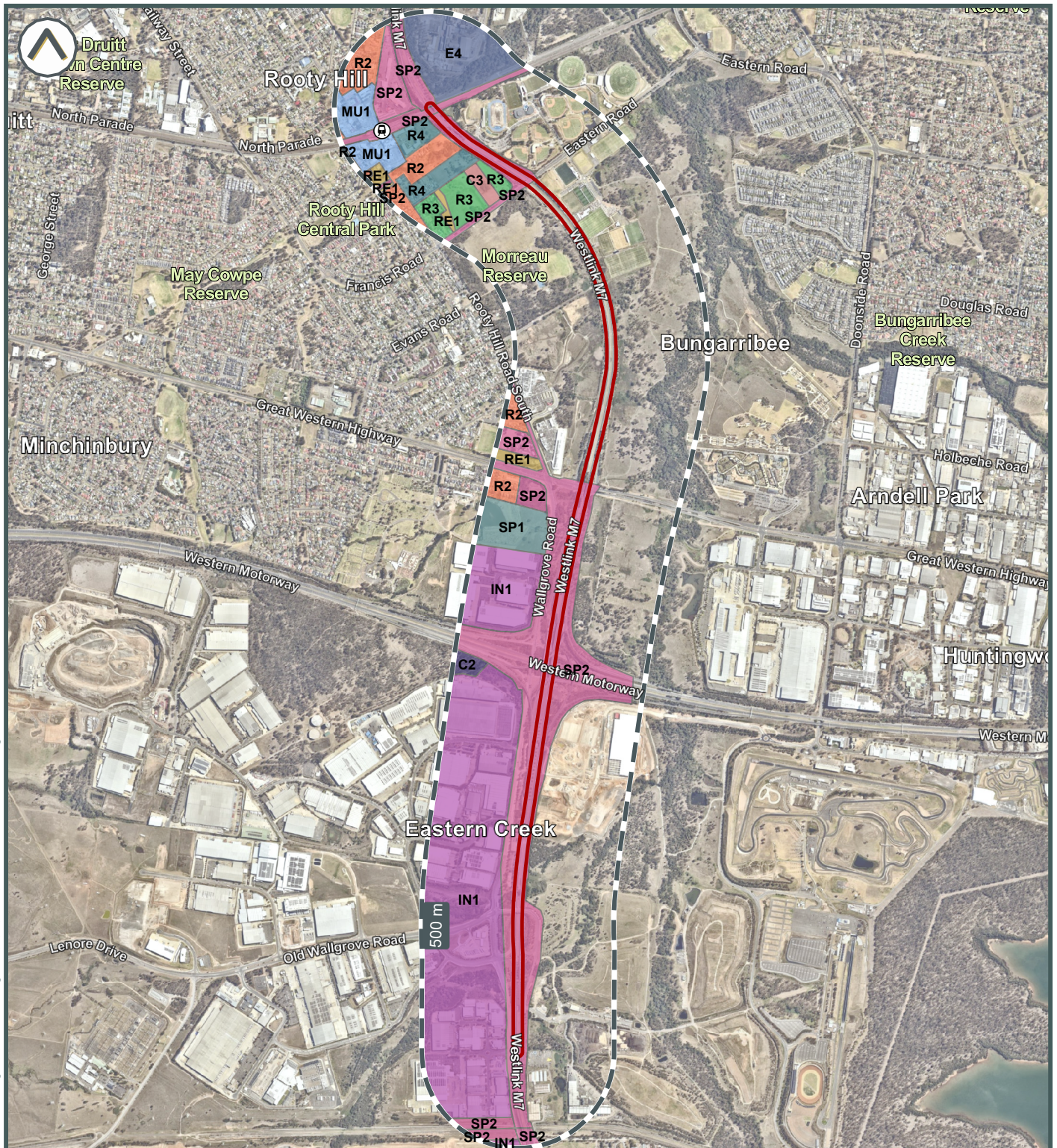
- Subject area
- Water Bodies
- Sports and Recreation
- Sewer main
- Parks
- Transmission line
- Pipeline







Zoning

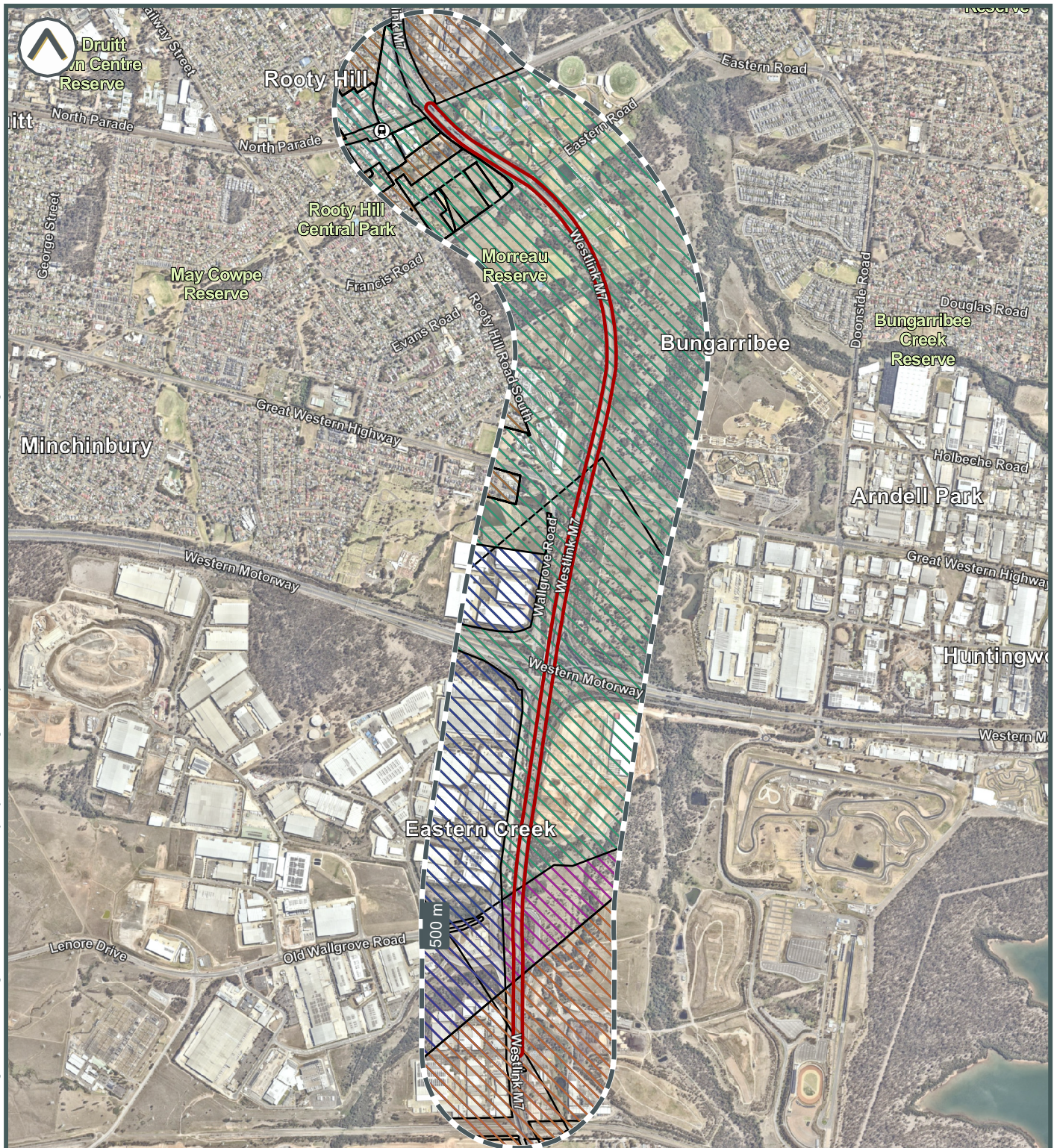






Planning Overlays

© 2023 Land Insight (LI) www.landinsight.co | R:\LI\3925 ESR Western Sydney NSW\Working\GIS\Project\LI-XXXXX XXX\ 11/12/2023 | Data source: Please refer to 'Digital Data Sources' in the Product Guide



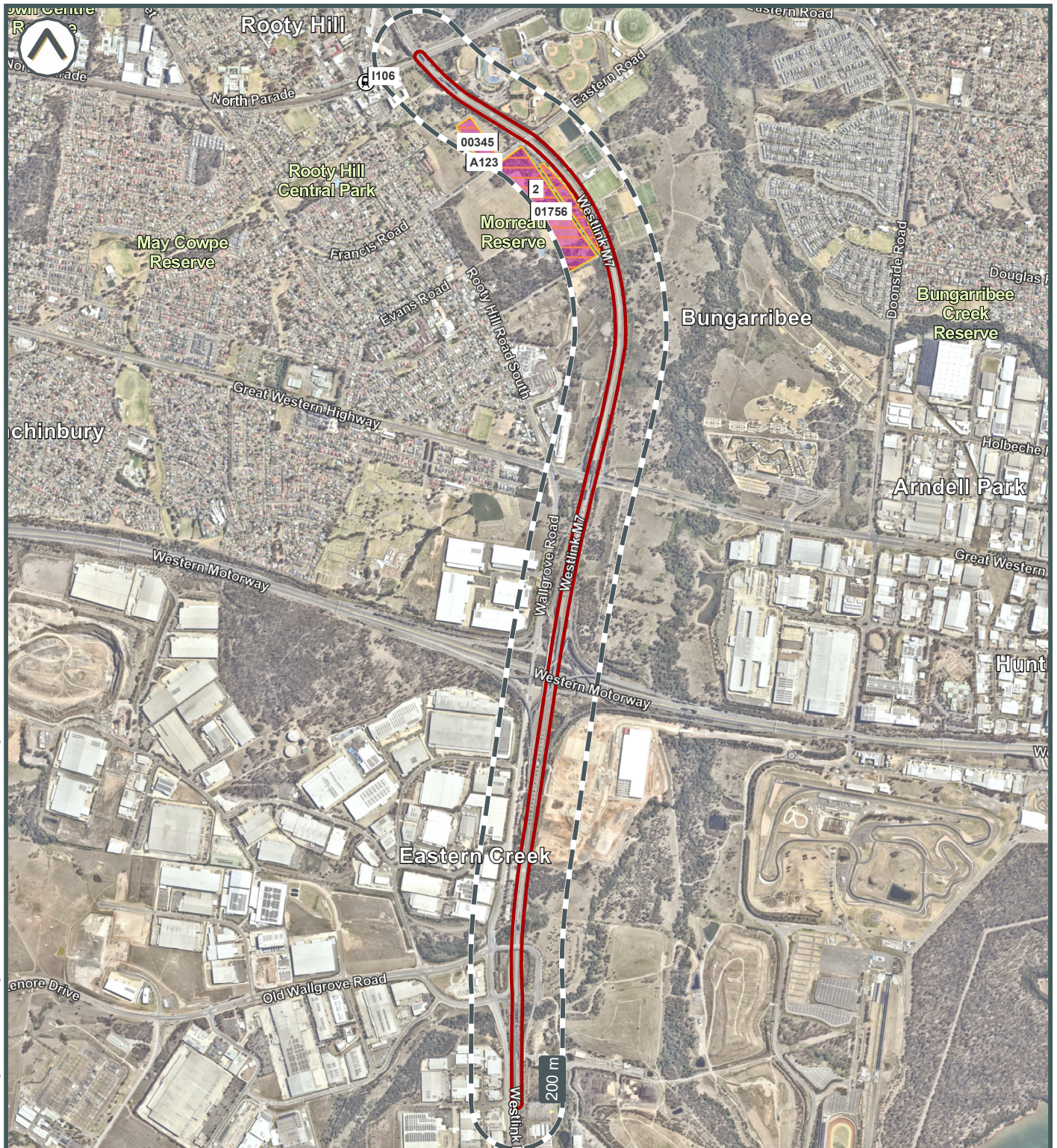
- |                                  |                              |                             |
|----------------------------------|------------------------------|-----------------------------|
| Subject area                     | Height of Building           | Local Provisions            |
| Planning Overlays                | Industrial Release Area      | Lot Size                    |
| Bulk Water Supply Infrastructure | Infrastructure               | Obstacle Limitation Surface |
| Coal Seam Gas Exclusions         | Land Reservation Acquisition |                             |







Heritage



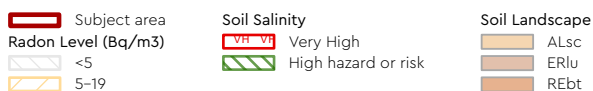
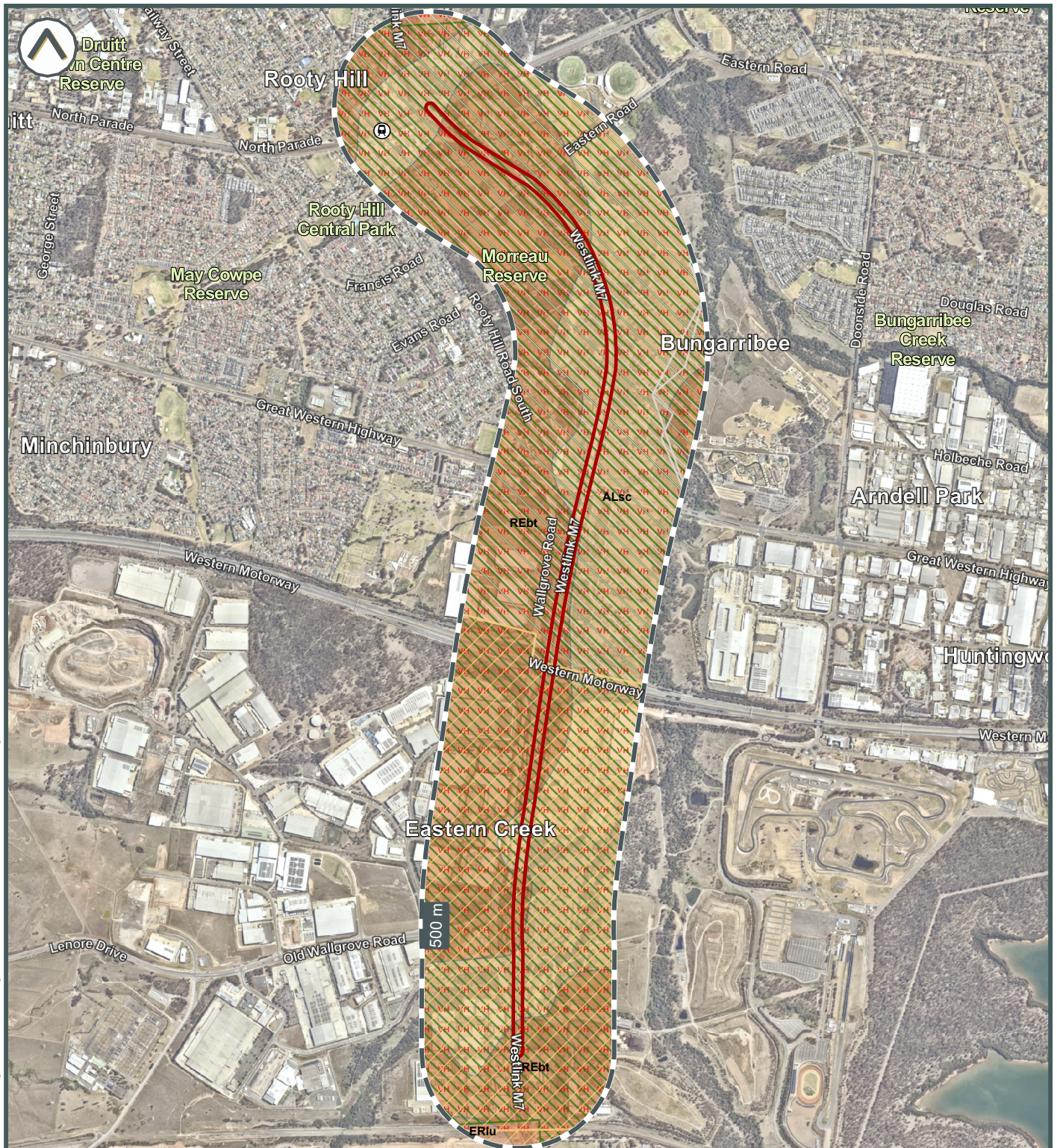
- Subject area
- State and Local Heritage Registers
- State Heritage Register
- Heritage Register







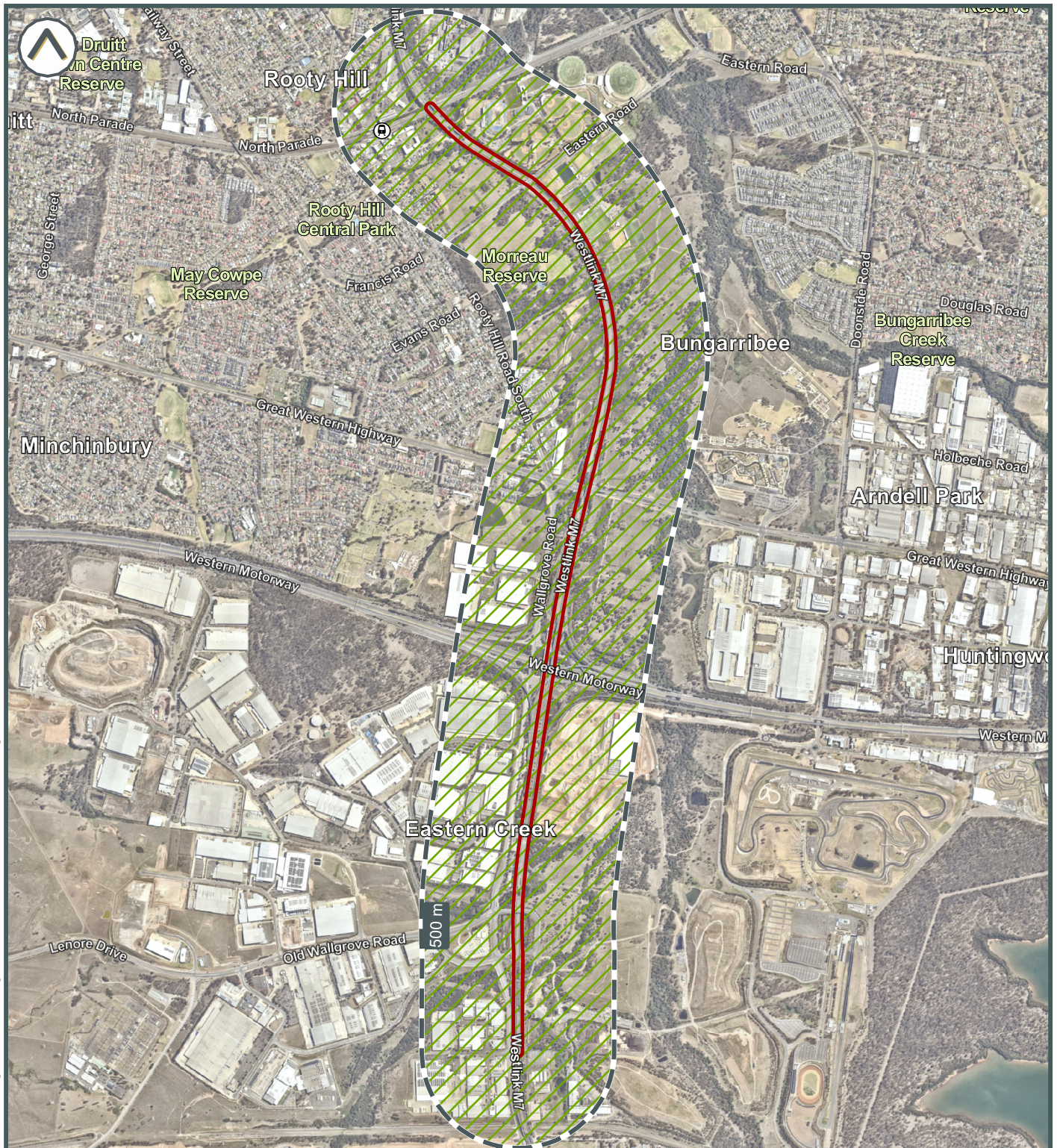
Soil Landscape and Salinity







Acid Sulfate Soils



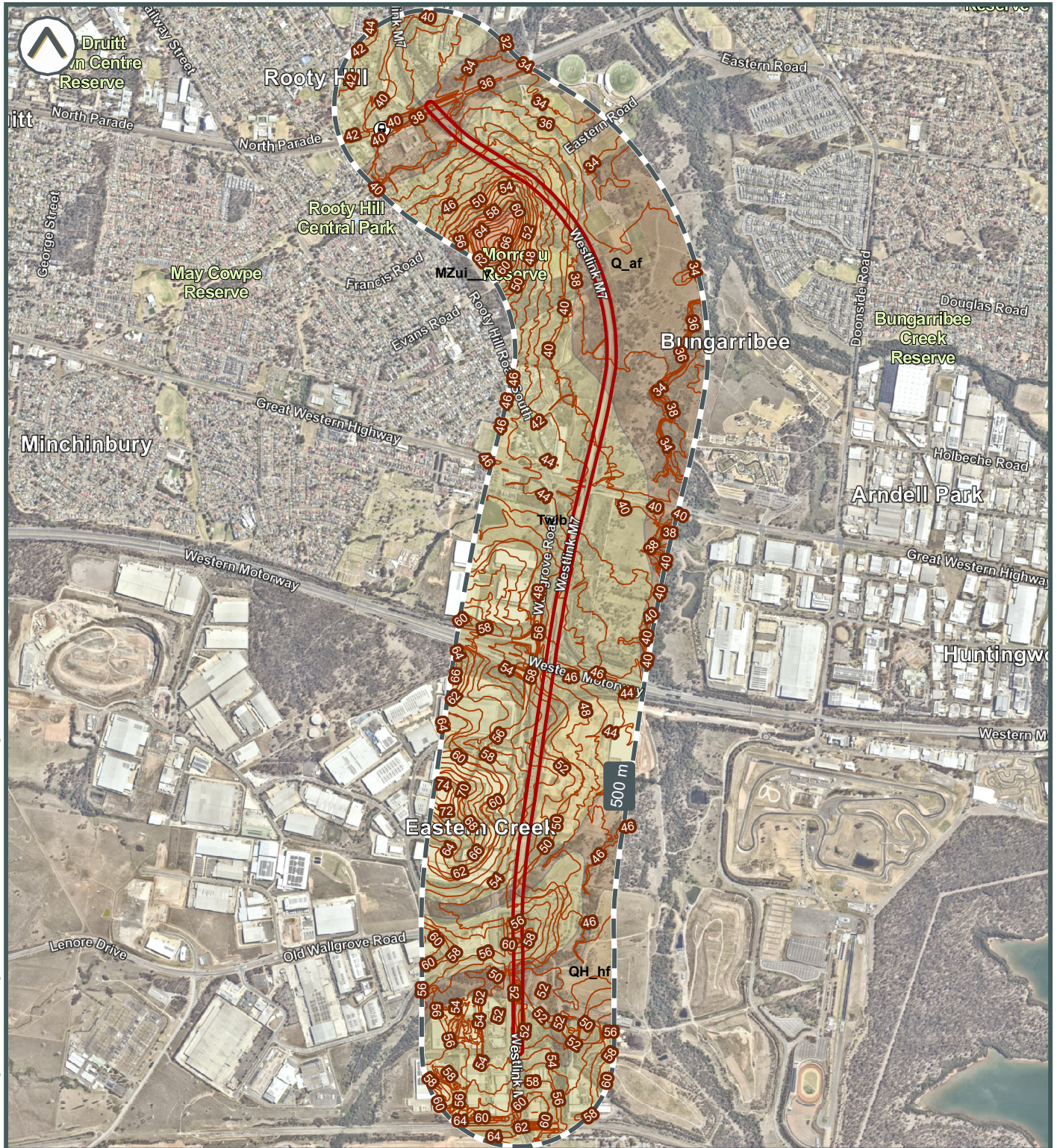
- Subject area
- Atlas of Australian Acid Sulfate Soils
- Extremely low probability of occurrence



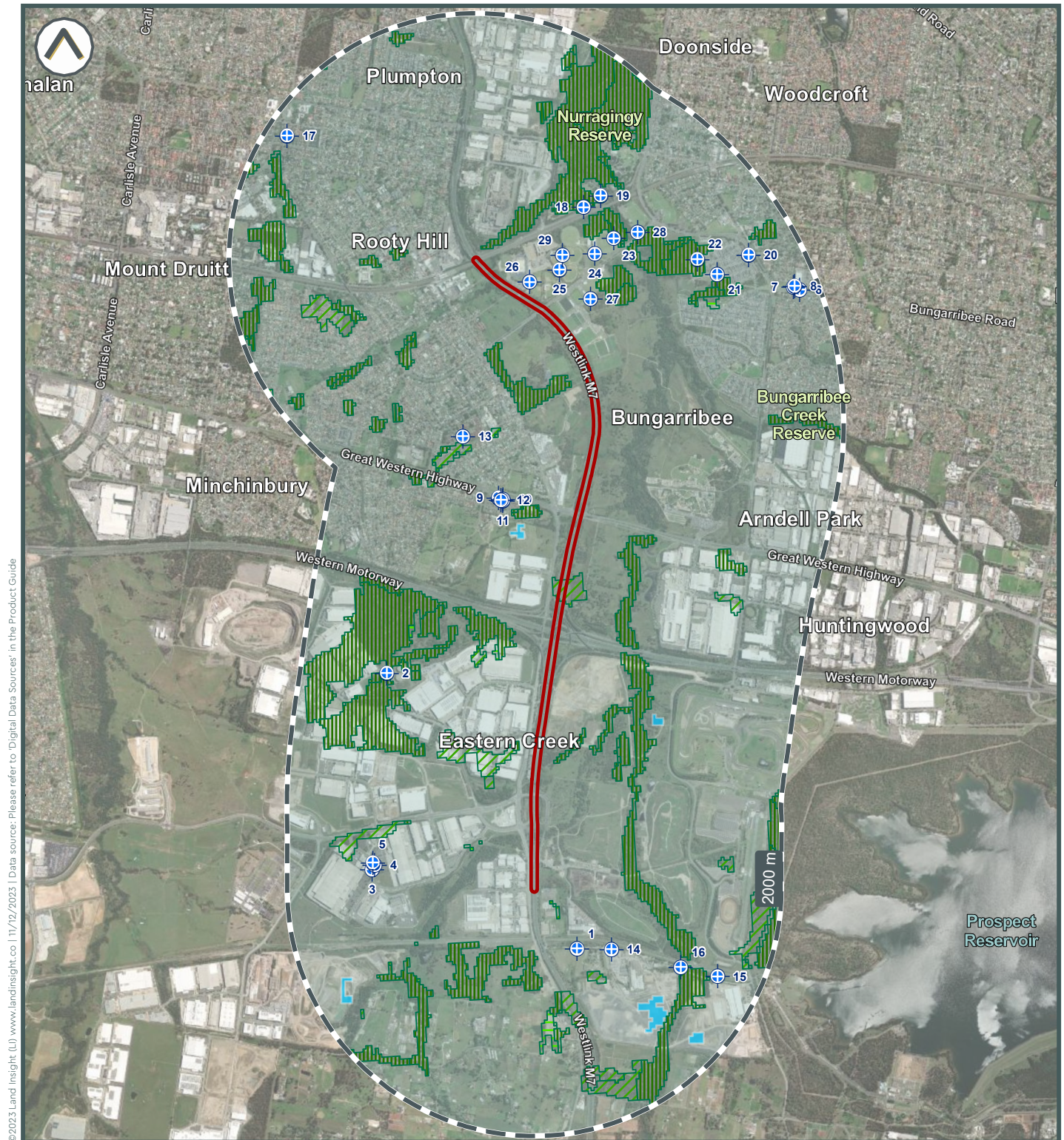




Geology and Topography





**Groundwater Dependent Ecosystems & Hydrogeology Constraints**

Subject area

Groundwater bores

**Ecosystems that rely on Subsurface presence of Groundwater**

High potential GDE – from national assessment

Moderate potential GDE – from national assessment

Low potential GDE – from national assessment

Wetlands

**Aquifer type**

Porous, extensive aquifers of low to moderate productivity

0 420 840 1,260 1,680 2,100m

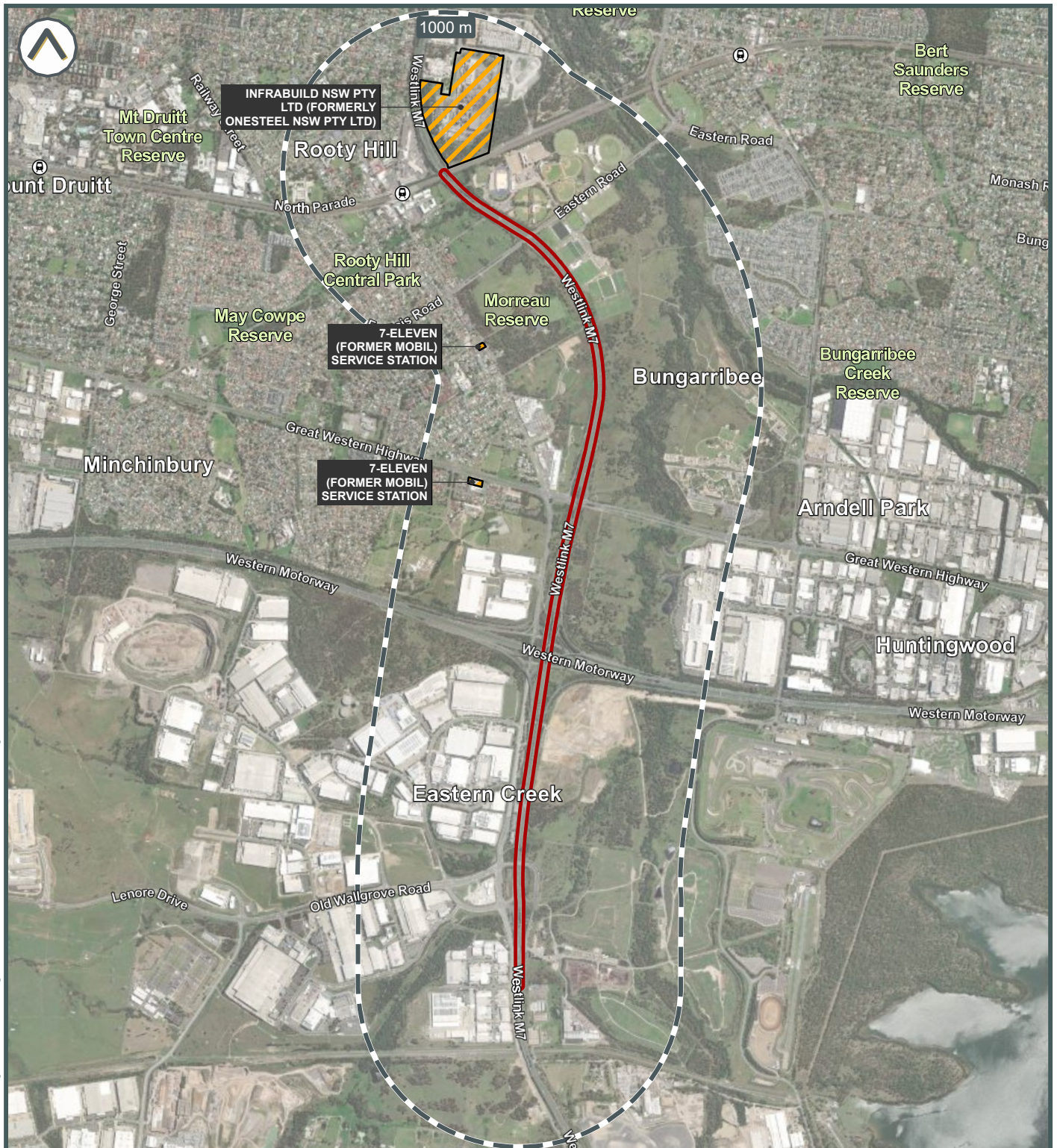




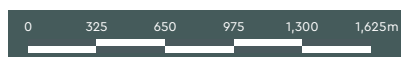




**Contaminated Land Public Register**



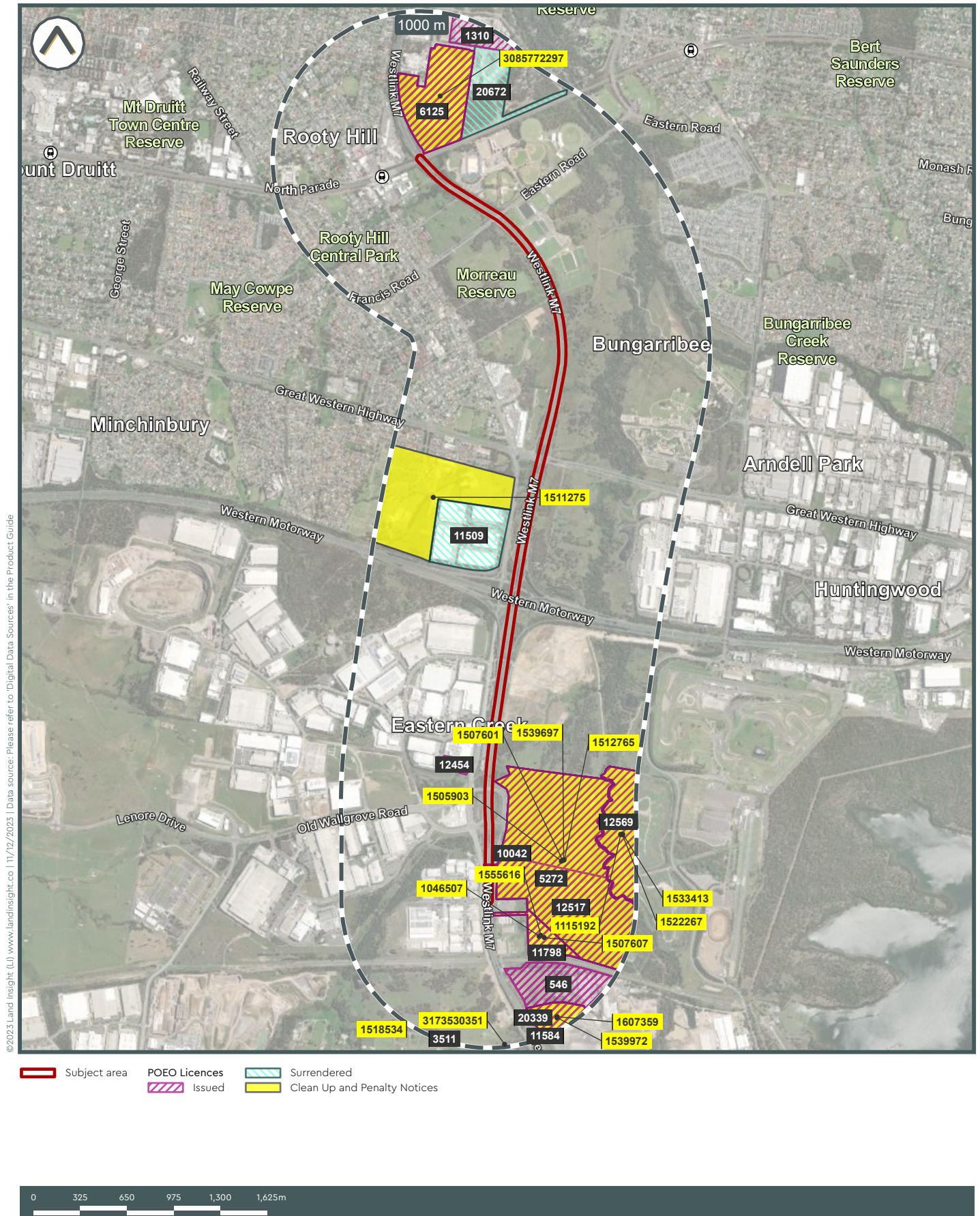
Subject area Contaminated Land Public Register (EPA)  
EPA Notified Contaminated Sites







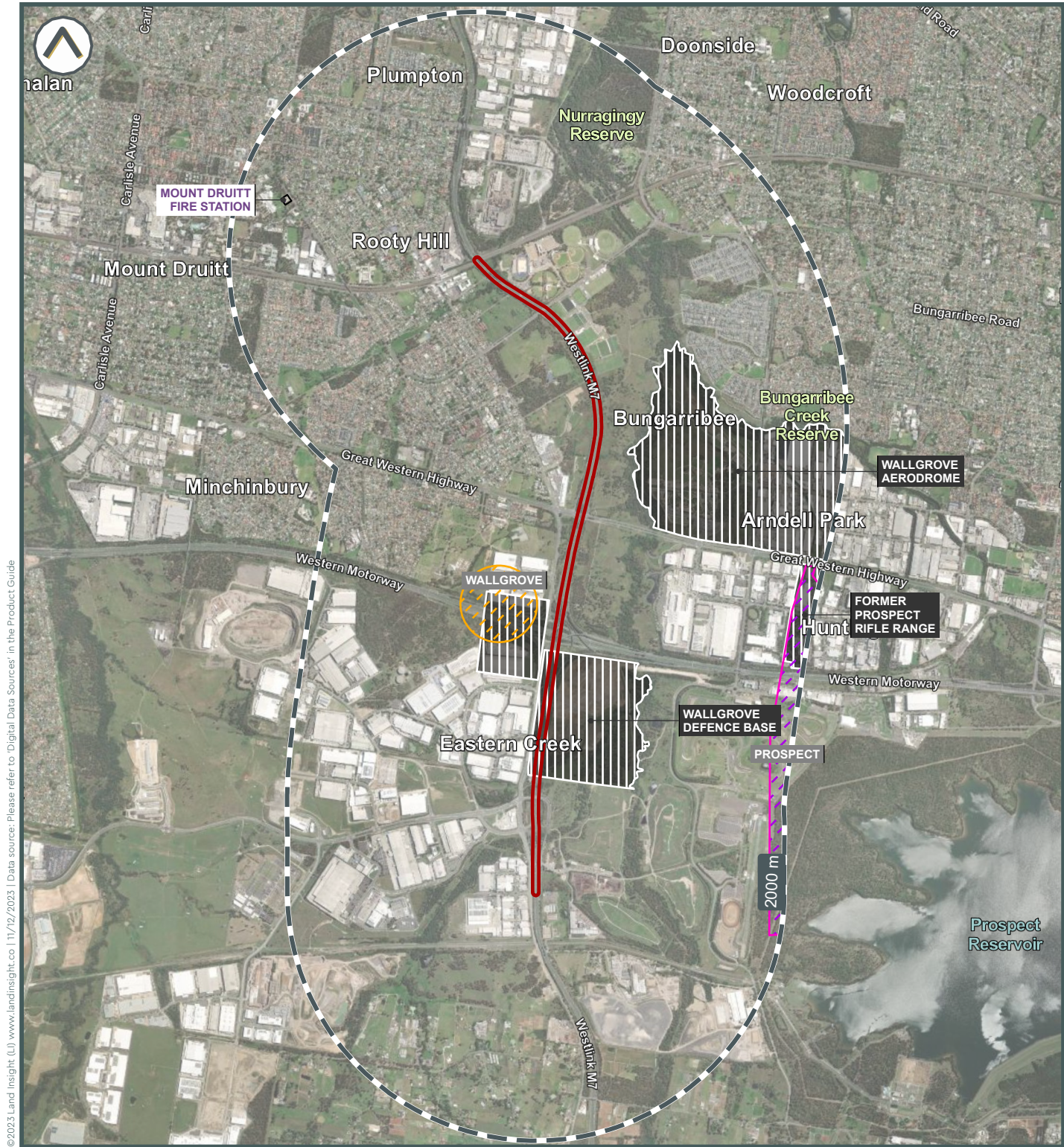
**Licences, Approvals & Assessments**







**Sites Regulated by Other Jurisdictional Body**



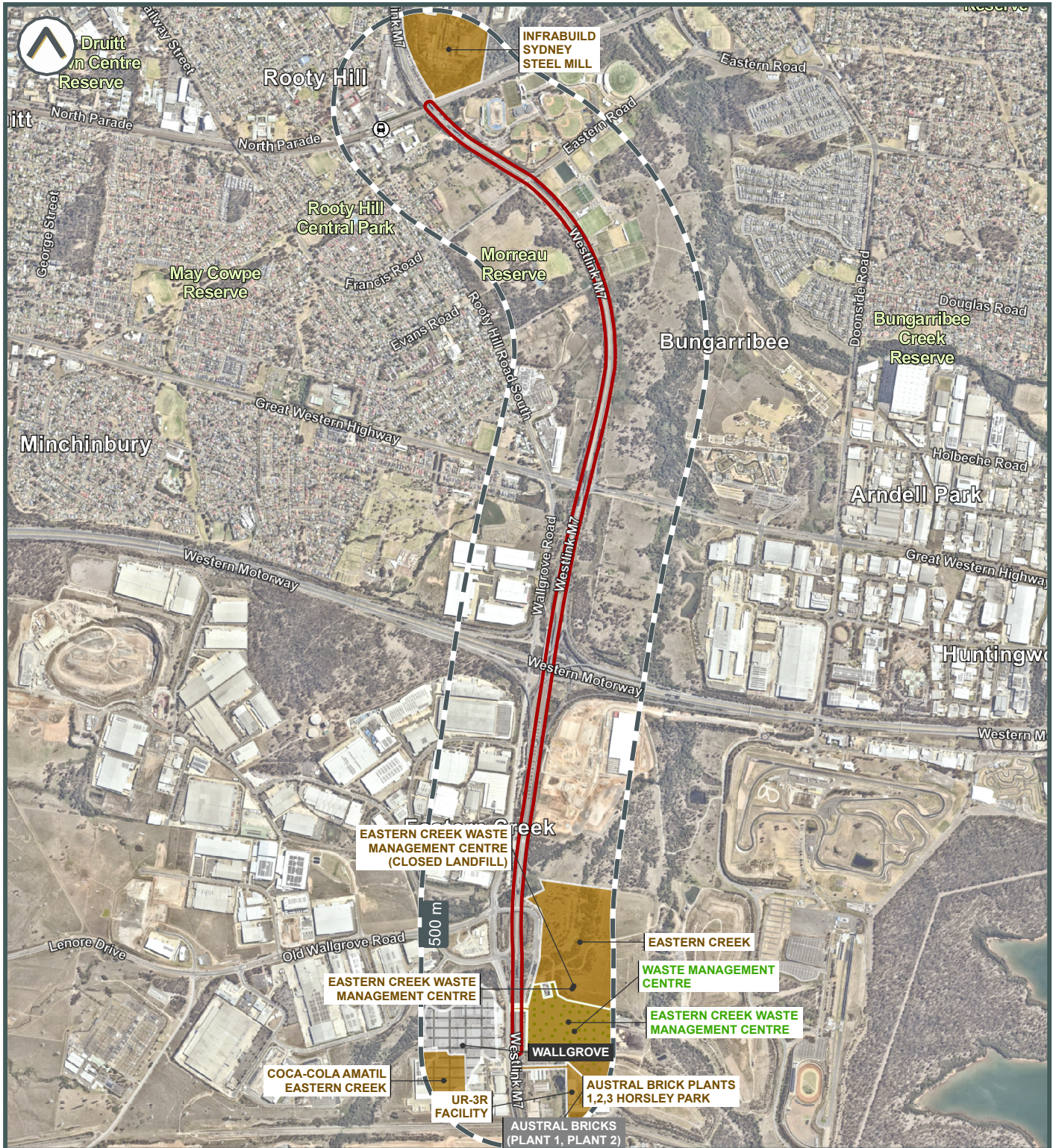
- |                               |                                 |
|-------------------------------|---------------------------------|
| Subject area                  | Unexploded Ordnance (UXO) Areas |
| PFAS sites                    | Slight potential                |
| Defence Area / Military Sites | Other                           |







Other Potential Hazard Sources



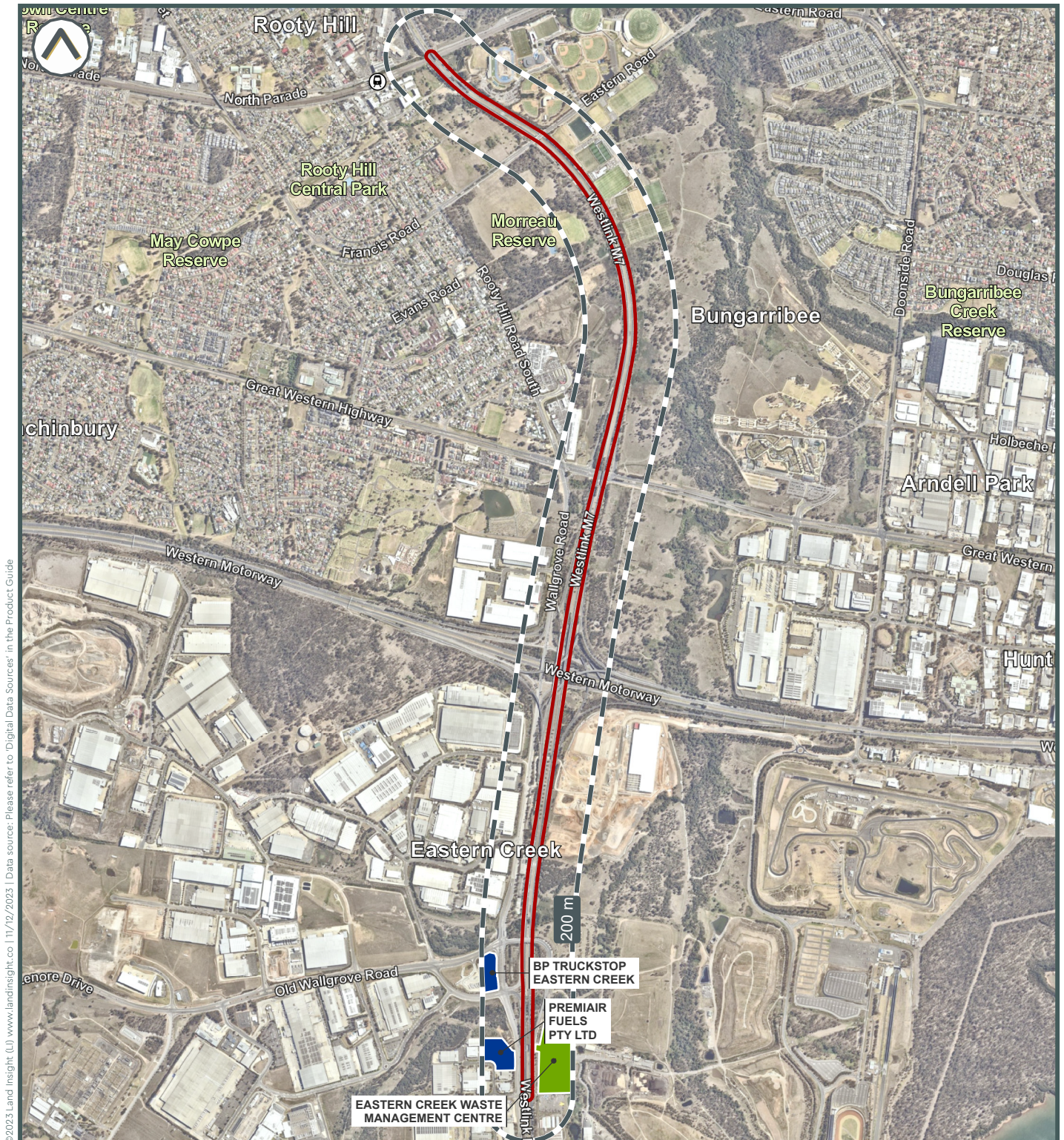
- Subject area
- NPI Facilities
- Landfill Sites
- Historical (legacy) Landfill Sites
- Quarries
- Derelict/Formal Quarries







Potentially Contaminating Activities (PCAs)



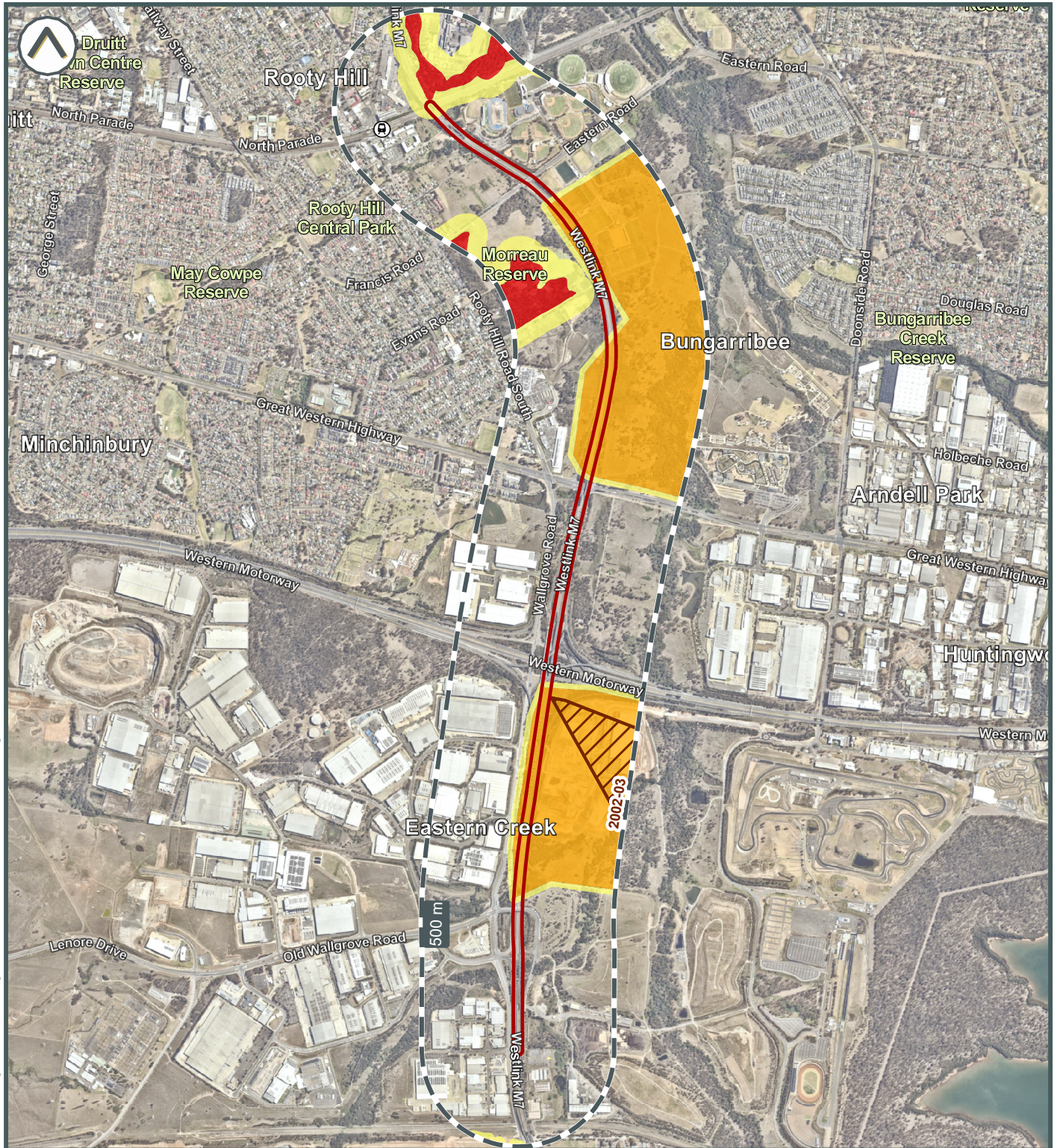
- Subject area
- Petrol Stations and Fuel Terminals
- Waste and Recycling Facilities







Fire Hazards



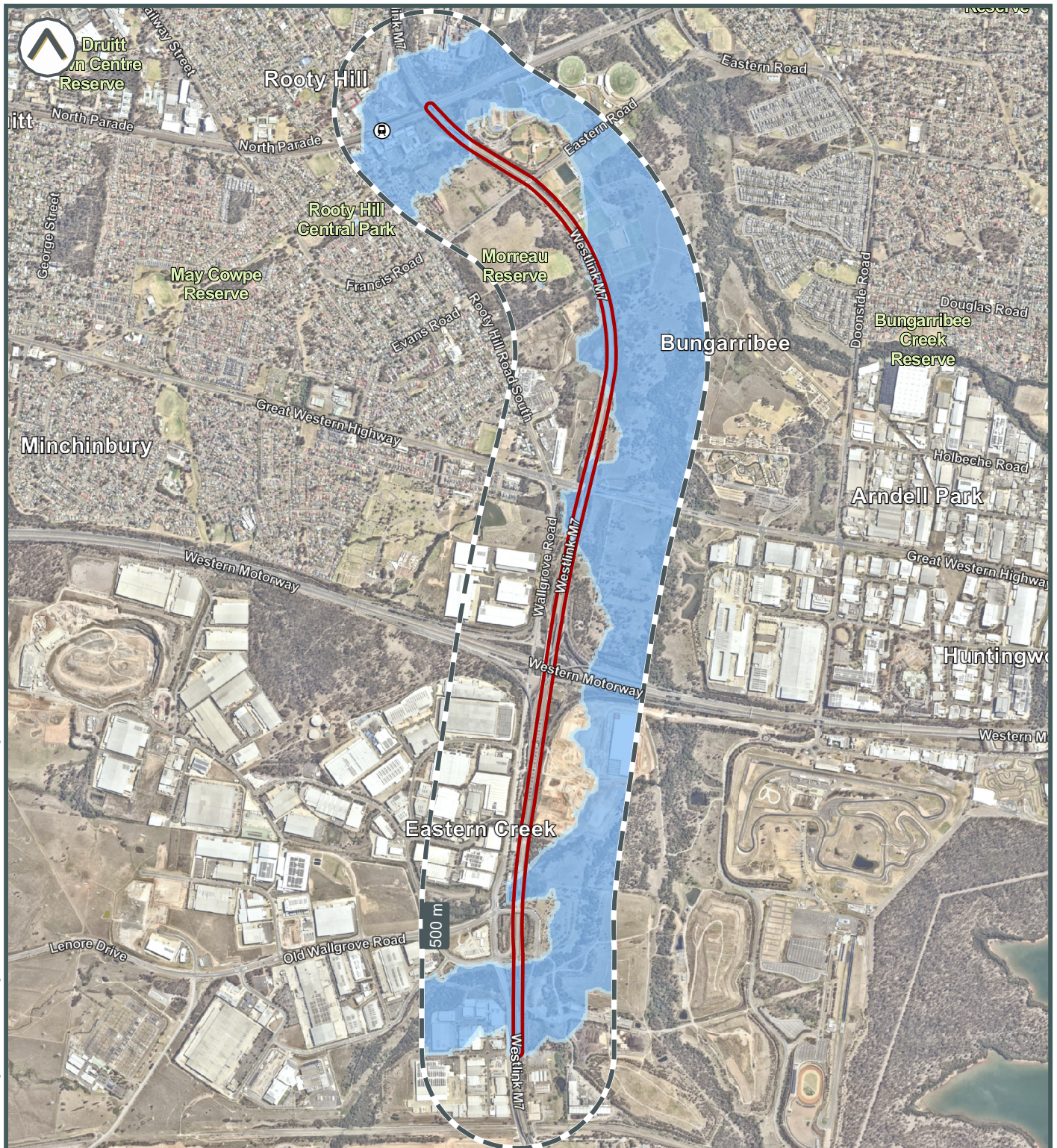
- Subject area
- Fire History
- Vegetation Category 2
- Vegetation Buffer
- Bushfire Prone Area
- Vegetation Category 1







Flood Hazard



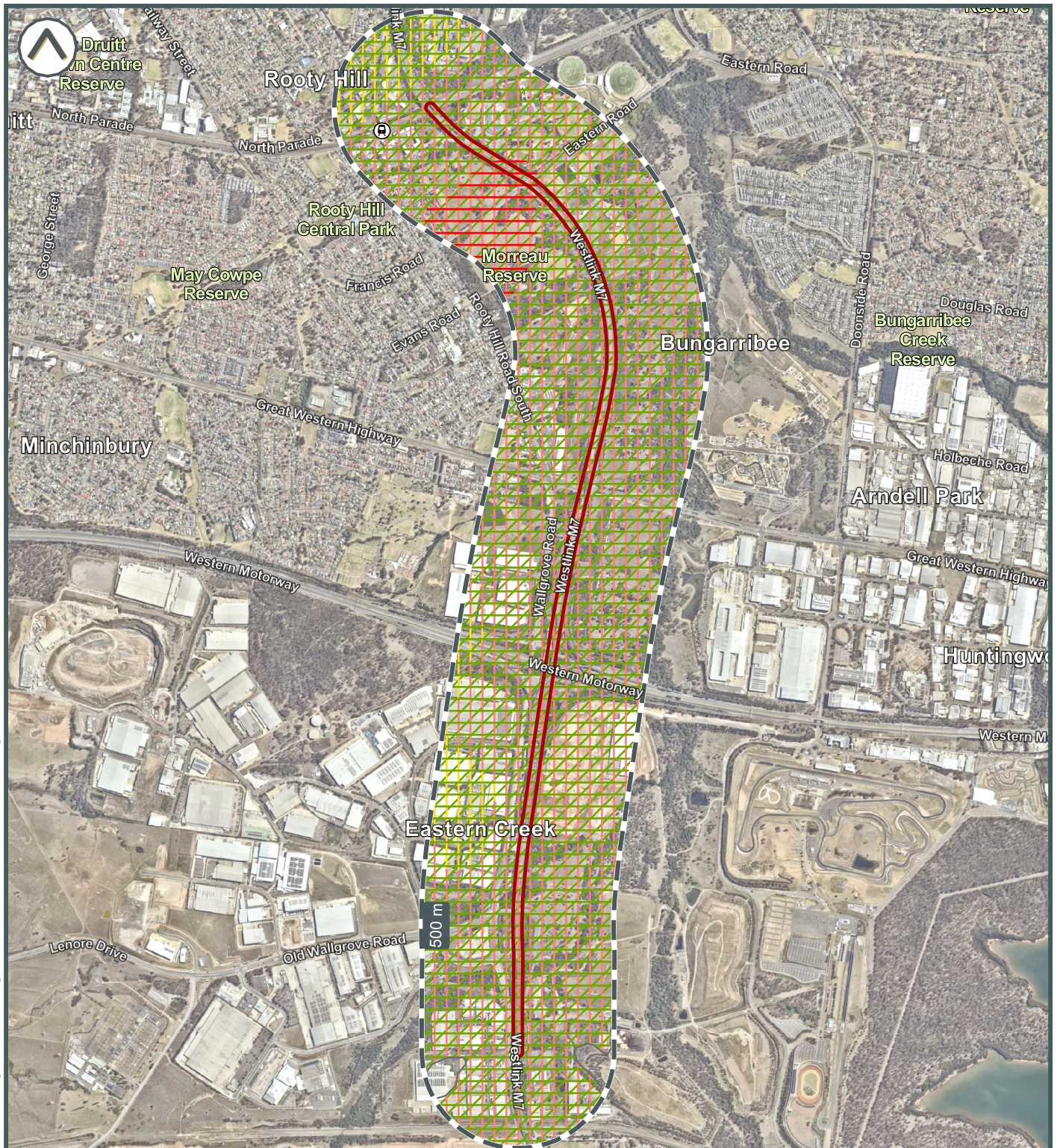
Subject area  
Type  
Probable Maximum Flood (PMF)







Erosion Hazard



- |                               |                               |                               |
|-------------------------------|-------------------------------|-------------------------------|
| Subject area                  | Water Erosion Risk            | Landslip Erosion Risk         |
| Wind Erosion Risk             | High                          | Very High                     |
| Very Low                      | Moderate                      | Very Low                      |
| Not Applicable / Not Assessed | Not Applicable / Not Assessed | Not Applicable / Not Assessed |







## APPENDIX D: PHOTOLOG



|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Site Details:  | M7/M12 Integration Project - Reedy Creek Tributary, Elizabeth Hills NSW 2171 |
| EDP Reference: | S-05667.DSI.M7.008_Reedy Creek Tributary                                     |



Photo 1: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 2: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 3: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 4: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 5: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 6: 28/02/2024: Representative image of site location (BH98A) - Pile



|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Site Details:  | M7/M12 Integration Project - Reedy Creek Tributary, Elizabeth Hills NSW 2171 |
| EDP Reference: | S-05667.DSI.M7.008_Reedy Creek Tributary                                     |



Photo 7: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 8: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 9: 28/02/2024: Representative image of site location (BH98A) - Pile



Photo 10: 28/02/2024: Representative image of sampling location (BH98A) - Pile



Photo 11: 28/02/2024: Representative image of sampling location (BH98A) - Pile



Photo 12: 28/02/2024: Representative image of soil material (BH98A) - Pile



|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Site Details:  | M7/M12 Integration Project - Reedy Creek Tributary, Elizabeth Hills NSW 2171 |
| EDP Reference: | S-05667.DSI.M7.008_Reedy Creek Tributary                                     |



Photo 13: 28/02/2024: Representative image of soil material (BH98A) - Pile



Photo 14: 28/02/2024: Representative image of soil material (BH98A) - Pile



Photo 15: 27/02/2024: Representative image of site location (BH99A) - Pile



Photo 16: 27/02/2024: Representative image of site location (BH99A) - Pile



Photo 17: 27/02/2024: Representative image of site location (BH99A) - Pile



Photo 18: 27/02/2024: Representative image of site location (BH99A) - Pile



|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Site Details:  | M7/M12 Integration Project - Reedy Creek Tributary, Elizabeth Hills NSW 2171 |
| EDP Reference: | S-05667.DSI.M7.008_Reedy Creek Tributary                                     |



Photo 19: 27/02/2024: Representative image of site location (BH99A) - Pile



Photo 20: 27/02/2024: Representative image of site location (BH99A) - Pile



Photo 21: 27/02/2024: Representative image of sampling location (BH99A) - Pile



Photo 22: 27/02/2024: Representative image of sampling location (BH99A) - Pile



Photo 23: 27/02/2024: Representative image of sampling location (BH99A) - Pile



Photo 24: 27/02/2024: Representative image of soil material (BH99A) - Pile

## APPENDIX E: BOREHOLE LOGS

|                                                |                                                     |                      |
|------------------------------------------------|-----------------------------------------------------|----------------------|
| <b>PROJECT NUMBER</b> S-05667                  | <b>DATE</b> 28/02/2024                              | <b>LOGGED BY</b> EZ  |
| <b>PROJECT NAME</b> M7-M12 Integration Project | <b>DRILLING METHOD</b> Drill rig                    | <b>CHECKED BY</b> CF |
| <b>CLIENT</b> John Holland Group Pty Ltd       | <b>TOTAL DEPTH</b> 8.15 m below ground level (mbgl) |                      |
| <b>LOCATION</b> Reedy Creek Tributary          |                                                     |                      |

| COMMENTS  |           |     |        |                  |              |             |                                                                                              |          |
|-----------|-----------|-----|--------|------------------|--------------|-------------|----------------------------------------------------------------------------------------------|----------|
| Depth (m) | PID (ppm) | pH  | pH-fox | Samples          | Is Analysed? | Graphic Log | Material Description                                                                         | Moisture |
| 0.5       | 1.4       | 7.2 | 6.3    | DSI.M7.BH98A 0.2 | Y            |             | TOPSOIL: Silty CLAY with minor sand, low plasticity, dark brown, fine-grained sand           | MC=PL    |
| 0.5       | 0.2       | 5.9 | 6.0    | DSI.M7.BH98A 0.5 | Y            |             | FILL: Gravelly Silty CLAY, low to medium plasticity, red/grey, sub-angular to angular gravel |          |
| 1         | 5.0       | 6.5 | 6.9    | DSI.M7.BH98A 1.0 | Y            |             |                                                                                              |          |
| 1.5       |           |     |        |                  |              |             |                                                                                              |          |
| 2         | 2.8       | 7.1 | 6.6    | DSI.M7.BH98A 2.0 | Y            |             |                                                                                              |          |
| 2.5       |           |     |        |                  |              |             |                                                                                              |          |
| 3         | 1.9       | 6.6 | 5.9    | DSI.M7.BH98A 3.0 | Y            |             | NATURAL: Silty CLAY, high plasticity, light brown                                            | MC<PL    |
| 3.5       | 0.9       | 7.1 | 7.3    | DSI.M7.BH98A 3.5 | Y            |             |                                                                                              |          |
| 4         | 1.2       | 6.0 | 5.4    | DSI.M7.BH98A 4.0 | Y            |             |                                                                                              |          |
| 4.5       |           |     |        |                  |              |             |                                                                                              |          |
| 5         | 2.2       | 6.3 | 5.5    | DSI.M7.BH98A 5.0 | Y            |             |                                                                                              |          |
| 5.5       |           |     |        |                  |              |             |                                                                                              |          |
| 6         | 1.4       | 5.8 | 5.6    | DSI.M7.BH98A 6.0 | Y            |             | NATURAL: Gravelly CLAY, high plasticity, dark brown, sub-angular to angular gravel           | MC=PL    |
| 6.5       |           |     |        |                  |              |             |                                                                                              |          |
| 7         | 10.8      | 6.9 | 6.5    | DSI.M7.BH98A 7.0 | Y            |             |                                                                                              |          |
| 7.5       |           |     |        |                  |              |             |                                                                                              |          |
| 8         |           |     |        |                  |              |             |                                                                                              |          |
| 8.5       |           |     |        |                  |              |             | Natural Weathered Rock Reached at 8.15 mbgl                                                  |          |



|                                                |                                                    |                      |
|------------------------------------------------|----------------------------------------------------|----------------------|
| <b>PROJECT NUMBER</b> S-05667                  | <b>DATE</b> 27/02/2024                             | <b>LOGGED BY</b> EZ  |
| <b>PROJECT NAME</b> M7-M12 Integration Project | <b>DRILLING METHOD</b> Drill rig                   | <b>CHECKED BY</b> CF |
| <b>CLIENT</b> John Holland Group Pty Ltd       | <b>TOTAL DEPTH</b> 6.8 m below ground level (mbgl) |                      |
| <b>LOCATION</b> Reedy Creek Tributary          |                                                    |                      |

## COMMENTS

| Depth (m) | PID (ppm) | pH  | pH-fox | Samples          | Is Analysed? | Graphic Log | Material Description                                                                                                            | Moisture | Additional Observations                                                       |
|-----------|-----------|-----|--------|------------------|--------------|-------------|---------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------|
|           | 1.1       | 7.1 | 6.9    | DSI.M7.BH99A_0.2 | Y            |             | TOPSOIL: Silty CLAY, low plasticity, dark brown, rootless and gravel intrusion                                                  |          | No visible signs of contamination. No identified asbestos, odour or staining. |
| 0.5       | 0.9       | 5.8 | 6.3    | DSI.M7.BH99A_0.5 | Y            |             | FILL: Silty CLAY, medium to high plasticity, dark brown mottled grey/red, rootless and gravel intrusion                         |          |                                                                               |
| 1         | 0.9       | 7.3 | 6.5    | DSI.M7.BH99A_1.0 | Y            |             |                                                                                                                                 |          |                                                                               |
| 1.5       | 0.4       | 6.4 | 6.1    | DSI.M7.BH99A_1.5 | Y            |             |                                                                                                                                 |          |                                                                               |
| 2         |           |     |        |                  |              |             | FILL: Sandy CLAY, medium to high plasticity, dark brown mottled red, find to medium coarsed-sand, light brown, gravel intrusion |          |                                                                               |
| 2.5       | 0.6       | 6.8 | 5.9    | DSI.M7.BH99A_2.5 | Y            |             |                                                                                                                                 |          |                                                                               |
| 3         | 0.6       | 6.1 | 6.2    | DSI.M7.BH99A_3.0 | Y            |             | FILL: Silty CLAY, medium to high plasticity, light brown/grey, trace of gravel and sand                                         |          |                                                                               |
| 3.5       | 1.0       | 6.4 | 5.8    | DSI.M7.BH99A_3.5 | Y            |             |                                                                                                                                 |          |                                                                               |
| 4         |           |     |        |                  |              |             |                                                                                                                                 |          |                                                                               |
| 4.5       |           |     |        |                  |              |             |                                                                                                                                 |          |                                                                               |
| 5         | 0.3       | 6.0 | 6.2    | DSI.M7.BH99A_5.0 | Y            |             | NATURAL: Alluvial CLAY, medium to high plasticity, yellow/grey                                                                  |          |                                                                               |
| 5.5       | 0.9       | 6.4 | 6.0    | DSI.M7.BH99A_5.5 | Y            |             |                                                                                                                                 |          |                                                                               |
| 6         |           |     |        |                  |              |             |                                                                                                                                 |          |                                                                               |
| 6.5       | 0.5       | 6.0 | 5.5    | DSI.M7.BH99A_6.5 | Y            |             |                                                                                                                                 |          |                                                                               |
| 7         |           |     |        |                  |              |             | Natural Weathered Rock Reached at 6.8 mbgl                                                                                      |          |                                                                               |

## APPENDIX F: TABLE OF RESULTS

[illegible]

### Environmental Standards

HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)  
 HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure  
 HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure  
 2013, NEPM 2013 HIL D - Comm/Ind Soil  
 2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand  
 NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil  
 2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil



## TABLE G1: SUMMARY OF SOIL ANALYTICAL RESULTS

[illegible]

| Ab Report |             |                      |       |             |      |
|-----------|-------------|----------------------|-------|-------------|------|
| Number    | Lab Name    | Field ID             | Depth | Date        | PID  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-0.2 | 0.2   | 28 Feb 2024 | 1.4  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-0.5 | 0.5   | 28 Feb 2024 | 0.2  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-1.0 | 1.0   | 28 Feb 2024 | 5.0  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-2.0 | 2.0   | 28 Feb 2024 | 2.8  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-3.0 | 3.0   | 28 Feb 2024 | 1.9  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-3.5 | 3.5   | 28 Feb 2024 | 0.9  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-4.0 | 4.0   | 28 Feb 2024 | 1.2  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-5.0 | 5.0   | 28 Feb 2024 | 2.2  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-6.0 | 6.0   | 28 Feb 2024 | 1.4  |
| SE261519  | SGS         | EDP-DSI.M7.BH98A-7.0 | 7.0   | 28 Feb 2024 | 10.8 |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-0.2     | 0.2   | 27 Feb 2024 | 1.1  |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-0.5     | 0.5   | 27 Feb 2024 | 0.9  |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-2.0     | 2.0   | 27 Feb 2024 | 0.6  |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-2.5     | 2.5   | 27 Feb 2024 | 0.6  |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-3.5     | 3.5   | 27 Feb 2024 | 1.0  |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-5.0     | 5.0   | 27 Feb 2024 | 0.6  |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-5.5     | 5.5   | 27 Feb 2024 | 0.9  |
| ES2406769 | ALSE-Sydney | EDP-M7.BH99A-6.5     | 6.5   | 27 Feb 2024 | 0.5  |

| Statistics            |         |        |        |         |       |         |         |         |         |         |         |         |         |        |      |         |      |        |        |    |      |      |      |      |      |       |      |       |      |      |       |      |      |      |       |      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------|---------|--------|--------|---------|-------|---------|---------|---------|---------|---------|---------|---------|---------|--------|------|---------|------|--------|--------|----|------|------|------|------|------|-------|------|-------|------|------|-------|------|------|------|-------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Maximum Concentration | <0.0016 | 0.0003 | 0.0007 | <0.0016 | 0.001 | <0.0016 | <0.0005 | <0.0016 | <0.0005 | <0.0002 | <0.0016 | <0.0016 | <0.0016 | 0.0003 | <1.6 | <0.0016 | <1.6 | 0.0003 | 0.0022 | <1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.05 | <0.1 | <0.05 | <0.1 | <0.1 | <0.05 | <0.1 | <0.1 | <0.2 | <0.05 | <0.2 | <0.05 | <0.2 | <0.2 | <0.1 | <0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.1 | <0.1 | <0.1 |

## Environmental Standards

HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)  
 HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure  
 HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure  
 2013, NEPM 2013 HIL D - Comm/Ind Soil  
 2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand  
 NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil  
 2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil

## TABLE G1: SUMMARY OF SOIL ANALYTICAL RESULTS

[illegible]

| Lab Report |             |                      |       |             |      |
|------------|-------------|----------------------|-------|-------------|------|
| Number     | Lab Name    | Field ID             | Depth | Date        | PID  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-0.2 | 0.2   | 28 Feb 2024 | 1.4  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-0.5 | 0.5   | 28 Feb 2024 | 0.2  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-1.0 | 1.0   | 28 Feb 2024 | 5.0  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-2.0 | 2.0   | 28 Feb 2024 | 2.8  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-3.0 | 3.0   | 28 Feb 2024 | 1.9  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-3.5 | 3.5   | 28 Feb 2024 | 0.9  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-4.0 | 4.0   | 28 Feb 2024 | 1.2  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-5.0 | 5.0   | 28 Feb 2024 | 2.2  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-6.0 | 6.0   | 28 Feb 2024 | 1.4  |
| SE261519   | SGS         | EDP-DSI.M7.BH98A-7.0 | 7.0   | 28 Feb 2024 | 10.8 |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-0.2     | 0.2   | 27 Feb 2024 | 1.1  |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-0.5     | 0.5   | 27 Feb 2024 | 0.9  |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-2.0     | 2.0   | 27 Feb 2024 | 0.6  |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-2.5     | 2.5   | 27 Feb 2024 | 0.6  |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-3.5     | 3.5   | 27 Feb 2024 | 1.0  |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-5.0     | 5.0   | 27 Feb 2024 | 0.6  |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-5.5     | 5.5   | 27 Feb 2024 | 0.9  |
| ES2406769  | ALSE-Sydney | EDP-M7.BH99A-6.5     | 6.5   | 27 Feb 2024 | 0.5  |

[illegible]

## Environmental Standards

HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)  
 HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure  
 HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure  
 2013, NEPM 2013 HIL D - Comm/Ind Soil  
 2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand  
 NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil  
 2013, NEPM 2013 Table 1B(6) ELSs for Comm/Ind, Coarse Soil

## APPENDIX G: NATA ACCREDITED LABORATORY REPORTS



## Request for Laboratory Services and Chain of Custody Form

Received Date: \_\_\_\_\_ Received By: \_\_\_\_\_ Cooling Method: ☐ Ice ☐ Icepack ☐ None Samples intact: ☐ Yes ☐ No  
Logged-in Date: \_\_\_\_\_ Time of Receipt: \_\_\_\_\_ Cooler Sealed: ☐ Yes ☐ No ☐ N/A Temperature: ☐ Ambient ☐ Chilled

COD must pay via cheque or credit card before analysis is commenced. AMEX &amp; DINERS cards incur a 5% surcharge

Name: Cristiane Florido  
Company: EDP Consultants Pty Ltd  
Address: Level 4 38 Oxley Street  
St Leonards NSW 2065  
Email: [invoices@edp-au.com](mailto:invoices@edp-au.com); [Project.admin@edp-au.com](mailto:Project.admin@edp-au.com); [Cristiane.Florido@edp-au.com](mailto:Cristiane.Florido@edp-au.com)  
Phone: 0413 378 102 Fax: \_\_\_\_\_  
Quote #: \_\_\_\_\_  
Attached Parameter List: ☐ Yes ☐ No  
Replacement Sample Containers Required: ☐ Yes ☒ No  
Results Required By: Standard TA Urgent TA requires lab approval  
Notes: \_\_\_\_\_

Project No.: S-05667.098

Company Name: EDP Consultants Pty Ltd

Contact Name: Cristiane Florido Samplers: Gonzalo Serna Diaz

Address: Level 4 38 Oxley Street, St Leonards NSW 2065

Phone Number: 0413 378 102 / 0406 268 122 After Hours Phone Number: NA

Email: cristiane.florido@edp-au.com; gonzalo.serna.diaz@edp-au.com; Haneen.Safadi@edp-au.com

Results will be sent via email to an unlimited number of addresses for no additional fee. In the absence of email, fax is available upon request.

State results format (please check one): Email & Escalate ☒ Fax ☐

## SAMPLE INFORMATION

| Sample Identifier      | Date Sampled | Matrix:<br>Soil<br>Water<br>Other | # of Bags | # of Bottles | Analysis Requested |     |                               |                  |     |          |          |         |      |                                                   | Notes |
|------------------------|--------------|-----------------------------------|-----------|--------------|--------------------|-----|-------------------------------|------------------|-----|----------|----------|---------|------|---------------------------------------------------|-------|
|                        |              |                                   |           |              | C17                | C10 | Asbestos (presence / absence) | PFAS Short suite | CRS | Salinity | TRH/BTEX | Ph/Pfox | HOLD |                                                   |       |
| EDP-DSI.M7.BH98A-0.2   | 28/02/2024   | S                                 | 1         | 2            | X                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-0.5   | 28/02/2024   | S                                 | 1         | 2            | X                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-1.0   | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-2.0   | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-3.0   | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-3.5   | 28/02/2024   | S                                 | 1         | 2            | X                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-4.0   | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-5.0   | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             |                  |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-6.0   | 29/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| EDP-DSI.M7.BH98A-7.0   | 29/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     | x        |          |         |      |                                                   |       |
| ① EDP-DSI.M7.BH98A.QC1 | 28/02/2024   | S                                 |           | 2            |                    |     | x                             | x                |     |          |          |         |      | Send to ALS for C10 and Pfas short suite analysis |       |
| EDP-DSI.M7.BH98A.QC2   | 28/02/2024   | S                                 |           | 2            |                    |     | x                             | x                |     |          |          |         |      |                                                   |       |
| ② EDP-DSI.M7.BH98A.QC3 | 29/02/2024   | S                                 |           | 2            |                    |     | x                             | x                |     |          |          |         |      | Send to ALS for C10 and Pfas short suite analysis |       |
| EDP-DSI.M7.BH98A.QC4   | 29/02/2024   | S                                 |           | 2            |                    |     | x                             | x                |     |          |          |         |      |                                                   |       |
|                        |              |                                   |           |              | 16                 | 4   | 16                            | 16               | 0   | 12       |          | 0       | 0    |                                                   |       |

Sampled By:

Gonzalo Serna Diaz

Date: 28/02/2024

Delivered By:

Picked up by Courier

Date: 29/02/2024

Time:

Environmental Division  
SydneyWork Order Reference  
ES2407032

SE 261519

Recd. Mr  
1/3/24  
1502



## SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2407032**

Client : **EDP Consultants Pty Ltd**  
Contact : **CRISTIANE FLORIDO**  
Address : **Lv 4 38 Oxley Street**  
**St Leonards 2065**

E-mail : **cristiane.florido@edp-au.com**  
Telephone : **----**  
Facsimile : **----**

Project : **S-05667.098**

Order number : **----**

C-O-C number : **----**

Site : **----**

Sampler : **GONZALO SERNA DIAZ**

Laboratory : **Environmental Division Sydney**  
Contact : **Customer Services ES**  
Address : **277-289 Woodpark Road Smithfield**  
**NSW Australia 2164**

E-mail : **ALSEnviro.Sydney@ALSGlobal.com**  
Telephone : **+61-2-8784 8555**  
Facsimile : **+61-2-8784 8500**

Page : **1 of 3**

Quote number : **ES2019EDP6000002 (EN/222)**

QC Level : **NEPM 2013 B3 & ALS QC Standard**

### Dates

Date Samples Received : **04-Mar-2024 15:02**

Client Requested Due : **11-Mar-2024**

Date

Issue Date : **04-Mar-2024**

Scheduled Reporting Date : **11-Mar-2024**

### Delivery Details

Mode of Delivery : **Carrier**

No. of coolers/boxes : **1**

Security Seal : **Not Available**

Temperature : **18.6'C, 16.7'C, 16.4'C - Ice**  
**Bricks present**

Receipt Detail : **HARD ESKY**

No. of samples received / analysed : **2 / 2**

### General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months  $\pm$  1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.



Issue Date : 04-Mar-2024  
Page : 2 of 3  
Work Order : ES2407032 Amendment 0  
Client : EDP Consultants Pty Ltd

## Sample Container(s)/Preservation Non-Compliances

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

- No sample container / preservation non-compliance exists.

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

ES2407032-001 : [ 28-Feb-2024 ] : EDP-DSI.M7.BH98A.QC1

ES2407032-002 : [ 29-Feb-2024 ] : EDP-DSI.M7.BH98A.QC3

## Summary of Sample(s) and Requested Analysis

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

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

Matrix: SOIL

| Laboratory sample ID | Sampling date / time | Sample ID            | SOIL - EA055-103<br>Moisture Content | SOIL - EP231 (solids)<br>PFAS - Short Suite (12 analytes) | SOIL - S-26<br>& metals/TRH/BTEXN/PAH |
|----------------------|----------------------|----------------------|--------------------------------------|-----------------------------------------------------------|---------------------------------------|
| ES2407032-001        | 28-Feb-2024 00:00    | EDP-DSI.M7.BH98A.QC1 | ✓                                    | ✓                                                         | ✓                                     |
| ES2407032-002        | 29-Feb-2024 00:00    | EDP-DSI.M7.BH98A.QC3 | ✓                                    | ✓                                                         | ✓                                     |

## Proactive Holding Time Report

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



## Accounts

- Email [supplier.invoices@edp-au.com](mailto:supplier.invoices@edp-au.com)

Email cristiane.florido@edp-au.com

- [illegible]

Email [gonzalo.serna.diaz@edp-au.com](mailto:gonzalo.serna.diaz@edp-au.com)

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Email [project.admin@edp-au.com](mailto:project.admin@edp-au.com)

- |       |                          |
|-------|--------------------------|
| Email | project.admin@edp-au.com |
| Email | project.admin@edp-au.com |
| Email | project.admin@edp-au.com |
| Email | project.admin@edp-au.com |
| Email | project.admin@edp-au.com |



## CERTIFICATE OF ANALYSIS

|                         |                                            |                         |                                                       |
|-------------------------|--------------------------------------------|-------------------------|-------------------------------------------------------|
| Work Order              | : <b>ES2407032</b>                         | Page                    | : 1 of 7                                              |
| Client                  | : <b>EDP Consultants Pty Ltd</b>           | Laboratory              | : Environmental Division Sydney                       |
| Contact                 | : CRISTIANE FLORIDO                        | Contact                 | : Customer Services ES                                |
| Address                 | : Lv 4 38 Oxley Street<br>St Leonards 2065 | Address                 | : 277-289 Woodpark Road Smithfield NSW Australia 2164 |
| Telephone               | : ---                                      | Telephone               | : +61-2-8784 8555                                     |
| Project                 | : S-05667.098                              | Date Samples Received   | : 04-Mar-2024 15:02                                   |
| Order number            | : ---                                      | Date Analysis Commenced | : 05-Mar-2024                                         |
| C-O-C number            | : ---                                      | Issue Date              | : 11-Mar-2024 14:13                                   |
| Sampler                 | : GONZALO SERNA DIAZ                       |                         |                                                       |
| Site                    | : ---                                      |                         |                                                       |
| Quote number            | : EN/222                                   |                         |                                                       |
| No. of samples received | : 2                                        |                         |                                                       |
| No. of samples analysed | : 2                                        |                         |                                                       |



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             |
|-----------------|-----------------------------|------------------------------------|
| Ankit Joshi     | Senior Chemist - Inorganics | Sydney Inorganics, Smithfield, NSW |
| Edwandy Fadjjar | Organic Coordinator         | Sydney Organics, Smithfield, NSW   |
| Franco Lentini  | LCMS Coordinator            | Sydney Inorganics, Smithfield, NSW |
| Franco Lentini  | LCMS Coordinator            | Sydney Organics, Smithfield, NSW   |



## 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.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenzo(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                       |                   |     |       | EDP-DSI.M7.BH98A.QC<br>1 | EDP-DSI.M7.BH98A.QC<br>3 | ---   | ----  | ----  |
|-------------------------------------------------------|-------------------|-----|-------|--------------------------|--------------------------|-------|-------|-------|
| Sampling date / time                                  |                   |     |       | 28-Feb-2024 00:00        | 29-Feb-2024 00:00        | ---   | ---   | ---   |
| Compound                                              | CAS Number        | LOR | Unit  | ES2407032-001            | ES2407032-002            | ----- | ----- | ----- |
| Result                                                |                   |     |       | Result                   | Result                   | ---   | --    | ---   |
| <b>EA055: Moisture Content (Dried @ 105-110°C)</b>    |                   |     |       |                          |                          |       |       |       |
| Moisture Content                                      | ---               | 1.0 | %     | 15.0                     | 5.6                      | --    | ----  | --    |
| <b>EG005(ED093)T: Total Metals by ICP-AES</b>         |                   |     |       |                          |                          |       |       |       |
| Arsenic                                               | 7440-38-2         | 5   | mg/kg | 6                        | 12                       | --    | ----  | --    |
| Cadmium                                               | 7440-43-9         | 1   | mg/kg | <1                       | <1                       | --    | ----  | --    |
| Chromium                                              | 7440-47-3         | 2   | mg/kg | 16                       | 19                       | --    | ----  | --    |
| Copper                                                | 7440-50-8         | 5   | mg/kg | 26                       | 27                       | --    | ----  | --    |
| Lead                                                  | 7439-92-1         | 5   | mg/kg | 26                       | 33                       | --    | ----  | --    |
| Nickel                                                | 7440-02-0         | 2   | mg/kg | 12                       | 13                       | --    | ----  | --    |
| Zinc                                                  | 7440-66-6         | 5   | mg/kg | 100                      | 40                       | --    | ----  | --    |
| <b>EG035T: Total Recoverable Mercury by FIMS</b>      |                   |     |       |                          |                          |       |       |       |
| Mercury                                               | 7439-97-6         | 0.1 | mg/kg | <0.1                     | <0.1                     | --    | ----  | --    |
| <b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b> |                   |     |       |                          |                          |       |       |       |
| Naphthalene                                           | 91-20-3           | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Acenaphthylene                                        | 208-96-8          | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Acenaphthene                                          | 83-32-9           | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Fluorene                                              | 86-73-7           | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Phenanthrene                                          | 85-01-8           | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Anthracene                                            | 120-12-7          | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Fluoranthene                                          | 206-44-0          | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Pyrene                                                | 129-00-0          | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Benz(a)anthracene                                     | 56-55-3           | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Chrysene                                              | 218-01-9          | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Benzo(b+j)fluoranthene                                | 205-99-2 205-82-3 | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Benzo(k)fluoranthene                                  | 207-08-9          | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Benzo(a)pyrene                                        | 50-32-8           | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Indeno(1.2.3.cd)pyrene                                | 193-39-5          | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |
| Dibenz(a,h)anthracene                                 | 53-70-3           | 0.5 | mg/kg | <0.5                     | <0.5                     | --    | ----  | --    |



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                                        |                   |     |       | EDP-DSI.M7.BH98A.QC<br>1 | EDP-DSI.M7.BH98A.QC<br>3 | ---   | ----  | ----  |
|------------------------------------------------------------------------|-------------------|-----|-------|--------------------------|--------------------------|-------|-------|-------|
| Sampling date / time                                                   |                   |     |       | 28-Feb-2024 00:00        | 29-Feb-2024 00:00        | ---   | ---   | ---   |
| Compound                                                               | CAS Number        | LOR | Unit  | ES2407032-001            | ES2407032-002            | ----- | ----- | ----- |
|                                                                        |                   |     |       | Result                   | Result                   | ---   | --    | ---   |
| <b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued</b>      |                   |     |       |                          |                          |       |       |       |
| Benzo(g,h,i)perylene                                                   | 191-24-2          | 0.5 | mg/kg | <0.5                     | <0.5                     | ---   | ----  | ---   |
| ^ Sum of polycyclic aromatic hydrocarbons                              | ---               | 0.5 | mg/kg | <0.5                     | <0.5                     | ---   | ----  | ---   |
| ^ Benzo(a)pyrene TEQ (zero)                                            | ---               | 0.5 | mg/kg | <0.5                     | <0.5                     | ---   | ----  | ---   |
| ^ Benzo(a)pyrene TEQ (half LOR)                                        | ---               | 0.5 | mg/kg | 0.6                      | 0.6                      | ---   | ----  | ---   |
| ^ Benzo(a)pyrene TEQ (LOR)                                             | ---               | 0.5 | mg/kg | 1.2                      | 1.2                      | ---   | ----  | ---   |
| <b>EP080/071: Total Petroleum Hydrocarbons</b>                         |                   |     |       |                          |                          |       |       |       |
| C6 - C9 Fraction                                                       | ---               | 10  | mg/kg | <10                      | <10                      | ---   | ----  | ---   |
| C10 - C14 Fraction                                                     | ---               | 50  | mg/kg | <50                      | <50                      | ---   | ----  | ---   |
| C15 - C28 Fraction                                                     | ---               | 100 | mg/kg | <100                     | <100                     | ---   | ----  | ---   |
| C29 - C36 Fraction                                                     | ---               | 100 | mg/kg | <100                     | <100                     | ---   | ----  | ---   |
| ^ C10 - C36 Fraction (sum)                                             | ---               | 50  | mg/kg | <50                      | <50                      | ---   | ----  | ---   |
| <b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b> |                   |     |       |                          |                          |       |       |       |
| C6 - C10 Fraction                                                      | C6_C10            | 10  | mg/kg | <10                      | <10                      | ---   | ----  | ---   |
| ^ C6 - C10 Fraction minus BTEX (F1)                                    | C6_C10-BTEX       | 10  | mg/kg | <10                      | <10                      | ---   | ----  | ---   |
| >C10 - C16 Fraction                                                    | ---               | 50  | mg/kg | <50                      | <50                      | ---   | ----  | ---   |
| >C16 - C34 Fraction                                                    | ---               | 100 | mg/kg | <100                     | <100                     | ---   | ----  | ---   |
| >C34 - C40 Fraction                                                    | ---               | 100 | mg/kg | <100                     | <100                     | ---   | ----  | ---   |
| ^ >C10 - C40 Fraction (sum)                                            | ---               | 50  | mg/kg | <50                      | <50                      | ---   | ----  | ---   |
| ^ >C10 - C16 Fraction minus Naphthalene (F2)                           | ---               | 50  | mg/kg | <50                      | <50                      | ---   | ----  | ---   |
| <b>EP080: BTEXN</b>                                                    |                   |     |       |                          |                          |       |       |       |
| 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                     | ---   | ----  | ---   |



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                   |                    |        |       | EDP-DSI.M7.BH98A.QC<br>1 | EDP-DSI.M7.BH98A.QC<br>3 | ---   | ----  | ----  |
|---------------------------------------------------|--------------------|--------|-------|--------------------------|--------------------------|-------|-------|-------|
| Sampling date / time                              |                    |        |       | 28-Feb-2024 00:00        | 29-Feb-2024 00:00        | ---   | ---   | ---   |
| Compound                                          | CAS Number         | LOR    | Unit  | ES2407032-001            | ES2407032-002            | ----- | ----- | ----- |
|                                                   |                    |        |       | Result                   | Result                   | ---   | ---   | ---   |
| <b>EP080: BTEXN - Continued</b>                   |                    |        |       |                          |                          |       |       |       |
| <sup>^</sup> Total Xylenes                        | ---                | 0.5    | mg/kg | <0.5                     | <0.5                     | ---   | ----  | ---   |
| Naphthalene                                       | 91-20-3            | 1      | mg/kg | <1                       | <1                       | ---   | ----  | ---   |
| <b>EP231A: Perfluoroalkyl Sulfonic Acids</b>      |                    |        |       |                          |                          |       |       |       |
| Perfluorobutane sulfonic acid (PFBS)              | 375-73-5           | 0.0002 | mg/kg | <0.0002                  | <0.0002                  | ---   | ----  | ---   |
| Perfluorohexane sulfonic acid (PFHxS)             | 355-46-4           | 0.0002 | mg/kg | <0.0002                  | <0.0002                  | ---   | ----  | ---   |
| Perfluorooctane sulfonic acid (PFOS)              | 1763-23-1          | 0.0002 | mg/kg | <b>0.0003</b>            | <0.0002                  | ---   | ----  | ---   |
| <b>EP231B: Perfluoroalkyl Carboxylic Acids</b>    |                    |        |       |                          |                          |       |       |       |
| Perfluorobutanoic acid (PFBA)                     | 375-22-4           | 0.001  | mg/kg | <0.001                   | <0.001                   | ---   | ----  | ---   |
| Perfluoropentanoic acid (PFPeA)                   | 2706-90-3          | 0.0002 | mg/kg | <b>0.0004</b>            | <0.0002                  | ---   | ----  | ---   |
| Perfluorohexanoic acid (PFHxA)                    | 307-24-4           | 0.0002 | mg/kg | <b>0.0002</b>            | <0.0002                  | ---   | ----  | ---   |
| Perfluoroheptanoic acid (PFHpA)                   | 375-85-9           | 0.0002 | mg/kg | <0.0002                  | <0.0002                  | ---   | ----  | ---   |
| Perfluorooctanoic acid (PFOA)                     | 335-67-1           | 0.0002 | mg/kg | <b>0.0005</b>            | <0.0002                  | ---   | ----  | ---   |
| <b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b> |                    |        |       |                          |                          |       |       |       |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS)         | 757124-72-4        | 0.0005 | mg/kg | <0.0005                  | <0.0005                  | ---   | ----  | ---   |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS)         | 27619-97-2         | 0.0005 | mg/kg | <0.0005                  | <0.0005                  | ---   | ----  | ---   |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS)         | 39108-34-4         | 0.0005 | mg/kg | <0.0005                  | <0.0005                  | ---   | ----  | ---   |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS)       | 120226-60-0        | 0.0005 | mg/kg | <0.0005                  | <0.0005                  | ---   | ----  | ---   |
| <b>EP231P: PFAS Sums</b>                          |                    |        |       |                          |                          |       |       |       |
| Sum of PFHxS and PFOS                             | 355-46-4/1763-23-1 | 0.0002 | mg/kg | <b>0.0003</b>            | <0.0002                  | ---   | ----  | ---   |
| Sum of PFAS (WA DER List)                         | ---                | 0.0002 | mg/kg | <b>0.0014</b>            | <0.0002                  | ---   | ----  | ---   |
| <b>EP075(SIM)S: Phenolic Compound Surrogates</b>  |                    |        |       |                          |                          |       |       |       |
| Phenol-d6                                         | 13127-88-3         | 0.5    | %     | <b>94.9</b>              | <b>83.9</b>              | ---   | ----  | ---   |
| 2-Chlorophenol-D4                                 | 93951-73-6         | 0.5    | %     | <b>80.7</b>              | <b>81.8</b>              | ---   | ----  | ---   |





Analytical Results

|                                                       |            |        |      |           |                          |                          |       |       |       |
|-------------------------------------------------------|------------|--------|------|-----------|--------------------------|--------------------------|-------|-------|-------|
| Sub-Matrix: SOIL<br>(Matrix: SOIL)                    |            |        |      | Sample ID | EDP-DSI.M7.BH98A.QC<br>1 | EDP-DSI.M7.BH98A.QC<br>3 | ---   | ----  | ----  |
| Sampling date / time                                  |            |        |      |           | 28-Feb-2024 00:00        | 29-Feb-2024 00:00        | ---   | ---   | ---   |
| Compound                                              | CAS Number | LOR    | Unit |           | ES2407032-001            | ES2407032-002            | ----- | ----- | ----- |
|                                                       |            |        |      | Result    | Result                   |                          | ---   | --    | ---   |
| EP075(SIM)S: Phenolic Compound Surrogates - Continued |            |        |      |           |                          |                          |       |       |       |
| 2,4,6-Tribromophenol                                  | 118-79-6   | 0.5    | %    |           | 60.4                     | 51.2                     | --    | ----  | --    |
| EP075(SIM)T: PAH Surrogates                           |            |        |      |           |                          |                          |       |       |       |
| 2-Fluorobiphenyl                                      | 321-60-8   | 0.5    | %    |           | 86.1                     | 85.7                     | --    | ----  | --    |
| Anthracene-d10                                        | 1719-06-8  | 0.5    | %    |           | 98.6                     | 104                      | --    | ----  | --    |
| 4-Terphenyl-d14                                       | 1718-51-0  | 0.5    | %    |           | 95.0                     | 96.4                     | --    | ----  | --    |
| EP080S: TPH(V)/BTEX Surrogates                        |            |        |      |           |                          |                          |       |       |       |
| 1,2-Dichloroethane-D4                                 | 17060-07-0 | 0.2    | %    |           | 83.9                     | 86.5                     | --    | ----  | --    |
| Toluene-D8                                            | 2037-26-5  | 0.2    | %    |           | 86.5                     | 90.4                     | --    | ----  | --    |
| 4-Bromofluorobenzene                                  | 460-00-4   | 0.2    | %    |           | 90.1                     | 94.0                     | --    | ----  | --    |
| EP231S: PFAS Surrogate                                |            |        |      |           |                          |                          |       |       |       |
| 13C4-PFOS                                             | ---        | 0.0002 | %    |           | 91.8                     | 87.0                     | --    | ----  | --    |
| 13C8-PFOA                                             | ---        | 0.0002 | %    |           | 103                      | 96.0                     | --    | ----  | --    |



Surrogate Control Limits

| Sub-Matrix: SOIL                          |            | Recovery Limits (%) |      |
|-------------------------------------------|------------|---------------------|------|
| Compound                                  | CAS Number | Low                 | High |
| EP075(SIM)S: Phenolic Compound Surrogates |            |                     |      |
| Phenol-d6                                 | 13127-88-3 | 63                  | 123  |
| 2-Chlorophenol-D4                         | 93951-73-6 | 66                  | 122  |
| 2,4,6-Tribromophenol                      | 118-79-6   | 40                  | 138  |
| EP075(SIM)T: PAH Surrogates               |            |                     |      |
| 2-Fluorobiphenyl                          | 321-60-8   | 70                  | 122  |
| Anthracene-d10                            | 1719-06-8  | 66                  | 128  |
| 4-Terphenyl-d14                           | 1718-51-0  | 65                  | 129  |
| EP080S: TPH(V)/BTEX Surrogates            |            |                     |      |
| 1,2-Dichloroethane-D4                     | 17060-07-0 | 63                  | 125  |
| Toluene-D8                                | 2037-26-5  | 67                  | 124  |
| 4-Bromofluorobenzene                      | 460-00-4   | 66                  | 131  |
| EP231S: PFAS Surrogate                    |            |                     |      |
| 13C4-PFOS                                 | ---        | 60                  | 120  |
| 13C8-PFOA                                 | ---        | 60                  | 120  |



## QUALITY CONTROL REPORT

Work Order : **ES2407032**

Page : 1 of 8

Client : **EDP Consultants Pty Ltd**

Contact : **CRISTIANE FLORIDO**

Address : **Lv 4 38 Oxley Street  
St Leonards 2065**

Telephone : ----

Project : **S-05667.098**

Order number : ----

C-O-C number : ----

Sampler : **GONZALO SERNA DIAZ**

Site : ----

Quote number : **EN/222**

No. of samples received : **2**

No. of samples analysed : **2**

Laboratory : **Environmental Division Sydney**

Contact : **Customer Services ES**

Address : **277-289 Woodpark Road Smithfield NSW Australia 2164**

Telephone : **+61-2-8784 8555**

Date Samples Received : **04-Mar-2024**

Date Analysis Commenced : **05-Mar-2024**

Issue Date : **11-Mar-2024**



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             |
|----------------|-----------------------------|------------------------------------|
| Ankit Joshi    | Senior Chemist - Inorganics | Sydney Inorganics, Smithfield, NSW |
| Edwandy Fadjar | Organic Coordinator         | Sydney Organics, Smithfield, NSW   |
| Franco Lentini | LCMS Coordinator            | Sydney Inorganics, Smithfield, NSW |
| Franco Lentini | LCMS Coordinator            | Sydney Organics, Smithfield, NSW   |





## 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**

| Sub-Matrix: SOIL                                              |                      |                         |            | Laboratory Duplicate (DUP) Report |       |                 |                  |         |                    |
|---------------------------------------------------------------|----------------------|-------------------------|------------|-----------------------------------|-------|-----------------|------------------|---------|--------------------|
| Laboratory sample ID                                          | Sample ID            | Method: Compound        | CAS Number | LOR                               | Unit  | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5644803)      |                      |                         |            |                                   |       |                 |                  |         |                    |
| ES2406985-001                                                 | Anonymous            | EG005T: Chromium        | 7440-47-3  | 2                                 | mg/kg | 9               | 10               | 0.0     | No Limit           |
|                                                               |                      | EG005T: Nickel          | 7440-02-0  | 2                                 | mg/kg | 2               | <2               | 0.0     | No Limit           |
|                                                               |                      | EG005T: Arsenic         | 7440-38-2  | 5                                 | mg/kg | <5              | <5               | 0.0     | No Limit           |
|                                                               |                      | EG005T: Copper          | 7440-50-8  | 5                                 | mg/kg | <5              | 5                | 0.0     | No Limit           |
|                                                               |                      | EG005T: Lead            | 7439-92-1  | 5                                 | mg/kg | 10              | 9                | 0.0     | No Limit           |
| ES2406985-001                                                 | Anonymous            | EG005T: Cadmium         | 7440-43-9  | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
|                                                               |                      | EG005T: Zinc            | 7440-66-6  | 5                                 | mg/kg | 22              | 26               | 15.0    | No Limit           |
| ES2407032-002                                                 | EDP-DSI.M7.BH98A.QC3 | EG005T: Cadmium         | 7440-43-9  | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
|                                                               |                      | EG005T: Chromium        | 7440-47-3  | 2                                 | mg/kg | 19              | 23               | 18.1    | 0% - 50%           |
|                                                               |                      | EG005T: Nickel          | 7440-02-0  | 2                                 | mg/kg | 13              | 17               | 28.0    | No Limit           |
|                                                               |                      | EG005T: Arsenic         | 7440-38-2  | 5                                 | mg/kg | 12              | 12               | 0.0     | No Limit           |
|                                                               |                      | EG005T: Copper          | 7440-50-8  | 5                                 | mg/kg | 27              | 30               | 11.8    | No Limit           |
|                                                               |                      | EG005T: Lead            | 7439-92-1  | 5                                 | mg/kg | 33              | 26               | 24.5    | No Limit           |
|                                                               |                      | EG005T: Zinc            | 7440-66-6  | 5                                 | mg/kg | 40              | 59               | 40.2    | 0% - 50%           |
| EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5644806) |                      |                         |            |                                   |       |                 |                  |         |                    |
| ES2406992-001                                                 | Anonymous            | EA055: Moisture Content | ----       | 0.1 (1.0)*                        | %     | 2.1             | 2.4              | 13.0    | No Limit           |
| ES2407053-001                                                 | Anonymous            | EA055: Moisture Content | ----       | 0.1                               | %     | 17.3            | 17.9             | 3.2     | 0% - 20%           |
| EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5644804)   |                      |                         |            |                                   |       |                 |                  |         |                    |
| ES2406985-001                                                 | Anonymous            | EG035T: Mercury         | 7439-97-6  | 0.1                               | mg/kg | <0.1            | <0.1             | 0.0     | No Limit           |
| ES2407032-002                                                 | EDP-DSI.M7.BH98A.QC3 | EG035T: Mercury         | 7439-97-6  | 0.1                               | mg/kg | <0.1            | <0.1             | 0.0     | No Limit           |



| Sub-Matrix: SOIL                                                                  |           |                                                     |            | Laboratory Duplicate (DUP) Report |       |                 |                  |         |                    |
|-----------------------------------------------------------------------------------|-----------|-----------------------------------------------------|------------|-----------------------------------|-------|-----------------|------------------|---------|--------------------|
| Laboratory sample ID                                                              | Sample ID | Method: Compound                                    | CAS Number | LOR                               | Unit  | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5640793)                  |           |                                                     |            |                                   |       |                 |                  |         |                    |
| ES2406989-001                                                                     | Anonymous | EP075(SIM): Naphthalene                             | 91-20-3    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Acenaphthylene                          | 208-96-8   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Acenaphthene                            | 83-32-9    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Fluorene                                | 86-73-7    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Phenanthrene                            | 85-01-8    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Anthracene                              | 120-12-7   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Fluoranthene                            | 206-44-0   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Pyrene                                  | 129-00-0   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Benz(a)anthracene                       | 56-55-3    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Chrysene                                | 218-01-9   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Benzo(b+j)fluoranthene                  | 205-99-2   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           |                                                     | 205-82-3   |                                   |       |                 |                  |         |                    |
|                                                                                   |           | EP075(SIM): Benzo(k)fluoranthene                    | 207-08-9   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Benzo(a)pyrene                          | 50-32-8    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Indeno(1.2.3.cd)pyrene                  | 193-39-5   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Dibenz(a,h)anthracene                   | 53-70-3    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Benzo(g,h,i)perylene                    | 191-24-2   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Sum of polycyclic aromatic hydrocarbons | ----       | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |           | EP075(SIM): Benzo(a)pyrene TEQ (zero)               | ----       | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
| EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5640792)                         |           |                                                     |            |                                   |       |                 |                  |         |                    |
| ES2406989-001                                                                     | Anonymous | EP071: C15 - C28 Fraction                           | ----       | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |           | EP071: C29 - C36 Fraction                           | ----       | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |           | EP071: C10 - C14 Fraction                           | ----       | 50                                | mg/kg | <50             | <50              | 0.0     | No Limit           |
| EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5643475)                         |           |                                                     |            |                                   |       |                 |                  |         |                    |
| ES2406363-001                                                                     | Anonymous | EP080: C6 - C9 Fraction                             | ----       | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| ES2406992-002                                                                     | Anonymous | EP080: C6 - C9 Fraction                             | ----       | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5640792) |           |                                                     |            |                                   |       |                 |                  |         |                    |
| ES2406989-001                                                                     | Anonymous | EP071: >C16 - C34 Fraction                          | ----       | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |           | EP071: >C34 - C40 Fraction                          | ----       | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |           | EP071: >C10 - C16 Fraction                          | ----       | 50                                | mg/kg | <50             | <50              | 0.0     | No Limit           |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5643475) |           |                                                     |            |                                   |       |                 |                  |         |                    |
| ES2406363-001                                                                     | Anonymous | EP080: C6 - C10 Fraction                            | C6_C10     | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| ES2406992-002                                                                     | Anonymous | EP080: C6 - C10 Fraction                            | C6_C10     | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| EP080: BTEXN (QC Lot: 5643475)                                                    |           |                                                     |            |                                   |       |                 |                  |         |                    |
| ES2406363-001                                                                     | 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           |



| 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: 5643475) - continued                   |           |                                                         |                      |                                   |       |                 |                  |         |                    |
| ES2406363-001                                                | Anonymous | EP080: Ethylbenzene                                     | 100-41-4             | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                              |           | EP080: meta- & para-Xylene                              | 108-38-3<br>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           |
| ES2406992-002                                                | 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<br>106-42-3 | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                              |           | EP080: ortho-Xylene                                     | 95-47-6              | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                              |           | EP080: Naphthalene                                      | 91-20-3              | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
|                                                              |           | EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5642089) |                      |                                   |       |                 |                  |         |                    |
| ES2406881-047                                                | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS)            | 375-73-5             | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                              |           | EP231X: Perfluorohexane sulfonic acid (PFHxS)           | 355-46-4             | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                              |           | EP231X: Perfluorooctane sulfonic acid (PFOS)            | 1763-23-1            | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
| EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5642089)    |           |                                                         |                      |                                   |       |                 |                  |         |                    |
| ES2406881-047                                                | Anonymous | EP231X: Perfluoropentanoic acid (PFPeA)                 | 2706-90-3            | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                              |           | EP231X: Perfluorohexanoic acid (PFHxA)                  | 307-24-4             | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                              |           | EP231X: Perfluoroheptanoic acid (PFHpA)                 | 375-85-9             | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                              |           | EP231X: Perfluorooctanoic acid (PFOA)                   | 335-67-1             | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                              |           | EP231X: Perfluorobutanoic acid (PFBA)                   | 375-22-4             | 0.001                             | mg/kg | <0.001          | <0.001           | 0.0     | No Limit           |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5642089) |           |                                                         |                      |                                   |       |                 |                  |         |                    |
| ES2406881-047                                                | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)       | 757124-72-4          | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |
|                                                              |           | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)       | 27619-97-2           | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |
|                                                              |           | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)       | 39108-34-4           | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |
|                                                              |           | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)     | 120226-60-0          | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |





## 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)<br>Report | Laboratory Control Spike (LCS) Report |                           |                                   |     |
|-----------------------------------------------------------------|----------------------|-----|-------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|-----|
|                                                                 |                      |     |       |                             | Spike<br>Concentration                | Spike Recovery (%)<br>LCS | Acceptable Limits (%)<br>Low High |     |
| Method: Compound                                                | CAS Number           | LOR | Unit  | Result                      |                                       |                           |                                   |     |
| EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5644803)         |                      |     |       |                             |                                       |                           |                                   |     |
| EG005T: Arsenic                                                 | 7440-38-2            | 5   | mg/kg | <5                          | 121.1 mg/kg                           | 99.7                      | 88.0                              | 113 |
| EG005T: Cadmium                                                 | 7440-43-9            | 1   | mg/kg | <1                          | 0.74 mg/kg                            | 125                       | 70.0                              | 130 |
| EG005T: Chromium                                                | 7440-47-3            | 2   | mg/kg | <2                          | 19.6 mg/kg                            | 120                       | 68.0                              | 132 |
| EG005T: Copper                                                  | 7440-50-8            | 5   | mg/kg | <5                          | 52.9 mg/kg                            | 104                       | 89.0                              | 111 |
| EG005T: Lead                                                    | 7439-92-1            | 5   | mg/kg | <5                          | 60.8 mg/kg                            | 103                       | 82.0                              | 119 |
| EG005T: Nickel                                                  | 7440-02-0            | 2   | mg/kg | <2                          | 15.3 mg/kg                            | 102                       | 80.0                              | 120 |
| EG005T: Zinc                                                    | 7440-66-6            | 5   | mg/kg | <5                          | 139.3 mg/kg                           | 114                       | 66.0                              | 133 |
| EG035T: Total Recoverable Mercury by FIMS (QCLot: 5644804)      |                      |     |       |                             |                                       |                           |                                   |     |
| EG035T: Mercury                                                 | 7439-97-6            | 0.1 | mg/kg | <0.1                        | 0.087 mg/kg                           | 124                       | 70.0                              | 125 |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5640793) |                      |     |       |                             |                                       |                           |                                   |     |
| EP075(SIM): Naphthalene                                         | 91-20-3              | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 90.6                      | 77.0                              | 125 |
| EP075(SIM): Acenaphthylene                                      | 208-96-8             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 92.9                      | 72.0                              | 124 |
| EP075(SIM): Acenaphthene                                        | 83-32-9              | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 89.2                      | 73.0                              | 127 |
| EP075(SIM): Fluorene                                            | 86-73-7              | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 92.2                      | 72.0                              | 126 |
| EP075(SIM): Phenanthrene                                        | 85-01-8              | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 102                       | 75.0                              | 127 |
| EP075(SIM): Anthracene                                          | 120-12-7             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 99.5                      | 77.0                              | 127 |
| EP075(SIM): Fluoranthene                                        | 206-44-0             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 92.4                      | 73.0                              | 127 |
| EP075(SIM): Pyrene                                              | 129-00-0             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 92.2                      | 74.0                              | 128 |
| EP075(SIM): Benz(a)anthracene                                   | 56-55-3              | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 96.8                      | 69.0                              | 123 |
| EP075(SIM): Chrysene                                            | 218-01-9             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 98.0                      | 75.0                              | 127 |
| EP075(SIM): Benzo(b+j)fluoranthene                              | 205-99-2<br>205-82-3 | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 93.5                      | 68.0                              | 116 |
| EP075(SIM): Benzo(k)fluoranthene                                | 207-08-9             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 102                       | 74.0                              | 126 |
| EP075(SIM): Benzo(a)pyrene                                      | 50-32-8              | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 99.6                      | 70.0                              | 126 |
| EP075(SIM): Indeno(1.2.3.cd)pyrene                              | 193-39-5             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 87.7                      | 61.0                              | 121 |
| EP075(SIM): Dibenz(a.h)anthracene                               | 53-70-3              | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 79.2                      | 62.0                              | 118 |
| EP075(SIM): Benzo(g.h.i)perylene                                | 191-24-2             | 0.5 | mg/kg | <0.5                        | 6 mg/kg                               | 76.1                      | 63.0                              | 121 |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5640792)        |                      |     |       |                             |                                       |                           |                                   |     |
| EP071: C10 - C14 Fraction                                       | ----                 | 50  | mg/kg | <50                         | 300 mg/kg                             | 120                       | 75.0                              | 129 |
| EP071: C15 - C28 Fraction                                       | ----                 | 100 | mg/kg | <100                        | 450 mg/kg                             | 106                       | 77.0                              | 131 |
| EP071: C29 - C36 Fraction                                       | ----                 | 100 | mg/kg | <100                        | 300 mg/kg                             | 107                       | 71.0                              | 129 |



| Sub-Matrix: <b>SOIL</b>                                                          |             |        |       | Method Blank (MB)<br>Report | Laboratory Control Spike (LCS) Report |                           |                                   |     |
|----------------------------------------------------------------------------------|-------------|--------|-------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|-----|
|                                                                                  |             |        |       |                             | Spike<br>Concentration                | Spike Recovery (%)<br>LCS | Acceptable Limits (%)<br>Low High |     |
| Method: Compound                                                                 | CAS Number  | LOR    | Unit  | Result                      |                                       |                           |                                   |     |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5643475)                         |             |        |       |                             |                                       |                           |                                   |     |
| EP080: C6 - C9 Fraction                                                          | ----        | 10     | mg/kg | <10                         | 26 mg/kg                              | 82.7                      | 72.2                              | 131 |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5640792) |             |        |       |                             |                                       |                           |                                   |     |
| EP071: >C10 - C16 Fraction                                                       | ----        | 50     | mg/kg | <50                         | 375 mg/kg                             | 112                       | 77.0                              | 125 |
| EP071: >C16 - C34 Fraction                                                       | ----        | 100    | mg/kg | <100                        | 525 mg/kg                             | 105                       | 74.0                              | 138 |
| EP071: >C34 - C40 Fraction                                                       | ----        | 100    | mg/kg | <100                        | 225 mg/kg                             | 102                       | 63.0                              | 131 |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5643475) |             |        |       |                             |                                       |                           |                                   |     |
| EP080: C6 - C10 Fraction                                                         | C6_C10      | 10     | mg/kg | <10                         | 31 mg/kg                              | 85.6                      | 72.4                              | 133 |
| EP080: BTEXN (QCLot: 5643475)                                                    |             |        |       |                             |                                       |                           |                                   |     |
| EP080: Benzene                                                                   | 71-43-2     | 0.2    | mg/kg | <0.2                        | 1 mg/kg                               | 102                       | 76.0                              | 124 |
| EP080: Toluene                                                                   | 108-88-3    | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 100                       | 78.5                              | 121 |
| EP080: Ethylbenzene                                                              | 100-41-4    | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 104                       | 77.4                              | 121 |
| EP080: meta- & para-Xylene                                                       | 108-38-3    | 0.5    | mg/kg | <0.5                        | 2 mg/kg                               | 101                       | 78.2                              | 121 |
|                                                                                  | 106-42-3    |        |       |                             |                                       |                           |                                   |     |
| EP080: ortho-Xylene                                                              | 95-47-6     | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 97.7                      | 81.3                              | 121 |
| EP080: Naphthalene                                                               | 91-20-3     | 1      | mg/kg | <1                          | 1 mg/kg                               | 90.3                      | 78.8                              | 122 |
| EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5642089)                           |             |        |       |                             |                                       |                           |                                   |     |
| EP231X: Perfluorobutane sulfonic acid (PFBS)                                     | 375-73-5    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 88.0                      | 72.0                              | 128 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS)                                    | 355-46-4    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 91.6                      | 67.0                              | 130 |
| EP231X: Perfluorooctane sulfonic acid (PFOS)                                     | 1763-23-1   | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 91.7                      | 68.0                              | 136 |
| EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5642089)                         |             |        |       |                             |                                       |                           |                                   |     |
| EP231X: Perfluorobutanoic acid (PFBA)                                            | 375-22-4    | 0.001  | mg/kg | <0.001                      | 0.00625 mg/kg                         | 84.7                      | 71.0                              | 135 |
| EP231X: Perfluoropentanoic acid (PFPeA)                                          | 2706-90-3   | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 104                       | 69.0                              | 132 |
| EP231X: Perfluorohexanoic acid (PFHxA)                                           | 307-24-4    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 100                       | 70.0                              | 132 |
| EP231X: Perfluoroheptanoic acid (PFHpA)                                          | 375-85-9    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 104                       | 71.0                              | 131 |
| EP231X: Perfluorooctanoic acid (PFOA)                                            | 335-67-1    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 104                       | 69.0                              | 133 |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5642089)                      |             |        |       |                             |                                       |                           |                                   |     |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)                                | 757124-72-4 | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 110                       | 62.0                              | 145 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)                                | 27619-97-2  | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 100                       | 64.0                              | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)                                | 39108-34-4  | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 107                       | 65.0                              | 137 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)                              | 120226-60-0 | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 116                       | 69.2                              | 143 |

## 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 |
| EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5644803)                          |           |                                               |            |                          |                  |                       |      |
| ES2406985-001                                                                    | Anonymous | EG005T: Arsenic                               | 7440-38-2  | 50 mg/kg                 | 98.8             | 70.0                  | 130  |
|                                                                                  |           | EG005T: Cadmium                               | 7440-43-9  | 50 mg/kg                 | 97.9             | 70.0                  | 130  |
|                                                                                  |           | EG005T: Chromium                              | 7440-47-3  | 50 mg/kg                 | 99.1             | 68.0                  | 132  |
|                                                                                  |           | EG005T: Copper                                | 7440-50-8  | 250 mg/kg                | 97.6             | 70.0                  | 130  |
|                                                                                  |           | EG005T: Lead                                  | 7439-92-1  | 250 mg/kg                | 96.7             | 70.0                  | 130  |
|                                                                                  |           | EG005T: Nickel                                | 7440-02-0  | 50 mg/kg                 | 97.6             | 70.0                  | 130  |
|                                                                                  |           | EG005T: Zinc                                  | 7440-66-6  | 250 mg/kg                | 97.9             | 66.0                  | 133  |
| EG035T: Total Recoverable Mercury by FIMS (QCLot: 5644804)                       |           |                                               |            |                          |                  |                       |      |
| ES2406985-001                                                                    | Anonymous | EG035T: Mercury                               | 7439-97-6  | 5 mg/kg                  | 90.2             | 70.0                  | 130  |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5640793)                  |           |                                               |            |                          |                  |                       |      |
| ES2406989-001                                                                    | Anonymous | EP075(SIM): Acenaphthene                      | 83-32-9    | 10 mg/kg                 | 87.6             | 70.0                  | 130  |
|                                                                                  |           | EP075(SIM): Pyrene                            | 129-00-0   | 10 mg/kg                 | 97.2             | 70.0                  | 130  |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5640792)                         |           |                                               |            |                          |                  |                       |      |
| ES2406989-001                                                                    | Anonymous | EP071: C10 - C14 Fraction                     | ----       | 480 mg/kg                | 112              | 73.0                  | 137  |
|                                                                                  |           | EP071: C15 - C28 Fraction                     | ----       | 3100 mg/kg               | 118              | 53.0                  | 131  |
|                                                                                  |           | EP071: C29 - C36 Fraction                     | ----       | 2060 mg/kg               | 114              | 52.0                  | 132  |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5643475)                         |           |                                               |            |                          |                  |                       |      |
| ES2406363-001                                                                    | Anonymous | EP080: C6 - C9 Fraction                       | ----       | 32.5 mg/kg               | 75.4             | 60.4                  | 142  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5640792) |           |                                               |            |                          |                  |                       |      |
| ES2406989-001                                                                    | Anonymous | EP071: >C10 - C16 Fraction                    | ----       | 860 mg/kg                | 103              | 73.0                  | 137  |
|                                                                                  |           | EP071: >C16 - C34 Fraction                    | ----       | 4320 mg/kg               | 116              | 53.0                  | 131  |
|                                                                                  |           | EP071: >C34 - C40 Fraction                    | ----       | 890 mg/kg                | 119              | 52.0                  | 132  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5643475) |           |                                               |            |                          |                  |                       |      |
| ES2406363-001                                                                    | Anonymous | EP080: C6 - C10 Fraction                      | C6_C10     | 37.5 mg/kg               | 77.8             | 61.1                  | 142  |
| EP080: BTEXN (QCLot: 5643475)                                                    |           |                                               |            |                          |                  |                       |      |
| ES2406363-001                                                                    | Anonymous | EP080: Benzene                                | 71-43-2    | 2.5 mg/kg                | 91.3             | 62.1                  | 122  |
|                                                                                  |           | EP080: Toluene                                | 108-88-3   | 2.5 mg/kg                | 90.3             | 66.6                  | 119  |
|                                                                                  |           | EP080: Ethylbenzene                           | 100-41-4   | 2.5 mg/kg                | 94.7             | 67.4                  | 123  |
|                                                                                  |           | EP080: meta- & para-Xylene                    | 108-38-3   | 2.5 mg/kg                | 94.0             | 66.4                  | 121  |
|                                                                                  |           |                                               | 106-42-3   |                          |                  |                       |      |
|                                                                                  |           | EP080: ortho-Xylene                           | 95-47-6    | 2.5 mg/kg                | 91.2             | 70.7                  | 121  |
|                                                                                  |           | EP080: Naphthalene                            | 91-20-3    | 2.5 mg/kg                | 80.3             | 61.1                  | 115  |
| EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5642089)                           |           |                                               |            |                          |                  |                       |      |
| ES2406881-047                                                                    | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS)  | 375-73-5   | 0.00125 mg/kg            | 83.0             | 72.0                  | 128  |
|                                                                                  |           | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4   | 0.00125 mg/kg            | 84.5             | 67.0                  | 130  |
|                                                                                  |           | EP231X: Perfluorooctane sulfonic acid (PFOS)  | 1763-23-1  | 0.00125 mg/kg            | 85.9             | 68.0                  | 136  |





| Sub-Matrix: SOIL                                            |           |                                                     |             | Matrix Spike (MS) Report |                  |                       |      |
|-------------------------------------------------------------|-----------|-----------------------------------------------------|-------------|--------------------------|------------------|-----------------------|------|
|                                                             |           |                                                     |             | Spike                    | SpikeRecovery(%) | Acceptable Limits (%) |      |
| Laboratory sample ID                                        | Sample ID | Method: Compound                                    | CAS Number  | Concentration            | MS               | Low                   | High |
| EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5642089)    |           |                                                     |             |                          |                  |                       |      |
| ES2406881-047                                               | Anonymous | EP231X: Perfluorobutanoic acid (PFBA)               | 375-22-4    | 0.00625 mg/kg            | 83.2             | 71.0                  | 135  |
|                                                             |           | EP231X: Perfluoropentanoic acid (PFPeA)             | 2706-90-3   | 0.00125 mg/kg            | 97.8             | 69.0                  | 132  |
|                                                             |           | EP231X: Perfluorohexanoic acid (PFHxA)              | 307-24-4    | 0.00125 mg/kg            | 102              | 70.0                  | 132  |
|                                                             |           | EP231X: Perfluoroheptanoic acid (PFHpA)             | 375-85-9    | 0.00125 mg/kg            | 96.5             | 71.0                  | 131  |
|                                                             |           | EP231X: Perfluorooctanoic acid (PFOA)               | 335-67-1    | 0.00125 mg/kg            | 100              | 69.0                  | 133  |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5642089) |           |                                                     |             |                          |                  |                       |      |
| ES2406881-047                                               | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)   | 757124-72-4 | 0.00125 mg/kg            | 92.2             | 62.0                  | 145  |
|                                                             |           | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)   | 27619-97-2  | 0.00125 mg/kg            | 88.6             | 64.0                  | 140  |
|                                                             |           | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)   | 39108-34-4  | 0.00125 mg/kg            | 89.1             | 65.0                  | 137  |
|                                                             |           | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.00125 mg/kg            | 89.8             | 69.2                  | 143  |



## QA/QC Compliance Assessment to assist with Quality Review

|              |                           |                         |                                 |
|--------------|---------------------------|-------------------------|---------------------------------|
| Work Order   | : ES2407032               | Page                    | : 1 of 6                        |
| Client       | : EDP Consultants Pty Ltd | Laboratory              | : Environmental Division Sydney |
| Contact      | : CRISTIANE FLORIDO       | Telephone               | : +61-2-8784 8555               |
| Project      | : S-05667.098             | Date Samples Received   | : 04-Mar-2024                   |
| Site         | : ----                    | Issue Date              | : 11-Mar-2024                   |
| Sampler      | : GONZALO SERNA DIAZ      | No. of samples received | : 2                             |
| Order number | : ----                    | No. of samples analysed | : 2                             |

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, **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: **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 |
| EA055: Moisture Content (Dried @ 105-110°C)                       |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EA055)<br>EDP-DSI.M7.BH98A.QC1      | 28-Feb-2024 | ----                     | ----               | ----       | 06-Mar-2024   | 13-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EA055)<br>EDP-DSI.M7.BH98A.QC3      | 29-Feb-2024 | ----                     | ----               | ----       | 06-Mar-2024   | 14-Mar-2024      | ✓          |
| EG005(ED093)T: Total Metals by ICP-AES                            |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EG005T)<br>EDP-DSI.M7.BH98A.QC1     | 28-Feb-2024 | 06-Mar-2024              | 26-Aug-2024        | ✓          | 07-Mar-2024   | 26-Aug-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EG005T)<br>EDP-DSI.M7.BH98A.QC3     | 29-Feb-2024 | 06-Mar-2024              | 27-Aug-2024        | ✓          | 07-Mar-2024   | 27-Aug-2024      | ✓          |
| EG035T: Total Recoverable Mercury by FIMS                         |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EG035T)<br>EDP-DSI.M7.BH98A.QC1     | 28-Feb-2024 | 06-Mar-2024              | 27-Mar-2024        | ✓          | 08-Mar-2024   | 27-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EG035T)<br>EDP-DSI.M7.BH98A.QC3     | 29-Feb-2024 | 06-Mar-2024              | 28-Mar-2024        | ✓          | 08-Mar-2024   | 28-Mar-2024      | ✓          |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons                    |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP075(SIM))<br>EDP-DSI.M7.BH98A.QC1 | 28-Feb-2024 | 06-Mar-2024              | 13-Mar-2024        | ✓          | 07-Mar-2024   | 15-Apr-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP075(SIM))<br>EDP-DSI.M7.BH98A.QC3 | 29-Feb-2024 | 06-Mar-2024              | 14-Mar-2024        | ✓          | 08-Mar-2024   | 15-Apr-2024      | ✓          |
| EP080/071: Total Petroleum Hydrocarbons                           |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-DSI.M7.BH98A.QC1      | 28-Feb-2024 | 06-Mar-2024              | 13-Mar-2024        | ✓          | 06-Mar-2024   | 13-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-DSI.M7.BH98A.QC1      | 28-Feb-2024 | 06-Mar-2024              | 13-Mar-2024        | ✓          | 08-Mar-2024   | 15-Apr-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-DSI.M7.BH98A.QC3      | 29-Feb-2024 | 06-Mar-2024              | 14-Mar-2024        | ✓          | 06-Mar-2024   | 14-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-DSI.M7.BH98A.QC3      | 29-Feb-2024 | 06-Mar-2024              | 14-Mar-2024        | ✓          | 08-Mar-2024   | 15-Apr-2024      | ✓          |





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 |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-DSI.M7.BH98A.QC1    | 28-Feb-2024 | 06-Mar-2024              | 13-Mar-2024        | ✔          | 06-Mar-2024   | 13-Mar-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-DSI.M7.BH98A.QC1    | 28-Feb-2024 | 06-Mar-2024              | 13-Mar-2024        | ✔          | 08-Mar-2024   | 15-Apr-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-DSI.M7.BH98A.QC3    | 29-Feb-2024 | 06-Mar-2024              | 14-Mar-2024        | ✔          | 06-Mar-2024   | 14-Mar-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-DSI.M7.BH98A.QC3    | 29-Feb-2024 | 06-Mar-2024              | 14-Mar-2024        | ✔          | 08-Mar-2024   | 15-Apr-2024      | ✔          |
| EP080: BTEXN                                                    |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-DSI.M7.BH98A.QC1    | 28-Feb-2024 | 06-Mar-2024              | 13-Mar-2024        | ✔          | 06-Mar-2024   | 13-Mar-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-DSI.M7.BH98A.QC3    | 29-Feb-2024 | 06-Mar-2024              | 14-Mar-2024        | ✔          | 06-Mar-2024   | 14-Mar-2024      | ✔          |
| EP231A: Perfluoroalkyl Sulfonic Acids                           |             |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC1                  | 28-Feb-2024 | 05-Mar-2024              | 26-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC3                  | 29-Feb-2024 | 05-Mar-2024              | 27-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |
| EP231B: Perfluoroalkyl Carboxylic Acids                         |             |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC1                  | 28-Feb-2024 | 05-Mar-2024              | 26-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC3                  | 29-Feb-2024 | 05-Mar-2024              | 27-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids                      |             |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC1                  | 28-Feb-2024 | 05-Mar-2024              | 26-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC3                  | 29-Feb-2024 | 05-Mar-2024              | 27-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |
| EP231P: PFAS Sums                                               |             |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC1                  | 28-Feb-2024 | 05-Mar-2024              | 26-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-DSI.M7.BH98A.QC3                  | 29-Feb-2024 | 05-Mar-2024              | 27-Aug-2024        | ✔          | 07-Mar-2024   | 14-Apr-2024      | ✔          |



## Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

| Quality Control Sample Type                          |            | Count |         | Rate (%) |          |            | Quality Control Specification  |
|------------------------------------------------------|------------|-------|---------|----------|----------|------------|--------------------------------|
| Analytical Methods                                   | Method     | QC    | Regular | Actual   | Expected | Evaluation |                                |
|                                                      |            |       |         |          |          |            |                                |
| Laboratory Duplicates (DUP)                          |            |       |         |          |          |            |                                |
| Moisture Content                                     | EA055      | 2     | 20      | 10.00    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 7       | 14.29    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 1     | 9       | 11.11    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 2     | 13      | 15.38    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 3     | 13      | 23.08    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 7       | 14.29    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 2     | 20      | 10.00    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Laboratory Control Samples (LCS)                     |            |       |         |          |          |            |                                |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 7       | 14.29    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 1     | 9       | 11.11    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 1     | 13      | 7.69     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 2     | 13      | 15.38    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 7       | 14.29    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 1     | 20      | 5.00     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Method Blanks (MB)                                   |            |       |         |          |          |            |                                |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 7       | 14.29    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 1     | 9       | 11.11    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 1     | 13      | 7.69     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 1     | 13      | 7.69     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 7       | 14.29    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 1     | 20      | 5.00     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Matrix Spikes (MS)                                   |            |       |         |          |          |            |                                |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 7       | 14.29    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 1     | 9       | 11.11    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 1     | 13      | 7.69     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 1     | 13      | 7.69     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 7       | 14.29    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 1     | 20      | 5.00     | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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).                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Total Metals by ICP-AES                                    | EG005T     | SOIL   | In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)                                                                                                                                                                                                |
| Total Mercury by FIMS                                      | EG035T     | SOIL   | In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl <sub>2</sub> ) (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 <sub>2</sub> 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)                                                                                   |
| TRH - Semivolatile Fraction                                | EP071      | SOIL   | In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).                                                                                                                                                                                                                                                                                                                                                                                            |
| PAH/Phenols (SIM)                                          | EP075(SIM) | SOIL   | In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)                                                                                                                                                                                                                                                                                                                                     |
| TRH Volatiles/BTEX                                         | EP080      | SOIL   | In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.                                                                                                                                                                                                                                                                                                                                                          |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS       | EP231X     | SOIL   | In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements. |
| Preparation Methods                                        | Method     | Matrix | Method Descriptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Hot Block Digest for metals in soils sediments and sludges | EN69       | SOIL   | In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).                                                                                                                                                                                         |
| Methanolic Extraction of Soils for Purge and Trap          | ORG16      | SOIL   | In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Tumbler Extraction of Solids                               | ORG17      | SOIL   | In house: Mechanical agitation (tumbler). 10g of sample, Na <sub>2</sub> SO <sub>4</sub> and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.                                                                                                                                                                                                                                                                                                                      |





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

**E-MAILED**

1/3/24 @ 12:10pm

**Request for Laboratory Services and Chain of Custody Form**

|                                                                                                                                                         |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------|-----|-------------------------------|------------------|-----|----------|------------------------|---------|------|--|---------------------------------------------------|
| Received Date: <u>29/1/24</u>                                                                                                                           |                                                                                           | Received By: <u>[Signature]</u> |                                                                                       | Laboratory Section                                                                                              |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Logged-in Date: _____                                                                                                                                   |                                                                                           | Time of Receipt: <u>3.15</u>    |                                                                                       | Cooling Method: <input type="checkbox"/> Ice <input type="checkbox"/> Icepack <input type="checkbox"/> None     | Samples intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No       |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         |                                                                                           |                                 |                                                                                       | Cooler Sealed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Temperature: <input type="checkbox"/> Ambient <input checked="" type="checkbox"/> Chilled |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| COD must pay via cheque or credit card before analysis is commenced. AMEX & DINERS cards incur a 5% surcharge                                           |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| INVOICE TO:                                                                                                                                             | Name: <u>Cristiane Florido</u>                                                            |                                 |                                                                                       | Quote #: _____                                                                                                  |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         | Company: <u>EDP Consultants Pty Ltd</u>                                                   |                                 |                                                                                       | Attached Parameter List: <input type="checkbox"/> Yes <input type="checkbox"/> No                               |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         | Address: <u>Level 4 38 Oxley Street</u>                                                   |                                 |                                                                                       | Replacement Sample Containers Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No     |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         | St Leonards NSW 2065                                                                      |                                 |                                                                                       | Results Required By: <u>Standard TA</u> Urgent TA requires lab approval                                         |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         | Email: <u>invoices@edp-au.com; Project.admin@edp-au.com; Cristiane.Florido@edp-au.com</u> |                                 |                                                                                       | Notes:                                                                                                          |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Phone: <u>0413 378 102</u>                                                                                                                              |                                                                                           |                                 | Fax: _____                                                                            |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Client information                                                                                                                                      |                                                                                           | PO No.: _____                   |                                                                                       | Project No.: <u>S-05667.098</u>                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Company Name: <u>EDP Consultants Pty Ltd</u>                                                                                                            |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Contact Name: <u>Cristiane Florido</u>                                                                                                                  |                                                                                           |                                 | Samplers: <u>Gonzalo Serna Diaz</u>                                                   |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Address: <u>Level 4 38 Oxley Street, St Leonards NSW 2065</u>                                                                                           |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Phone Number: <u>0413 378 102 / 0406 268 122</u>                                                                                                        |                                                                                           |                                 | After Hours Phone Number: <u>NA</u>                                                   |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Fax Number: <u>NA</u>                                                                                                                                   |                                                                                           |                                 | cristiane.florido@edp-au.com; gonzalo.serna.diaz@edp-au.com; Haneen.Safadi@edp-au.com |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Note: Results will be sent via email to an unlimited number of addresses for no additional fee. In the absence of email, fax is available upon request. |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Indicate results format (please check one): Email & Esd <input checked="" type="checkbox"/> Fax <input type="checkbox"/>                                |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| SAMPLE INFORMATION                                                                                                                                      |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
| Lab Sample ID                                                                                                                                           | Sample Identifier                                                                         | Date Sampled                    | Matrix:<br>Soil<br>Water<br>Other                                                     | # of Bags                                                                                                       | # of Bottles                                                                              | Analysis Requested   |     |                               |                  |     |          |                        |         |      |  | Notes                                             |
|                                                                                                                                                         |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           | C17                  | C10 | Asbestos (presence / absence) | PFAS Short suite | CRS | Salinity | TRHIBTEX               | PhuPfox | HOLD |  |                                                   |
| 1                                                                                                                                                       | EDP-DSI.M7.BH98A-0.2                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | X                    |     | x                             | x                |     | x        |                        |         |      |  | Keep samples if CRS sample required in the future |
| 2                                                                                                                                                       | EDP-DSI.M7.BH98A-0.5                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | X                    |     | x                             | x                |     | x        |                        |         |      |  | Keep samples if CRS sample required in the future |
| 3                                                                                                                                                       | EDP-DSI.M7.BH98A-1.0                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | x                    |     | x                             | x                |     |          |                        |         |      |  | Keep samples if CRS sample required in the future |
| 4                                                                                                                                                       | EDP-DSI.M7.BH98A-2.0                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | x                    |     | x                             | x                |     | x        |                        |         |      |  | Keep samples if CRS sample required in the future |
| 5                                                                                                                                                       | EDP-DSI.M7.BH98A-3.0                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | x                    |     | x                             | x                |     |          |                        |         |      |  | Keep samples if CRS sample required in the future |
| 6                                                                                                                                                       | EDP-DSI.M7.BH98A-3.5                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | X                    |     | x                             | x                |     | x        |                        |         |      |  | Keep samples if CRS sample required in the future |
| 7                                                                                                                                                       | EDP-DSI.M7.BH98A-4.0                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | x                    |     | x                             | x                |     |          |                        |         |      |  | Keep samples if CRS sample required in the future |
| 8                                                                                                                                                       | EDP-DSI.M7.BH98A-5.0                                                                      | 28/02/2024                      | S                                                                                     | 1                                                                                                               | 2                                                                                         | x                    |     | x                             |                  |     | x        |                        |         |      |  | Keep samples if CRS sample required in the future |
| 9                                                                                                                                                       | EDP-DSI.M7.BH98A-6.0                                                                      | 29/02/2024                      | S                                                                                     | 2                                                                                                               | 2                                                                                         | x                    |     | x                             | x                |     | x        |                        |         |      |  | Keep samples if CRS sample required in the future |
| 12                                                                                                                                                      | EDP-DSI.M7.BH98A-7.0                                                                      | 29/02/2024                      | S                                                                                     | 2                                                                                                               | 2                                                                                         | x                    |     | x                             | x                |     | x        |                        |         |      |  |                                                   |
|                                                                                                                                                         | EDP-DSI.M7.BH98A.QC1                                                                      | 28/02/2024                      | S                                                                                     |                                                                                                                 | 2                                                                                         |                      | x   |                               | x                |     |          |                        |         |      |  | Send to ALS for C10 and Pfas short suite analysis |
| 10                                                                                                                                                      | EDP-DSI.M7.BH98A.QC2                                                                      | 28/02/2024                      | S                                                                                     |                                                                                                                 | 2                                                                                         |                      | x   |                               | x                |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         | EDP-DSI.M7.BH98A.QC3                                                                      | 29/02/2024                      | S                                                                                     |                                                                                                                 | 2                                                                                         |                      | x   |                               | x                |     |          |                        |         |      |  | Send to ALS for C10 and Pfas short suite analysis |
| 11                                                                                                                                                      | EDP-DSI.M7.BH98A.QC4                                                                      | 29/02/2024                      | S                                                                                     |                                                                                                                 | 2                                                                                         |                      | x   |                               | x                |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           | 16                   | 4   | 16                            | 16               | 0   | 12       |                        | 0       | 0    |  |                                                   |
| Sampled By:                                                                                                                                             |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           | Gonzalo Serna Diaz   |     |                               |                  |     |          | Date: 28/02/2024       |         |      |  |                                                   |
| Relinquished By:                                                                                                                                        |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           |                      |     |                               |                  |     |          |                        |         |      |  |                                                   |
|                                                                                                                                                         |                                                                                           |                                 |                                                                                       |                                                                                                                 |                                                                                           | Picked up by Courier |     |                               |                  |     |          | Date: 29/02/2024 Time: |         |      |  |                                                   |

SGS EHS Sydney COC

**SE261519**

## Yin, Emily (Sydney)

---

**From:** Cristiane Florido <Cristiane.Florido@edp-au.com>  
**Sent:** Friday, 1 March 2024 4:01 PM  
**To:** Yin, Emily (Sydney); Gonzalo Serna Diaz; Haneen Safadi  
**Cc:** Luong, Thi Song Van (Sydney)  
**Subject:** [EXTERNAL] RE: SE261519 - S-0667.098

You don't often get email from cristiane.florido@edp-au.com. [Learn why this is important](#)

\*\*\* WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. \*\*\*

---

Hi Van,

Yes, please re-labelled it.

Kind Regards,

**Cristiane Florido**  
Senior Environmental Consultant



an RSK company

- ☎ 0413 378 102
- ☎ 02 8484 5810
- @ Cristiane.Florido@edp-au.com
- 📍 Sydney | Newcastle | Brisbane | Melbourne | Adelaide

Have feedback for us, please let us know?

We acknowledge the traditional custodians of the many Indigenous nations, and pay our respects to Elders past, present and emerging.

Please consider the environment before printing. The contents of this email are strictly private and confidential and are intended solely for the named addressee[s] only. If you are not the intended recipient, you should not copy it or use it for any purpose nor disclose its contents to any other person and you should return this message to the sender and delete it from your mailbox. The views and opinions expressed in this email do not necessarily represent those of EDP. Please note that whilst we do check for viruses, it is the responsibility of the recipient to scan all messages prior to opening them.

---

**From:** Yin, Emily (Sydney) <Emily.Yin@sgs.com>  
**Sent:** Friday, March 1, 2024 3:46 PM  
**To:** Cristiane Florido <Cristiane.Florido@edp-au.com>; Gonzalo Serna Diaz <gonzalo.serna.diaz@edp-au.com>; Haneen Safadi <Haneen.Safadi@edp-au.com>  
**Cc:** Luong, Thi Song Van (Sydney) <ThiSongVan.Luong@sgs.com>  
**Subject:** SE261519 - S-0667.098

Dear All,

EDP-DSI-M7.BH98A-7.0 not received.

EDP-DSI-M7.BH98A-8.0 received.

Do you this sample analysed instead of 7.0 or do you want them re-labelled.



## Request for Laboratory Services and Chain of Custody Form

Received Date: 29/2/24  
Logged-in Date:Received By: B.F.  
Time of Receipt: 3:15

## Laboratory Section

Cooling Method:

☒ Ice ☐ Icepack ☐ None

Cooler Sealed:

☒ Yes ☐ No ☐ N/A

Samples intact:

☒ Yes ☐ No

Temperature:

☐ Ambient ☒ Chilled

COD must pay via cheque or credit card before analysis is commenced. AMEX &amp; DINERS cards incur a 5% surcharge

Name: Cristiane Florido  
Company: EDP Consultants Pty Ltd  
Address: Level 4 38 Oxley Street  
St Leonards NSW 2065  
Email: invoices@edp-au.com, Project.admin@edp-au.com, Cristiane.Florido@edp-au.com  
Phone: 0413 378 102 Fax:

Quote #:

Attached Parameter List:

☐ Yes ☐ No

Replacement Sample Containers Required:

☐ Yes ☒ No

Results Required By:

Standard TA

Urgent TA requires lab approval

Notes:

Client Information

PO No.:

Project No.:

S-05667.098

Company Name: EDP Consultants Pty Ltd

Contact Name: Cristiane Florido

Samplers:

Gonzalo Serna Diaz

Address: Level 4 38 Oxley Street, St Leonards NSW 2065

Phone Number: 0413 378 102 / 0406 268 122

After Hours Phone Number:

NA

Fax Number: NA

cristiane.florido@edp-au.com; gonzalo.serna.diaz@edp-au.com; Haneen.Safadi@edp-au.com

Note: Results will be sent via email to an unlimited number of addresses for no additional fee. In the absence of email, fax is available upon request.

Indicate results format (please check one):

Email &amp; Email

Fax

☐

## SAMPLE INFORMATION

## Analysis Requested

| Sample Identifier    | Date Sampled | Matrix:<br>Soil<br>Water<br>Other | # of Bags | # of Bottles | Analysis Requested |     |                               |                  |     |          |          |         |      |  | Notes                                             |
|----------------------|--------------|-----------------------------------|-----------|--------------|--------------------|-----|-------------------------------|------------------|-----|----------|----------|---------|------|--|---------------------------------------------------|
|                      |              |                                   |           |              | C17                | C10 | Asbestos (presence / absence) | PFAS Short suite | CRS | Salinity | TRH/BTEX | Ph/Pfox | HOLD |  |                                                   |
| EDP-DSI.M7.BH98A-0.2 | 28/02/2024   | S                                 | 1         | 2            | X                  |     | x                             | x                |     | x        |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-0.5 | 28/02/2024   | S                                 | 1         | 2            | X                  |     | x                             | x                |     | x        |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-1.0 | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     |          |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-2.0 | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     | x        |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-3.0 | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     |          |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-3.5 | 28/02/2024   | S                                 | 1         | 2            | X                  |     | x                             | x                |     | x        |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-4.0 | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             | x                |     |          |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-5.0 | 28/02/2024   | S                                 | 1         | 2            | x                  |     | x                             |                  |     | x        |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-6.0 | 29/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     | x        |          |         |      |  | Keep samples if CRS sample required in the future |
| EDP-DSI.M7.BH98A-7.0 | 29/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     | x        |          |         |      |  |                                                   |
| EDP-DSI.M7.BH98A.QC1 | 28/02/2024   | S                                 |           | 2            |                    | x   |                               | x                |     |          |          |         |      |  | Send to ALS for C10 and Pfas short suite analysis |
| EDP-DSI.M7.BH98A.QC2 | 28/02/2024   | S                                 |           | 2            |                    | x   |                               | x                |     |          |          |         |      |  |                                                   |
| EDP-DSI.M7.BH98A.QC3 | 29/02/2024   | S                                 |           | 2            |                    | x   |                               | x                |     |          |          |         |      |  | Send to ALS for C10 and Pfas short suite analysis |
| EDP-DSI.M7.BH98A.QC4 | 29/02/2024   | S                                 |           | 2            |                    | x   |                               | x                |     |          |          |         |      |  |                                                   |
|                      |              |                                   |           |              | 16                 | 4   | 16                            | 16               | 0   | 12       |          | 0       | 0    |  |                                                   |

Impiled By:

Gonzalo Serna Diaz

Date: 28/02/2024

Relinquished By:

Picked up by Courier

Date: 29/02/2024

Time:

## CLIENT DETAILS

Contact Gonzalo Diaz  
Client EDP CONSULTANTS PTY LTD  
Address LEVEL 4, 38 OXLEY STREET  
ST LEONARDS NSW 2065

Telephone 61 2 84845810  
Facsimile (Not specified)  
Email gonzalo.erna.diaz@edp-au.com

Project **S-05667.098**  
Order Number **S-05667.098**  
Samples 12

## LABORATORY DETAILS

Manager Huong Crawford  
Laboratory SGS Alexandria Environmental  
Address Unit 16, 33 Maddox St  
Alexandria NSW 2015

Telephone +61 2 8594 0400  
Facsimile +61 2 8594 0499  
Email au.environmental.sydney@sgs.com

SGS Reference **SE261519 R0**  
Date Received 29/2/2024  
Date Reported 12/3/2024

## COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Identifier Yusuf Kuthpudin

PFAS subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420. Report No. ME348102.

## SIGNATORIES



**Akheeqar BENIAMEN**  
Chemist



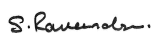
**Dong LIANG**  
Metals/Inorganics Team Leader



**Huong CRAWFORD**  
Production Manager



**Ly Kim HA**  
Organic Section Head



**Ravee SIVASUBRAMANIAM**  
Hygiene Team Leader



**Shane MCDERMOTT**  
Inorganic/Metals Chemist



**Teresa NGUYEN**  
Organic Chemist



**Ying Ying ZHANG**  
Laboratory Technician



## ANALYTICAL RESULTS

SE261519 R0

VOC's in Soil [AN433] Tested: 5/3/2024

| PARAMETER          | UOM   | LOR | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              |
|--------------------|-------|-----|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                    |       |     | .2                             | .5                             | .0                             | .0                             | .0                             |
|                    |       |     | SOIL                           | SOIL                           | SOIL                           | SOIL                           | SOIL                           |
|                    |       |     | -<br>28/2/2024<br>SE261519.001 | -<br>28/2/2024<br>SE261519.002 | -<br>28/2/2024<br>SE261519.003 | -<br>28/2/2024<br>SE261519.004 | -<br>28/2/2024<br>SE261519.005 |
| Benzene            | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| Toluene            | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| Ethylbenzene       | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| m/p-xylene         | mg/kg | 0.2 | <0.2                           | <0.2                           | <0.2                           | <0.2                           | <0.2                           |
| o-xylene           | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| Total Xylenes*     | mg/kg | 0.3 | <0.3                           | <0.3                           | <0.3                           | <0.3                           | <0.3                           |
| Total BTEX*        | mg/kg | 0.6 | <0.6                           | <0.6                           | <0.6                           | <0.6                           | <0.6                           |
| Naphthalene (VOC)* | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |

| PARAMETER          | UOM   | LOR | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              |
|--------------------|-------|-----|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                    |       |     | .5                             | .0                             | .0                             | .0                             | QC2                            |
|                    |       |     | SOIL                           | SOIL                           | SOIL                           | SOIL                           | SOIL                           |
|                    |       |     | -<br>28/2/2024<br>SE261519.006 | -<br>28/2/2024<br>SE261519.007 | -<br>28/2/2024<br>SE261519.008 | -<br>28/2/2024<br>SE261519.009 | -<br>28/2/2024<br>SE261519.010 |
| Benzene            | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| Toluene            | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| Ethylbenzene       | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| m/p-xylene         | mg/kg | 0.2 | <0.2                           | <0.2                           | <0.2                           | <0.2                           | <0.2                           |
| o-xylene           | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |
| Total Xylenes*     | mg/kg | 0.3 | <0.3                           | <0.3                           | <0.3                           | <0.3                           | <0.3                           |
| Total BTEX*        | mg/kg | 0.6 | <0.6                           | <0.6                           | <0.6                           | <0.6                           | <0.6                           |
| Naphthalene (VOC)* | mg/kg | 0.1 | <0.1                           | <0.1                           | <0.1                           | <0.1                           | <0.1                           |

| PARAMETER          | UOM   | LOR | EDP-DSI.M7.BH98A-              | EDP-DSI.M7.BH98A-              |
|--------------------|-------|-----|--------------------------------|--------------------------------|
|                    |       |     | QC4                            | .0                             |
|                    |       |     | SOIL                           | SOIL                           |
|                    |       |     | -<br>28/2/2024<br>SE261519.011 | -<br>28/2/2024<br>SE261519.012 |
| Benzene            | mg/kg | 0.1 | <0.1                           | <0.1                           |
| Toluene            | mg/kg | 0.1 | <0.1                           | <0.1                           |
| Ethylbenzene       | mg/kg | 0.1 | <0.1                           | <0.1                           |
| m/p-xylene         | mg/kg | 0.2 | <0.2                           | <0.2                           |
| o-xylene           | mg/kg | 0.1 | <0.1                           | <0.1                           |
| Total Xylenes*     | mg/kg | 0.3 | <0.3                           | <0.3                           |
| Total BTEX*        | mg/kg | 0.6 | <0.6                           | <0.6                           |
| Naphthalene (VOC)* | mg/kg | 0.1 | <0.1                           | <0.1                           |



## Volatile Petroleum Hydrocarbons in Soil [AN433]    Tested: 5/3/2024

| PARAMETER                  | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|----------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                            |       |     | .2                | .5                | .0                | .0                | .0                |
|                            |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                            |       |     | -                 | -                 | -                 | -                 | -                 |
|                            |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                            |       |     | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| TRH C6-C9                  | mg/kg | 20  | <20               | <20               | <20               | <20               | <20               |
| Benzene (F0)               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| TRH C6-C10                 | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |

| PARAMETER                  | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|----------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                            |       |     | .5                | .0                | .0                | .0                | QC2               |
|                            |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                            |       |     | -                 | -                 | -                 | -                 | -                 |
|                            |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                            |       |     | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.010      |
| TRH C6-C9                  | mg/kg | 20  | <20               | <20               | <20               | <20               | <20               |
| Benzene (F0)               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| TRH C6-C10                 | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |

| PARAMETER                  | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|----------------------------|-------|-----|-------------------|-------------------|
|                            |       |     | QC4               | .0                |
|                            |       |     | SOIL              | SOIL              |
|                            |       |     | -                 | -                 |
|                            |       |     | 28/2/2024         | 28/2/2024         |
|                            |       |     | SE261519.011      | SE261519.012      |
| TRH C6-C9                  | mg/kg | 20  | <20               | <20               |
| Benzene (F0)               | mg/kg | 0.1 | <0.1              | <0.1              |
| TRH C6-C10                 | mg/kg | 25  | <25               | <25               |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25               | <25               |

TRH (Total Recoverable Hydrocarbons) in Soil [AN403]    Tested: 5/3/2024

| PARAMETER                       | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|---------------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                 |       |     | .2                | .5                | .0                | .0                | .0                |
|                                 |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                 |       |     | -                 | -                 | -                 | -                 | -                 |
|                                 |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                 |       |     | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| TRH C10-C14                     | mg/kg | 20  | <20               | <20               | <20               | <20               | <20               |
| TRH C15-C28                     | mg/kg | 45  | <45               | <45               | <45               | <45               | <45               |
| TRH C29-C36                     | mg/kg | 45  | <b>95</b>         | <45               | <45               | <45               | <45               |
| TRH C37-C40                     | mg/kg | 100 | <100              | <100              | <100              | <100              | <100              |
| TRH >C10-C16                    | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <b>110</b>        | <90               | <90               | <90               | <90               |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120              | <120              | <120              | <120              | <120              |
| TRH C10-C36 Total               | mg/kg | 110 | <110              | <110              | <110              | <110              | <110              |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210              | <210              | <210              | <210              | <210              |

| PARAMETER                       | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|---------------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                 |       |     | .5                | .0                | .0                | .0                | QC2               |
|                                 |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                 |       |     | -                 | -                 | -                 | -                 | -                 |
|                                 |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                 |       |     | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.010      |
| TRH C10-C14                     | mg/kg | 20  | <20               | <20               | <20               | <20               | <20               |
| TRH C15-C28                     | mg/kg | 45  | <45               | <45               | <45               | <45               | <45               |
| TRH C29-C36                     | mg/kg | 45  | <45               | <45               | <45               | <45               | <45               |
| TRH C37-C40                     | mg/kg | 100 | <100              | <100              | <100              | <100              | <100              |
| TRH >C10-C16                    | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25               | <25               | <25               | <25               | <25               |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90               | <90               | <90               | <90               | <90               |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120              | <120              | <120              | <120              | <120              |
| TRH C10-C36 Total               | mg/kg | 110 | <110              | <110              | <110              | <110              | <110              |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210              | <210              | <210              | <210              | <210              |

| PARAMETER                       | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|---------------------------------|-------|-----|-------------------|-------------------|
|                                 |       |     | QC4               | .0                |
|                                 |       |     | SOIL              | SOIL              |
|                                 |       |     | -                 | -                 |
|                                 |       |     | 28/2/2024         | 28/2/2024         |
|                                 |       |     | SE261519.011      | SE261519.012      |
| TRH C10-C14                     | mg/kg | 20  | <20               | <20               |
| TRH C15-C28                     | mg/kg | 45  | <45               | <45               |
| TRH C29-C36                     | mg/kg | 45  | <45               | <45               |
| TRH C37-C40                     | mg/kg | 100 | <100              | <100              |
| TRH >C10-C16                    | mg/kg | 25  | <25               | <25               |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25               | <25               |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90               | <90               |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120              | <120              |
| TRH C10-C36 Total               | mg/kg | 110 | <110              | <110              |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210              | <210              |

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420]    Tested: 5/3/2024

| PARAMETER                              | UOM         | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|----------------------------------------|-------------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                        |             |     | .2                | .5                | .0                | .0                | .0                |
|                                        |             |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                        |             |     | -                 | -                 | -                 | -                 | -                 |
|                                        |             |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                        |             |     | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| Naphthalene                            | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| 2-methylnaphthalene                    | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| 1-methylnaphthalene                    | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <b>0.1</b>        | <0.1              |
| Acenaphthylene                         | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Acenaphthene                           | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Fluorene                               | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Phenanthrene                           | mg/kg       | 0.1 | <b>0.1</b>        | <0.1              | <0.1              | <0.1              | <0.1              |
| Anthracene                             | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Fluoranthene                           | mg/kg       | 0.1 | <b>0.2</b>        | <0.1              | <0.1              | <0.1              | <0.1              |
| Pyrene                                 | mg/kg       | 0.1 | <b>0.2</b>        | <0.1              | <0.1              | <0.1              | <0.1              |
| Benzo(a)anthracene                     | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Chrysene                               | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Benzo(b&j)fluoranthene                 | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Benzo(k)fluoranthene                   | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Benzo(a)pyrene                         | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Indeno(1,2,3-cd)pyrene                 | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Dibenzo(ah)anthracene                  | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Benzo(ghi)perylene                     | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Carcinogenic PAHs, BaP TEQ <LOR=0*     | TEQ (mg/kg) | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | TEQ (mg/kg) | 0.3 | <0.3              | <0.3              | <0.3              | <0.3              | <0.3              |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | TEQ (mg/kg) | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Total PAH (18)                         | mg/kg       | 0.8 | <0.8              | <0.8              | <0.8              | <0.8              | <0.8              |
| Total PAH (NEPM/WHO 16)                | mg/kg       | 0.8 | <0.8              | <0.8              | <0.8              | <0.8              | <0.8              |

| PARAMETER                              | UOM         | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|----------------------------------------|-------------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                        |             |     | .5                | .0                | .0                | .0                | QC2               |
|                                        |             |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                        |             |     | -                 | -                 | -                 | -                 | -                 |
|                                        |             |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                        |             |     | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.010      |
| Naphthalene                            | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| 2-methylnaphthalene                    | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| 1-methylnaphthalene                    | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Acenaphthylene                         | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Acenaphthene                           | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Fluorene                               | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Phenanthrene                           | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <b>0.2</b>        |
| Anthracene                             | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Fluoranthene                           | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <b>0.4</b>        |
| Pyrene                                 | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <b>0.4</b>        |
| Benzo(a)anthracene                     | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Chrysene                               | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <b>0.1</b>        |
| Benzo(b&j)fluoranthene                 | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <b>0.1</b>        |
| Benzo(k)fluoranthene                   | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Benzo(a)pyrene                         | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <b>0.1</b>        |
| Indeno(1,2,3-cd)pyrene                 | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Dibenzo(ah)anthracene                  | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Benzo(ghi)perylene                     | mg/kg       | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <b>0.1</b>        |
| Carcinogenic PAHs, BaP TEQ <LOR=0*     | TEQ (mg/kg) | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | TEQ (mg/kg) | 0.3 | <0.3              | <0.3              | <0.3              | <0.3              | <0.3              |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | TEQ (mg/kg) | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Total PAH (18)                         | mg/kg       | 0.8 | <0.8              | <0.8              | <0.8              | <0.8              | <b>1.3</b>        |
| Total PAH (NEPM/WHO 16)                | mg/kg       | 0.8 | <0.8              | <0.8              | <0.8              | <0.8              | <b>1.3</b>        |



## PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420]    Tested: 5/3/2024    (continued)

| PARAMETER                              | UOM         | LOR | EDP-DSI.M7.BH98A                              | EDP-DSI.M7.BH98A-                            |
|----------------------------------------|-------------|-----|-----------------------------------------------|----------------------------------------------|
|                                        |             |     | QC4<br>SOIL<br>-<br>28/2/2024<br>SE261519.011 | .0<br>SOIL<br>-<br>28/2/2024<br>SE261519.012 |
| Naphthalene                            | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| 2-methylnaphthalene                    | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| 1-methylnaphthalene                    | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Acenaphthylene                         | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Acenaphthene                           | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Fluorene                               | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Phenanthrene                           | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Anthracene                             | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Fluoranthene                           | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Pyrene                                 | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Benzo(a)anthracene                     | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Chrysene                               | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Benzo(b&j)fluoranthene                 | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Benzo(k)fluoranthene                   | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Benzo(a)pyrene                         | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Indeno(1,2,3-cd)pyrene                 | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Dibenzo(ah)anthracene                  | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Benzo(ghi)perylene                     | mg/kg       | 0.1 | <0.1                                          | <0.1                                         |
| Carcinogenic PAHs, BaP TEQ <LOR=0*     | TEQ (mg/kg) | 0.2 | <0.2                                          | <0.2                                         |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | TEQ (mg/kg) | 0.3 | <0.3                                          | <0.3                                         |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | TEQ (mg/kg) | 0.2 | <0.2                                          | <0.2                                         |
| Total PAH (18)                         | mg/kg       | 0.8 | <0.8                                          | <0.8                                         |
| Total PAH (NEPM/WHO 16)                | mg/kg       | 0.8 | <0.8                                          | <0.8                                         |

OC Pesticides in Soil [AN420]    Tested: 5/3/2024

| PARAMETER               | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                         |       |     | .2                | .5                | .0                | .0                | .0                |
|                         |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                         |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                         |       |     | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| Hexachlorobenzene (HCB) | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Alpha BHC               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Lindane (gamma BHC)     | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Heptachlor              | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Aldrin                  | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Beta BHC                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Delta BHC               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Heptachlor epoxide      | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| o,p'-DDE*               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Alpha Endosulfan        | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Gamma Chlordane         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Alpha Chlordane         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| trans-Nonachlor         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| p,p'-DDE                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Dieldrin                | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Endrin                  | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| o,p'-DDD*               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| o,p'-DDT*               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Beta Endosulfan         | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| p,p'-DDD                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| p,p'-DDT                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Endosulfan sulphate     | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Endrin aldehyde         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Methoxychlor            | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Endrin ketone           | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Isodrin                 | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Mirex                   | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Total CLP OC Pesticides | mg/kg | 1   | <1                | <1                | <1                | <1                | <1                |
| Total OC VIC EPA        | mg/kg | 1   | <1                | <1                | <1                | <1                | <1                |

OC Pesticides in Soil [AN420]    Tested: 5/3/2024    (continued)

| PARAMETER               | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                         |       |     | .5                | .0                | .0                | .0                | .0                |
|                         |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                         |       |     | -                 | -                 | -                 | -                 | -                 |
|                         |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                         |       |     | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.012      |
| Hexachlorobenzene (HCB) | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Alpha BHC               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Lindane (gamma BHC)     | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Heptachlor              | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Aldrin                  | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Beta BHC                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Delta BHC               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Heptachlor epoxide      | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| o,p'-DDE*               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Alpha Endosulfan        | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Gamma Chlordane         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Alpha Chlordane         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| trans-Nonachlor         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| p,p'-DDE                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Dieldrin                | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Endrin                  | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| o,p'-DDD*               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| o,p'-DDT*               | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Beta Endosulfan         | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| p,p'-DDD                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| p,p'-DDT                | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Endosulfan sulphate     | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Endrin aldehyde         | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Methoxychlor            | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Endrin ketone           | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Isodrin                 | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Mirex                   | mg/kg | 0.1 | <0.1              | <0.1              | <0.1              | <0.1              | <0.1              |
| Total CLP OC Pesticides | mg/kg | 1   | <1                | <1                | <1                | <1                | <1                |
| Total OC VIC EPA        | mg/kg | 1   | <1                | <1                | <1                | <1                | <1                |



OP Pesticides in Soil [AN420]    Tested: 5/3/2024

| PARAMETER                         | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-----------------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                   |       |     | .2                | .5                | .0                | .0                | .0                |
|                                   |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                   |       |     | -                 | -                 | -                 | -                 | -                 |
|                                   |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                   |       |     | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| Dichlorvos                        | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Dimethoate                        | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Fenitrothion                      | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Malathion                         | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Methidathion                      | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Ethion                            | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7              | <1.7              | <1.7              | <1.7              | <1.7              |

| PARAMETER                         | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-----------------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                   |       |     | .5                | .0                | .0                | .0                | .0                |
|                                   |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                   |       |     | -                 | -                 | -                 | -                 | -                 |
|                                   |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                   |       |     | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.012      |
| Dichlorvos                        | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Dimethoate                        | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Fenitrothion                      | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Malathion                         | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Methidathion                      | mg/kg | 0.5 | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |
| Ethion                            | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7              | <1.7              | <1.7              | <1.7              | <1.7              |



ANALYTICAL RESULTS

SE261519 R0

PCBs in Soil [AN420]    Tested: 5/3/2024

|                        |       |     | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                        |       |     | .2                | .5                | .0                | .0                | .0                |
|                        |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                        |       |     | -                 | -                 | -                 | -                 | -                 |
|                        |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
| PARAMETER              | UOM   | LOR | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| Arochlor 1016          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1221          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1232          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1242          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1248          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1254          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1260          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1262          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1268          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Total PCBs (Arochlors) | mg/kg | 1   | <1                | <1                | <1                | <1                | <1                |

|                        |       |     | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|------------------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|                        |       |     | .5                | .0                | .0                | .0                | .0                |
|                        |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                        |       |     | -                 | -                 | -                 | -                 | -                 |
|                        |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
| PARAMETER              | UOM   | LOR | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.012      |
| Arochlor 1016          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1221          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1232          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1242          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1248          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1254          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1260          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1262          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Arochlor 1268          | mg/kg | 0.2 | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |
| Total PCBs (Arochlors) | mg/kg | 1   | <1                | <1                | <1                | <1                | <1                |



ANALYTICAL RESULTS

SE261519 R0

Conductivity and TDS by Calculation - Soil [AN106]    Tested: 8/3/2024

|                                           |       |     | EDP-DSI.M7.BH98A-.2<br>SOIL<br>-<br>28/2/2024<br>SE261519.001 | EDP-DSI.M7.BH98A-.5<br>SOIL<br>-<br>28/2/2024<br>SE261519.002 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.004 | EDP-DSI.M7.BH98A-.5<br>SOIL<br>-<br>28/2/2024<br>SE261519.006 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.008 |
|-------------------------------------------|-------|-----|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| PARAMETER                                 | UOM   | LOR |                                                               |                                                               |                                                               |                                                               |                                                               |
| Conductivity of Extract (1:5 as received) | µS/cm | 1   | 91                                                            | 280                                                           | 510                                                           | 650                                                           | 640                                                           |
| Salinity (by calculation)*                | mg/kg | 5   | 380                                                           | 1000                                                          | 1800                                                          | 2500                                                          | 2500                                                          |

|                                           |       |     | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.009 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.012 |
|-------------------------------------------|-------|-----|---------------------------------------------------------------|---------------------------------------------------------------|
| PARAMETER                                 | UOM   | LOR |                                                               |                                                               |
| Conductivity of Extract (1:5 as received) | µS/cm | 1   | 600                                                           | 740                                                           |
| Salinity (by calculation)*                | mg/kg | 5   | 2400                                                          | 2900                                                          |



Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320]    Tested: 5/3/2024

| PARAMETER    | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|--------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|              |       |     | .2                | .5                | .0                | .0                | .0                |
|              |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|              |       |     | -                 | -                 | -                 | -                 | -                 |
|              |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|              |       |     | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| Arsenic, As  | mg/kg | 1   | 8                 | 2                 | 19                | 7                 | 5                 |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3              | <0.3              | <0.3              | <0.3              | <0.3              |
| Chromium, Cr | mg/kg | 0.5 | 17                | 6.4               | 14                | 13                | 12                |
| Copper, Cu   | mg/kg | 0.5 | 27                | 19                | 44                | 39                | 22                |
| Lead, Pb     | mg/kg | 1   | 27                | 9                 | 20                | 16                | 12                |
| Nickel, Ni   | mg/kg | 0.5 | 10                | 16                | 28                | 21                | 7.6               |
| Zinc, Zn     | mg/kg | 2   | 130               | 42                | 85                | 74                | 27                |

| PARAMETER    | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|--------------|-------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|              |       |     | .5                | .0                | .0                | .0                | QC2               |
|              |       |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|              |       |     | -                 | -                 | -                 | -                 | -                 |
|              |       |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|              |       |     | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.010      |
| Arsenic, As  | mg/kg | 1   | 5                 | 3                 | 6                 | 7                 | 8                 |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3              | <0.3              | <0.3              | <0.3              | <0.3              |
| Chromium, Cr | mg/kg | 0.5 | 12                | 11                | 11                | 12                | 17                |
| Copper, Cu   | mg/kg | 0.5 | 24                | 37                | 19                | 20                | 27                |
| Lead, Pb     | mg/kg | 1   | 14                | 13                | 11                | 14                | 29                |
| Nickel, Ni   | mg/kg | 0.5 | 12                | 14                | 9.2               | 10                | 12                |
| Zinc, Zn     | mg/kg | 2   | 41                | 66                | 27                | 31                | 100               |

| PARAMETER    | UOM   | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|--------------|-------|-----|-------------------|-------------------|
|              |       |     | QC4               | .0                |
|              |       |     | SOIL              | SOIL              |
|              |       |     | -                 | -                 |
|              |       |     | 28/2/2024         | 28/2/2024         |
|              |       |     | SE261519.011      | SE261519.012      |
| Arsenic, As  | mg/kg | 1   | 9                 | 11                |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3              | <0.3              |
| Chromium, Cr | mg/kg | 0.5 | 15                | 18                |
| Copper, Cu   | mg/kg | 0.5 | 36                | 25                |
| Lead, Pb     | mg/kg | 1   | 26                | 21                |
| Nickel, Ni   | mg/kg | 0.5 | 17                | 13                |
| Zinc, Zn     | mg/kg | 2   | 67                | 48                |



ANALYTICAL RESULTS

SE261519 R0

Mercury in Soil [AN312]    Tested: 5/3/2024

|           |       |      | EDP-DSI.M7.BH98A-.2<br>SOIL<br>-<br>28/2/2024<br>SE261519.001 | EDP-DSI.M7.BH98A-.5<br>SOIL<br>-<br>28/2/2024<br>SE261519.002 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.003 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.004 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.005 |
|-----------|-------|------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| PARAMETER | UOM   | LOR  |                                                               |                                                               |                                                               |                                                               |                                                               |
| Mercury   | mg/kg | 0.05 | <0.05                                                         | <0.05                                                         | <0.05                                                         | <0.05                                                         | <0.05                                                         |

|           |       |      | EDP-DSI.M7.BH98A-.5<br>SOIL<br>-<br>28/2/2024<br>SE261519.006 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.007 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.008 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.009 | EDP-DSI.M7.BH98A-QC2<br>SOIL<br>-<br>28/2/2024<br>SE261519.010 |
|-----------|-------|------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------|
| PARAMETER | UOM   | LOR  |                                                               |                                                               |                                                               |                                                               |                                                                |
| Mercury   | mg/kg | 0.05 | <0.05                                                         | <0.05                                                         | <0.05                                                         | <0.05                                                         | <0.05                                                          |

|           |       |      | EDP-DSI.M7.BH98A-QC4<br>SOIL<br>-<br>28/2/2024<br>SE261519.011 | EDP-DSI.M7.BH98A-.0<br>SOIL<br>-<br>28/2/2024<br>SE261519.012 |
|-----------|-------|------|----------------------------------------------------------------|---------------------------------------------------------------|
| PARAMETER | UOM   | LOR  |                                                                |                                                               |
| Mercury   | mg/kg | 0.05 | <0.05                                                          | <0.05                                                         |



## ANALYTICAL RESULTS

SE261519 R0

Moisture Content [AN002] Tested: 5/3/2024

| PARAMETER  | UOM  | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|------------|------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|            |      |     | .2                | .5                | .0                | .0                | .0                |
|            |      |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|            |      |     | -                 | -                 | -                 | -                 | -                 |
|            |      |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|            |      |     | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| % Moisture | %w/w | 1   | 22.7              | 11.2              | 11.4              | 9.5               | 12.8              |

| PARAMETER  | UOM  | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|------------|------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|
|            |      |     | .5                | .0                | .0                | .0                | QC2               |
|            |      |     | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|            |      |     | -                 | -                 | -                 | -                 | -                 |
|            |      |     | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|            |      |     | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.010      |
| % Moisture | %w/w | 1   | 13.8              | 10.4              | 15.6              | 19.2              | 23.1              |

| PARAMETER  | UOM  | LOR | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|------------|------|-----|-------------------|-------------------|
|            |      |     | QC4               | .0                |
|            |      |     | SOIL              | SOIL              |
|            |      |     | -                 | -                 |
|            |      |     | 28/2/2024         | 28/2/2024         |
|            |      |     | SE261519.011      | SE261519.012      |
| % Moisture | %w/w | 1   | 21.4              | 18.5              |



Fibre Identification in soil [AS4964/AN602]    Tested: 7/3/2024

| PARAMETER         | UOM     | LOR  | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-------------------|---------|------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                   |         |      | .2                | .5                | .0                | .0                | .0                |
|                   |         |      | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                   |         |      | -                 | -                 | -                 | -                 | -                 |
|                   |         |      | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                   |         |      | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| Asbestos Detected | No unit | -    | No                | No                | No                | No                | No                |
| Estimated Fibres* | %w/w    | 0.01 | <0.01             | <0.01             | <0.01             | <0.01             | <0.01             |
| Date Analysed*    | No unit | -    | 08/03/2024 00:00  | 08/03/2024 00:00  | 08/03/2024 00:00  | 08/03/2024 00:00  | 08/03/2024 00:00  |

| PARAMETER         | UOM     | LOR  | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-------------------|---------|------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                   |         |      | .5                | .0                | .0                | .0                | .0                |
|                   |         |      | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                   |         |      | -                 | -                 | -                 | -                 | -                 |
|                   |         |      | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                   |         |      | SE261519.006      | SE261519.007      | SE261519.008      | SE261519.009      | SE261519.012      |
| Asbestos Detected | No unit | -    | No                | No                | No                | No                | No                |
| Estimated Fibres* | %w/w    | 0.01 | <0.01             | <0.01             | <0.01             | <0.01             | <0.01             |
| Date Analysed*    | No unit | -    | 08/03/2024 00:00  | 08/03/2024 00:00  | 08/03/2024 00:00  | 08/03/2024 00:00  | 08/03/2024 00:00  |

## Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523]    Tested: 12/3/2024

| PARAMETER                                             | UOM   | LOR    | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-------------------------------------------------------|-------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                                       |       |        | .2                | .5                | .0                | .0                | .0                |
|                                                       |       |        | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                                       |       |        | -                 | -                 | -                 | -                 | -                 |
|                                                       |       |        | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                                       |       |        | SE261519.001      | SE261519.002      | SE261519.003      | SE261519.004      | SE261519.005      |
| Perfluorobutanoic acid (PFBA)                         | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoropentanoic acid (PFPeA)                       | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorohexanoic acid (PFHxA)                        | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoroheptanoic acid (PFHpA)                       | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorooctanoic Acid (PFOA)                         | mg/kg | 0.0008 | <b>0.0010</b>     | <0.0008           | <0.0008           | <0.0008           | <0.0008           |
| Perfluorobutane sulfonate (PFBS)                      | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoropentane sulfonate (PFPeS)                    | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorohexane sulfonate (PFHxS)                     | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoroheptane sulfonate (PFHpS)                    | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorooctane sulfonate (PFOS)                      | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Sum PFOS and PFHXS                                    | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorononane sulfonate (PFNS)                      | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS) | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS) | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS) | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |

| PARAMETER                                             | UOM   | LOR    | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- | EDP-DSI.M7.BH98A- |
|-------------------------------------------------------|-------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                                       |       |        | .5                | .0                | .0                | QC2               | QC4               |
|                                                       |       |        | SOIL              | SOIL              | SOIL              | SOIL              | SOIL              |
|                                                       |       |        | -                 | -                 | -                 | -                 | -                 |
|                                                       |       |        | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         | 28/2/2024         |
|                                                       |       |        | SE261519.006      | SE261519.007      | SE261519.009      | SE261519.010      | SE261519.011      |
| Perfluorobutanoic acid (PFBA)                         | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoropentanoic acid (PFPeA)                       | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorohexanoic acid (PFHxA)                        | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoroheptanoic acid (PFHpA)                       | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorooctanoic Acid (PFOA)                         | mg/kg | 0.0008 | <0.0008           | <0.0008           | <0.0008           | <b>0.0009</b>     | <0.0008           |
| Perfluorobutane sulfonate (PFBS)                      | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoropentane sulfonate (PFPeS)                    | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorohexane sulfonate (PFHxS)                     | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluoroheptane sulfonate (PFHpS)                    | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorooctane sulfonate (PFOS)                      | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Sum PFOS and PFHXS                                    | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| Perfluorononane sulfonate (PFNS)                      | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS) | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS) | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |
| 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS) | mg/kg | 0.0016 | <0.0016           | <0.0016           | <0.0016           | <0.0016           | <0.0016           |

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523]    Tested: 12/3/2024    (continued)

|                                                       |       |        | EDP-DSI.M7.BH98A- |
|-------------------------------------------------------|-------|--------|-------------------|
|                                                       |       |        | .0                |
|                                                       |       |        | SOIL              |
|                                                       |       |        | -                 |
|                                                       |       |        | 28/2/2024         |
| PARAMETER                                             | UOM   | LOR    | SE261519.012      |
| Perfluorobutanoic acid (PFBA)                         | mg/kg | 0.0016 | <0.0016           |
| Perfluoropentanoic acid (PFPeA)                       | mg/kg | 0.0016 | <0.0016           |
| Perfluorohexanoic acid (PFHxA)                        | mg/kg | 0.0016 | <0.0016           |
| Perfluoroheptanoic acid (PFHpA)                       | mg/kg | 0.0016 | <0.0016           |
| Perfluorooctanoic Acid (PFOA)                         | mg/kg | 0.0008 | <0.0008           |
| Perfluorobutane sulfonate (PFBS)                      | mg/kg | 0.0016 | <0.0016           |
| Perfluoropentane sulfonate (PFPeS)                    | mg/kg | 0.0016 | <0.0016           |
| Perfluorohexane sulfonate (PFHxS)                     | mg/kg | 0.0016 | <0.0016           |
| Perfluoroheptane sulfonate (PFHpS)                    | mg/kg | 0.0016 | <0.0016           |
| Perfluorooctane sulfonate (PFOS)                      | mg/kg | 0.0016 | <0.0016           |
| Sum PFOS and PFHXS                                    | mg/kg | 0.0016 | <0.0016           |
| Perfluorononane sulfonate (PFNS)                      | mg/kg | 0.0016 | <0.0016           |
| 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS) | mg/kg | 0.0016 | <0.0016           |
| 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS) | mg/kg | 0.0016 | <0.0016           |
| 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS) | mg/kg | 0.0016 | <0.0016           |



## METHOD

## METHODOLOGY SUMMARY

### AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

### AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

### AN040

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by AAS or ICP as per USEPA Method 200.8.

### AN106

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or µS/cm @ 25°C. For soils, an extract of as received sample with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.

### AN312

Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500

### AN403

Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.

### AN403

Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.

### AN403

The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.

### AN420

(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

Total PAH calculated from individual analyte detections at or above the limit of reporting.

### AN420

SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

### AN433

VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

### AN602/AS4964

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

### AN602/AS4964

Fibres/material that cannot be unequivocally identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

### AN602/AS4964

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

## AN602/AS4964

The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres);
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

## MA-1523

This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

## FOOTNOTES

|     |                                                                    |     |                                   |     |                                    |
|-----|--------------------------------------------------------------------|-----|-----------------------------------|-----|------------------------------------|
| *   | NATA accreditation does not cover the performance of this service. | -   | Not analysed.                     | UOM | Unit of Measure.                   |
| **  | Indicative data, theoretical holding time exceeded.                | NVL | Not validated.                    | LOR | Limit of Reporting.                |
| *** | Indicates that both * and ** apply.                                | IS  | Insufficient sample for analysis. | ↑↓  | Raised/lowered Limit of Reporting. |
|     |                                                                    | LNR | Sample listed, but not received.  |     |                                    |

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.  
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: [www.sgs.com.au/en-gb/environment-health-and-safety](http://www.sgs.com.au/en-gb/environment-health-and-safety).

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## ANALYTICAL REPORT



Accreditation No. 2562

### CLIENT DETAILS

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Project **S-05667.098**  
Order Number **S-05667.098**  
Samples **10**

### LABORATORY DETAILS

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SGS Reference **SE261519 R0**  
Date Received **29 Feb 2024**  
Date Reported **12 Mar 2024**

### COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Identifier Yusuf Kuthpudin

PFAS subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420. Report No. ME348102.

### SIGNATORIES

*S. Ravee*

Ravee SIVASUBRAMANIAM  
Hygiene Team Leader



### RESULTS

#### Fibre Identification in soil

Method AN602

| Laboratory Reference | Client Reference         | Matrix | Sample Description     | Date Sampled | Date Analysed | Fibre Identification                                          | Est.%w/w* |
|----------------------|--------------------------|--------|------------------------|--------------|---------------|---------------------------------------------------------------|-----------|
| SE261519.001         | EDP-DSI.M7.BH98<br>A-0.2 | Soil   | 149g Sand, Soil, Rocks | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg<br>Organic Fibres Detected | <0.01     |
| SE261519.002         | EDP-DSI.M7.BH98<br>A-0.5 | Soil   | 202g Clay, Sand, Rocks | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.003         | EDP-DSI.M7.BH98<br>A-1.0 | Soil   | 276g Clay, Sand, Rocks | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.004         | EDP-DSI.M7.BH98<br>A-2.0 | Soil   | 313g Clay, Sand, Rocks | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.005         | EDP-DSI.M7.BH98<br>A-3.0 | Soil   | 247g Clay, Sand, Rocks | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.006         | EDP-DSI.M7.BH98<br>A-3.5 | Soil   | 226g Clay, Sand, Rocks | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.007         | EDP-DSI.M7.BH98<br>A-4.0 | Soil   | 248g Clay, Sand, Rocks | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.008         | EDP-DSI.M7.BH98<br>A-5.0 | Soil   | 240 Clay, Sand, Rocks  | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.009         | EDP-DSI.M7.BH98<br>A-6.0 | Soil   | 277g Clay, Rocks       | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |
| SE261519.012         | EDP-DSI.M7.BH98<br>A-7.0 | Soil   | 339g Clay, Rocks       | 28 Feb 2024  | 08 Mar 2024   | No Asbestos Found at RL of 0.1g/kg                            | <0.01     |

## METHOD

## METHODOLOGY SUMMARY

AN602/AS4964

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602/AS4964

Fibres/material that cannot be unequivocally identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

AN602/AS4964

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

AN602/AS4964

The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres);
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

## FOOTNOTES

|             |   |                |     |   |                                                                    |
|-------------|---|----------------|-----|---|--------------------------------------------------------------------|
| Amosite     | - | Brown Asbestos | NA  | - | Not Analysed                                                       |
| Chrysotile  | - | White Asbestos | LNR | - | Listed, Not Required                                               |
| Crocidolite | - | Blue Asbestos  | *   | - | NATA accreditation does not cover the performance of this service. |
|             |   |                | **  | - | Indicative data, theoretical holding time exceeded.                |
|             |   |                | *** | - | Indicates that both * and ** apply.                                |

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.

Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.

Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: [www.sgs.com.au/en-gb/environment-health-and-safety](http://www.sgs.com.au/en-gb/environment-health-and-safety).

This document is issued by the Company under its General Conditions of Service accessible at [www.sgs.com/en/Terms-and-Conditions.aspx](http://www.sgs.com/en/Terms-and-Conditions.aspx). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

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## STATEMENT OF QA/QC PERFORMANCE

SE261519 R0

### CLIENT DETAILS

Contact **Gonzalo Diaz**  
Client **EDP CONSULTANTS PTY LTD**  
Address **LEVEL 4, 38 OXLEY STREET  
ST LEONARDS NSW 2065**

Telephone **61 2 84845810**  
Facsimile **(Not specified)**  
Email **gonzalo.serna.diaz@edp-au.com**

Project **S-05667.098**  
Order Number **S-05667.098**  
Samples **12**

### LABORATORY DETAILS

Manager **Huong Crawford**  
Laboratory **SGS Alexandria Environmental**  
Address **Unit 16, 33 Maddox St  
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Telephone **+61 2 8594 0400**  
Facsimile **+61 2 8594 0499**  
Email **au.environmental.sydney@sgs.com**

SGS Reference **SE261519 R0**  
Date Received **29 Feb 2024**  
Date Reported **12 Mar 2024**

### COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

|                 |                                                                     |          |
|-----------------|---------------------------------------------------------------------|----------|
| Extraction Date | Conductivity and TDS by Calculation - Soil                          | 7 items  |
| Analysis Date   | Conductivity and TDS by Calculation - Soil                          | 14 items |
| Matrix Spike    | Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES | 1 item   |
|                 | TRH (Total Recoverable Hydrocarbons) in Soil                        | 4 items  |

### SAMPLE SUMMARY

|                                        |                  |                                 |          |
|----------------------------------------|------------------|---------------------------------|----------|
| Sample counts by matrix                | 12 Soil          | Type of documentation received  | COC      |
| Date documentation received            | 1/3/2024@12:10pm | Samples received in good order  | Yes      |
| Samples received without headspace     | Yes              | Sample temperature upon receipt | 15.6°C   |
| Sample container provider              | SGS              | Turnaround time requested       | Standard |
| Samples received in correct containers | Yes              | Sufficient sample for analysis  | Yes      |
| Sample cooling method                  | Ice              | Samples clearly labelled        | Yes      |
| Complete documentation received        | Yes              |                                 |          |

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

**Conductivity and TDS by Calculation - Soil****Method: ME-(AU)-[ENV]AN106**

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted    | Analysis Due | Analysed     |
|----------------------|--------------|----------|-------------|-------------|----------------|--------------|--------------|--------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB306229 | 28 Feb 2024 | 29 Feb 2024 | 06 Mar 2024    | 08 Mar 2024† | 06 Mar 2024  | 08 Mar 2024† |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB306229 | 28 Feb 2024 | 29 Feb 2024 | 06 Mar 2024    | 08 Mar 2024† | 06 Mar 2024  | 08 Mar 2024† |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB306229 | 28 Feb 2024 | 29 Feb 2024 | 06 Mar 2024    | 08 Mar 2024† | 06 Mar 2024  | 08 Mar 2024† |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB306229 | 28 Feb 2024 | 29 Feb 2024 | 06 Mar 2024    | 08 Mar 2024† | 06 Mar 2024  | 08 Mar 2024† |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB306229 | 28 Feb 2024 | 29 Feb 2024 | 06 Mar 2024    | 08 Mar 2024† | 06 Mar 2024  | 08 Mar 2024† |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB306229 | 28 Feb 2024 | 29 Feb 2024 | 06 Mar 2024    | 08 Mar 2024† | 06 Mar 2024  | 08 Mar 2024† |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB306229 | 28 Feb 2024 | 29 Feb 2024 | 06 Mar 2024    | 08 Mar 2024† | 06 Mar 2024  | 08 Mar 2024† |

**Fibre Identification in soil****Method: ME-(AU)-[ENV]AS4964/AN602**

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB306158 | 28 Feb 2024 | 29 Feb 2024 | 27 Feb 2025    | 07 Mar 2024 | 27 Feb 2025  | 08 Mar 2024 |

**Mercury in Soil****Method: ME-(AU)-[ENV]AN312**

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305929 | 28 Feb 2024 | 29 Feb 2024 | 27 Mar 2024    | 05 Mar 2024 | 27 Mar 2024  | 08 Mar 2024 |

**Moisture Content****Method: ME-(AU)-[ENV]AN002**

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305924 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |

**OC Pesticides in Soil****Method: ME-(AU)-[ENV]AN420**

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |





## HOLDING TIME SUMMARY

SE261519 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

### OC Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |

### OP Pesticides in Soil

Method: ME-(AU)-ENVJAN420

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |

### PCBs in Soil

Method: ME-(AU)-ENVJAN420

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |

### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-ENVJAN040/AN320

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |



## HOLDING TIME SUMMARY

SE261519 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-ENVJAN040/AN320

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305928 | 28 Feb 2024 | 29 Feb 2024 | 26 Aug 2024    | 05 Mar 2024 | 26 Aug 2024  | 08 Mar 2024 |

### TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN403

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305917 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |

### VOC's in Soil

Method: ME-(AU)-ENVJAN433

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |

### Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-ENVJAN433

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH98A-0.2 | SE261519.001 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-0.5 | SE261519.002 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-1.0 | SE261519.003 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-2.0 | SE261519.004 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.0 | SE261519.005 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-3.5 | SE261519.006 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-4.0 | SE261519.007 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-5.0 | SE261519.008 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-6.0 | SE261519.009 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC2 | SE261519.010 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-QC4 | SE261519.011 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |
| EDP-DSI.M7.BH98A-7.0 | SE261519.012 | LB305922 | 28 Feb 2024 | 29 Feb 2024 | 13 Mar 2024    | 05 Mar 2024 | 13 Mar 2024  | 07 Mar 2024 |

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

| Parameter                               | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------------|----------------------|---------------|-------|-----------|------------|
| Tetrachloro-m-xylene (TCMX) (Surrogate) | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 85         |
|                                         | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 79         |
|                                         | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 81         |
|                                         | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 77         |
|                                         | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 77         |
|                                         | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 90         |
|                                         | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 76         |
|                                         | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 81         |
|                                         | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 76         |
|                                         | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 80         |

## OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|------------------------------|----------------------|---------------|-------|-----------|------------|
| 2-fluorobiphenyl (Surrogate) | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 92         |
|                              | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 99         |
|                              | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 99         |
|                              | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 102        |
|                              | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 108        |
|                              | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 107        |
|                              | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 112        |
| d14-p-terphenyl (Surrogate)  | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 108        |
|                              | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 100        |
|                              | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 101        |
|                              | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 100        |
|                              | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 106        |
|                              | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 96         |
|                              | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 95         |
|                              | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 107        |
|                              | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 110        |

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|------------------------------|----------------------|---------------|-------|-----------|------------|
| 2-fluorobiphenyl (Surrogate) | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 70 - 130% | 92         |
|                              | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 70 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 70 - 130% | 99         |
|                              | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 70 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 70 - 130% | 99         |
|                              | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 70 - 130% | 102        |
|                              | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 70 - 130% | 108        |
|                              | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 70 - 130% | 107        |
|                              | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 70 - 130% | 112        |
|                              | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 70 - 130% | 98         |
|                              | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 70 - 130% | 106        |
|                              | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 70 - 130% | 108        |
| d14-p-terphenyl (Surrogate)  | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 70 - 130% | 100        |
|                              | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 70 - 130% | 101        |
|                              | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 70 - 130% | 100        |
|                              | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 70 - 130% | 106        |
|                              | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 70 - 130% | 96         |
|                              | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 70 - 130% | 95         |
|                              | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 70 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 70 - 130% | 103        |
|                              | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 70 - 130% | 107        |
|                              | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 70 - 130% | 99         |
|                              | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 70 - 130% | 102        |
|                              | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 70 - 130% | 110        |
| d5-nitrobenzene (Surrogate)  | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 70 - 130% | 99         |
|                              | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 70 - 130% | 100        |

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)**

Method: ME-(AU)-[ENV]AN420

| Parameter                   | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------|----------------------|---------------|-------|-----------|------------|
| d5-nitrobenzene (Surrogate) | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 70 - 130% | 104        |
|                             | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 70 - 130% | 103        |
|                             | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 70 - 130% | 89         |
|                             | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 70 - 130% | 95         |
|                             | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 70 - 130% | 98         |
|                             | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 70 - 130% | 99         |
|                             | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 70 - 130% | 100        |
|                             | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 70 - 130% | 104        |
|                             | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 70 - 130% | 98         |
|                             | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 70 - 130% | 99         |

**PCBs in Soil**

Method: ME-(AU)-[ENV]AN420

| Parameter        | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|------------------|----------------------|---------------|-------|-----------|------------|
| TCMX (Surrogate) | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 85         |
|                  | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 80         |
|                  | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 82         |
|                  | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 79         |
|                  | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 79         |
|                  | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 91         |
|                  | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 77         |
|                  | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 82         |
|                  | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 77         |
|                  | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 81         |

**Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples**

Method: MA-1523

| Parameter                                                     | Sample Name          | Sample Number | Units | Criteria | Recovery % |
|---------------------------------------------------------------|----------------------|---------------|-------|----------|------------|
| (13C3-PFBS) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 96         |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 105        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 123        |
|                                                               | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 122        |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 95         |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 104        |
|                                                               | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 109        |
|                                                               | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 104        |
|                                                               | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 114        |
|                                                               | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 86         |
|                                                               | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 95         |
| (13C3-PFHxS) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 94         |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 100        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 106        |
|                                                               | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 115        |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 92         |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 99         |
|                                                               | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 98         |
|                                                               | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 104        |
|                                                               | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 102        |
|                                                               | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 85         |
|                                                               | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 96         |
| (13C4_PFOA) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 96         |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 110        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 95         |
|                                                               | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 110        |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 101        |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 103        |
|                                                               | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 103        |
|                                                               | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 96         |
|                                                               | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 94         |
|                                                               | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 105        |
|                                                               | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 102        |
| (13C4-PFBA) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 97         |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 101        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 100        |



Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued)

Method: MA-1523

| Parameter                                                     | Sample Name          | Sample Number | Units | Criteria | Recovery % |
|---------------------------------------------------------------|----------------------|---------------|-------|----------|------------|
| (13C4-PFBA) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 100        |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 99         |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 99         |
|                                                               | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 98         |
|                                                               | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 103        |
|                                                               | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 101        |
|                                                               | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 100        |
| (13C4-PFHpA) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 98         |
|                                                               | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 98         |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 107        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 103        |
|                                                               | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 115        |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 106        |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 115        |
|                                                               | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 110        |
|                                                               | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 100        |
|                                                               | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 105        |
| (13C5-PFHxA) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 104        |
|                                                               | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 99         |
|                                                               | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 104        |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 113        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 108        |
|                                                               | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 118        |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 108        |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 111        |
|                                                               | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 108        |
|                                                               | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 98         |
| (13C5-PFPeA) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 107        |
|                                                               | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 105        |
|                                                               | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 97         |
|                                                               | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 103        |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 109        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 105        |
|                                                               | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 106        |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 107        |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 105        |
|                                                               | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 105        |
| (13C8-PFOS) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 104        |
|                                                               | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 107        |
|                                                               | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 106        |
|                                                               | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 103        |
|                                                               | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 0 - 150% | 99         |
|                                                               | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 0 - 150% | 106        |
|                                                               | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 0 - 150% | 103        |
|                                                               | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 0 - 150% | 79         |
|                                                               | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 0 - 150% | 81         |
|                                                               | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 0 - 150% | 108        |
| (13C8-PFOS) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 0 - 150% | 108        |
|                                                               | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 0 - 150% | 92         |
|                                                               | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 0 - 150% | 89         |
|                                                               | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 0 - 150% | 109        |
|                                                               | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 0 - 150% | 91         |

#### VOC's in Soil

Method: ME-(AU)-[ENV]JAN433

| Parameter                      | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|--------------------------------|----------------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate) | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 103        |
|                                | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 108        |
|                                | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 106        |
|                                | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 108        |
|                                | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 93         |
|                                | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 96         |

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

| Parameter                         | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------|----------------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate)    | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 99         |
|                                   | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 109        |
|                                   | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 101        |
|                                   | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 60 - 130% | 83         |
|                                   | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 60 - 130% | 99         |
|                                   | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 106        |
| d4-1,2-dichloroethane (Surrogate) | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 105        |
|                                   | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 106        |
|                                   | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 107        |
|                                   | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 101        |
|                                   | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 89         |
|                                   | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 86         |
|                                   | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 99         |
|                                   | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 105        |
|                                   | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 96         |
|                                   | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 60 - 130% | 78         |
|                                   | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 60 - 130% | 89         |
|                                   | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 103        |
| d8-toluene (Surrogate)            | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 109        |
|                                   | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 91         |
|                                   | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 96         |
|                                   | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 91         |
|                                   | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 79         |
|                                   | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 82         |
|                                   | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 87         |
|                                   | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 94         |
|                                   | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 87         |
|                                   | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 60 - 130% | 73         |
|                                   | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 60 - 130% | 81         |
|                                   | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 93         |

## Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

| Parameter                         | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------|----------------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate)    | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 103        |
|                                   | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 108        |
|                                   | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 106        |
|                                   | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 108        |
|                                   | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 93         |
|                                   | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 96         |
|                                   | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 99         |
|                                   | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 109        |
|                                   | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 101        |
|                                   | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 60 - 130% | 83         |
|                                   | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 60 - 130% | 99         |
|                                   | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 106        |
| d4-1,2-dichloroethane (Surrogate) | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 105        |
|                                   | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 106        |
|                                   | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 107        |
|                                   | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 101        |
|                                   | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 89         |
|                                   | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 86         |
|                                   | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 99         |
|                                   | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 105        |
|                                   | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 96         |
|                                   | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 60 - 130% | 78         |
|                                   | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 60 - 130% | 89         |
|                                   | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 103        |
| d8-toluene (Surrogate)            | EDP-DSI.M7.BH98A-0.2 | SE261519.001  | %     | 60 - 130% | 109        |
|                                   | EDP-DSI.M7.BH98A-0.5 | SE261519.002  | %     | 60 - 130% | 91         |
|                                   | EDP-DSI.M7.BH98A-1.0 | SE261519.003  | %     | 60 - 130% | 96         |
|                                   | EDP-DSI.M7.BH98A-2.0 | SE261519.004  | %     | 60 - 130% | 91         |

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

**Volatile Petroleum Hydrocarbons in Soil (continued)****Method: ME-(AU)-[ENV]AN433**

| Parameter              | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|------------------------|----------------------|---------------|-------|-----------|------------|
| d8-toluene (Surrogate) | EDP-DSI.M7.BH98A-3.0 | SE261519.005  | %     | 60 - 130% | 79         |
|                        | EDP-DSI.M7.BH98A-3.5 | SE261519.006  | %     | 60 - 130% | 82         |
|                        | EDP-DSI.M7.BH98A-4.0 | SE261519.007  | %     | 60 - 130% | 87         |
|                        | EDP-DSI.M7.BH98A-5.0 | SE261519.008  | %     | 60 - 130% | 94         |
|                        | EDP-DSI.M7.BH98A-6.0 | SE261519.009  | %     | 60 - 130% | 87         |
|                        | EDP-DSI.M7.BH98A-QC2 | SE261519.010  | %     | 60 - 130% | 73         |
|                        | EDP-DSI.M7.BH98A-QC4 | SE261519.011  | %     | 60 - 130% | 81         |
|                        | EDP-DSI.M7.BH98A-7.0 | SE261519.012  | %     | 60 - 130% | 93         |

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

**Conductivity and TDS by Calculation - Soil**

Method: ME-(AU)-[ENV]AN106

| Sample Number | Parameter                                 | Units | LOR | Result |
|---------------|-------------------------------------------|-------|-----|--------|
| LB306229.001  | Conductivity of Extract (1:5 as received) | µS/cm | 1   | <1     |
|               | Salinity (by calculation)*                | mg/kg | 5   | <5     |

**Mercury in Soil**

Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result |
|---------------|-----------|-------|------|--------|
| LB305929.001  | Mercury   | mg/kg | 0.05 | <0.05  |

**OC Pesticides in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                               | Units | LOR | Result |
|---------------|-----------------------------------------|-------|-----|--------|
| LB305917.001  | Alpha BHC                               | mg/kg | 0.1 | <0.1   |
|               | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1   |
|               | Beta BHC                                | mg/kg | 0.1 | <0.1   |
|               | Lindane (gamma BHC)                     | mg/kg | 0.1 | <0.1   |
|               | Delta BHC                               | mg/kg | 0.1 | <0.1   |
|               | Heptachlor                              | mg/kg | 0.1 | <0.1   |
|               | Aldrin                                  | mg/kg | 0.1 | <0.1   |
|               | Isodrin                                 | mg/kg | 0.1 | <0.1   |
|               | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1   |
|               | Gamma Chlordane                         | mg/kg | 0.1 | <0.1   |
|               | Alpha Chlordane                         | mg/kg | 0.1 | <0.1   |
|               | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2   |
|               | p,p'-DDE                                | mg/kg | 0.1 | <0.1   |
|               | Dieldrin                                | mg/kg | 0.2 | <0.2   |
|               | Endrin                                  | mg/kg | 0.2 | <0.2   |
|               | Beta Endosulfan                         | mg/kg | 0.2 | <0.2   |
|               | p,p'-DDD                                | mg/kg | 0.1 | <0.1   |
|               | Endrin aldehyde                         | mg/kg | 0.1 | <0.1   |
|               | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1   |
|               | p,p'-DDT                                | mg/kg | 0.1 | <0.1   |
|               | Endrin ketone                           | mg/kg | 0.1 | <0.1   |
|               | Methoxychlor                            | mg/kg | 0.1 | <0.1   |
|               | Mirex                                   | mg/kg | 0.1 | <0.1   |
| Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 78     |

**OP Pesticides in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                         | Units | LOR | Result |
|---------------|-----------------------------------|-------|-----|--------|
| LB305917.001  | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2   |
|               | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2   |
|               | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2   |
|               | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5   |
|               | Dichlorvos                        | mg/kg | 0.5 | <0.5   |
|               | Dimethoate                        | mg/kg | 0.5 | <0.5   |
|               | Ethion                            | mg/kg | 0.2 | <0.2   |
|               | Fenitrothion                      | mg/kg | 0.2 | <0.2   |
|               | Malathion                         | mg/kg | 0.2 | <0.2   |
|               | Methidathion                      | mg/kg | 0.5 | <0.5   |
|               | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2   |
|               | 2-fluorobiphenyl (Surrogate)      | %     | -   | 116    |
|               | d14-p-terphenyl (Surrogate)       | %     | -   | 109    |
| Surrogates    |                                   |       |     |        |

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter           | Units | LOR | Result |
|---------------|---------------------|-------|-----|--------|
| LB305917.001  | Naphthalene         | mg/kg | 0.1 | <0.1   |
|               | 2-methylnaphthalene | mg/kg | 0.1 | <0.1   |
|               | 1-methylnaphthalene | mg/kg | 0.1 | <0.1   |
|               | Acenaphthylene      | mg/kg | 0.1 | <0.1   |
|               | Acenaphthene        | mg/kg | 0.1 | <0.1   |
|               | Fluorene            | mg/kg | 0.1 | <0.1   |
|               | Phenanthrene        | mg/kg | 0.1 | <0.1   |
|               | Anthracene          | mg/kg | 0.1 | <0.1   |



Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result |
|---------------|------------------------------|-------|-----|--------|
| LB305917.001  | Fluoranthene                 | mg/kg | 0.1 | <0.1   |
|               | Pyrene                       | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)anthracene           | mg/kg | 0.1 | <0.1   |
|               | Chrysene                     | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)pyrene               | mg/kg | 0.1 | <0.1   |
|               | Indeno(1,2,3-cd)pyrene       | mg/kg | 0.1 | <0.1   |
|               | Dibenzo(ah)anthracene        | mg/kg | 0.1 | <0.1   |
|               | Benzo(ghi)perylene           | mg/kg | 0.1 | <0.1   |
|               | Total PAH (18)               | mg/kg | 0.8 | <0.8   |
|               | Surrogates                   |       |     |        |
|               | d5-nitrobenzene (Surrogate)  | %     | -   | 112    |
|               | 2-fluorobiphenyl (Surrogate) | %     | -   | 116    |
|               | d14-p-terphenyl (Surrogate)  | %     | -   | 109    |

**PCBs in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter             | Units | LOR | Result |
|---------------|-----------------------|-------|-----|--------|
| LB305917.001  | Arochlor 1016         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1221         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1232         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1242         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1248         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1254         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1260         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1262         | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1268         | mg/kg | 0.2 | <0.2   |
|               | Total PCBs (Arochors) | mg/kg | 1   | <1     |
|               | Surrogates            |       |     |        |
|               | TCMX (Surrogate)      | %     | -   | 79     |

**Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES**

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB305928.001  | Arsenic, As  | mg/kg | 1   | <1     |
|               | Cadmium, Cd  | mg/kg | 0.3 | <0.3   |
|               | Chromium, Cr | mg/kg | 0.5 | <0.5   |
|               | Copper, Cu   | mg/kg | 0.5 | <0.5   |
|               | Nickel, Ni   | mg/kg | 0.5 | <0.5   |
|               | Lead, Pb     | mg/kg | 1   | <1     |
|               | Zinc, Zn     | mg/kg | 2   | <2.0   |

**TRH (Total Recoverable Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter         | Units | LOR | Result |
|---------------|-------------------|-------|-----|--------|
| LB305917.001  | TRH C10-C14       | mg/kg | 20  | <20    |
|               | TRH C15-C28       | mg/kg | 45  | <45    |
|               | TRH C29-C36       | mg/kg | 45  | <45    |
|               | TRH C37-C40       | mg/kg | 100 | <100   |
|               | TRH C10-C36 Total | mg/kg | 110 | <110   |

**VOC's in Soil**

Method: ME-(AU)-[ENV]AN433

| Sample Number |                                  | Parameter                         | Units | LOR | Result |
|---------------|----------------------------------|-----------------------------------|-------|-----|--------|
| LB305922.001  | Monocyclic Aromatic Hydrocarbons | Benzene                           | mg/kg | 0.1 | <0.1   |
|               |                                  | Toluene                           | mg/kg | 0.1 | <0.1   |
|               |                                  | Ethylbenzene                      | mg/kg | 0.1 | <0.1   |
|               |                                  | m/p-xylene                        | mg/kg | 0.2 | <0.2   |
|               |                                  | o-xylene                          | mg/kg | 0.1 | <0.1   |
|               | Polycyclic VOCs                  | Naphthalene (VOC)*                | mg/kg | 0.1 | <0.1   |
|               | Surrogates                       | d4-1,2-dichloroethane (Surrogate) | %     | -   | 107    |
|               |                                  | d8-toluene (Surrogate)            | %     | -   | 92     |
|               |                                  | Bromofluorobenzene (Surrogate)    | %     | -   | 109    |
|               | Totals                           | Total BTEX*                       | mg/kg | 0.6 | <0.6   |

**Volatile Petroleum Hydrocarbons in Soil**

Method: ME-(AU)-[ENV]AN433

| Sample Number | Parameter  | Units                             | LOR | Result |
|---------------|------------|-----------------------------------|-----|--------|
| LB305922.001  | TRH C6-C9  | mg/kg                             | 20  | <20    |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | %   | -      |

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

#### Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

| Original     | Duplicate    | Parameter                                 | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.012 | LB306229.022 | Conductivity of Extract (1:5 as received) | µS/cm | 1   | 740      | 730       | 30         | 2     |
|              |              | Salinity (by calculation)*                | mg/kg | 5   | 2900     | 2900      | 30         | 2     |
| SE261603.001 | LB306229.021 | Conductivity of Extract (1:5 as received) | µS/cm | 1   | 2320     | 2330      | 30         | 0     |

#### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| Original     | Duplicate    | Parameter | Units | LOR  | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|------|----------|-----------|------------|-------|
| SE261519.010 | LB305929.014 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 192        | 0     |
| SE261710.003 | LB305929.023 | Mercury   | mg/kg | 0.05 | 0.06     | 0.06      | 116        | 7     |

#### Moisture Content

Method: ME-(AU)-[ENV]AN002

| Original     | Duplicate    | Parameter  | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-------|-----|----------|-----------|------------|-------|
| SE261519.010 | LB305924.011 | % Moisture | %w/w  | 1   | 23.1     | 23.2      | 34         | 1     |
| SE261710.003 | LB305924.020 | % Moisture | %w/w  | 1   | 5.2      | 5.4       | 49         | 5     |

#### OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.012 | LB305917.025 | Alpha BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Beta BHC                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Lindane (gamma BHC)                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Delta BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Heptachlor                              | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Aldrin                                  | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Isodrin                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Gamma Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Alpha Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | o,p'-DDE*                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | p,p'-DDE                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Dieldrin                                | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Endrin                                  | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Beta Endosulfan                         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | o,p'-DDD*                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | p,p'-DDD                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Endrin aldehyde                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | o,p'-DDT*                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | p,p'-DDT                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Endrin ketone                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Methoxychlor                            | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Mirex                                   | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | trans-Nonachlor                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Total CLP OC Pesticides                 | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              |              | Total OC VIC EPA                        | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              | Surrogates   | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.12     | 0.11      | 30         | 4     |
| SE261710.003 | LB305917.023 | Alpha BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Beta BHC                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Lindane (gamma BHC)                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Delta BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Heptachlor                              | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Aldrin                                  | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Isodrin                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Gamma Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Alpha Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | o,p'-DDE*                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

**OC Pesticides in Soil (continued)**

Method: ME-(AU)-[ENV]JAN420

| Original     | Duplicate                               | Parameter               | Units | LOR  | Original | Duplicate | Criteria % | RPD % |
|--------------|-----------------------------------------|-------------------------|-------|------|----------|-----------|------------|-------|
| SE261710.003 | LB305917.023                            | p,p'-DDE                | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | Dieldrin                | mg/kg | 0.2  | <0.2     | <0.2      | 200        | 0     |
|              |                                         | Endrin                  | mg/kg | 0.2  | <0.2     | <0.2      | 200        | 0     |
|              |                                         | Beta Endosulfan         | mg/kg | 0.2  | <0.2     | <0.2      | 200        | 0     |
|              |                                         | o,p'-DDD*               | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | p,p'-DDD                | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | Endrin aldehyde         | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | Endosulfan sulphate     | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | o,p'-DDT*               | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | p,p'-DDT                | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | Endrin ketone           | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | Methoxychlor            | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | Mirex                   | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | trans-Nonachlor         | mg/kg | 0.1  | <0.1     | <0.1      | 200        | 0     |
|              |                                         | Total CLP OC Pesticides | mg/kg | 1    | <1       | <1        | 200        | 0     |
|              | Total OC VIC EPA                        | mg/kg                   | 1     | <1   | <1       | 200       | 0          |       |
| Surrogates   | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg                   | -     | 0.12 | 0.12     | 30        | 6          |       |

**OP Pesticides in Soil**

Method: ME-(AU)-[ENV]JAN420

| Original     | Duplicate    | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.012 | LB305917.025 | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Dichlorvos                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Dimethoate                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Ethion                            | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Fenitrothion                      | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Malathion                         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Methidathion                      | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | <1.7      | 200        | 0     |
|              |              | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.5      | 0.5       | 30         | 1     |
|              |              | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.5      | 0.5       | 30         | 13    |
|              |              |                                   |       |     |          |           |            |       |
| SE261710.003 | LB305917.023 | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Dichlorvos                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Dimethoate                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Ethion                            | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Fenitrothion                      | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Malathion                         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Methidathion                      | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | <1.7      | 200        | 0     |
|              |              | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.5      | 0.6       | 30         | 4     |
|              |              | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.5      | 0.5       | 30         | 1     |
|              |              |                                   |       |     |          |           |            |       |
|              |              |                                   |       |     |          |           |            |       |

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]JAN420

| Original     | Duplicate    | Parameter           | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|---------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.012 | LB305917.025 | Naphthalene         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 2-methylnaphthalene | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 1-methylnaphthalene | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthylene      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthene        | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluorene            | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Phenanthrene        | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Anthracene          | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluoranthene        | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Pyrene              | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)anthracene  | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |                     |       |     |          |           |            |       |
|              |              |                     |       |     |          |           |            |       |

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-ENVJAN420

| Original     | Duplicate    | Parameter                              | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.012 | LB305917.025 | Chrysene                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(b&j)fluoranthene                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(k)fluoranthene                   | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)pyrene                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Indeno(1,2,3-cd)pyrene                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Dibenzo(ah)anthracene                  | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(ghi)perylene                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=0*     | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | mg/kg | 0.2 | <0.2     | <0.2      | 175        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | mg/kg | 0.3 | <0.3     | <0.3      | 134        | 0     |
|              |              | Total PAH (18)                         | mg/kg | 0.8 | <0.8     | <0.8      | 200        | 0     |
|              |              | Surrogates                             |       |     |          |           |            |       |
|              |              | d5-nitrobenzene (Surrogate)            | mg/kg | -   | 0.5      | 0.5       | 30         | 5     |
|              |              | 2-fluorobiphenyl (Surrogate)           | mg/kg | -   | 0.5      | 0.5       | 30         | 1     |
|              |              | d14-p-terphenyl (Surrogate)            | mg/kg | -   | 0.5      | 0.5       | 30         | 13    |
| SE261710.003 | LB305917.023 | Naphthalene                            | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 2-methylnaphthalene                    | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 1-methylnaphthalene                    | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthylene                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluorene                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Phenanthrene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Anthracene                             | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluoranthene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Pyrene                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)anthracene                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Chrysene                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(b&j)fluoranthene                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(k)fluoranthene                   | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)pyrene                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Indeno(1,2,3-cd)pyrene                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Dibenzo(ah)anthracene                  | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(ghi)perylene                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=0*     | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | mg/kg | 0.2 | <0.2     | <0.2      | 175        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | mg/kg | 0.3 | <0.3     | <0.3      | 134        | 0     |
|              |              | Total PAH (18)                         | mg/kg | 0.8 | <0.8     | <0.8      | 200        | 0     |
|              |              | Surrogates                             |       |     |          |           |            |       |
|              |              | d5-nitrobenzene (Surrogate)            | mg/kg | -   | 0.5      | 0.5       | 30         | 4     |
|              |              | 2-fluorobiphenyl (Surrogate)           | mg/kg | -   | 0.5      | 0.6       | 30         | 4     |
|              |              | d14-p-terphenyl (Surrogate)            | mg/kg | -   | 0.5      | 0.5       | 30         | 1     |

#### PCBs in Soil

Method: ME-(AU)-ENVJAN420

| Original     | Duplicate    | Parameter              | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.012 | LB305917.026 | Arochlor 1016          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1221          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1232          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1242          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1248          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1254          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1260          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1262          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1268          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Total PCBs (Arochlors) | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              |              | Surrogates             |       |     |          |           |            |       |
|              |              | TCMX (Surrogate)       | mg/kg | -   | 0        | 0         | 30         | 4     |
| SE261710.003 | LB305917.023 | Arochlor 1016          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1221          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1232          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1242          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1248          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1254          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Arochlor 1260          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |



Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

#### PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    | Parameter              | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------------------|-------|-----|----------|-----------|------------|-------|
| SE261710.003 | LB305917.023 | Arochlor 1268          | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Total PCBs (Arochlors) | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              | Surrogates   | TCMX (Surrogate)       | mg/kg | -   | 0        | 0         | 30         | 6     |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| Original     | Duplicate    | Parameter    | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|--------------|-------|-----|----------|-----------|------------|-------|
| SE261519.010 | LB305928.014 | Arsenic, As  | mg/kg | 1   | 8        | 8         | 43         | 4     |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 17       | 17        | 33         | 1     |
|              |              | Copper, Cu   | mg/kg | 0.5 | 27       | 26        | 32         | 7     |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 12       | 13        | 34         | 1     |
|              |              | Lead, Pb     | mg/kg | 1   | 29       | 29        | 33         | 0     |
|              |              | Zinc, Zn     | mg/kg | 2   | 100      | 86        | 32         | 19    |

#### TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

| Original     | Duplicate    | Parameter                       | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|---------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.012 | LB305917.025 | TRH C10-C14                     | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | TRH C15-C28                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              | TRH C29-C36                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              | TRH C37-C40                     | mg/kg | 100 | <100     | <100      | 200        | 0     |
|              |              | TRH C10-C36 Total               | mg/kg | 110 | <110     | <110      | 200        | 0     |
|              |              | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | <210      | 200        | 0     |
|              | TRH F Bands  | TRH >C10-C16                    | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | <90       | 200        | 0     |
|              |              | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | <120      | 200        | 0     |
| SE261710.003 | LB305917.023 | TRH C10-C14                     | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | TRH C15-C28                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              | TRH C29-C36                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              | TRH C37-C40                     | mg/kg | 100 | <100     | <100      | 200        | 0     |
|              |              | TRH C10-C36 Total               | mg/kg | 110 | <110     | <110      | 200        | 0     |
|              |              | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | <210      | 200        | 0     |
|              | TRH F Bands  | TRH >C10-C16                    | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | <90       | 200        | 0     |
|              |              | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | <120      | 200        | 0     |

#### VOC's in Soil

Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |            | Parameter                         | Units   | LOR   | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|---------|-------|----------|-----------|------------|-------|
| SE261519.010 | LB305922.014 | Monocyclic | Benzene                           | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Aromatic                          | Toluene | mg/kg | 0.1      | <0.1      | <0.1       | 200   |
|              |              |            | Ethylbenzene                      | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              |            | m/p-xylene                        | mg/kg   | 0.2   | <0.2     | <0.2      | 200        | 0     |
|              |              |            | o-xylene                          | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              | Polycyclic | Naphthalene (VOC)*                | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg   | -     | 7.8      | 7.1       | 50         | 9     |
|              |              |            | d8-toluene (Surrogate)            | mg/kg   | -     | 7.3      | 6.3       | 50         | 14    |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg   | -     | 8.3      | 7.3       | 50         | 12    |
|              |              | Totals     | Total BTEX*                       | mg/kg   | 0.6   | <0.6     | <0.6      | 200        | 0     |
|              |              |            | Total Xylenes*                    | mg/kg   | 0.3   | <0.3     | <0.3      | 200        | 0     |
| SE261710.003 | LB305922.023 | Monocyclic | Benzene                           | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Aromatic                          | Toluene | mg/kg | 0.1      | <0.1      | <0.1       | 200   |
|              |              |            | Ethylbenzene                      | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              |            | m/p-xylene                        | mg/kg   | 0.2   | <0.2     | <0.2      | 200        | 0     |
|              |              |            | o-xylene                          | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              | Polycyclic | Naphthalene (VOC)*                | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg   | -     | 9.6      | 10.1      | 50         | 6     |
|              |              |            | d8-toluene (Surrogate)            | mg/kg   | -     | 8.9      | 9.1       | 50         | 2     |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg   | -     | 10.3     | 10.3      | 50         | 1     |
|              |              | Totals     | Total BTEX*                       | mg/kg   | 0.6   | <0.6     | <0.6      | 200        | 0     |
|              |              |            | Total Xylenes*                    | mg/kg   | 0.3   | <0.3     | <0.3      | 200        | 0     |

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

#### Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-ENVJAN433

| Original     | Duplicate    | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261519.010 | LB305922.014 | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates                        |       |     |          |           |            |       |
|              |              | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.8      | 7.1       | 50         | 9     |
|              |              | d8-toluene (Surrogate)            | mg/kg | -   | 7.3      | 6.3       | 50         | 14    |
|              |              | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.3      | 7.3       | 50         | 12    |
|              |              | VPH F Bands                       |       |     |          |           |            |       |
|              |              | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
| SE261710.003 | LB305922.023 | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates                        |       |     |          |           |            |       |
|              |              | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 9.6      | 10.1      | 50         | 6     |
|              |              | d8-toluene (Surrogate)            | mg/kg | -   | 8.9      | 9.1       | 50         | 2     |
|              |              | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 10.3     | 10.3      | 50         | 1     |
|              |              | VPH F Bands                       |       |     |          |           |            |       |
|              |              | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

**Conductivity and TDS by Calculation - Soil**

Method: ME-(AU)-[ENV]AN106

| Sample Number | Parameter                                 | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------------------------------------|-------|-----|--------|----------|------------|------------|
| LB306229.002  | Conductivity of Extract (1:5 as received) | µS/cm | 1   | 310    | 303      | 85 - 115   | 102        |

**Mercury in Soil**

Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|------|--------|----------|------------|------------|
| LB305929.002  | Mercury   | mg/kg | 0.05 | 0.20   | 0.2      | 80 - 120   | 100        |

**OC Pesticides in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                               | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------------------------------------|-------|-----|--------|----------|------------|------------|
| LB305917.002  | Delta BHC                               | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 86         |
|               | Heptachlor                              | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 84         |
|               | Aldrin                                  | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 86         |
|               | Dieldrin                                | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 84         |
|               | Endrin                                  | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 85         |
|               | p,p'-DDT                                | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 93         |
| Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.12   | 0.15     | 40 - 130   | 77         |

**OP Pesticides in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB305917.002  | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 1.5    | 2        | 60 - 140   | 75         |
|               | Diazinon (Dimpylate)              | mg/kg | 0.5 | 1.5    | 2        | 60 - 140   | 77         |
|               | Dichlorvos                        | mg/kg | 0.5 | 1.3    | 2        | 60 - 140   | 67         |
|               | Ethion                            | mg/kg | 0.2 | 1.4    | 2        | 60 - 140   | 68         |
|               | Surrogates                        |       |     |        |          |            |            |
|               | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.5    | 0.5      | 40 - 130   | 100        |
|               | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.5    | 0.5      | 40 - 130   | 96         |

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------------------------|-------|-----|--------|----------|------------|------------|
| LB305917.002  | Naphthalene                  | mg/kg | 0.1 | 4.1    | 4        | 60 - 140   | 102        |
|               | Acenaphthylene               | mg/kg | 0.1 | 3.9    | 4        | 60 - 140   | 97         |
|               | Acenaphthene                 | mg/kg | 0.1 | 4.1    | 4        | 60 - 140   | 102        |
|               | Phenanthrene                 | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 99         |
|               | Anthracene                   | mg/kg | 0.1 | 4.4    | 4        | 60 - 140   | 109        |
|               | Fluoranthene                 | mg/kg | 0.1 | 4.1    | 4        | 60 - 140   | 103        |
|               | Pyrene                       | mg/kg | 0.1 | 4.2    | 4        | 60 - 140   | 105        |
|               | Benzo(a)pyrene               | mg/kg | 0.1 | 4.1    | 4        | 60 - 140   | 104        |
|               | Surrogates                   |       |     |        |          |            |            |
|               | d5-nitrobenzene (Surrogate)  | mg/kg | -   | 0.5    | 0.5      | 40 - 130   | 97         |
|               | 2-fluorobiphenyl (Surrogate) | mg/kg | -   | 0.5    | 0.5      | 40 - 130   | 100        |
|               | d14-p-terphenyl (Surrogate)  | mg/kg | -   | 0.5    | 0.5      | 40 - 130   | 96         |

**PCBs in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter     | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|---------------|-------|-----|--------|----------|------------|------------|
| LB305917.002  | Arochlor 1260 | mg/kg | 0.2 | 0.4    | 0.4      | 60 - 140   | 103        |

**Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES**

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|--------------|-------|-----|--------|----------|------------|------------|
| LB305928.002  | Arsenic, As  | mg/kg | 1   | 340    | 318.22   | 80 - 120   | 107        |
|               | Cadmium, Cd  | mg/kg | 0.3 | 4.1    | 4.81     | 70 - 130   | 84         |
|               | Chromium, Cr | mg/kg | 0.5 | 39     | 38.31    | 80 - 120   | 103        |
|               | Copper, Cu   | mg/kg | 0.5 | 310    | 290      | 80 - 120   | 108        |
|               | Nickel, Ni   | mg/kg | 0.5 | 190    | 187      | 80 - 120   | 103        |
|               | Lead, Pb     | mg/kg | 1   | 92     | 89.9     | 80 - 120   | 102        |
|               | Zinc, Zn     | mg/kg | 2   | 270    | 273      | 80 - 120   | 100        |

**TRH (Total Recoverable Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter   | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------|-------|-----|--------|----------|------------|------------|
| LB305917.002  | TRH C10-C14 | mg/kg | 20  | 52     | 40       | 60 - 140   | 129        |
|               | TRH C15-C28 | mg/kg | 45  | 48     | 40       | 60 - 140   | 119        |
|               | TRH C29-C36 | mg/kg | 45  | <45    | 40       | 60 - 140   | 80         |

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

## TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter   | Units             | LOR   | Result | Expected | Criteria % | Recovery %          |
|---------------|-------------|-------------------|-------|--------|----------|------------|---------------------|
| LB305917.002  | TRH F Bands | TRH >C10-C16      | mg/kg | 25     | 52       | 40         | 60 - 140 <b>130</b> |
|               |             | TRH >C16-C34 (F3) | mg/kg | 90     | <90      | 40         | 60 - 140 <b>98</b>  |
|               |             | TRH >C34-C40 (F4) | mg/kg | 120    | <120     | 20         | 60 - 140 <b>76</b>  |

## VOC's in Soil

Method: ME-(AU)-[ENV]AN433

| Sample Number | Parameter  | Units                             | LOR   | Result | Expected | Criteria % | Recovery %         |
|---------------|------------|-----------------------------------|-------|--------|----------|------------|--------------------|
| LB305922.002  | Monocyclic | Benzene                           | mg/kg | 0.1    | 4.0      | 5          | 60 - 140 <b>80</b> |
|               |            | Aromatic                          |       |        |          |            |                    |
|               | Aromatic   | Toluene                           | mg/kg | 0.1    | 4.5      | 5          | 60 - 140 <b>90</b> |
|               |            | Ethylbenzene                      | mg/kg | 0.1    | 4.3      | 5          | 60 - 140 <b>86</b> |
|               |            | m/p-xylene                        | mg/kg | 0.2    | 8.9      | 10         | 60 - 140 <b>89</b> |
|               |            | o-xylene                          | mg/kg | 0.1    | 4.4      | 5          | 60 - 140 <b>89</b> |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -      | 9.5      | 10         | 70 - 130 <b>95</b> |
|               |            | d8-toluene (Surrogate)            | mg/kg | -      | 9.8      | 10         | 70 - 130 <b>98</b> |
|               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -      | 9.0      | 10         | 70 - 130 <b>90</b> |

## Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

| Sample Number | Parameter   | Units                             | LOR   | Result | Expected | Criteria % | Recovery %         |
|---------------|-------------|-----------------------------------|-------|--------|----------|------------|--------------------|
| LB305922.002  | TRH C6-C10  | TRH C6-C10                        | mg/kg | 25     | 69       | 92.5       | 60 - 140 <b>74</b> |
|               |             | TRH C6-C9                         | mg/kg | 20     | 58       | 80         | 60 - 140 <b>73</b> |
|               | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -      | 9.5      | 10         | 70 - 130 <b>95</b> |
|               |             | Bromofluorobenzene (Surrogate)    | mg/kg | -      | 9.0      | 10         | 70 - 130 <b>90</b> |
|               | VPH F Bands | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25     | 43       | 62.5       | 60 - 140 <b>68</b> |



Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| QC Sample    | Sample Number | Parameter | Units | LOR  | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------|-------|------|--------|----------|-------|-----------|
| SE261519.001 | LB305929.004  | Mercury   | mg/kg | 0.05 | 0.23   | <0.05    | 0.2   | 96        |

## OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter                               | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------------------------------------|-------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305917.004  | Alpha BHC                               | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Beta BHC                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Lindane (gamma BHC)                     | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Delta BHC                               | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 100       |
|              |               | Heptachlor                              | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 95        |
|              |               | Aldrin                                  | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 96        |
|              |               | Isodrin                                 | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Gamma Chlordane                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Alpha Chlordane                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | o,p'-DDE*                               | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | p,p'-DDE                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Dieldrin                                | mg/kg | 0.2 | <0.2   | <0.2     | 0.2   | 98        |
|              |               | Endrin                                  | mg/kg | 0.2 | <0.2   | <0.2     | 0.2   | 99        |
|              |               | Beta Endosulfan                         | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | o,p'-DDD*                               | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | p,p'-DDD                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Endrin aldehyde                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | o,p'-DDT*                               | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | p,p'-DDT                                | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 102       |
|              |               | Endrin ketone                           | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Methoxychlor                            | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Mirex                                   | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | trans-Nonachlor                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Total CLP OC Pesticides                 | mg/kg | 1   | 1      | <1       | -     | -         |
|              |               | Total OC VIC EPA                        | mg/kg | 1   | 1      | <1       | -     | -         |
|              | Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.12   | 0.13     | -     | 81        |

## OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305917.004  | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 1.8    | <0.2     | 2     | 90        |
|              |               | Diazinon (Dimpylate)              | mg/kg | 0.5 | 1.9    | <0.5     | 2     | 93        |
|              |               | Dichlorvos                        | mg/kg | 0.5 | 1.7    | <0.5     | 2     | 83        |
|              |               | Dimethoate                        | mg/kg | 0.5 | <0.5   | <0.5     | -     | -         |
|              |               | Ethion                            | mg/kg | 0.2 | 2.0    | <0.2     | 2     | 99        |
|              |               | Fenitrothion                      | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Malathion                         | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Methidathion                      | mg/kg | 0.5 | <0.5   | <0.5     | -     | -         |
|              |               | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Total OP Pesticides*              | mg/kg | 1.7 | 7.3    | <1.7     | -     | -         |
|              | Surrogates    | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.5    | 0.5      | -     | 102       |
|              |               | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.5    | 0.5      | -     | 99        |

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter           | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|---------------------|-------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305917.004  | Naphthalene         | mg/kg | 0.1 | 4.2    | <0.1     | 4     | 105       |
|              |               | 2-methylnaphthalene | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | 1-methylnaphthalene | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Acenaphthylene      | mg/kg | 0.1 | 4.0    | <0.1     | 4     | 101       |
|              |               | Acenaphthene        | mg/kg | 0.1 | 4.1    | <0.1     | 4     | 102       |
|              |               | Fluorene            | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter                              | Units       | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|----------------------------------------|-------------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305917.004  | Phenanthrene                           | mg/kg       | 0.1 | 4.1    | 0.1      | 4     | 100       |
|              |               | Anthracene                             | mg/kg       | 0.1 | 4.1    | <0.1     | 4     | 101       |
|              |               | Fluoranthene                           | mg/kg       | 0.1 | 4.3    | 0.2      | 4     | 101       |
|              |               | Pyrene                                 | mg/kg       | 0.1 | 4.3    | 0.2      | 4     | 102       |
|              |               | Benzo(a)anthracene                     | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Chrysene                               | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Benzo(b&j)fluoranthene                 | mg/kg       | 0.1 | 0.1    | <0.1     | -     | -         |
|              |               | Benzo(k)fluoranthene                   | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Benzo(a)pyrene                         | mg/kg       | 0.1 | 4.0    | <0.1     | 4     | 98        |
|              |               | Indeno(1,2,3-cd)pyrene                 | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Dibenzo(ah)anthracene                  | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Benzo(ghi)perylene                     | mg/kg       | 0.1 | 0.1    | <0.1     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <LOR=0*     | TEQ (mg/kg) | 0.2 | 4.0    | <0.2     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | TEQ (mg/kg) | 0.2 | 4.1    | <0.2     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | TEQ (mg/kg) | 0.3 | 4.1    | <0.3     | -     | -         |
|              |               | Total PAH (18)                         | mg/kg       | 0.8 | 33     | <0.8     | -     | -         |
|              |               | d5-nitrobenzene (Surrogate)            | mg/kg       | -   | 0.5    | 0.5      | -     | 106       |
|              |               | 2-fluorobiphenyl (Surrogate)           | mg/kg       | -   | 0.5    | 0.5      | -     | 102       |
|              |               | d14-p-terphenyl (Surrogate)            | mg/kg       | -   | 0.5    | 0.5      | -     | 99        |

## PCBs in Soil

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter              | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------------------|-------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305917.004  | Arochlor 1016          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Arochlor 1221          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Arochlor 1232          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Arochlor 1242          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Arochlor 1248          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Arochlor 1254          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Arochlor 1260          | mg/kg | 0.2 | 0.5    | <0.2     | 0.4   | 114       |
|              |               | Arochlor 1262          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Arochlor 1268          | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Total PCBs (Arochlors) | mg/kg | 1   | <1     | <1       | -     | -         |
|              | Surrogates    | TCMX (Surrogate)       | mg/kg | -   | 0      | 0        | -     | 82        |

## Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| QC Sample    | Sample Number | Parameter    | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|--------------|-------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305928.004  | Arsenic, As  | mg/kg | 1   | 51     | 8        | 50    | 86        |
|              |               | Cadmium, Cd  | mg/kg | 0.3 | 41     | <0.3     | 50    | 82        |
|              |               | Chromium, Cr | mg/kg | 0.5 | 56     | 17       | 50    | 79        |
|              |               | Copper, Cu   | mg/kg | 0.5 | 67     | 27       | 50    | 81        |
|              |               | Nickel, Ni   | mg/kg | 0.5 | 53     | 10       | 50    | 85        |
|              |               | Lead, Pb     | mg/kg | 1   | 62     | 27       | 50    | 71        |
|              |               | Zinc, Zn     | mg/kg | 2   | 150    | 130      | 50    | 39 ①      |

## TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

| QC Sample    | Sample Number | Parameter                       | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|---------------------------------|-------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305917.004  | TRH C10-C14                     | mg/kg | 20  | 65     | <20      | 40    | 151 ①     |
|              |               | TRH C15-C28                     | mg/kg | 45  | 110    | <45      | 40    | 208 ①     |
|              |               | TRH C29-C36                     | mg/kg | 45  | 140    | 95       | 40    | 104       |
|              |               | TRH C37-C40                     | mg/kg | 100 | <100   | <100     | -     | -         |
|              |               | TRH C10-C36 Total               | mg/kg | 110 | 320    | <110     | -     | -         |
|              |               | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | 260    | <210     | -     | -         |
|              |               | TRH >C10-C16                    | mg/kg | 25  | 69     | <25      | 40    | 155 ①     |
|              |               | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | 69     | <25      | -     | -         |
|              |               | TRH >C16-C34 (F3)               | mg/kg | 90  | 190    | 110      | 40    | 195 ①     |
|              |               | TRH >C34-C40 (F4)               | mg/kg | 120 | <120   | <120     | -     | -         |

## VOC's in Soil

Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number | Parameter    | Units   | LOR   | Result | Original | Spike | Recovery% |
|--------------|---------------|--------------|---------|-------|--------|----------|-------|-----------|
| SE261519.001 | LB305922.004  | Monocyclic   | Benzene | mg/kg | 0.1    | <0.1     | 5     | 78        |
|              |               | Aromatic     | Toluene | mg/kg | 0.1    | <0.1     | 5     | 94        |
|              |               | Ethylbenzene | mg/kg   | 0.1   | 4.6    | <0.1     | 5     | 92        |
|              |               | m/p-xylene   | mg/kg   | 0.2   | 9.8    | <0.2     | 10    | 97        |

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE261519.001 | LB305922.004  | Monocyclic | o-xylene                          | mg/kg | 0.1 | 4.9    | <0.1     | 5     | 97        |
|              |               | Polycyclic | Naphthalene (VOC)*                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.4    | 10.5     | 10    | 84        |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.8    | 10.9     | 10    | 88        |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.0    | 10.3     | 10    | 80        |
|              |               | Totals     | Total BTEX*                       | mg/kg | 0.6 | 28     | <0.6     | -     | -         |
|              |               |            | Total Xylenes*                    | mg/kg | 0.3 | 15     | <0.3     | -     | -         |

## Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number | Parameter  | Units                             | LOR   | Result | Original | Spike | Recovery% |    |
|--------------|---------------|------------|-----------------------------------|-------|--------|----------|-------|-----------|----|
| SE261519.001 | LB305922.004  | TRH C6-C10 | mg/kg                             | 25    | 84     | <25      | 92.5  | 91        |    |
|              |               | TRH C6-C9  | mg/kg                             | 20    | 73     | <20      | 80    | 91        |    |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -      | 8.4      | 10.5  | 10        | 84 |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -      | 8.8      | 10.9  | 10        | 88 |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -      | 8.0      | 10.3  | -         | 80 |
|              |               | VPH F      | Benzene (F0)                      | mg/kg | 0.1    | 3.9      | <0.1  | -         | -  |
|              |               | Bands      | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25     | 57       | <25   | 62.5      | 91 |

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.



Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here : [https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022\\_QA\\_QC\\_Plan.pdf](https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022_QA_QC_Plan.pdf)

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* Indicates that both \* and \*\* apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

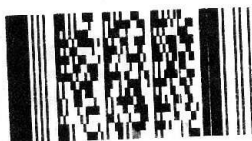
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## Request for Laboratory Services and Chain of Custody Form

| Received Date:                                                                                                                                          |                                                                                    | Received By:                                                                          |                          | Cooling Method:                                                                                             |              | Samples intact:    |    |                               |                  |     |          |          |         |      |                                                   |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------|--------------|--------------------|----|-------------------------------|------------------|-----|----------|----------|---------|------|---------------------------------------------------|-------|
| Logged-in Date:                                                                                                                                         |                                                                                    | Time of Receipt:                                                                      |                          | Cooler Sealed:                                                                                              |              | Temperature:       |    |                               |                  |     |          |          |         |      |                                                   |       |
| COD must pay via cheque or credit card before analysis is commenced. AMEX & DINERS cards incur a 5% surcharge                                           |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| INVOICE TO:                                                                                                                                             | Name: Cristiane Florido                                                            |                                                                                       |                          | Quote #:                                                                                                    |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
|                                                                                                                                                         | Company: EDP Consultants Pty Ltd                                                   |                                                                                       |                          | Attached Parameter List: <input type="checkbox"/> Yes <input type="checkbox"/> No                           |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
|                                                                                                                                                         | Address: Level 4 38 Oxley Street                                                   |                                                                                       |                          | Replacement Sample Containers Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
|                                                                                                                                                         | St Leonards NSW 2065                                                               |                                                                                       |                          | Results Required By: Standard TA Urgent TA requires lab approval                                            |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
|                                                                                                                                                         | Email: invoices@edp-au.com, Project.admin@edp-au.com, Cristiane.Florido@edp-au.com |                                                                                       |                          | Notes:                                                                                                      |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
|                                                                                                                                                         | Phone: 0413 378 102 Fax:                                                           |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Client information                                                                                                                                      |                                                                                    | PO No.:                                                                               |                          | Project No.:                                                                                                |              | S-05667.095        |    |                               |                  |     |          |          |         |      |                                                   |       |
| Company Name: EDP Consultants Pty Ltd                                                                                                                   |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Contact Name: Cristiane Florido                                                                                                                         |                                                                                    | Samplers:                                                                             |                          | Gonzalo Serna Diaz                                                                                          |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Address: Level 4 38 Oxley Street, St Leonards NSW 2065                                                                                                  |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Phone Number: 0413 378 102 / 0406 268 122                                                                                                               |                                                                                    | After Hours Phone Number: NA                                                          |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Fax Number: NA                                                                                                                                          |                                                                                    | cristiane.florido@edp-au.com; gonzalo.serna.diaz@edp-au.com; Haneen.Safadi@edp-au.com |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Note: Results will be sent via email to an unlimited number of addresses for no additional fee. In the absence of email, fax is available upon request. |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Indicate results format (please check one): Email & Esd <input type="checkbox"/> Fax <input type="checkbox"/>                                           |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| SAMPLE INFORMATION                                                                                                                                      |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Lab Sample ID                                                                                                                                           | Sample Identifier                                                                  | Date Sampled                                                                          | Matrix: Soil Water Other | # of Bags                                                                                                   | # of Bottles | Analysis Requested |    |                               |                  |     |          |          |         |      |                                                   | Notes |
|                                                                                                                                                         |                                                                                    |                                                                                       |                          |                                                                                                             |              | S16                | S5 | Asbestos (presence / absence) | PFAS Short suite | CRS | Salinity | TRH/BTEX | Ph/Pfox | HOLD |                                                   |       |
| 1                                                                                                                                                       | EDP-DSI.M7.BH99A-0.2 ✓                                                             | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | X                  |    | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 2                                                                                                                                                       | EDP-DSI.M7.BH99A-0.5 ✓                                                             | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 3                                                                                                                                                       | EDP-DSI.M7.BH99A-1.0 2.0                                                           | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 4                                                                                                                                                       | EDP-DSI.M7.BH99A-1.5 SNE                                                           | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 5                                                                                                                                                       | EDP-DSI.M7.BH99A-2.5 ✓                                                             | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | X                  |    | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 6                                                                                                                                                       | EDP-DSI.M7.BH99A-3.0 SNE                                                           | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 7                                                                                                                                                       | EDP-DSI.M7.BH99A-3.5 SNE                                                           | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 8                                                                                                                                                       | EDP-DSI.M7.BH99A-5.0 ✓                                                             | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             |                  |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 9                                                                                                                                                       | EDP-DSI.M7.BH99A-5.5 ✓                                                             | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             |                  |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 10                                                                                                                                                      | EDP-DSI.M7.BH99A-6.5 ✓                                                             | 27/02/2024                                                                            | S                        | 2                                                                                                           | 2            | x                  |    | x                             |                  |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 11                                                                                                                                                      | EDP-DSI.M7.BH99A.QC1 ✓                                                             | 27/02/2024                                                                            | S                        |                                                                                                             | 2            |                    | x  |                               | x                |     |          |          |         |      | Send to SGS for C10 and Pfas short suite analysis |       |
| 12                                                                                                                                                      | EDP-DSI.M7.BH99A.QC2 ✓                                                             | 27/02/2024                                                                            | S                        |                                                                                                             | 2            |                    | x  |                               | x                |     |          |          |         |      |                                                   |       |
|                                                                                                                                                         |                                                                                    |                                                                                       |                          |                                                                                                             |              | 15                 | 2  | 15                            | 14               | 1   | 11       |          | 0       | 0    |                                                   |       |
| Sampled By:                                                                                                                                             |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Gonzalo Serna Diaz                                                                                                                                      |                                                                                    |                                                                                       |                          | Date: 27/02/2024                                                                                            |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Relinquished By:                                                                                                                                        |                                                                                    |                                                                                       |                          |                                                                                                             |              |                    |    |                               |                  |     |          |          |         |      |                                                   |       |
| Picked up by Courier                                                                                                                                    |                                                                                    |                                                                                       |                          | Date: 28/02/2024                                                                                            |              |                    |    | Time:                         |                  |     |          |          |         |      |                                                   |       |

Environmental Division  
SydneyWork Order Reference  
ES2406769

Telephone : + 61-2-8784 8555

Lab / Analysis: EC1  
Organised By / Date: SGS  
Relinquished By / Date: SGS  
Connote / Courier: SGS

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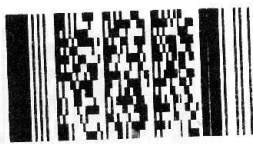
## Request for Laboratory Services and Chain of Custody Form

| Request for Laboratory Services and Chain of Custody Form                                                                                               |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|--------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|-------------------------------|------------------|-------|----------|----------|---------|------|---------------------------------------------------|
| Received Date: _____ Received By: _____                                                                                                                 |                                                                                    |              |                          |                                                                                       | Laboratory Section                                                                                                                                                                   |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Logged-in Date: _____ Time of Receipt: _____                                                                                                            |                                                                                    |              |                          |                                                                                       | Cooling Method: <input type="checkbox"/> Ice <input type="checkbox"/> Icepack <input type="checkbox"/> None Samples intact: <input type="checkbox"/> Yes <input type="checkbox"/> No |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         |                                                                                    |              |                          |                                                                                       | Cooler Sealed: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Temperature: <input type="checkbox"/> Ambient <input type="checkbox"/> Chilled  |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| COD must pay via cheque or credit card before analysis is commenced. AMEX & DINERS cards incur a 5% surcharge                                           |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| INVOICE TO:                                                                                                                                             | Name: Cristiane Florido                                                            |              |                          |                                                                                       | Quote #:                                                                                                                                                                             |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         | Company: EDP Consultants Pty Ltd                                                   |              |                          |                                                                                       | Attached Parameter List: <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                    |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         | Address: Level 4 38 Oxley Street                                                   |              |                          |                                                                                       | Replacement Sample Containers Required: <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                     |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         | St Leonards NSW 2065                                                               |              |                          |                                                                                       | Results Required By: Standard TA Urgent TA requires lab approval                                                                                                                     |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         | Email: invoices@edp-au.com, Project.admin@edp-au.com, Cristiane.Florido@edp-au.com |              |                          |                                                                                       | Notes:                                                                                                                                                                               |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         | Phone: 0413 378 102 Fax:                                                           |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Client information                                                                                                                                      |                                                                                    |              | PO No.:                  |                                                                                       | Project No.: S-05667.095                                                                                                                                                             |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Company Name: EDP Consultants Pty Ltd                                                                                                                   |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Contact Name: Cristiane Florido                                                                                                                         |                                                                                    |              |                          | Samplers:                                                                             |                                                                                                                                                                                      | Gonzalo Serna Diaz |                  |                               |                  |       |          |          |         |      |                                                   |
| Address: Level 4 38 Oxley Street, St Leonards NSW 2065                                                                                                  |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Phone Number: 0413 378 102 / 0406 268 122                                                                                                               |                                                                                    |              |                          | After Hours Phone Number: NA                                                          |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Fax Number: NA                                                                                                                                          |                                                                                    |              |                          | cristiane.florido@edp-au.com; gonzalo.serna.diaz@edp-au.com; Haneen.Safadi@edp-au.com |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Note: Results will be sent via email to an unlimited number of addresses for no additional fee. In the absence of email, fax is available upon request. |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Indicate results format (please check one): Email & Esd <input checked="" type="checkbox"/> Fax <input type="checkbox"/>                                |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| SAMPLE INFORMATION                                                                                                                                      |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
| Lab Sample ID                                                                                                                                           | Sample Identifier                                                                  | Date Sampled | Matrix: Soil Water Other | # of Bags                                                                             | # of Bottles                                                                                                                                                                         | Analysis Requested |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      | S16                | S5               | Asbestos (presence / absence) | PFAS Short suite | CRS   | Salinity | TRH/BTEX | Ph/PfOX | HOLD | Notes                                             |
| 1                                                                                                                                                       | EDP-DSI.M7.BH99A-0.2 ✓                                                             | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | X                  |                  | x                             | x                |       | x        |          |         |      | Keep samples if CRS sample required in the future |
| 2                                                                                                                                                       | EDP-DSI.M7.BH99A-0.5 ✓                                                             | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             | x                |       |          |          |         |      | Keep samples if CRS sample required in the future |
| 3                                                                                                                                                       | EDP-DSI.M7.BH99A-1.0 2.0                                                           | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             | x                |       | x        |          |         |      | Keep samples if CRS sample required in the future |
| 4                                                                                                                                                       | EDP-DSI.M7.BH99A-1.5 SNR                                                           | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             | x                |       |          |          |         |      | Keep samples if CRS sample required in the future |
| 5                                                                                                                                                       | EDP-DSI.M7.BH99A-2.5 ✓                                                             | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | X                  |                  | x                             | x                |       | x        |          |         |      | Keep samples if CRS sample required in the future |
| 6                                                                                                                                                       | EDP-DSI.M7.BH99A-3.0 SNR                                                           | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             | x                |       |          |          |         |      | Keep samples if CRS sample required in the future |
| 7                                                                                                                                                       | EDP-DSI.M7.BH99A-3.5 ✓                                                             | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             | x                |       | x        |          |         |      | Keep samples if CRS sample required in the future |
| 8                                                                                                                                                       | EDP-DSI.M7.BH99A-5.0 ✓                                                             | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             |                  |       |          |          |         |      | Keep samples if CRS sample required in the future |
| 9                                                                                                                                                       | EDP-DSI.M7.BH99A-5.5 ✓                                                             | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             |                  |       | x        |          |         |      | Keep samples if CRS sample required in the future |
| 10                                                                                                                                                      | EDP-DSI.M7.BH99A-6.5 ✓                                                             | 27/02/2024   | S                        | 2                                                                                     | 2                                                                                                                                                                                    | x                  |                  | x                             |                  |       | x        |          |         |      | Keep samples if CRS sample required in the future |
| 11                                                                                                                                                      | EDP-DSI.M7.BH99A-QC1 ✓                                                             | 27/02/2024   | S                        |                                                                                       | 2                                                                                                                                                                                    |                    |                  | x                             |                  | x     |          |          |         |      | Send to SGS for C10 and Pfas short suite analysis |
| 12                                                                                                                                                      | EDP-DSI.M7.BH99A-QC2 ✓                                                             | 27/02/2024   | S                        |                                                                                       | 2                                                                                                                                                                                    |                    |                  | x                             |                  | x     |          |          |         |      |                                                   |
|                                                                                                                                                         |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      | 15                 | 2                | 15                            | 14               | 1     | 11       |          | 0       | 0    |                                                   |
| Sampled By:                                                                                                                                             |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         |                                                                                    |              |                          | Gonzalo Serna Diaz                                                                    |                                                                                                                                                                                      |                    | Date: 27/02/2024 |                               |                  |       |          |          |         |      |                                                   |
| Relinquished By:                                                                                                                                        |                                                                                    |              |                          |                                                                                       |                                                                                                                                                                                      |                    |                  |                               |                  |       |          |          |         |      |                                                   |
|                                                                                                                                                         |                                                                                    |              |                          | Picked up by Courier                                                                  |                                                                                                                                                                                      |                    | Date: 28/02/2024 |                               |                  | Time: |          |          |         |      |                                                   |

Environmental Division  
Sydney

Work Order Reference

ES2406769



Telephone: +61-2-8784 8565

Lab / Analysis:

Organised By / Date:

Relinquished By / Date:

Connote / Courier:

Lab No:



## SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2406769**

Client : **EDP Consultants Pty Ltd**  
Contact : **CRISTIANE FLORIDO**  
Address : **Lv 4 38 Oxley Street**  
**St Leonards 2065**

E-mail : **cristiane.florido@edp-au.com**  
Telephone : **----**  
Facsimile : **----**

Project : **S-05667.095**  
Order number : **----**  
C-O-C number : **----**  
Site : **----**  
Sampler : **GONAZLO SERMA DIAZ**

Laboratory : **Environmental Division Sydney**  
Contact : **Customer Services ES**  
Address : **277-289 Woodpark Road Smithfield**  
**NSW Australia 2164**

E-mail : **ALSEnviro.Sydney@ALSGlobal.com**  
Telephone : **+61-2-8784 8555**  
Facsimile : **+61-2-8784 8500**

Page : **1 of 3**  
Quote number : **ES2019EDP6000002 (EN/222)**  
QC Level : **NEPM 2013 B3 & ALS QC Standard**

### Dates

Date Samples Received : **29-Feb-2024 15:30**  
Client Requested Due : **07-Mar-2024**  
Date

Issue Date : **01-Mar-2024**  
Scheduled Reporting Date : **07-Mar-2024**

### Delivery Details

Mode of Delivery : **Carrier**  
No. of coolers/boxes : **1**

Security Seal : **Intact.**  
Temperature : **7.7°C, 8.1°C, 7.3°C - Ice present**

Receipt Detail :

No. of samples received / analysed : **11 / 11**  
No. of samples NOT collected : **2**

### General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Non ALS Trip spike was received, unable to conduct TSC analysis**
- **Sample 3 ID on the COC is EDP-M7.BH99A-1.0, received as EDP-M7.BH99A-2.0, please confirm which is the correct ID.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Sample EDP-M7.BH99A-1.5 was not received due to the following reason: Sample was not received
- Sample EDP-M7.BH99A-3.0 was not received due to the following reason: Sample was not received
- **Asbestos analysis will be conducted by ALS Newcastle.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.





## Sample Container(s)/Preservation Non-Compliances

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

| Method<br>Sample ID               | Sample Container Received                  | Preferred Sample Container for Analysis |
|-----------------------------------|--------------------------------------------|-----------------------------------------|
| <b>TRH Volatiles/BTEX : EP080</b> |                                            |                                         |
| <b>TRIP BLANK</b>                 | - Miscellaneous Glass Bottle - unpreserved | - Soil Glass Jar - Unpreserved          |
| <b>TRIP SPIKE</b>                 | - Miscellaneous Glass Bottle - unpreserved | - Soil Glass Jar - Unpreserved          |

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

ES2406769-003 : [ 27-Feb-2024 ] : EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0

## Summary of Sample(s) and Requested Analysis

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

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

Matrix: **SOIL**

| Laboratory sample ID | Sampling date / time | Sample ID              | SOIL - EA014<br>Total Soluble Salts | SOIL - EA055-103<br>Moisture Content | SOIL - EA200<br>Asbestos Identification in Soils - | SOIL - EP231 (solids)<br>PFAS - Short Suite (12 analytes) | SOIL - S-05<br>TRH/BTEXN/8 Metals | SOIL - S-16<br>TRH/BTEXN/PAH/OC/OP/PCB/8Metals | SOIL - S-18 (NO MOIST)<br>TRH(C6-C9)/BTEXN with No Moisture for TBs |
|----------------------|----------------------|------------------------|-------------------------------------|--------------------------------------|----------------------------------------------------|-----------------------------------------------------------|-----------------------------------|------------------------------------------------|---------------------------------------------------------------------|
| ES2406769-001        | 27-Feb-2024 00:00    | EDP-M7.BH99A-0.2       | ✓                                   | ✓                                    | ✓                                                  | ✓                                                         |                                   | ✓                                              |                                                                     |
| ES2406769-002        | 27-Feb-2024 00:00    | EDP-M7.BH99A-0.5       |                                     | ✓                                    | ✓                                                  | ✓                                                         |                                   | ✓                                              |                                                                     |
| ES2406769-003        | 27-Feb-2024 00:00    | EDP-M7.BH99A-2.0 ED... | ✓                                   | ✓                                    | ✓                                                  | ✓                                                         |                                   | ✓                                              |                                                                     |
| ES2406769-005        | 27-Feb-2024 00:00    | EDP-M7.BH99A-2.5       | ✓                                   | ✓                                    | ✓                                                  | ✓                                                         |                                   | ✓                                              |                                                                     |
| ES2406769-007        | 27-Feb-2024 00:00    | EDP-M7.BH99A-3.5       | ✓                                   | ✓                                    | ✓                                                  | ✓                                                         |                                   | ✓                                              |                                                                     |
| ES2406769-008        | 27-Feb-2024 00:00    | EDP-M7.BH99A-5.0       |                                     | ✓                                    | ✓                                                  |                                                           |                                   | ✓                                              |                                                                     |
| ES2406769-009        | 27-Feb-2024 00:00    | EDP-M7.BH99A-5.5       | ✓                                   | ✓                                    | ✓                                                  |                                                           |                                   | ✓                                              |                                                                     |
| ES2406769-010        | 27-Feb-2024 00:00    | EDP-M7.BH99A-6.5       | ✓                                   | ✓                                    | ✓                                                  |                                                           |                                   | ✓                                              |                                                                     |
| ES2406769-011        | 27-Feb-2024 00:00    | EDP-M7.BH99A-QA2       |                                     | ✓                                    |                                                    | ✓                                                         | ✓                                 |                                                |                                                                     |
| ES2406769-012        | 26-Feb-2024 00:00    | TRIP BLANK             |                                     |                                      |                                                    |                                                           |                                   |                                                | ✓                                                                   |

Matrix: **SOIL**

| Laboratory sample ID | Sampling date / time | Sample ID  | SOIL - EP080<br>BTEXN |
|----------------------|----------------------|------------|-----------------------|
| ES2406769-013        | 26-Feb-2024 00:00    | TRIP SPIKE | ✓                     |

## Proactive Holding Time Report

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



## Requested Deliverables

### Accounts

- A4 - AU Tax Invoice (INV)

Email supplier.invoices@edp-au.com

### CRISTIANE FLORIDO

- \*AU Certificate of Analysis - NATA (COA)
- \*AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- \*AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- A4 - AU Tax Invoice (INV)
- Chain of Custody (CoC) (COC)
- EDI Format - ENMRG (ENMRG)
- EDI Format - ESDAT (ESDAT)

Email cristiane.florido@edp-au.com  
Email cristiane.florido@edp-au.com  
Email cristiane.florido@edp-au.com  
Email cristiane.florido@edp-au.com  
Email cristiane.florido@edp-au.com  
Email cristiane.florido@edp-au.com  
Email cristiane.florido@edp-au.com  
Email cristiane.florido@edp-au.com

### GONZALO SERNA DIAZ

- \*AU Certificate of Analysis - NATA (COA)
- \*AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- \*AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- Chain of Custody (CoC) (COC)
- EDI Format - ENMRG (ENMRG)
- EDI Format - ESDAT (ESDAT)

Email gonzalo.serna.diaz@edp-au.com  
Email gonzalo.serna.diaz@edp-au.com  
Email gonzalo.serna.diaz@edp-au.com  
Email gonzalo.serna.diaz@edp-au.com  
Email gonzalo.serna.diaz@edp-au.com  
Email gonzalo.serna.diaz@edp-au.com  
Email gonzalo.serna.diaz@edp-au.com

### Haneen Safadi

- \*AU Certificate of Analysis - NATA (COA)
- \*AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- \*AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- Chain of Custody (CoC) (COC)
- EDI Format - ENMRG (ENMRG)
- EDI Format - ESDAT (ESDAT)

Email haneen.safadi@edp-au.com  
Email haneen.safadi@edp-au.com  
Email haneen.safadi@edp-au.com  
Email haneen.safadi@edp-au.com  
Email haneen.safadi@edp-au.com  
Email haneen.safadi@edp-au.com  
Email haneen.safadi@edp-au.com

### INVOICE

- A4 - AU Tax Invoice (INV)

Email invoices@edp-au.com

### PROJECT ADMIN

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

Email project.admin@edp-au.com  
Email project.admin@edp-au.com  
Email project.admin@edp-au.com  
Email project.admin@edp-au.com  
Email project.admin@edp-au.com  
Email project.admin@edp-au.com  
Email project.admin@edp-au.com

## Inter-Laboratory Testing

Analysis conducted by ALS Newcastle, NATA accreditation no. 825, site no. 1656 (Chemistry) 9854 (Biology).

(SOIL) EA200: AS 4964 - 2004 Identification of Asbestos in Soils



## CERTIFICATE OF ANALYSIS

|                         |                                            |                         |                                                       |
|-------------------------|--------------------------------------------|-------------------------|-------------------------------------------------------|
| Work Order              | : ES2406769                                | Page                    | : 1 of 16                                             |
| Client                  | : EDP Consultants Pty Ltd                  | Laboratory              | : Environmental Division Sydney                       |
| Contact                 | : CRISTIANE FLORIDO                        | Contact                 | : Customer Services ES                                |
| Address                 | : Lv 4 38 Oxley Street<br>St Leonards 2065 | Address                 | : 277-289 Woodpark Road Smithfield NSW Australia 2164 |
| Telephone               | : ---                                      | Telephone               | : +61-2-8784 8555                                     |
| Project                 | : S-05667.095                              | Date Samples Received   | : 29-Feb-2024 15:30                                   |
| Order number            | : ---                                      | Date Analysis Commenced | : 04-Mar-2024                                         |
| C-O-C number            | : ---                                      | Issue Date              | : 07-Mar-2024 18:04                                   |
| Sampler                 | : GONAZLO SERMA DIAZ                       |                         |                                                       |
| Site                    | : ---                                      |                         |                                                       |
| Quote number            | : EN/222                                   |                         |                                                       |
| No. of samples received | : 13                                       |                         |                                                       |
| No. of samples analysed | : 11                                       |                         |                                                       |



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
- Descriptive 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                   |
|------------------|-----------------------------|------------------------------------------|
| Ankit Joshi      | Senior Chemist - Inorganics | Sydney Inorganics, Smithfield, NSW       |
| Brendan Schrader | Laboratory Technician       | Newcastle - Asbestos, Mayfield West, NSW |
| Edwandy Fadjjar  | Organic Coordinator         | Sydney Organics, Smithfield, NSW         |
| Franco Lentini   | LCMS Coordinator            | Sydney Inorganics, Smithfield, NSW       |
| Franco Lentini   | LCMS Coordinator            | Sydney Organics, Smithfield, NSW         |
| Sanjeshni Jyoti  | Senior Chemist Volatiles    | Sydney Organics, Smithfield, NSW         |



## 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.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EP080: The trip spike has been analysed for volatile TPH and BTEXN only.
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No\*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                                  |            |      |       | EDP-M7.BH99A-0.2  | EDP-M7.BH99A-0.5  | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EDP-M7.BH99A-2.5  | EDP-M7.BH99A-3.5  |
|------------------------------------------------------------------|------------|------|-------|-------------------|-------------------|--------------------------------------|-------------------|-------------------|
| Sampling date / time                                             |            |      |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00                    | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 |
| Compound                                                         | CAS Number | LOR  | Unit  | ES2406769-001     | ES2406769-002     | ES2406769-003                        | ES2406769-005     | ES2406769-007     |
|                                                                  |            |      |       | Result            | Result            | Result                               | Result            | Result            |
| <b>EA014 Total Soluble Salts</b>                                 |            |      |       |                   |                   |                                      |                   |                   |
| Total Soluble Salts                                              | ---        | 5    | mg/kg | 273               | ---               | 1340                                 | 1060              | 502               |
| <b>EA055: Moisture Content (Dried @ 105-110°C)</b>               |            |      |       |                   |                   |                                      |                   |                   |
| Moisture Content                                                 | ---        | 1.0  | %     | 27.7              | 15.7              | 7.9                                  | 19.9              | 21.9              |
| <b>EA200: AS 4964 - 2004 Identification of Asbestos in Soils</b> |            |      |       |                   |                   |                                      |                   |                   |
| Asbestos Detected                                                | 1332-21-4  | 0.1  | g/kg  | No                | No                | No                                   | No                | No                |
| Asbestos (Trace)                                                 | 1332-21-4  | -    | -     | No                | No                | No                                   | No                | No                |
| Asbestos Type                                                    | 1332-21-4  | -    | -     | -                 | -                 | -                                    | -                 | -                 |
| Synthetic Mineral Fibre                                          | ---        | -    | -     | No                | No                | No                                   | No                | No                |
| Organic Fibre                                                    | ---        | -    | -     | No                | No                | No                                   | No                | No                |
| Sample weight (dry)                                              | ---        | 0.01 | g     | 166               | 136               | 265                                  | 225               | 235               |
| APPROVED IDENTIFIER:                                             | ---        | -    | -     | B.SCHRADER        | B.SCHRADER        | B.SCHRADER                           | B.SCHRADER        | B.SCHRADER        |
| <b>EG005(ED093)T: Total Metals by ICP-AES</b>                    |            |      |       |                   |                   |                                      |                   |                   |
| Arsenic                                                          | 7440-38-2  | 5    | mg/kg | 7                 | <5                | <5                                   | <5                | 9                 |
| Cadmium                                                          | 7440-43-9  | 1    | mg/kg | <1                | <1                | <1                                   | <1                | <1                |
| Chromium                                                         | 7440-47-3  | 2    | mg/kg | 15                | 16                | 15                                   | 19                | 21                |
| Copper                                                           | 7440-50-8  | 5    | mg/kg | 27                | 43                | 47                                   | 31                | 40                |
| Lead                                                             | 7439-92-1  | 5    | mg/kg | 22                | 18                | 15                                   | 12                | 23                |
| Nickel                                                           | 7440-02-0  | 2    | mg/kg | 13                | 23                | 22                                   | 8                 | 21                |
| Zinc                                                             | 7440-66-6  | 5    | mg/kg | 103               | 77                | 80                                   | 34                | 69                |
| <b>EG035T: Total Recoverable Mercury by FIMS</b>                 |            |      |       |                   |                   |                                      |                   |                   |
| Mercury                                                          | 7439-97-6  | 0.1  | mg/kg | <0.1              | <0.1              | <0.1                                 | <0.1              | <0.1              |
| <b>EP066: Polychlorinated Biphenyls (PCB)</b>                    |            |      |       |                   |                   |                                      |                   |                   |
| Total Polychlorinated biphenyls                                  | ---        | 0.1  | mg/kg | <0.1              | <0.1              | <0.1                                 | <0.1              | <0.1              |
| <b>EP068A: Organochlorine Pesticides (OC)</b>                    |            |      |       |                   |                   |                                      |                   |                   |
| alpha-BHC                                                        | 319-84-6   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Hexachlorobenzene (HCB)                                          | 118-74-1   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| beta-BHC                                                         | 319-85-7   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                           |                         |      |       | EDP-M7.BH99A-0.2  | EDP-M7.BH99A-0.5  | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EDP-M7.BH99A-2.5  | EDP-M7.BH99A-3.5  |
|-----------------------------------------------------------|-------------------------|------|-------|-------------------|-------------------|--------------------------------------|-------------------|-------------------|
| Sampling date / time                                      |                         |      |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00                    | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 |
| Compound                                                  | CAS Number              | LOR  | Unit  | ES2406769-001     | ES2406769-002     | ES2406769-003                        | ES2406769-005     | ES2406769-007     |
|                                                           |                         |      |       | Result            | Result            | Result                               | Result            | Result            |
| <b>EP068A: Organochlorine Pesticides (OC) - Continued</b> |                         |      |       |                   |                   |                                      |                   |                   |
| gamma-BHC                                                 | 58-89-9                 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| delta-BHC                                                 | 319-86-8                | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Heptachlor                                                | 76-44-8                 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Aldrin                                                    | 309-00-2                | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Heptachlor epoxide                                        | 1024-57-3               | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| <sup>^</sup> Total Chlordane (sum)                        | ---                     | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| trans-Chlordane                                           | 5103-74-2               | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| alpha-Endosulfan                                          | 959-98-8                | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| cis-Chlordane                                             | 5103-71-9               | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Dieldrin                                                  | 60-57-1                 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| 4,4'-DDE                                                  | 72-55-9                 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Endrin                                                    | 72-20-8                 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| beta-Endosulfan                                           | 33213-65-9              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| <sup>^</sup> Endosulfan (sum)                             | 115-29-7                | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| 4,4'-DDD                                                  | 72-54-8                 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Endrin aldehyde                                           | 7421-93-4               | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Endosulfan sulfate                                        | 1031-07-8               | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| 4,4'-DDT                                                  | 50-29-3                 | 0.2  | mg/kg | <0.2              | <0.2              | <0.2                                 | <0.2              | <0.2              |
| Endrin ketone                                             | 53494-70-5              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Methoxychlor                                              | 72-43-5                 | 0.2  | mg/kg | <0.2              | <0.2              | <0.2                                 | <0.2              | <0.2              |
| <sup>^</sup> Sum of Aldrin + Dieldrin                     | 309-00-2/60-57-1        | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| <sup>^</sup> Sum of DDD + DDE + DDT                       | 72-54-8/72-55-9/50-29-3 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| <b>EP068B: Organophosphorus Pesticides (OP)</b>           |                         |      |       |                   |                   |                                      |                   |                   |
| Dichlorvos                                                | 62-73-7                 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Demeton-S-methyl                                          | 919-86-8                | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Monocrotophos                                             | 6923-22-4               | 0.2  | mg/kg | <0.2              | <0.2              | <0.2                                 | <0.2              | <0.2              |



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                             |            |      |       | EDP-M7.BH99A-0.2  | EDP-M7.BH99A-0.5  | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EDP-M7.BH99A-2.5  | EDP-M7.BH99A-3.5  |
|-------------------------------------------------------------|------------|------|-------|-------------------|-------------------|--------------------------------------|-------------------|-------------------|
| Sampling date / time                                        |            |      |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00                    | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 |
| Compound                                                    | CAS Number | LOR  | Unit  | ES2406769-001     | ES2406769-002     | ES2406769-003                        | ES2406769-005     | ES2406769-007     |
|                                                             |            |      |       | Result            | Result            | Result                               | Result            | Result            |
| <b>EP068B: Organophosphorus Pesticides (OP) - Continued</b> |            |      |       |                   |                   |                                      |                   |                   |
| Dimethoate                                                  | 60-51-5    | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Diazinon                                                    | 333-41-5   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Chlorpyrifos-methyl                                         | 5598-13-0  | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Parathion-methyl                                            | 298-00-0   | 0.2  | mg/kg | <0.2              | <0.2              | <0.2                                 | <0.2              | <0.2              |
| Malathion                                                   | 121-75-5   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Fenthion                                                    | 55-38-9    | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Chlorpyrifos                                                | 2921-88-2  | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Parathion                                                   | 56-38-2    | 0.2  | mg/kg | <0.2              | <0.2              | <0.2                                 | <0.2              | <0.2              |
| Pirimphos-ethyl                                             | 23505-41-1 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Chlorfenvinphos                                             | 470-90-6   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Bromophos-ethyl                                             | 4824-78-6  | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Fenamiphos                                                  | 22224-92-6 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Prothiofos                                                  | 34643-46-4 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Ethion                                                      | 563-12-2   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Carbophenothion                                             | 786-19-6   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| Azinphos Methyl                                             | 86-50-0    | 0.05 | mg/kg | <0.05             | <0.05             | <0.05                                | <0.05             | <0.05             |
| <b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>       |            |      |       |                   |                   |                                      |                   |                   |
| Naphthalene                                                 | 91-20-3    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Acenaphthylene                                              | 208-96-8   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Acenaphthene                                                | 83-32-9    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Fluorene                                                    | 86-73-7    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Phenanthrene                                                | 85-01-8    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Anthracene                                                  | 120-12-7   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Fluoranthene                                                | 206-44-0   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Pyrene                                                      | 129-00-0   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Benz(a)anthracene                                           | 56-55-3    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |

| Sub-Matrix: SOIL<br>(Matrix: SOIL)                              |                   |     |       | Sample ID         | EDP-M7.BH99A-0.2  | EDP-M7.BH99A-0.5  | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EDP-M7.BH99A-2.5  | EDP-M7.BH99A-3.5 |
|-----------------------------------------------------------------|-------------------|-----|-------|-------------------|-------------------|-------------------|--------------------------------------|-------------------|------------------|
| Sampling date / time                                            |                   |     |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00                    | 27-Feb-2024 00:00 |                  |
| Compound                                                        | CAS Number        | LOR | Unit  | ES2406769-001     | ES2406769-002     | ES2406769-003     | ES2406769-005                        | ES2406769-007     |                  |
|                                                                 |                   |     |       | Result            | Result            | Result            | Result                               | Result            |                  |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued      |                   |     |       |                   |                   |                   |                                      |                   |                  |
| Chrysene                                                        | 218-01-9          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| Benzo(b+j)fluoranthene                                          | 205-99-2 205-82-3 | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| Benzo(k)fluoranthene                                            | 207-08-9          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| Benzo(a)pyrene                                                  | 50-32-8           | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| Indeno(1.2.3.cd)pyrene                                          | 193-39-5          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| Dibenz(a.h)anthracene                                           | 53-70-3           | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| Benzo(g.h.i)perylene                                            | 191-24-2          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| ^ Sum of polycyclic aromatic hydrocarbons                       | ---               | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| ^ Benzo(a)pyrene TEQ (zero)                                     | ---               | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | <0.5                                 | <0.5              |                  |
| ^ Benzo(a)pyrene TEQ (half LOR)                                 | ---               | 0.5 | mg/kg | 0.6               | 0.6               | 0.6               | 0.6                                  | 0.6               |                  |
| ^ Benzo(a)pyrene TEQ (LOR)                                      | ---               | 0.5 | mg/kg | 1.2               | 1.2               | 1.2               | 1.2                                  | 1.2               |                  |
| EP080/071: Total Petroleum Hydrocarbons                         |                   |     |       |                   |                   |                   |                                      |                   |                  |
| C6 - C9 Fraction                                                | ---               | 10  | mg/kg | <10               | <10               | <10               | <10                                  | <10               |                  |
| C10 - C14 Fraction                                              | ---               | 50  | mg/kg | <50               | <50               | <50               | <50                                  | <50               |                  |
| C15 - C28 Fraction                                              | ---               | 100 | mg/kg | <100              | <100              | <100              | <100                                 | <100              |                  |
| C29 - C36 Fraction                                              | ---               | 100 | mg/kg | <100              | <100              | <100              | <100                                 | <100              |                  |
| ^ C10 - C36 Fraction (sum)                                      | ---               | 50  | mg/kg | <50               | <50               | <50               | <50                                  | <50               |                  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions |                   |     |       |                   |                   |                   |                                      |                   |                  |
| C6 - C10 Fraction                                               | C6_C10            | 10  | mg/kg | <10               | <10               | <10               | <10                                  | <10               |                  |
| ^ C6 - C10 Fraction minus BTEX (F1)                             | C6_C10-BTEX       | 10  | mg/kg | <10               | <10               | <10               | <10                                  | <10               |                  |
| >C10 - C16 Fraction                                             | ---               | 50  | mg/kg | <50               | <50               | <50               | <50                                  | <50               |                  |
| >C16 - C34 Fraction                                             | ---               | 100 | mg/kg | <100              | <100              | <100              | <100                                 | <100              |                  |
| >C34 - C40 Fraction                                             | ---               | 100 | mg/kg | <100              | <100              | <100              | <100                                 | <100              |                  |
| ^ >C10 - C40 Fraction (sum)                                     | ---               | 50  | mg/kg | <50               | <50               | <50               | <50                                  | <50               |                  |
| ^ >C10 - C16 Fraction minus Naphthalene (F2)                    | ---               | 50  | mg/kg | <50               | <50               | <50               | <50                                  | <50               |                  |
| EP080: BTEXN                                                    |                   |     |       |                   |                   |                   |                                      |                   |                  |





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                   |                   |        |       | EDP-M7.BH99A-0.2  | EDP-M7.BH99A-0.5  | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EDP-M7.BH99A-2.5  | EDP-M7.BH99A-3.5  |
|---------------------------------------------------|-------------------|--------|-------|-------------------|-------------------|--------------------------------------|-------------------|-------------------|
| Sampling date / time                              |                   |        |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00                    | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 |
| Compound                                          | CAS Number        | LOR    | Unit  | ES2406769-001     | ES2406769-002     | ES2406769-003                        | ES2406769-005     | ES2406769-007     |
|                                                   |                   |        |       | Result            | Result            | Result                               | Result            | Result            |
| <b>EP080: BTEXN - Continued</b>                   |                   |        |       |                   |                   |                                      |                   |                   |
| Benzene                                           | 71-43-2           | 0.2    | mg/kg | <0.2              | <0.2              | <0.2                                 | <0.2              | <0.2              |
| Toluene                                           | 108-88-3          | 0.5    | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Ethylbenzene                                      | 100-41-4          | 0.5    | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| meta- & para-Xylene                               | 108-38-3 106-42-3 | 0.5    | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| ortho-Xylene                                      | 95-47-6           | 0.5    | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| ^ Sum of BTEX                                     | ---               | 0.2    | mg/kg | <0.2              | <0.2              | <0.2                                 | <0.2              | <0.2              |
| ^ Total Xylenes                                   | ---               | 0.5    | mg/kg | <0.5              | <0.5              | <0.5                                 | <0.5              | <0.5              |
| Naphthalene                                       | 91-20-3           | 1      | mg/kg | <1                | <1                | <1                                   | <1                | <1                |
| <b>EP231A: Perfluoroalkyl Sulfonic Acids</b>      |                   |        |       |                   |                   |                                      |                   |                   |
| Perfluorobutane sulfonic acid (PFBS)              | 375-73-5          | 0.0002 | mg/kg | <0.0002           | <0.0002           | <0.0002                              | <0.0002           | <0.0002           |
| Perfluorohexane sulfonic acid (PFHxS)             | 355-46-4          | 0.0002 | mg/kg | <0.0002           | <0.0002           | <0.0002                              | <0.0002           | <0.0002           |
| Perfluorooctane sulfonic acid (PFOS)              | 1763-23-1         | 0.0002 | mg/kg | 0.0003            | <0.0002           | <0.0002                              | <0.0002           | <0.0002           |
| <b>EP231B: Perfluoroalkyl Carboxylic Acids</b>    |                   |        |       |                   |                   |                                      |                   |                   |
| Perfluorobutanoic acid (PFBA)                     | 375-22-4          | 0.001  | mg/kg | <0.001            | <0.001            | <0.001                               | <0.001            | <0.001            |
| Perfluoropentanoic acid (PFPeA)                   | 2706-90-3         | 0.0002 | mg/kg | 0.0007            | <0.0002           | <0.0002                              | <0.0002           | <0.0002           |
| Perfluorohexanoic acid (PFHxA)                    | 307-24-4          | 0.0002 | mg/kg | 0.0003            | <0.0002           | <0.0002                              | <0.0002           | <0.0002           |
| Perfluoroheptanoic acid (PFHpA)                   | 375-85-9          | 0.0002 | mg/kg | <0.0002           | <0.0002           | <0.0002                              | <0.0002           | <0.0002           |
| Perfluorooctanoic acid (PFOA)                     | 335-67-1          | 0.0002 | mg/kg | 0.0009            | 0.0002            | <0.0002                              | <0.0002           | <0.0002           |
| <b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b> |                   |        |       |                   |                   |                                      |                   |                   |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS)         | 757124-72-4       | 0.0005 | mg/kg | <0.0005           | <0.0005           | <0.0005                              | <0.0005           | <0.0005           |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS)         | 27619-97-2        | 0.0005 | mg/kg | <0.0005           | <0.0005           | <0.0005                              | <0.0005           | <0.0005           |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS)         | 39108-34-4        | 0.0005 | mg/kg | <0.0005           | <0.0005           | <0.0005                              | <0.0005           | <0.0005           |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS)       | 120226-60-0       | 0.0005 | mg/kg | <0.0005           | <0.0005           | <0.0005                              | <0.0005           | <0.0005           |



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                     |                    |        |       | EDP-M7.BH99A-0.2  | EDP-M7.BH99A-0.5  | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EDP-M7.BH99A-2.5  | EDP-M7.BH99A-3.5  |
|-----------------------------------------------------|--------------------|--------|-------|-------------------|-------------------|--------------------------------------|-------------------|-------------------|
| Sampling date / time                                |                    |        |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00                    | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 |
| Compound                                            | CAS Number         | LOR    | Unit  | ES2406769-001     | ES2406769-002     | ES2406769-003                        | ES2406769-005     | ES2406769-007     |
|                                                     |                    |        |       | Result            | Result            | Result                               | Result            | Result            |
| <b>EP231P: PFAS Sums</b>                            |                    |        |       |                   |                   |                                      |                   |                   |
| Sum of PFHxS and PFOS                               | 355-46-4/1763-23-1 | 0.0002 | mg/kg | 0.0003            | <0.0002           | <0.0002                              | <0.0002           | <0.0002           |
| Sum of PFAS (WA DER List)                           | ---                | 0.0002 | mg/kg | 0.0022            | 0.0002            | <0.0002                              | <0.0002           | <0.0002           |
| <b>EP066S: PCB Surrogate</b>                        |                    |        |       |                   |                   |                                      |                   |                   |
| Decachlorobiphenyl                                  | 2051-24-3          | 0.1    | %     | 93.0              | 83.6              | 99.4                                 | 101               | 85.6              |
| <b>EP068S: Organochlorine Pesticide Surrogate</b>   |                    |        |       |                   |                   |                                      |                   |                   |
| Dibromo-DDE                                         | 21655-73-2         | 0.05   | %     | 98.6              | 83.3              | 100                                  | 101               | 85.5              |
| <b>EP068T: Organophosphorus Pesticide Surrogate</b> |                    |        |       |                   |                   |                                      |                   |                   |
| DEF                                                 | 78-48-8            | 0.05   | %     | 104               | 86.4              | 107                                  | 102               | 90.0              |
| <b>EP075(SIM)S: Phenolic Compound Surrogates</b>    |                    |        |       |                   |                   |                                      |                   |                   |
| Phenol-d6                                           | 13127-88-3         | 0.5    | %     | 98.5              | 99.7              | 99.2                                 | 103               | 98.4              |
| 2-Chlorophenol-D4                                   | 93951-73-6         | 0.5    | %     | 97.3              | 95.8              | 104                                  | 101               | 93.1              |
| 2,4,6-Tribromophenol                                | 118-79-6           | 0.5    | %     | 99.7              | 93.5              | 86.3                                 | 98.5              | 92.4              |
| <b>EP075(SIM)T: PAH Surrogates</b>                  |                    |        |       |                   |                   |                                      |                   |                   |
| 2-Fluorobiphenyl                                    | 321-60-8           | 0.5    | %     | 84.3              | 93.2              | 94.5                                 | 95.2              | 88.9              |
| Anthracene-d10                                      | 1719-06-8          | 0.5    | %     | 90.4              | 101               | 99.8                                 | 109               | 96.1              |
| 4-Terphenyl-d14                                     | 1718-51-0          | 0.5    | %     | 106               | 104               | 104                                  | 100               | 91.9              |
| <b>EP080S: TPH(V)/BTEX Surrogates</b>               |                    |        |       |                   |                   |                                      |                   |                   |
| 1,2-Dichloroethane-D4                               | 17060-07-0         | 0.2    | %     | 89.3              | 88.9              | 100                                  | 90.8              | 75.7              |
| Toluene-D8                                          | 2037-26-5          | 0.2    | %     | 69.5              | 72.5              | 79.5                                 | 69.2              | 66.9              |
| 4-Bromofluorobenzene                                | 460-00-4           | 0.2    | %     | 73.7              | 76.8              | 82.2                                 | 73.6              | 71.2              |
| <b>EP231S: PFAS Surrogate</b>                       |                    |        |       |                   |                   |                                      |                   |                   |
| 13C4-PFOS                                           | ---                | 0.0002 | %     | 96.8              | 89.7              | 107                                  | 104               | 98.8              |
| 13C8-PFOA                                           | ---                | 0.0002 | %     | 103               | 105               | 107                                  | 106               | 106               |



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                                  |            |      |       | EDP-M7.BH99A-5.0  | EDP-M7.BH99A-5.5  | EDP-M7.BH99A-6.5  | EDP-M7.BH99A-QA2  | TRIP BLANK        |
|------------------------------------------------------------------|------------|------|-------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Sampling date / time                                             |            |      |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 26-Feb-2024 00:00 |
| Compound                                                         | CAS Number | LOR  | Unit  | ES2406769-008     | ES2406769-009     | ES2406769-010     | ES2406769-011     | ES2406769-012     |
|                                                                  |            |      |       | Result            | Result            | Result            | Result            | Result            |
| <b>EA014 Total Soluble Salts</b>                                 |            |      |       |                   |                   |                   |                   |                   |
| Total Soluble Salts                                              | ---        | 5    | mg/kg | ---               | 2390              | 2640              | ----              | ---               |
| <b>EA055: Moisture Content</b>                                   |            |      |       |                   |                   |                   |                   |                   |
| Moisture Content                                                 | ---        | 1.0  | %     | ---               | ---               | ---               | 28.0              | ---               |
| <b>EA055: Moisture Content (Dried @ 105-110°C)</b>               |            |      |       |                   |                   |                   |                   |                   |
| Moisture Content                                                 | ---        | 1.0  | %     | 16.2              | 17.4              | 20.8              | ----              | ---               |
| <b>EA200: AS 4964 - 2004 Identification of Asbestos in Soils</b> |            |      |       |                   |                   |                   |                   |                   |
| Asbestos Detected                                                | 1332-21-4  | 0.1  | g/kg  | No                | No                | No                | ----              | ---               |
| Asbestos (Trace)                                                 | 1332-21-4  | -    | -     | No                | No                | No                | ----              | ---               |
| Asbestos Type                                                    | 1332-21-4  | -    | -     | -                 | -                 | -                 | ----              | ---               |
| Synthetic Mineral Fibre                                          | ---        | -    | -     | No                | No                | No                | ----              | ---               |
| Organic Fibre                                                    | ---        | -    | -     | No                | No                | No                | ----              | ---               |
| Sample weight (dry)                                              | ---        | 0.01 | g     | 238               | 270               | 321               | ----              | ---               |
| APPROVED IDENTIFIER:                                             | ---        | -    | -     | B.SCHRADER        | B.SCHRADER        | B.SCHRADER        | ----              | ---               |
| <b>EG005(ED093)T: Total Metals by ICP-AES</b>                    |            |      |       |                   |                   |                   |                   |                   |
| Arsenic                                                          | 7440-38-2  | 5    | mg/kg | 9                 | 6                 | 9                 | 7                 | ---               |
| Cadmium                                                          | 7440-43-9  | 1    | mg/kg | <1                | <1                | <1                | <1                | ---               |
| Chromium                                                         | 7440-47-3  | 2    | mg/kg | 26                | 14                | 22                | 18                | ---               |
| Copper                                                           | 7440-50-8  | 5    | mg/kg | 33                | 34                | 26                | 23                | ---               |
| Lead                                                             | 7439-92-1  | 5    | mg/kg | 20                | 17                | 16                | 24                | ---               |
| Nickel                                                           | 7440-02-0  | 2    | mg/kg | 18                | 23                | 9                 | 10                | ---               |
| Zinc                                                             | 7440-66-6  | 5    | mg/kg | 51                | 74                | 33                | 113               | ---               |
| <b>EG035T: Total Recoverable Mercury by FIMS</b>                 |            |      |       |                   |                   |                   |                   |                   |
| Mercury                                                          | 7439-97-6  | 0.1  | mg/kg | <0.1              | <0.1              | <0.1              | <0.1              | ---               |
| <b>EP066: Polychlorinated Biphenyls (PCB)</b>                    |            |      |       |                   |                   |                   |                   |                   |
| Total Polychlorinated biphenyls                                  | ---        | 0.1  | mg/kg | <0.1              | <0.1              | <0.1              | ----              | ---               |
| <b>EP068A: Organochlorine Pesticides (OC)</b>                    |            |      |       |                   |                   |                   |                   |                   |
| alpha-BHC                                                        | 319-84-6   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |



Analytical Results

| Sub-Matrix: SOIL<br>(Matrix: SOIL)                 |                      |      |       | Sample ID         | EDP-M7.BH99A-5.0  | EDP-M7.BH99A-5.5  | EDP-M7.BH99A-6.5  | EDP-M7.BH99A-QA2  | TRIP BLANK |
|----------------------------------------------------|----------------------|------|-------|-------------------|-------------------|-------------------|-------------------|-------------------|------------|
| Sampling date / time                               |                      |      |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 26-Feb-2024 00:00 |            |
| Compound                                           | CAS Number           | LOR  | Unit  | ES2406769-008     | ES2406769-009     | ES2406769-010     | ES2406769-011     | ES2406769-012     |            |
|                                                    |                      |      |       | Result            | Result            | Result            | Result            | Result            |            |
| EP068A: Organochlorine Pesticides (OC) - Continued |                      |      |       |                   |                   |                   |                   |                   |            |
| Hexachlorobenzene (HCB)                            | 118-74-1             | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| beta-BHC                                           | 319-85-7             | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| gamma-BHC                                          | 58-89-9              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| delta-BHC                                          | 319-86-8             | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Heptachlor                                         | 76-44-8              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Aldrin                                             | 309-00-2             | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Heptachlor epoxide                                 | 1024-57-3            | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| ^ Total Chlordane (sum)                            | ---                  | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| trans-Chlordane                                    | 5103-74-2            | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| alpha-Endosulfan                                   | 959-98-8             | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| cis-Chlordane                                      | 5103-71-9            | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Dieldrin                                           | 60-57-1              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| 4,4'-DDE                                           | 72-55-9              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Endrin                                             | 72-20-8              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| beta-Endosulfan                                    | 33213-65-9           | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| ^ Endosulfan (sum)                                 | 115-29-7             | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| 4,4'-DDD                                           | 72-54-8              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Endrin aldehyde                                    | 7421-93-4            | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Endosulfan sulfate                                 | 1031-07-8            | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| 4,4'-DDT                                           | 50-29-3              | 0.2  | mg/kg | <0.2              | <0.2              | <0.2              | ----              | ---               |            |
| Endrin ketone                                      | 53494-70-5           | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| Methoxychlor                                       | 72-43-5              | 0.2  | mg/kg | <0.2              | <0.2              | <0.2              | ----              | ---               |            |
| ^ Sum of Aldrin + Dieldrin                         | 309-00-2/60-57-1     | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| ^ Sum of DDD + DDE + DDT                           | 72-54-8/72-55-9/50-2 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |
| EP068B: Organophosphorus Pesticides (OP)           |                      |      |       |                   |                   |                   |                   |                   |            |
| Dichlorvos                                         | 62-73-7              | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |            |





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                             |            |      |       | EDP-M7.BH99A-5.0  | EDP-M7.BH99A-5.5  | EDP-M7.BH99A-6.5  | EDP-M7.BH99A-QA2  | TRIP BLANK        |
|-------------------------------------------------------------|------------|------|-------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Sampling date / time                                        |            |      |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 26-Feb-2024 00:00 |
| Compound                                                    | CAS Number | LOR  | Unit  | ES2406769-008     | ES2406769-009     | ES2406769-010     | ES2406769-011     | ES2406769-012     |
|                                                             |            |      |       | Result            | Result            | Result            | Result            | Result            |
| <b>EP068B: Organophosphorus Pesticides (OP) - Continued</b> |            |      |       |                   |                   |                   |                   |                   |
| Demeton-S-methyl                                            | 919-86-8   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Monocrotophos                                               | 6923-22-4  | 0.2  | mg/kg | <0.2              | <0.2              | <0.2              | ----              | ---               |
| Dimethoate                                                  | 60-51-5    | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Diazinon                                                    | 333-41-5   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Chlorpyrifos-methyl                                         | 5598-13-0  | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Parathion-methyl                                            | 298-00-0   | 0.2  | mg/kg | <0.2              | <0.2              | <0.2              | ----              | ---               |
| Malathion                                                   | 121-75-5   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Fenthion                                                    | 55-38-9    | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Chlorpyrifos                                                | 2921-88-2  | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Parathion                                                   | 56-38-2    | 0.2  | mg/kg | <0.2              | <0.2              | <0.2              | ----              | ---               |
| Pirimphos-ethyl                                             | 23505-41-1 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Chlorfenvinphos                                             | 470-90-6   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Bromophos-ethyl                                             | 4824-78-6  | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Fenamiphos                                                  | 22224-92-6 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Prothiofos                                                  | 34643-46-4 | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Ethion                                                      | 563-12-2   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Carbophenothion                                             | 786-19-6   | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| Azinphos Methyl                                             | 86-50-0    | 0.05 | mg/kg | <0.05             | <0.05             | <0.05             | ----              | ---               |
| <b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>       |            |      |       |                   |                   |                   |                   |                   |
| Naphthalene                                                 | 91-20-3    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Acenaphthylene                                              | 208-96-8   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Acenaphthene                                                | 83-32-9    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Fluorene                                                    | 86-73-7    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Phenanthrene                                                | 85-01-8    | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Anthracene                                                  | 120-12-7   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Fluoranthene                                                | 206-44-0   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Pyrene                                                      | 129-00-0   | 0.5  | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

|                                                                        |                   |     |       | EDP-M7.BH99A-5.0  | EDP-M7.BH99A-5.5  | EDP-M7.BH99A-6.5  | EDP-M7.BH99A-QA2  | TRIP BLANK        |
|------------------------------------------------------------------------|-------------------|-----|-------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Sampling date / time                                                   |                   |     |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 26-Feb-2024 00:00 |
| Compound                                                               | CAS Number        | LOR | Unit  | ES2406769-008     | ES2406769-009     | ES2406769-010     | ES2406769-011     | ES2406769-012     |
|                                                                        |                   |     |       | Result            | Result            | Result            | Result            | Result            |
| <b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued</b>      |                   |     |       |                   |                   |                   |                   |                   |
| Benz(a)anthracene                                                      | 56-55-3           | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Chrysene                                                               | 218-01-9          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Benzo(b+j)fluoranthene                                                 | 205-99-2 205-82-3 | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Benzo(k)fluoranthene                                                   | 207-08-9          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Benzo(a)pyrene                                                         | 50-32-8           | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Indeno(1.2.3.cd)pyrene                                                 | 193-39-5          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Dibenz(a,h)anthracene                                                  | 53-70-3           | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| Benzo(g,h,i)perylene                                                   | 191-24-2          | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| ^ Sum of polycyclic aromatic hydrocarbons                              | ---               | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| ^ Benzo(a)pyrene TEQ (zero)                                            | ---               | 0.5 | mg/kg | <0.5              | <0.5              | <0.5              | ----              | ---               |
| ^ Benzo(a)pyrene TEQ (half LOR)                                        | ---               | 0.5 | mg/kg | 0.6               | 0.6               | 0.6               | ----              | ---               |
| ^ Benzo(a)pyrene TEQ (LOR)                                             | ---               | 0.5 | mg/kg | 1.2               | 1.2               | 1.2               | ----              | ---               |
| <b>EP080/071: Total Petroleum Hydrocarbons</b>                         |                   |     |       |                   |                   |                   |                   |                   |
| C6 - C9 Fraction                                                       | ---               | 10  | mg/kg | <10               | <10               | <10               | <10               | <10               |
| C10 - C14 Fraction                                                     | ---               | 50  | mg/kg | <50               | <50               | <50               | <50               | ---               |
| C15 - C28 Fraction                                                     | ---               | 100 | mg/kg | <100              | <100              | <100              | <100              | ---               |
| C29 - C36 Fraction                                                     | ---               | 100 | mg/kg | <100              | <100              | <100              | <100              | ---               |
| ^ C10 - C36 Fraction (sum)                                             | ---               | 50  | mg/kg | <50               | <50               | <50               | <50               | ---               |
| <b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b> |                   |     |       |                   |                   |                   |                   |                   |
| C6 - C10 Fraction                                                      | C6_C10            | 10  | mg/kg | <10               | <10               | <10               | <10               | <10               |
| ^ C6 - C10 Fraction minus BTEX (F1)                                    | C6_C10-BTEX       | 10  | mg/kg | <10               | <10               | <10               | <10               | <10               |
| >C10 - C16 Fraction                                                    | ---               | 50  | mg/kg | <50               | <50               | <50               | <50               | ---               |
| >C16 - C34 Fraction                                                    | ---               | 100 | mg/kg | <100              | <100              | <100              | <100              | ---               |
| >C34 - C40 Fraction                                                    | ---               | 100 | mg/kg | <100              | <100              | <100              | <100              | ---               |
| ^ >C10 - C40 Fraction (sum)                                            | ---               | 50  | mg/kg | <50               | <50               | <50               | <50               | ---               |
| ^ >C10 - C16 Fraction minus Naphthalene (F2)                           | ---               | 50  | mg/kg | <50               | <50               | <50               | <50               | ---               |

| Sub-Matrix: SOIL<br>(Matrix: SOIL)          |                   |        |       | Sample ID         | EDP-M7.BH99A-5.0  | EDP-M7.BH99A-5.5  | EDP-M7.BH99A-6.5  | EDP-M7.BH99A-QA2  | TRIP BLANK |
|---------------------------------------------|-------------------|--------|-------|-------------------|-------------------|-------------------|-------------------|-------------------|------------|
| Sampling date / time                        |                   |        |       | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 26-Feb-2024 00:00 |            |
| Compound                                    | CAS Number        | LOR    | Unit  | ES2406769-008     | ES2406769-009     | ES2406769-010     | ES2406769-011     | ES2406769-012     |            |
|                                             |                   |        |       | Result            | Result            | Result            | Result            | Result            |            |
| EP080: BTEXN                                |                   |        |       |                   |                   |                   |                   |                   |            |
| Benzene                                     | 71-43-2           | 0.2    | mg/kg | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |            |
| Toluene                                     | 108-88-3          | 0.5    | mg/kg | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |            |
| Ethylbenzene                                | 100-41-4          | 0.5    | mg/kg | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |            |
| meta- & para-Xylene                         | 108-38-3 106-42-3 | 0.5    | mg/kg | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |            |
| ortho-Xylene                                | 95-47-6           | 0.5    | mg/kg | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |            |
| ^ Sum of BTEX                               | ---               | 0.2    | mg/kg | <0.2              | <0.2              | <0.2              | <0.2              | <0.2              |            |
| ^ Total Xylenes                             | ---               | 0.5    | mg/kg | <0.5              | <0.5              | <0.5              | <0.5              | <0.5              |            |
| Naphthalene                                 | 91-20-3           | 1      | mg/kg | <1                | <1                | <1                | <1                | <1                |            |
| EP231A: Perfluoroalkyl Sulfonic Acids       |                   |        |       |                   |                   |                   |                   |                   |            |
| Perfluorobutane sulfonic acid (PFBS)        | 375-73-5          | 0.0002 | mg/kg | ---               | ---               | ---               | <0.0002           | ---               |            |
| Perfluorohexane sulfonic acid (PFHxS)       | 355-46-4          | 0.0002 | mg/kg | ---               | ---               | ---               | <0.0002           | ---               |            |
| Perfluorooctane sulfonic acid (PFOS)        | 1763-23-1         | 0.0002 | mg/kg | ---               | ---               | ---               | 0.0003            | ---               |            |
| EP231B: Perfluoroalkyl Carboxylic Acids     |                   |        |       |                   |                   |                   |                   |                   |            |
| Perfluorobutanoic acid (PFBA)               | 375-22-4          | 0.001  | mg/kg | ---               | ---               | ---               | <0.001            | ---               |            |
| Perfluoropentanoic acid (PFPeA)             | 2706-90-3         | 0.0002 | mg/kg | ---               | ---               | ---               | 0.0007            | ---               |            |
| Perfluorohexanoic acid (PFHxA)              | 307-24-4          | 0.0002 | mg/kg | ---               | ---               | ---               | 0.0003            | ---               |            |
| Perfluoroheptanoic acid (PFHpA)             | 375-85-9          | 0.0002 | mg/kg | ---               | ---               | ---               | <0.0002           | ---               |            |
| Perfluorooctanoic acid (PFOA)               | 335-67-1          | 0.0002 | mg/kg | ---               | ---               | ---               | 0.0009            | ---               |            |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids  |                   |        |       |                   |                   |                   |                   |                   |            |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS)   | 757124-72-4       | 0.0005 | mg/kg | ---               | ---               | ---               | <0.0005           | ---               |            |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS)   | 27619-97-2        | 0.0005 | mg/kg | ---               | ---               | ---               | <0.0005           | ---               |            |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS)   | 39108-34-4        | 0.0005 | mg/kg | ---               | ---               | ---               | <0.0005           | ---               |            |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0       | 0.0005 | mg/kg | ---               | ---               | ---               | <0.0005           | ---               |            |
| EP231P: PFAS Sums                           |                   |        |       |                   |                   |                   |                   |                   |            |



## Analytical Results

| Sub-Matrix: SOIL<br>(Matrix: SOIL)                  |                    |        |       | Sample ID | EDP-M7.BH99A-5.0  | EDP-M7.BH99A-5.5  | EDP-M7.BH99A-6.5  | EDP-M7.BH99A-QA2  | TRIP BLANK        |
|-----------------------------------------------------|--------------------|--------|-------|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Sampling date / time                                |                    |        |       |           | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 27-Feb-2024 00:00 | 26-Feb-2024 00:00 |
| Compound                                            | CAS Number         | LOR    | Unit  |           | ES2406769-008     | ES2406769-009     | ES2406769-010     | ES2406769-011     | ES2406769-012     |
|                                                     |                    |        |       | Result    | Result            | Result            | Result            | Result            | Result            |
| <b>EP231P: PFAS Sums - Continued</b>                |                    |        |       |           |                   |                   |                   |                   |                   |
| Sum of PFHxS and PFOS                               | 355-46-4/1763-23-1 | 0.0002 | mg/kg | ---       | ---               | ---               | ---               | 0.0003            | ---               |
| Sum of PFAS (WA DER List)                           | ---                | 0.0002 | mg/kg | ---       | ---               | ---               | ---               | 0.0022            | ---               |
| <b>EP066S: PCB Surrogate</b>                        |                    |        |       |           |                   |                   |                   |                   |                   |
| Decachlorobiphenyl                                  | 2051-24-3          | 0.1    | %     | 98.3      | 96.7              | 103               | ---               | ---               | ---               |
| <b>EP068S: Organochlorine Pesticide Surrogate</b>   |                    |        |       |           |                   |                   |                   |                   |                   |
| Dibromo-DDE                                         | 21655-73-2         | 0.05   | %     | 99.2      | 97.6              | 104               | ---               | ---               | ---               |
| <b>EP068T: Organophosphorus Pesticide Surrogate</b> |                    |        |       |           |                   |                   |                   |                   |                   |
| DEF                                                 | 78-48-8            | 0.05   | %     | 104       | 102               | 109               | ---               | ---               | ---               |
| <b>EP075(SIM)S: Phenolic Compound Surrogates</b>    |                    |        |       |           |                   |                   |                   |                   |                   |
| Phenol-d6                                           | 13127-88-3         | 0.5    | %     | 99.0      | 103               | 90.7              | ---               | ---               | ---               |
| 2-Chlorophenol-D4                                   | 93951-73-6         | 0.5    | %     | 103       | 102               | 89.0              | ---               | ---               | ---               |
| 2,4,6-Tribromophenol                                | 118-79-6           | 0.5    | %     | 98.5      | 97.4              | 85.3              | ---               | ---               | ---               |
| <b>EP075(SIM)T: PAH Surrogates</b>                  |                    |        |       |           |                   |                   |                   |                   |                   |
| 2-Fluorobiphenyl                                    | 321-60-8           | 0.5    | %     | 102       | 102               | 85.9              | ---               | ---               | ---               |
| Anthracene-d10                                      | 1719-06-8          | 0.5    | %     | 110       | 96.8              | 93.9              | ---               | ---               | ---               |
| 4-Terphenyl-d14                                     | 1718-51-0          | 0.5    | %     | 109       | 103               | 102               | ---               | ---               | ---               |
| <b>EP080S: TPH(V)/BTEX Surrogates</b>               |                    |        |       |           |                   |                   |                   |                   |                   |
| 1,2-Dichloroethane-D4                               | 17060-07-0         | 0.2    | %     | 102       | 102               | 101               | 106               | 95.9              |                   |
| Toluene-D8                                          | 2037-26-5          | 0.2    | %     | 82.2      | 83.9              | 80.3              | 81.2              | 84.0              |                   |
| 4-Bromofluorobenzene                                | 460-00-4           | 0.2    | %     | 90.0      | 89.3              | 83.6              | 80.3              | 84.3              |                   |
| <b>EP231S: PFAS Surrogate</b>                       |                    |        |       |           |                   |                   |                   |                   |                   |
| 13C4-PFOS                                           | ---                | 0.0002 | %     | ---       | ---               | ---               | 96.0              | ---               |                   |
| 13C8-PFOA                                           | ---                | 0.0002 | %     | ---       | ---               | ---               | 107               | ---               |                   |





Analytical Results

|                                    |                   |     |       |           |                   |       |       |       |       |
|------------------------------------|-------------------|-----|-------|-----------|-------------------|-------|-------|-------|-------|
| Sub-Matrix: SOIL<br>(Matrix: SOIL) |                   |     |       | Sample ID | TRIP SPIKE        | ----  | ---   | ----  | ----  |
| Sampling date / time               |                   |     |       |           | 26-Feb-2024 00:00 | ---   | ---   | ---   | ---   |
| Compound                           | CAS Number        | LOR | Unit  |           | ES2406769-013     | ----- | ----- | ----- | ----- |
|                                    |                   |     |       |           | Result            | ---   | ---   | ---   | ---   |
| EP080: BTEXN                       |                   |     |       |           |                   |       |       |       |       |
| Benzene                            | 71-43-2           | 0.2 | mg/kg |           | 1.5               | ---   | ---   | ----  | ---   |
| Toluene                            | 108-88-3          | 0.5 | mg/kg |           | 1.5               | ---   | ---   | ----  | ---   |
| Ethylbenzene                       | 100-41-4          | 0.5 | mg/kg |           | 1.6               | ---   | ---   | ----  | ---   |
| meta- & para-Xylene                | 108-38-3 106-42-3 | 0.5 | mg/kg |           | 3.2               | ---   | ---   | ----  | ---   |
| ortho-Xylene                       | 95-47-6           | 0.5 | mg/kg |           | 1.6               | ---   | ---   | ----  | ---   |
| ^ Sum of BTEX                      | ---               | 0.2 | mg/kg |           | 9.4               | ---   | ---   | ----  | ---   |
| ^ Total Xylenes                    | ---               | 0.5 | mg/kg |           | 4.8               | ---   | ---   | ----  | ---   |
| Naphthalene                        | 91-20-3           | 1   | mg/kg |           | <1                | ---   | ---   | ----  | ---   |
| EP080S: TPH(V)/BTEX Surrogates     |                   |     |       |           |                   |       |       |       |       |
| 1,2-Dichloroethane-D4              | 17060-07-0        | 0.2 | %     |           | 90.2              | ---   | ---   | ----  | ---   |
| Toluene-D8                         | 2037-26-5         | 0.2 | %     |           | 81.9              | ---   | ---   | ----  | ---   |
| 4-Bromofluorobenzene               | 460-00-4          | 0.2 | %     |           | 84.2              | ---   | ---   | ----  | ---   |

Analytical Results

Descriptive Results

|                                                           |                                                      |                    |
|-----------------------------------------------------------|------------------------------------------------------|--------------------|
| Sub-Matrix: SOIL                                          |                                                      |                    |
| Method: Compound                                          | Sample ID - Sampling date / time                     | Analytical Results |
| EA200: AS 4964 - 2004 Identification of Asbestos in Soils |                                                      |                    |
| EA200: Description                                        | EDP-M7.BH99A-0.2 - 01-Mar-2024 00:00                 | A soil sample.     |
| EA200: Description                                        | EDP-M7.BH99A-0.5 - 27-Feb-2024 00:00                 | A soil sample.     |
| EA200: Description                                        | EDP-M7.BH99A-2.0EDP-M7.BH99A-1.0 - 27-Feb-2024 00:00 | A soil sample.     |
| EA200: Description                                        | EDP-M7.BH99A-2.5 - 27-Feb-2024 00:00                 | A soil sample.     |
| EA200: Description                                        | EDP-M7.BH99A-3.5 - 27-Feb-2024 00:00                 | A soil sample.     |
| EA200: Description                                        | EDP-M7.BH99A-5.0 - 27-Feb-2024 00:00                 | A soil sample.     |
| EA200: Description                                        | EDP-M7.BH99A-5.5 - 27-Feb-2024 00:00                 | A soil sample.     |
| EA200: Description                                        | EDP-M7.BH99A-6.5 - 27-Feb-2024 00:00                 | A soil sample.     |



## Surrogate Control Limits

| Sub-Matrix: SOIL                                    |            | Recovery Limits (%) |      |
|-----------------------------------------------------|------------|---------------------|------|
| Compound                                            | CAS Number | Low                 | High |
| <b>EP066S: PCB Surrogate</b>                        |            |                     |      |
| Decachlorobiphenyl                                  | 2051-24-3  | 39                  | 149  |
| <b>EP068S: Organochlorine Pesticide Surrogate</b>   |            |                     |      |
| Dibromo-DDE                                         | 21655-73-2 | 49                  | 147  |
| <b>EP068T: Organophosphorus Pesticide Surrogate</b> |            |                     |      |
| DEF                                                 | 78-48-8    | 35                  | 143  |
| <b>EP075(SIM)S: Phenolic Compound Surrogates</b>    |            |                     |      |
| Phenol-d6                                           | 13127-88-3 | 63                  | 123  |
| 2-Chlorophenol-D4                                   | 93951-73-6 | 66                  | 122  |
| 2,4,6-Tribromophenol                                | 118-79-6   | 40                  | 138  |
| <b>EP075(SIM)T: PAH Surrogates</b>                  |            |                     |      |
| 2-Fluorobiphenyl                                    | 321-60-8   | 70                  | 122  |
| Anthracene-d10                                      | 1719-06-8  | 66                  | 128  |
| 4-Terphenyl-d14                                     | 1718-51-0  | 65                  | 129  |
| <b>EP080S: TPH(V)/BTEX Surrogates</b>               |            |                     |      |
| 1,2-Dichloroethane-D4                               | 17060-07-0 | 63                  | 125  |
| Toluene-D8                                          | 2037-26-5  | 67                  | 124  |
| 4-Bromofluorobenzene                                | 460-00-4   | 66                  | 131  |
| <b>EP231S: PFAS Surrogate</b>                       |            |                     |      |
| 13C4-PFOS                                           | ---        | 60                  | 120  |
| 13C8-PFOA                                           | ---        | 60                  | 120  |

## Inter-Laboratory Testing

Analysis conducted by ALS Newcastle, NATA accreditation no. 825, site no. 1656 (Chemistry) 9854 (Biology).

(SOIL) EA200: AS 4964 - 2004 Identification of Asbestos in Soils



## QUALITY CONTROL REPORT

Work Order : **ES2406769**

Page : 1 of 14

Client : **EDP Consultants Pty Ltd**

Contact : **CRISTIANE FLORIDO**

Address : **Lv 4 38 Oxley Street  
St Leonards 2065**

Telephone : ----

Project : **S-05667.095**

Order number : ----

C-O-C number : ----

Sampler : **GONAZLO SERMA DIAZ**

Site : ----

Quote number : **EN/222**

No. of samples received : **13**

No. of samples analysed : **11**

Laboratory : **Environmental Division Sydney**

Contact : **Customer Services ES**

Address : **277-289 Woodpark Road Smithfield NSW Australia 2164**

Telephone : **+61-2-8784 8555**

Date Samples Received : **29-Feb-2024**

Date Analysis Commenced : **04-Mar-2024**

Issue Date : **07-Mar-2024**



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                   |
|------------------|-----------------------------|------------------------------------------|
| Ankit Joshi      | Senior Chemist - Inorganics | Sydney Inorganics, Smithfield, NSW       |
| Brendan Schrader | Laboratory Technician       | Newcastle - Asbestos, Mayfield West, NSW |
| Edwandy Fadjari  | Organic Coordinator         | Sydney Organics, Smithfield, NSW         |
| Franco Lentini   | LCMS Coordinator            | Sydney Inorganics, Smithfield, NSW       |
| Franco Lentini   | LCMS Coordinator            | Sydney Organics, Smithfield, NSW         |
| Sanjeshni Jyoti  | Senior Chemist Volatiles    | Sydney Organics, Smithfield, NSW         |



## 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**

| Sub-Matrix: SOIL                                         |           |                  |            | Laboratory Duplicate (DUP) Report |       |                 |                  |         |                    |
|----------------------------------------------------------|-----------|------------------|------------|-----------------------------------|-------|-----------------|------------------|---------|--------------------|
| Laboratory sample ID                                     | Sample ID | Method: Compound | CAS Number | LOR                               | Unit  | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5640984) |           |                  |            |                                   |       |                 |                  |         |                    |
| ES2406765-001                                            | Anonymous | EG005T: Cadmium  | 7440-43-9  | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
|                                                          |           | EG005T: Chromium | 7440-47-3  | 2                                 | mg/kg | 28              | 21               | 30.4    | 0% - 50%           |
|                                                          |           | EG005T: Nickel   | 7440-02-0  | 2                                 | mg/kg | 12              | 9                | 24.4    | No Limit           |
|                                                          |           | EG005T: Arsenic  | 7440-38-2  | 5                                 | mg/kg | 11              | 8                | 37.5    | No Limit           |
|                                                          |           | EG005T: Copper   | 7440-50-8  | 5                                 | mg/kg | 23              | 19               | 20.0    | No Limit           |
|                                                          |           | EG005T: Lead     | 7439-92-1  | 5                                 | mg/kg | 24              | 22               | 9.5     | No Limit           |
|                                                          |           | EG005T: Zinc     | 7440-66-6  | 5                                 | mg/kg | 37              | 28               | 29.7    | No Limit           |
| EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5642301) |           |                  |            |                                   |       |                 |                  |         |                    |
| ES2406515-001                                            | Anonymous | EG005T: Cadmium  | 7440-43-9  | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
|                                                          |           | EG005T: Chromium | 7440-47-3  | 2                                 | mg/kg | 7               | 8                | 0.0     | No Limit           |
|                                                          |           | EG005T: Nickel   | 7440-02-0  | 2                                 | mg/kg | 4               | 4                | 0.0     | No Limit           |
|                                                          |           | EG005T: Arsenic  | 7440-38-2  | 5                                 | mg/kg | 5               | 6                | 0.0     | No Limit           |
|                                                          |           | EG005T: Copper   | 7440-50-8  | 5                                 | mg/kg | 8               | 8                | 0.0     | No Limit           |
|                                                          |           | EG005T: Lead     | 7439-92-1  | 5                                 | mg/kg | 12              | 14               | 8.4     | No Limit           |
|                                                          |           | EG005T: Zinc     | 7440-66-6  | 5                                 | mg/kg | 42              | 40               | 3.0     | No Limit           |
| ES2406881-003                                            | Anonymous | EG005T: Cadmium  | 7440-43-9  | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
|                                                          |           | EG005T: Chromium | 7440-47-3  | 2                                 | mg/kg | 25              | 31               | 22.5    | 0% - 50%           |
|                                                          |           | EG005T: Nickel   | 7440-02-0  | 2                                 | mg/kg | 28              | 36               | 24.2    | 0% - 50%           |
|                                                          |           | EG005T: Arsenic  | 7440-38-2  | 5                                 | mg/kg | 11              | 14               | 21.4    | No Limit           |
|                                                          |           | EG005T: Copper   | 7440-50-8  | 5                                 | mg/kg | 50              | 61               | 21.2    | 0% - 50%           |
|                                                          |           | EG005T: Lead     | 7439-92-1  | 5                                 | mg/kg | 20              | 29               | 35.2    | No Limit           |



| Sub-Matrix: SOIL                                                     |                  |                                        |            | Laboratory Duplicate (DUP) Report |       |                 |                  |         |                    |
|----------------------------------------------------------------------|------------------|----------------------------------------|------------|-----------------------------------|-------|-----------------|------------------|---------|--------------------|
| Laboratory sample ID                                                 | Sample ID        | Method: Compound                       | CAS Number | LOR                               | Unit  | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5642301) - continued |                  |                                        |            |                                   |       |                 |                  |         |                    |
| ES2406881-003                                                        | Anonymous        | EG005T: Zinc                           | 7440-66-6  | 5                                 | mg/kg | 78              | 88               | 12.0    | 0% - 50%           |
| EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5640994)        |                  |                                        |            |                                   |       |                 |                  |         |                    |
| ES2406765-003                                                        | Anonymous        | EA055: Moisture Content                | ----       | 0.1 (1.0)*                        | %     | 13.9            | 14.2             | 2.1     | 0% - 50%           |
| EW2400927-006                                                        | Anonymous        | EA055: Moisture Content                | ----       | 0.1 (1.0)*                        | %     | <1.0            | <1.0             | 0.0     | No Limit           |
| EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5642311)        |                  |                                        |            |                                   |       |                 |                  |         |                    |
| ES2406763-001                                                        | Anonymous        | EA055: Moisture Content                | ----       | 0.1 (1.0)*                        | %     | 10.5            | 9.9              | 6.1     | 0% - 50%           |
| ES2406881-012                                                        | Anonymous        | EA055: Moisture Content                | ----       | 0.1 (1.0)*                        | %     | 1.4             | <1.0             | 34.4    | No Limit           |
| EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5640985)          |                  |                                        |            |                                   |       |                 |                  |         |                    |
| ES2406765-001                                                        | Anonymous        | EG035T: Mercury                        | 7439-97-6  | 0.1                               | mg/kg | <0.1            | <0.1             | 0.0     | No Limit           |
| EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5642302)          |                  |                                        |            |                                   |       |                 |                  |         |                    |
| ES2406515-001                                                        | Anonymous        | EG035T: Mercury                        | 7439-97-6  | 0.1                               | mg/kg | <0.1            | <0.1             | 0.0     | No Limit           |
| ES2406881-003                                                        | Anonymous        | EG035T: Mercury                        | 7439-97-6  | 0.1                               | mg/kg | <0.1            | <0.1             | 0.0     | No Limit           |
| EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5638561)             |                  |                                        |            |                                   |       |                 |                  |         |                    |
| ES2406769-001                                                        | EDP-M7.BH99A-0.2 | EP066: Total Polychlorinated biphenyls | ----       | 0.1                               | mg/kg | <0.1            | <0.1             | 0.0     | No Limit           |
| EP068A: Organochlorine Pesticides (OC) (QC Lot: 5638564)             |                  |                                        |            |                                   |       |                 |                  |         |                    |
| ES2406769-001                                                        | EDP-M7.BH99A-0.2 | EP068: alpha-BHC                       | 319-84-6   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Hexachlorobenzene (HCB)         | 118-74-1   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: beta-BHC                        | 319-85-7   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: gamma-BHC                       | 58-89-9    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: delta-BHC                       | 319-86-8   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Heptachlor                      | 76-44-8    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Aldrin                          | 309-00-2   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Heptachlor epoxide              | 1024-57-3  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: trans-Chlordane                 | 5103-74-2  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: alpha-Endosulfan                | 959-98-8   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: cis-Chlordane                   | 5103-71-9  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Dieldrin                        | 60-57-1    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: 4,4'-DDE                        | 72-55-9    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Endrin                          | 72-20-8    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: beta-Endosulfan                 | 33213-65-9 | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: 4,4'-DDD                        | 72-54-8    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Endrin aldehyde                 | 7421-93-4  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Endosulfan sulfate              | 1031-07-8  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: Endrin ketone                   | 53494-70-5 | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                      |                  | EP068: 4,4'-DDT                        | 50-29-3    | 0.2                               | mg/kg | <0.2            | <0.2             | 0.0     | No Limit           |
| EP068: Methoxychlor                                                  | 72-43-5          | 0.2                                    | mg/kg      | <0.2                              | <0.2  | 0.0             | No Limit         |         |                    |
| EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5638564)           |                  |                                        |            |                                   |       |                 |                  |         |                    |



| Sub-Matrix: <b>SOIL</b>                                                |                  |                                    |            | Laboratory Duplicate (DUP) Report |       |                 |                  |         |                    |
|------------------------------------------------------------------------|------------------|------------------------------------|------------|-----------------------------------|-------|-----------------|------------------|---------|--------------------|
| Laboratory sample ID                                                   | Sample ID        | Method: Compound                   | CAS Number | LOR                               | Unit  | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5638564) - continued |                  |                                    |            |                                   |       |                 |                  |         |                    |
| ES2406769-001                                                          | EDP-M7.BH99A-0.2 | EP068: Dichlorvos                  | 62-73-7    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Demeton-S-methyl            | 919-86-8   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Dimethoate                  | 60-51-5    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Diazinon                    | 333-41-5   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Chlorpyrifos-methyl         | 5598-13-0  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Malathion                   | 121-75-5   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Fenthion                    | 55-38-9    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Chlorpyrifos                | 2921-88-2  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Pirimphos-ethyl             | 23505-41-1 | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Chlorfenvinphos             | 470-90-6   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Bromophos-ethyl             | 4824-78-6  | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Fenamiphos                  | 22224-92-6 | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Prothiofos                  | 34643-46-4 | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Ethion                      | 563-12-2   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Carbophenothion             | 786-19-6   | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Azinphos Methyl             | 86-50-0    | 0.05                              | mg/kg | <0.05           | <0.05            | 0.0     | No Limit           |
|                                                                        |                  | EP068: Monocrotophos               | 6923-22-4  | 0.2                               | mg/kg | <0.2            | <0.2             | 0.0     | No Limit           |
|                                                                        |                  | EP068: Parathion-methyl            | 298-00-0   | 0.2                               | mg/kg | <0.2            | <0.2             | 0.0     | No Limit           |
|                                                                        |                  | EP068: Parathion                   | 56-38-2    | 0.2                               | mg/kg | <0.2            | <0.2             | 0.0     | No Limit           |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5638563)       |                  |                                    |            |                                   |       |                 |                  |         |                    |
| ES2406769-001                                                          | EDP-M7.BH99A-0.2 | EP075(SIM): Naphthalene            | 91-20-3    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Acenaphthylene         | 208-96-8   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Acenaphthene           | 83-32-9    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Fluorene               | 86-73-7    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Phenanthrene           | 85-01-8    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Anthracene             | 120-12-7   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Fluoranthene           | 206-44-0   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Pyrene                 | 129-00-0   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Benz(a)anthracene      | 56-55-3    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Chrysene               | 218-01-9   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Benzo(b+j)fluoranthene | 205-99-2   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  |                                    | 205-82-3   |                                   |       |                 |                  |         |                    |
|                                                                        |                  | EP075(SIM): Benzo(k)fluoranthene   | 207-08-9   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Benzo(a)pyrene         | 50-32-8    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Indeno(1.2.3.cd)pyrene | 193-39-5   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Dibenz(a,h)anthracene  | 53-70-3    | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                        |                  | EP075(SIM): Benzo(g,h,i)perylene   | 191-24-2   | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |



| Sub-Matrix: SOIL                                                                  |                                      |                                                     |                      | Laboratory Duplicate (DUP) Report |       |                 |                  |         |                    |
|-----------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------|----------------------|-----------------------------------|-------|-----------------|------------------|---------|--------------------|
| Laboratory sample ID                                                              | Sample ID                            | Method: Compound                                    | CAS Number           | LOR                               | Unit  | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5638563) - continued      |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406769-001                                                                     | EDP-M7.BH99A-0.2                     | EP075(SIM): Sum of polycyclic aromatic hydrocarbons | ----                 | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
|                                                                                   |                                      | EP075(SIM): Benzo(a)pyrene TEQ (zero)               | ----                 | 0.5                               | mg/kg | <0.5            | <0.5             | 0.0     | No Limit           |
| EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5638562)                         |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406769-001                                                                     | EDP-M7.BH99A-0.2                     | EP071: C15 - C28 Fraction                           | ----                 | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |                                      | EP071: C29 - C36 Fraction                           | ----                 | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |                                      | EP071: C10 - C14 Fraction                           | ----                 | 50                                | mg/kg | <50             | <50              | 0.0     | No Limit           |
| EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5641164)                         |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406561-001                                                                     | Anonymous                            | EP080: C6 - C9 Fraction                             | ----                 | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| ES2406769-003                                                                     | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EP080: C6 - C9 Fraction                             | ----                 | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5641748)                         |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406881-056                                                                     | Anonymous                            | EP080: C6 - C9 Fraction                             | ----                 | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| ES2406881-051                                                                     | Anonymous                            | EP080: C6 - C9 Fraction                             | ----                 | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5638562) |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406769-001                                                                     | EDP-M7.BH99A-0.2                     | EP071: >C16 - C34 Fraction                          | ----                 | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |                                      | EP071: >C34 - C40 Fraction                          | ----                 | 100                               | mg/kg | <100            | <100             | 0.0     | No Limit           |
|                                                                                   |                                      | EP071: >C10 - C16 Fraction                          | ----                 | 50                                | mg/kg | <50             | <50              | 0.0     | No Limit           |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5641164) |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406561-001                                                                     | Anonymous                            | EP080: C6 - C10 Fraction                            | C6_C10               | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| ES2406769-003                                                                     | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EP080: C6 - C10 Fraction                            | C6_C10               | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5641748) |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406881-056                                                                     | Anonymous                            | EP080: C6 - C10 Fraction                            | C6_C10               | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| ES2406881-051                                                                     | Anonymous                            | EP080: C6 - C10 Fraction                            | C6_C10               | 10                                | mg/kg | <10             | <10              | 0.0     | No Limit           |
| EP080: BTEXN (QC Lot: 5641164)                                                    |                                      |                                                     |                      |                                   |       |                 |                  |         |                    |
| ES2406561-001                                                                     | 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<br>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           |
| ES2406769-003                                                                     | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | 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: 5641164) - continued                |                                      |                                               |            |                                   |       |                 |                  |         |                    |
| ES2406769-003                                             | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | 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: BTEXN (QC Lot: 5641748)                            |                                      |                                               |            |                                   |       |                 |                  |         |                    |
| ES2406881-056                                             | 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           |
|                                                           |                                      | EP080: Naphthalene                            | 91-20-3    | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
| ES2406881-051                                             | 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           |
|                                                           |                                      | EP080: Naphthalene                            | 91-20-3    | 1                                 | mg/kg | <1              | <1               | 0.0     | No Limit           |
| EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5637926)   |                                      |                                               |            |                                   |       |                 |                  |         |                    |
| ES2406283-001                                             | Anonymous                            | EP231X: Perfluorobutane sulfonic acid (PFBS)  | 375-73-5   | 0.0002<br>(0.0025)*               | mg/kg | 0.0217          | 0.0201           | 7.9     | No Limit           |
|                                                           |                                      | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4   | 0.0002<br>(0.0025)*               | mg/kg | 0.0139          | 0.0133           | 4.7     | No Limit           |
|                                                           |                                      | EP231X: Perfluorooctane sulfonic acid (PFOS)  | 1763-23-1  | 0.0002<br>(0.0025)*               | mg/kg | 0.0130          | 0.0114           | 12.8    | No Limit           |
| ES2406769-003                                             | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EP231X: Perfluorobutane sulfonic acid (PFBS)  | 375-73-5   | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                           |                                      | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4   | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                           |                                      | EP231X: Perfluorooctane sulfonic acid (PFOS)  | 1763-23-1  | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
| EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5637926) |                                      |                                               |            |                                   |       |                 |                  |         |                    |
| ES2406283-001                                             | Anonymous                            | EP231X: Perfluoropentanoic acid (PFPeA)       | 2706-90-3  | 0.0002<br>(0.0025)*               | mg/kg | <0.0025         | <0.0025          | 0.0     | No Limit           |
|                                                           |                                      | EP231X: Perfluorohexanoic acid (PFHxA)        | 307-24-4   | 0.0002<br>(0.0025)*               | mg/kg | 0.0083          | 0.0079           | 4.7     | No Limit           |
|                                                           |                                      | EP231X: Perfluoroheptanoic acid (PFHpA)       | 375-85-9   | 0.0002<br>(0.0025)*               | mg/kg | 0.0037          | 0.0033           | 10.9    | No Limit           |
|                                                           |                                      | EP231X: Perfluorooctanoic acid (PFOA)         | 335-67-1   | 0.0002<br>(0.0025)*               | mg/kg | 0.0256          | 0.0228           | 11.3    | 0% - 50%           |





| 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 (%) |
| EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5637926) - continued |                                      |                                                     |             |                                   |       |                 |                  |         |                    |
| ES2406283-001                                                         | Anonymous                            | EP231X: Perfluorobutanoic acid (PFBA)               | 375-22-4    | 0.001 (0.012)<br>*                | mg/kg | <0.012          | <0.012           | 0.0     | No Limit           |
| ES2406769-003                                                         | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EP231X: Perfluoropentanoic acid (PFPeA)             | 2706-90-3   | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: Perfluorohexanoic acid (PFHxA)              | 307-24-4    | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: Perfluoroheptanoic acid (PFHpA)             | 375-85-9    | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: Perfluorooctanoic acid (PFOA)               | 335-67-1    | 0.0002                            | mg/kg | <0.0002         | <0.0002          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: Perfluorobutanoic acid (PFBA)               | 375-22-4    | 0.001                             | mg/kg | <0.001          | <0.001           | 0.0     | No Limit           |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5637926)          |                                      |                                                     |             |                                   |       |                 |                  |         |                    |
| ES2406283-001                                                         | Anonymous                            | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)   | 757124-72-4 | 0.0005<br>(0.0025)*               | mg/kg | <0.0025         | <0.0025          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)   | 27619-97-2  | 0.0005<br>(0.0025)*               | mg/kg | <0.0025         | <0.0025          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)   | 39108-34-4  | 0.0005<br>(0.0025)*               | mg/kg | <0.0025         | <0.0025          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005<br>(0.0025)*               | mg/kg | <0.0025         | <0.0025          | 0.0     | No Limit           |
| ES2406769-003                                                         | EDP-M7.BH99A-2.0<br>EDP-M7.BH99A-1.0 | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)   | 757124-72-4 | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)   | 27619-97-2  | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)   | 39108-34-4  | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |
|                                                                       |                                      | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005                            | mg/kg | <0.0005         | <0.0005          | 0.0     | No Limit           |



## 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)<br>Report | Laboratory Control Spike (LCS) Report |                           |                                   |     |
|------------------------------------------------------------|------------|------|-------|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|-----|
|                                                            |            |      |       |                             | Spike<br>Concentration                | Spike Recovery (%)<br>LCS | Acceptable Limits (%)<br>Low High |     |
| Method: Compound                                           | CAS Number | LOR  | Unit  | Result                      |                                       |                           |                                   |     |
| EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5640984)    |            |      |       |                             |                                       |                           |                                   |     |
| EG005T: Arsenic                                            | 7440-38-2  | 5    | mg/kg | <5                          | 121.1 mg/kg                           | 113                       | 88.0                              | 113 |
| EG005T: Cadmium                                            | 7440-43-9  | 1    | mg/kg | <1                          | 0.74 mg/kg                            | 111                       | 70.0                              | 130 |
| EG005T: Chromium                                           | 7440-47-3  | 2    | mg/kg | <2                          | 19.6 mg/kg                            | 132                       | 68.0                              | 132 |
| EG005T: Copper                                             | 7440-50-8  | 5    | mg/kg | <5                          | 52.9 mg/kg                            | 110                       | 89.0                              | 111 |
| EG005T: Lead                                               | 7439-92-1  | 5    | mg/kg | <5                          | 60.8 mg/kg                            | 104                       | 82.0                              | 119 |
| EG005T: Nickel                                             | 7440-02-0  | 2    | mg/kg | <2                          | 15.3 mg/kg                            | 120                       | 80.0                              | 120 |
| EG005T: Zinc                                               | 7440-66-6  | 5    | mg/kg | <5                          | 139.3 mg/kg                           | 108                       | 66.0                              | 133 |
| EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5642301)    |            |      |       |                             |                                       |                           |                                   |     |
| EG005T: Arsenic                                            | 7440-38-2  | 5    | mg/kg | <5                          | 121.1 mg/kg                           | 98.1                      | 88.0                              | 113 |
| EG005T: Cadmium                                            | 7440-43-9  | 1    | mg/kg | <1                          | 0.74 mg/kg                            | 87.0                      | 70.0                              | 130 |
| EG005T: Chromium                                           | 7440-47-3  | 2    | mg/kg | <2                          | 19.6 mg/kg                            | 113                       | 68.0                              | 132 |
| EG005T: Copper                                             | 7440-50-8  | 5    | mg/kg | <5                          | 52.9 mg/kg                            | 95.6                      | 89.0                              | 111 |
| EG005T: Lead                                               | 7439-92-1  | 5    | mg/kg | <5                          | 60.8 mg/kg                            | 91.3                      | 82.0                              | 119 |
| EG005T: Nickel                                             | 7440-02-0  | 2    | mg/kg | <2                          | 15.3 mg/kg                            | 95.3                      | 80.0                              | 120 |
| EG005T: Zinc                                               | 7440-66-6  | 5    | mg/kg | <5                          | 139.3 mg/kg                           | 85.4                      | 66.0                              | 133 |
| EG035T: Total Recoverable Mercury by FIMS (QCLot: 5640985) |            |      |       |                             |                                       |                           |                                   |     |
| EG035T: Mercury                                            | 7439-97-6  | 0.1  | mg/kg | <0.1                        | 0.087 mg/kg                           | 113                       | 70.0                              | 125 |
| EG035T: Total Recoverable Mercury by FIMS (QCLot: 5642302) |            |      |       |                             |                                       |                           |                                   |     |
| EG035T: Mercury                                            | 7439-97-6  | 0.1  | mg/kg | <0.1                        | 0.087 mg/kg                           | 89.6                      | 70.0                              | 125 |
| EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5638561)    |            |      |       |                             |                                       |                           |                                   |     |
| EP066: Total Polychlorinated biphenyls                     | ----       | 0.1  | mg/kg | <0.1                        | 1 mg/kg                               | 104                       | 62.0                              | 126 |
| EP068A: Organochlorine Pesticides (OC) (QCLot: 5638564)    |            |      |       |                             |                                       |                           |                                   |     |
| EP068: alpha-BHC                                           | 319-84-6   | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 92.4                      | 69.0                              | 113 |
| EP068: Hexachlorobenzene (HCB)                             | 118-74-1   | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 95.5                      | 65.0                              | 117 |
| EP068: beta-BHC                                            | 319-85-7   | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 106                       | 67.0                              | 119 |
| EP068: gamma-BHC                                           | 58-89-9    | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 102                       | 68.0                              | 116 |
| EP068: delta-BHC                                           | 319-86-8   | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 87.6                      | 65.0                              | 117 |
| EP068: Heptachlor                                          | 76-44-8    | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 94.2                      | 67.0                              | 115 |
| EP068: Aldrin                                              | 309-00-2   | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 98.4                      | 69.0                              | 115 |
| EP068: Heptachlor epoxide                                  | 1024-57-3  | 0.05 | mg/kg | <0.05                       | 0.5 mg/kg                             | 99.2                      | 62.0                              | 118 |



| Sub-Matrix: SOIL                                                                 |            |     |       | Method Blank (MB) Report | Laboratory Control Spike (LCS) Report |                    |                       |      |
|----------------------------------------------------------------------------------|------------|-----|-------|--------------------------|---------------------------------------|--------------------|-----------------------|------|
|                                                                                  |            |     |       |                          | Spike Concentration                   | Spike Recovery (%) | Acceptable Limits (%) |      |
| Method: Compound                                                                 | CAS Number | LOR | Unit  | Result                   |                                       | LCS                | Low                   | High |
| EP075(SIM): Polynuclear Aromatic Hydrocarbons (QCLot: 5638563) - continued       |            |     |       |                          |                                       |                    |                       |      |
| EP075(SIM): Naphthalene                                                          | 91-20-3    | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 98.0               | 77.0                  | 125  |
| EP075(SIM): Acenaphthylene                                                       | 208-96-8   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 97.4               | 72.0                  | 124  |
| EP075(SIM): Acenaphthene                                                         | 83-32-9    | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 93.8               | 73.0                  | 127  |
| EP075(SIM): Fluorene                                                             | 86-73-7    | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 98.2               | 72.0                  | 126  |
| EP075(SIM): Phenanthrene                                                         | 85-01-8    | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 102                | 75.0                  | 127  |
| EP075(SIM): Anthracene                                                           | 120-12-7   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 100                | 77.0                  | 127  |
| EP075(SIM): Fluoranthene                                                         | 206-44-0   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 97.4               | 73.0                  | 127  |
| EP075(SIM): Pyrene                                                               | 129-00-0   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 95.5               | 74.0                  | 128  |
| EP075(SIM): Benz(a)anthracene                                                    | 56-55-3    | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 96.2               | 69.0                  | 123  |
| EP075(SIM): Chrysene                                                             | 218-01-9   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 99.8               | 75.0                  | 127  |
| EP075(SIM): Benzo(b+j)fluoranthene                                               | 205-99-2   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 95.1               | 68.0                  | 116  |
|                                                                                  | 205-82-3   |     |       |                          |                                       |                    |                       |      |
| EP075(SIM): Benzo(k)fluoranthene                                                 | 207-08-9   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 94.8               | 74.0                  | 126  |
| EP075(SIM): Benzo(a)pyrene                                                       | 50-32-8    | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 99.0               | 70.0                  | 126  |
| EP075(SIM): Indeno(1.2.3.cd)pyrene                                               | 193-39-5   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 104                | 61.0                  | 121  |
| EP075(SIM): Dibenz(a.h)anthracene                                                | 53-70-3    | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 105                | 62.0                  | 118  |
| EP075(SIM): Benzo(g.h.i)perylene                                                 | 191-24-2   | 0.5 | mg/kg | <0.5                     | 6 mg/kg                               | 104                | 63.0                  | 121  |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5638562)                         |            |     |       |                          |                                       |                    |                       |      |
| EP071: C10 - C14 Fraction                                                        | ----       | 50  | mg/kg | <50                      | 300 mg/kg                             | 94.5               | 75.0                  | 129  |
| EP071: C15 - C28 Fraction                                                        | ----       | 100 | mg/kg | <100                     | 450 mg/kg                             | 98.4               | 77.0                  | 131  |
| EP071: C29 - C36 Fraction                                                        | ----       | 100 | mg/kg | <100                     | 300 mg/kg                             | 95.2               | 71.0                  | 129  |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5641164)                         |            |     |       |                          |                                       |                    |                       |      |
| EP080: C6 - C9 Fraction                                                          | ----       | 10  | mg/kg | <10                      | 26 mg/kg                              | 89.8               | 72.2                  | 131  |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5641748)                         |            |     |       |                          |                                       |                    |                       |      |
| EP080: C6 - C9 Fraction                                                          | ----       | 10  | mg/kg | <10                      | 26 mg/kg                              | 97.0               | 72.2                  | 131  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5638562) |            |     |       |                          |                                       |                    |                       |      |
| EP071: >C10 - C16 Fraction                                                       | ----       | 50  | mg/kg | <50                      | 375 mg/kg                             | 97.6               | 77.0                  | 125  |
| EP071: >C16 - C34 Fraction                                                       | ----       | 100 | mg/kg | <100                     | 525 mg/kg                             | 96.6               | 74.0                  | 138  |
| EP071: >C34 - C40 Fraction                                                       | ----       | 100 | mg/kg | <100                     | 225 mg/kg                             | 93.3               | 63.0                  | 131  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5641164) |            |     |       |                          |                                       |                    |                       |      |
| EP080: C6 - C10 Fraction                                                         | C6_C10     | 10  | mg/kg | <10                      | 31 mg/kg                              | 92.9               | 72.4                  | 133  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5641748) |            |     |       |                          |                                       |                    |                       |      |
| EP080: C6 - C10 Fraction                                                         | C6_C10     | 10  | mg/kg | <10                      | 31 mg/kg                              | 101                | 72.4                  | 133  |
| EP080: BTEXN (QCLot: 5641164)                                                    |            |     |       |                          |                                       |                    |                       |      |





| Sub-Matrix: SOIL                                            |             |        |       | Method Blank (MB)<br>Report | Laboratory Control Spike (LCS) Report |                    |                       |     |
|-------------------------------------------------------------|-------------|--------|-------|-----------------------------|---------------------------------------|--------------------|-----------------------|-----|
| Method: Compound                                            | CAS Number  | LOR    | Unit  |                             | Spike                                 | Spike Recovery (%) | Acceptable Limits (%) |     |
|                                                             |             |        |       | Concentration               | LCS                                   | Low                | High                  |     |
| EP080: BTEXN (QCLot: 5641164) - continued                   |             |        |       |                             |                                       |                    |                       |     |
| EP080: Benzene                                              | 71-43-2     | 0.2    | mg/kg | <0.2                        | 1 mg/kg                               | 108                | 76.0                  | 124 |
| EP080: Toluene                                              | 108-88-3    | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 105                | 78.5                  | 121 |
| EP080: Ethylbenzene                                         | 100-41-4    | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 109                | 77.4                  | 121 |
| EP080: meta- & para-Xylene                                  | 108-38-3    | 0.5    | mg/kg | <0.5                        | 2 mg/kg                               | 109                | 78.2                  | 121 |
|                                                             | 106-42-3    |        |       |                             |                                       |                    |                       |     |
| EP080: ortho-Xylene                                         | 95-47-6     | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 113                | 81.3                  | 121 |
| EP080: Naphthalene                                          | 91-20-3     | 1      | mg/kg | <1                          | 1 mg/kg                               | 102                | 78.8                  | 122 |
| EP080: BTEXN (QCLot: 5641748)                               |             |        |       |                             |                                       |                    |                       |     |
| EP080: Benzene                                              | 71-43-2     | 0.2    | mg/kg | <0.2                        | 1 mg/kg                               | 92.3               | 76.0                  | 124 |
| EP080: Toluene                                              | 108-88-3    | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 88.4               | 78.5                  | 121 |
| EP080: Ethylbenzene                                         | 100-41-4    | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 92.4               | 77.4                  | 121 |
| EP080: meta- & para-Xylene                                  | 108-38-3    | 0.5    | mg/kg | <0.5                        | 2 mg/kg                               | 91.5               | 78.2                  | 121 |
|                                                             | 106-42-3    |        |       |                             |                                       |                    |                       |     |
| EP080: ortho-Xylene                                         | 95-47-6     | 0.5    | mg/kg | <0.5                        | 1 mg/kg                               | 93.2               | 81.3                  | 121 |
| EP080: Naphthalene                                          | 91-20-3     | 1      | mg/kg | <1                          | 1 mg/kg                               | 84.4               | 78.8                  | 122 |
| EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5637926)      |             |        |       |                             |                                       |                    |                       |     |
| EP231X: Perfluorobutane sulfonic acid (PFBS)                | 375-73-5    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 92.9               | 72.0                  | 128 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS)               | 355-46-4    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 89.5               | 67.0                  | 130 |
| EP231X: Perfluorooctane sulfonic acid (PFOS)                | 1763-23-1   | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 95.1               | 68.0                  | 136 |
| EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5637926)    |             |        |       |                             |                                       |                    |                       |     |
| EP231X: Perfluorobutanoic acid (PFBA)                       | 375-22-4    | 0.001  | mg/kg | <0.001                      | 0.00625 mg/kg                         | 95.6               | 71.0                  | 135 |
| EP231X: Perfluoropentanoic acid (PFPeA)                     | 2706-90-3   | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 119                | 69.0                  | 132 |
| EP231X: Perfluorohexanoic acid (PFHxA)                      | 307-24-4    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 110                | 70.0                  | 132 |
| EP231X: Perfluoroheptanoic acid (PFHpA)                     | 375-85-9    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 106                | 71.0                  | 131 |
| EP231X: Perfluorooctanoic acid (PFOA)                       | 335-67-1    | 0.0002 | mg/kg | <0.0002                     | 0.00125 mg/kg                         | 106                | 69.0                  | 133 |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5637926) |             |        |       |                             |                                       |                    |                       |     |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)           | 757124-72-4 | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 99.9               | 62.0                  | 145 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)           | 27619-97-2  | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 97.8               | 64.0                  | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)           | 39108-34-4  | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 97.4               | 65.0                  | 137 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)         | 120226-60-0 | 0.0005 | mg/kg | <0.0005                     | 0.00125 mg/kg                         | 92.4               | 69.2                  | 143 |

## 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 |
| EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5640984)         |                  |                                        |            |                          |                  |                       |      |
| ES2406765-001                                                   | Anonymous        | EG005T: Arsenic                        | 7440-38-2  | 50 mg/kg                 | 81.2             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Cadmium                        | 7440-43-9  | 50 mg/kg                 | 97.4             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Chromium                       | 7440-47-3  | 50 mg/kg                 | 77.6             | 68.0                  | 132  |
|                                                                 |                  | EG005T: Copper                         | 7440-50-8  | 250 mg/kg                | 96.9             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Lead                           | 7439-92-1  | 250 mg/kg                | 85.0             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Nickel                         | 7440-02-0  | 50 mg/kg                 | 89.3             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Zinc                           | 7440-66-6  | 250 mg/kg                | 91.9             | 66.0                  | 133  |
| EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5642301)         |                  |                                        |            |                          |                  |                       |      |
| ES2406515-001                                                   | Anonymous        | EG005T: Arsenic                        | 7440-38-2  | 50 mg/kg                 | 96.2             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Cadmium                        | 7440-43-9  | 50 mg/kg                 | 93.6             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Chromium                       | 7440-47-3  | 50 mg/kg                 | 96.6             | 68.0                  | 132  |
|                                                                 |                  | EG005T: Copper                         | 7440-50-8  | 250 mg/kg                | 90.4             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Lead                           | 7439-92-1  | 250 mg/kg                | 93.8             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Nickel                         | 7440-02-0  | 50 mg/kg                 | 94.3             | 70.0                  | 130  |
|                                                                 |                  | EG005T: Zinc                           | 7440-66-6  | 250 mg/kg                | 91.7             | 66.0                  | 133  |
| EG035T: Total Recoverable Mercury by FIMS (QCLot: 5640985)      |                  |                                        |            |                          |                  |                       |      |
| ES2406765-001                                                   | Anonymous        | EG035T: Mercury                        | 7439-97-6  | 5 mg/kg                  | 90.0             | 70.0                  | 130  |
| EG035T: Total Recoverable Mercury by FIMS (QCLot: 5642302)      |                  |                                        |            |                          |                  |                       |      |
| ES2406515-001                                                   | Anonymous        | EG035T: Mercury                        | 7439-97-6  | 5 mg/kg                  | 86.9             | 70.0                  | 130  |
| EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5638561)         |                  |                                        |            |                          |                  |                       |      |
| ES2406769-001                                                   | EDP-M7.BH99A-0.2 | EP066: Total Polychlorinated biphenyls | ----       | 1 mg/kg                  | 94.9             | 70.0                  | 130  |
| EP068A: Organochlorine Pesticides (OC) (QCLot: 5638564)         |                  |                                        |            |                          |                  |                       |      |
| ES2406769-001                                                   | EDP-M7.BH99A-0.2 | EP068: gamma-BHC                       | 58-89-9    | 0.5 mg/kg                | 101              | 70.0                  | 130  |
|                                                                 |                  | EP068: Heptachlor                      | 76-44-8    | 0.5 mg/kg                | 89.5             | 70.0                  | 130  |
|                                                                 |                  | EP068: Aldrin                          | 309-00-2   | 0.5 mg/kg                | 93.4             | 70.0                  | 130  |
|                                                                 |                  | EP068: Dieldrin                        | 60-57-1    | 0.5 mg/kg                | 105              | 70.0                  | 130  |
|                                                                 |                  | EP068: Endrin                          | 72-20-8    | 2 mg/kg                  | 95.0             | 70.0                  | 130  |
|                                                                 |                  | EP068: 4,4'-DDT                        | 50-29-3    | 2 mg/kg                  | 91.9             | 70.0                  | 130  |
| EP068B: Organophosphorus Pesticides (OP) (QCLot: 5638564)       |                  |                                        |            |                          |                  |                       |      |
| ES2406769-001                                                   | EDP-M7.BH99A-0.2 | EP068: Diazinon                        | 333-41-5   | 0.5 mg/kg                | 76.3             | 70.0                  | 130  |
|                                                                 |                  | EP068: Chlorpyrifos-methyl             | 5598-13-0  | 0.5 mg/kg                | 97.2             | 70.0                  | 130  |
|                                                                 |                  | EP068: Pirimphos-ethyl                 | 23505-41-1 | 0.5 mg/kg                | 97.1             | 70.0                  | 130  |
|                                                                 |                  | EP068: Bromophos-ethyl                 | 4824-78-6  | 0.5 mg/kg                | 102              | 70.0                  | 130  |
|                                                                 |                  | EP068: Prothiofos                      | 34643-46-4 | 0.5 mg/kg                | 88.5             | 70.0                  | 130  |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5638563) |                  |                                        |            |                          |                  |                       |      |
| ES2406769-001                                                   | EDP-M7.BH99A-0.2 | EP075(SIM): Acenaphthene               | 83-32-9    | 10 mg/kg                 | 99.4             | 70.0                  | 130  |
|                                                                 |                  | EP075(SIM): Pyrene                     | 129-00-0   | 10 mg/kg                 | 95.6             | 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 |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5638562)                         |                    |                                               |            |                          |                  |                       |      |
| ES2406769-001                                                                    | EDP-M7.BH99A-0.2   | EP071: C10 - C14 Fraction                     | ----       | 480 mg/kg                | 109              | 73.0                  | 137  |
|                                                                                  |                    | EP071: C15 - C28 Fraction                     | ----       | 3100 mg/kg               | 115              | 53.0                  | 131  |
|                                                                                  |                    | EP071: C29 - C36 Fraction                     | ----       | 2060 mg/kg               | 125              | 52.0                  | 132  |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5641164)                         |                    |                                               |            |                          |                  |                       |      |
| ES2406561-001                                                                    | Anonymous          | EP080: C6 - C9 Fraction                       | ----       | 32.5 mg/kg               | 81.1             | 60.4                  | 142  |
| EP080/071: Total Petroleum Hydrocarbons (QCLot: 5641748)                         |                    |                                               |            |                          |                  |                       |      |
| ES2406881-056                                                                    | Anonymous          | EP080: C6 - C9 Fraction                       | ----       | 32.5 mg/kg               | 71.4             | 60.4                  | 142  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5638562) |                    |                                               |            |                          |                  |                       |      |
| ES2406769-001                                                                    | EDP-M7.BH99A-0.2   | EP071: >C10 - C16 Fraction                    | ----       | 860 mg/kg                | 106              | 73.0                  | 137  |
|                                                                                  |                    | EP071: >C16 - C34 Fraction                    | ----       | 4320 mg/kg               | 114              | 53.0                  | 131  |
|                                                                                  |                    | EP071: >C34 - C40 Fraction                    | ----       | 890 mg/kg                | 112              | 52.0                  | 132  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5641164) |                    |                                               |            |                          |                  |                       |      |
| ES2406561-001                                                                    | Anonymous          | EP080: C6 - C10 Fraction                      | C6_C10     | 37.5 mg/kg               | 83.8             | 61.1                  | 142  |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5641748) |                    |                                               |            |                          |                  |                       |      |
| ES2406881-056                                                                    | Anonymous          | EP080: C6 - C10 Fraction                      | C6_C10     | 37.5 mg/kg               | 74.4             | 61.1                  | 142  |
| EP080: BTEXN (QCLot: 5641164)                                                    |                    |                                               |            |                          |                  |                       |      |
| ES2406561-001                                                                    | Anonymous          | EP080: Benzene                                | 71-43-2    | 2.5 mg/kg                | 93.9             | 62.1                  | 122  |
|                                                                                  |                    | EP080: Toluene                                | 108-88-3   | 2.5 mg/kg                | 88.5             | 66.6                  | 119  |
|                                                                                  |                    | EP080: Ethylbenzene                           | 100-41-4   | 2.5 mg/kg                | 95.7             | 67.4                  | 123  |
|                                                                                  |                    | EP080: meta- & para-Xylene                    | 108-38-3   | 2.5 mg/kg                | 93.0             | 66.4                  | 121  |
|                                                                                  |                    |                                               | 106-42-3   |                          |                  |                       |      |
|                                                                                  |                    | EP080: ortho-Xylene                           | 95-47-6    | 2.5 mg/kg                | 98.5             | 70.7                  | 121  |
|                                                                                  | EP080: Naphthalene | 91-20-3                                       | 2.5 mg/kg  | 86.0                     | 61.1             | 115                   |      |
| EP080: BTEXN (QCLot: 5641748)                                                    |                    |                                               |            |                          |                  |                       |      |
| ES2406881-056                                                                    | Anonymous          | EP080: Benzene                                | 71-43-2    | 2.5 mg/kg                | 83.0             | 62.1                  | 122  |
|                                                                                  |                    | EP080: Toluene                                | 108-88-3   | 2.5 mg/kg                | 79.5             | 66.6                  | 119  |
|                                                                                  |                    | EP080: Ethylbenzene                           | 100-41-4   | 2.5 mg/kg                | 87.5             | 67.4                  | 123  |
|                                                                                  |                    | EP080: meta- & para-Xylene                    | 108-38-3   | 2.5 mg/kg                | 85.3             | 66.4                  | 121  |
|                                                                                  |                    |                                               | 106-42-3   |                          |                  |                       |      |
|                                                                                  |                    | EP080: ortho-Xylene                           | 95-47-6    | 2.5 mg/kg                | 89.0             | 70.7                  | 121  |
|                                                                                  | EP080: Naphthalene | 91-20-3                                       | 2.5 mg/kg  | 81.2                     | 61.1             | 115                   |      |
| EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5637926)                           |                    |                                               |            |                          |                  |                       |      |
| ES2406283-001                                                                    | Anonymous          | EP231X: Perfluorobutane sulfonic acid (PFBS)  | 375-73-5   | 0.00125 mg/kg            | 94.0             | 72.0                  | 128  |
|                                                                                  |                    | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4   | 0.00125 mg/kg            | 89.2             | 67.0                  | 130  |
|                                                                                  |                    | EP231X: Perfluorooctane sulfonic acid (PFOS)  | 1763-23-1  | 0.00125 mg/kg            | 83.2             | 68.0                  | 136  |
| EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5637926)                         |                    |                                               |            |                          |                  |                       |      |



| Sub-Matrix: SOIL                                                     |           |                                                     |             | Matrix Spike (MS) Report |                  |                       |      |
|----------------------------------------------------------------------|-----------|-----------------------------------------------------|-------------|--------------------------|------------------|-----------------------|------|
|                                                                      |           |                                                     |             | Spike                    | SpikeRecovery(%) | Acceptable Limits (%) |      |
| Laboratory sample ID                                                 | Sample ID | Method: Compound                                    | CAS Number  | Concentration            | MS               | Low                   | High |
| EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5637926) - continued |           |                                                     |             |                          |                  |                       |      |
| ES2406283-001                                                        | Anonymous | EP231X: Perfluorobutanoic acid (PFBA)               | 375-22-4    | 0.00625 mg/kg            | 102              | 71.0                  | 135  |
|                                                                      |           | EP231X: Perfluoropentanoic acid (PFPeA)             | 2706-90-3   | 0.00125 mg/kg            | 102              | 69.0                  | 132  |
|                                                                      |           | EP231X: Perfluorohexanoic acid (PFHxA)              | 307-24-4    | 0.00125 mg/kg            | 102              | 70.0                  | 132  |
|                                                                      |           | EP231X: Perfluoroheptanoic acid (PFHpA)             | 375-85-9    | 0.00125 mg/kg            | 86.0             | 71.0                  | 131  |
|                                                                      |           | EP231X: Perfluorooctanoic acid (PFOA)               | 335-67-1    | 0.00125 mg/kg            | 118              | 69.0                  | 133  |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5637926)          |           |                                                     |             |                          |                  |                       |      |
| ES2406283-001                                                        | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)   | 757124-72-4 | 0.00125 mg/kg            | 87.6             | 62.0                  | 145  |
|                                                                      |           | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)   | 27619-97-2  | 0.00125 mg/kg            | 84.0             | 64.0                  | 140  |
|                                                                      |           | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)   | 39108-34-4  | 0.00125 mg/kg            | 101              | 65.0                  | 137  |
|                                                                      |           | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.00125 mg/kg            | 106              | 69.2                  | 143  |





## QA/QC Compliance Assessment to assist with Quality Review

|              |                           |                         |                                 |
|--------------|---------------------------|-------------------------|---------------------------------|
| Work Order   | : ES2406769               | Page                    | : 1 of 9                        |
| Client       | : EDP Consultants Pty Ltd | Laboratory              | : Environmental Division Sydney |
| Contact      | : CRISTIANE FLORIDO       | Telephone               | : +61-2-8784 8555               |
| Project      | : S-05667.095             | Date Samples Received   | : 29-Feb-2024                   |
| Site         | : ----                    | Issue Date              | : 07-Mar-2024                   |
| Sampler      | : GONAZLO SERMA DIAZ      | No. of samples received | : 13                            |
| Order number | : ----                    | No. of samples analysed | : 11                            |

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, **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: **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 |
| EA055: Moisture Content                                                                                                                                                                                                         |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EA055)<br>EDP-M7.BH99A-QA2                                                                                                                                                                        | 27-Feb-2024 | ----                     | ----               | ----       | 05-Mar-2024   | 12-Mar-2024      | ✓          |
| EA055: Moisture Content (Dried @ 105-110°C)                                                                                                                                                                                     |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EA055)<br>EDP-M7.BH99A-0.2                                                                                                                                                                        | 01-Mar-2024 | ----                     | ----               | ----       | 05-Mar-2024   | 15-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EA055)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,                       | 27-Feb-2024 | ----                     | ----               | ----       | 05-Mar-2024   | 12-Mar-2024      | ✓          |
| EA200: AS 4964 - 2004 Identification of Asbestos in Soils                                                                                                                                                                       |             |                          |                    |            |               |                  |            |
| Snap Lock Bag (EA200)<br>EDP-M7.BH99A-0.2                                                                                                                                                                                       | 01-Mar-2024 | ----                     | ----               | ----       | 05-Mar-2024   | 28-Aug-2024      | ✓          |
| Snap Lock Bag (EA200)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,                                      | 27-Feb-2024 | ----                     | ----               | ----       | 05-Mar-2024   | 25-Aug-2024      | ✓          |
| EG005(ED093)T: Total Metals by ICP-AES                                                                                                                                                                                          |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EG005T)<br>EDP-M7.BH99A-0.2                                                                                                                                                                       | 01-Mar-2024 | 05-Mar-2024              | 28-Aug-2024        | ✓          | 07-Mar-2024   | 28-Aug-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EG005T)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,<br>EDP-M7.BH99A-QA2 | 27-Feb-2024 | 05-Mar-2024              | 25-Aug-2024        | ✓          | 06-Mar-2024   | 25-Aug-2024      | ✓          |



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                                                                                                                                                                                       |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EG035T)<br>EDP-M7.BH99A-0.2                                                                                                                                                                       | 01-Mar-2024 | 05-Mar-2024              | 29-Mar-2024        | ✔          | 07-Mar-2024   | 29-Mar-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EG035T)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,<br>EDP-M7.BH99A-QA2 | 27-Feb-2024 | 05-Mar-2024              | 26-Mar-2024        | ✔          | 07-Mar-2024   | 26-Mar-2024      | ✔          |
| EP066: Polychlorinated Biphenyls (PCB)                                                                                                                                                                                          |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP066)<br>EDP-M7.BH99A-0.2                                                                                                                                                                        | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP066)<br>EDP-M7.BH99A-6.5                                                                                                                                                                        | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✔          | 05-Mar-2024   | 14-Apr-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP066)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5                                            | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |
| EP068A: Organochlorine Pesticides (OC)                                                                                                                                                                                          |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP068)<br>EDP-M7.BH99A-0.2                                                                                                                                                                        | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP068)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5                       | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |
| EP068B: Organophosphorus Pesticides (OP)                                                                                                                                                                                        |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP068)<br>EDP-M7.BH99A-0.2                                                                                                                                                                        | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP068)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5                       | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |
| EP075(SIM)B: Polynuclear Aromatic Hydrocarbons                                                                                                                                                                                  |             |                          |                    |            |               |                  |            |
| Soil Glass Jar - Unpreserved (EP075(SIM))<br>EDP-M7.BH99A-0.2                                                                                                                                                                   | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |
| Soil Glass Jar - Unpreserved (EP075(SIM))<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5                  | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✔          | 06-Mar-2024   | 14-Apr-2024      | ✔          |



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 |
| EP080/071: Total Petroleum Hydrocarbons                                                                                                                                                                                        |             |                          |                    |            |               |                  |            |
| Miscellaneous Glass Bottle - unpreserved (EP080)<br>TRIP BLANK                                                                                                                                                                 | 26-Feb-2024 | 05-Mar-2024              | 11-Mar-2024        | ✓          | 06-Mar-2024   | 11-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-M7.BH99A-0.2                                                                                                                                                                       | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✓          | 06-Mar-2024   | 15-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-M7.BH99A-0.2                                                                                                                                                                       | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✓          | 07-Mar-2024   | 14-Apr-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,<br>EDP-M7.BH99A-QA2 | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✓          | 06-Mar-2024   | 12-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,<br>EDP-M7.BH99A-QA2 | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✓          | 07-Mar-2024   | 14-Apr-2024      | ✓          |
| EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions                                                                                                                                                                |             |                          |                    |            |               |                  |            |
| Miscellaneous Glass Bottle - unpreserved (EP080)<br>TRIP BLANK                                                                                                                                                                 | 26-Feb-2024 | 05-Mar-2024              | 11-Mar-2024        | ✓          | 06-Mar-2024   | 11-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-M7.BH99A-0.2                                                                                                                                                                       | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✓          | 06-Mar-2024   | 15-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-M7.BH99A-0.2                                                                                                                                                                       | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✓          | 07-Mar-2024   | 14-Apr-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,<br>EDP-M7.BH99A-QA2 | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✓          | 06-Mar-2024   | 12-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP071)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,<br>EDP-M7.BH99A-QA2 | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✓          | 07-Mar-2024   | 14-Apr-2024      | ✓          |
| EP080: BTEXN                                                                                                                                                                                                                   |             |                          |                    |            |               |                  |            |
| Miscellaneous Glass Bottle - unpreserved (EP080)<br>TRIP BLANK, TRIP SPIKE                                                                                                                                                     | 26-Feb-2024 | 05-Mar-2024              | 11-Mar-2024        | ✓          | 06-Mar-2024   | 11-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-M7.BH99A-0.2                                                                                                                                                                       | 01-Mar-2024 | 05-Mar-2024              | 15-Mar-2024        | ✓          | 06-Mar-2024   | 15-Mar-2024      | ✓          |
| Soil Glass Jar - Unpreserved (EP080)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-5.0,<br>EDP-M7.BH99A-6.5,<br>EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>EDP-M7.BH99A-5.5,<br>EDP-M7.BH99A-QA2 | 27-Feb-2024 | 05-Mar-2024              | 12-Mar-2024        | ✓          | 06-Mar-2024   | 12-Mar-2024      | ✓          |





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 |
| EP231A: Perfluoroalkyl Sulfonic Acids                                                |                                                                          |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.2                                           | 01-Mar-2024                                                              | 04-Mar-2024              | 28-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-QA2 | EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>27-Feb-2024 | 04-Mar-2024              | 25-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |
| EP231B: Perfluoroalkyl Carboxylic Acids                                              |                                                                          |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.2                                           | 01-Mar-2024                                                              | 04-Mar-2024              | 28-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-QA2 | EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>27-Feb-2024 | 04-Mar-2024              | 25-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids                                           |                                                                          |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.2                                           | 01-Mar-2024                                                              | 04-Mar-2024              | 28-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-QA2 | EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>27-Feb-2024 | 04-Mar-2024              | 25-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |
| EP231P: PFAS Sums                                                                    |                                                                          |                          |                    |            |               |                  |            |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.2                                           | 01-Mar-2024                                                              | 04-Mar-2024              | 28-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |
| HDPE Soil Jar (EP231X)<br>EDP-M7.BH99A-0.5,<br>EDP-M7.BH99A-2.5,<br>EDP-M7.BH99A-QA2 | EDP-M7.BH99A-2.0 - EDP-M7.BH99A-1.0,<br>EDP-M7.BH99A-3.5,<br>27-Feb-2024 | 04-Mar-2024              | 25-Aug-2024        | ✔          | 06-Mar-2024   | 13-Apr-2024      | ✔          |



## Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

| Quality Control Sample Type                          |            | Count |         | Rate (%) |          |            | Quality Control Specification  |
|------------------------------------------------------|------------|-------|---------|----------|----------|------------|--------------------------------|
| Analytical Methods                                   | Method     | QC    | Regular | Actual   | Expected | Evaluation |                                |
|                                                      |            |       |         |          |          |            |                                |
| Laboratory Duplicates (DUP)                          |            |       |         |          |          |            |                                |
| Moisture Content                                     | EA055      | 4     | 40      | 10.00    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 8       | 12.50    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 2     | 14      | 14.29    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS                                   | EP068      | 1     | 8       | 12.50    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB)                      | EP066      | 1     | 8       | 12.50    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 3     | 29      | 10.34    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 3     | 29      | 10.34    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 9       | 11.11    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 4     | 32      | 12.50    | 10.00    | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Laboratory Control Samples (LCS)                     |            |       |         |          |          |            |                                |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 1     | 14      | 7.14     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS                                   | EP068      | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB)                      | EP066      | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 2     | 29      | 6.90     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 2     | 29      | 6.90     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 9       | 11.11    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 2     | 32      | 6.25     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Method Blanks (MB)                                   |            |       |         |          |          |            |                                |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 1     | 14      | 7.14     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS                                   | EP068      | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB)                      | EP066      | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 2     | 29      | 6.90     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 2     | 29      | 6.90     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 9       | 11.11    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 2     | 32      | 6.25     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Matrix Spikes (MS)                                   |            |       |         |          |          |            |                                |
| PAH/Phenols (SIM)                                    | EP075(SIM) | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | 1     | 14      | 7.14     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS                                   | EP068      | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB)                      | EP066      | 1     | 8       | 12.50    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS                                | EG035T     | 2     | 29      | 6.90     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES                              | EG005T     | 2     | 29      | 6.90     | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction                          | EP071      | 1     | 9       | 11.11    | 5.00     | ✓          | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX                                   | EP080      | 2     | 32      | 6.25     | 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 |                               |



## 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Total Soluble Salts                                  | EA014      | SOIL   | In house: The concentration of Total Soluble Salts in a soil is calculated from the Electrical conductivity of a water extract. This method is compliant with NEPM Schedule B(3).                                                                                                                                                                                                                                                                                                                                                                                                            |
| Moisture Content                                     | EA055      | SOIL   | In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Asbestos Identification in Soils                     | EA200      | SOIL   | AS 4964 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Total Metals by ICP-AES                              | EG005T     | SOIL   | In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)                                                                                                                                                                                                |
| Total Mercury by FIMS                                | EG035T     | SOIL   | In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl <sub>2</sub> ) (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 <sub>2</sub> 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)                                                                                   |
| Polychlorinated Biphenyls (PCB)                      | EP066      | SOIL   | In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).                                                                                                                                                                                                                                                                                                                                                                 |
| Pesticides by GCMS                                   | EP068      | SOIL   | In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).                                                                                                                                                                                                                                                                                                                                                              |
| TRH - Semivolatile Fraction                          | EP071      | SOIL   | In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).                                                                                                                                                                                                                                                                                                                                                                                            |
| PAH/Phenols (SIM)                                    | EP075(SIM) | SOIL   | In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)                                                                                                                                                                                                                                                                                                                                     |
| TRH Volatiles/BTEX                                   | EP080      | SOIL   | In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.                                                                                                                                                                                                                                                                                                                                                          |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X     | SOIL   | In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements. |

| Preparation Methods | Method | Matrix | Method Descriptions |
|---------------------|--------|--------|---------------------|
|---------------------|--------|--------|---------------------|





| Preparation Methods                                        | Method | Matrix | Method Descriptions                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------|--------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:5 solid / water leach for soluble analytes               | EN34   | SOIL   | 10 g of soil is mixed with 50 mL of reagent grade water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.                                                                                                                                                                |
| Hot Block Digest for metals in soils sediments and sludges | EN69   | SOIL   | In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3). |
| Methanolic Extraction of Soils for Purge and Trap          | ORG16  | SOIL   | In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.                                                                                                                                                                                                                                                    |
| Tumbler Extraction of Solids                               | ORG17  | SOIL   | In house: Mechanical agitation (tumbler). 10g of sample, Na <sub>2</sub> SO <sub>4</sub> and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.                                                                                                                              |
| QuEChERS Extraction of Solids                              | ORG71  | SOIL   | In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.                                           |

## Request for Laboratory Services and Chain of Custody Form

Received Date: 4.3.24  
Logged-in Date:

Received By:

Time of Receipt: 4:50

Laboratory Section:

Cooling Method:

Cooler Sealed:

☐ Topack ☐ None

Samples Intact:

Temperature:

☐ Ambient ☐ Chilled

8.0

COD must pay via cheque or credit card before analysis is commenced. AMEX &amp; Diners cards incur a 5% surcharge.

INVOICE TO:

Name: Cristiane Florido  
Company: EDP Consultants Pty Ltd  
Address: Level 4 38 Oxley Street  
St Leonards NSW 2065  
Email: cristiane.florido@edp-au.com  
Phone: 0413 378 102 Fax:

Quote #:

Attached Parameter List:

Replacement Sample Containers Required:

Results Required By:

Urgent TA requires lab approval

Notes:

Client Information

PO No.:

Project No.:

S-05667.095

Company Name: EDP Consultants Pty Ltd

Contact Name: Cristiane Florido

Samplers:

Gonzalo Serna Diaz

Address: Level 4 38 Oxley Street, St Leonards NSW 2065

Phone Number: 0413 378 102 / 0406 266 122

After Hours Phone Number:

NA

Fax Number: NA

cristiane.florido@edp-au.com; gonzalo.serna.diaz@edp-au.com; Haneen.Safadi@edp-au.com

Note: Results will be sent via email to an unlimited number of addresses for no additional fee. In the absence of email, fax is available upon request.

Indicate results format (please check one):

Email &amp; Estd.:

Fax:

## SAMPLE INFORMATION

## Analysis Requested

| Lab Sample ID | Sample Identifier                 | Date Sampled | Matrix:<br>Soil<br>Water<br>Other | # of Bags | # of Bottles | Analysis Requested |     |                               |                  |     |          |          |         |      |                                                   | Notes |
|---------------|-----------------------------------|--------------|-----------------------------------|-----------|--------------|--------------------|-----|-------------------------------|------------------|-----|----------|----------|---------|------|---------------------------------------------------|-------|
|               |                                   |              |                                   |           |              | Si6                | Si5 | Asbestos (presence / absence) | PFAS Short suite | CRS | Salinity | TRI/BTEX | Ph/Ptox | HOLD |                                                   |       |
| 1             | EDP-DSLM7.BH99A-0.2 ✓             | 27/02/2024   | S                                 | 2         | 2            | X                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 2             | EDP-DSLM7BH99A-0.5 ✓              | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 3             | EDP-DSLM7BH99A-1.0 <i>2.0</i>     | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 4             | EDP-DSLM7BH99A-1.5 <i>5.0</i>     | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 5             | EDP-DSLM7BH99A-2.5 ✓              | 27/02/2024   | S                                 | 2         | 2            | X                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 6             | EDP-DSLM7BH99A-3.0 <i>5.0</i>     | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 7             | EDP-DSLM7BH99A-3.5 <del>3.0</del> | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             | x                |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 8             | EDP-DSLM7BH99A-5.0 ✓              | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             |                  |     |          |          |         |      | Keep samples if CRS sample required in the future |       |
| 9             | EDP-DSLM7BH99A-5.5 ✓              | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             |                  |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 10            | EDP-DSLM7BH99A-6.5 ✓              | 27/02/2024   | S                                 | 2         | 2            | x                  |     | x                             |                  |     | x        |          |         |      | Keep samples if CRS sample required in the future |       |
| 11            | EDP-DSLM7.BH99A.QC1 ✓             | 27/02/2024   | S                                 |           | 2            |                    |     | x                             |                  | x   |          |          |         |      | Send to SGS for C10 and Pfas short suite analysis |       |
| 12            | EDP-DSLM7.BH99A.QC2 ✓             | 27/02/2024   | S                                 |           | 2            |                    |     | x                             |                  | x   |          |          |         |      |                                                   |       |
|               |                                   |              |                                   |           |              | 15                 | 2   | 15                            | 14               | 1   | 11       |          | 0       | 0    |                                                   |       |

Sampled By:

Gonzalo Serna Diaz

Date: 27/02/2024

Relinquished By:

Picked up by Courier

Date: 28/02/2024

Time:

Environmental Division  
Sydney  
Work Order Reference  
ES2406769SGS EHS Sydney COC  
SE261677

REC: FAD: 20/02/24 3:32

EC1  
SGS



## SAMPLE RECEIPT ADVICE

SE261677

### CLIENT DETAILS

Contact Gonzalo Diaz  
Client EDP CONSULTANTS PTY LTD  
Address LEVEL 4, 38 OXLEY STREET  
ST LEONARDS NSW 2065

Telephone 61 2 84845810  
Facsimile (Not specified)  
Email gonzalo.serna.diaz@edp-au.com

Project **S-05667.095**  
Order Number **S-05667.095**  
Samples 1

### LABORATORY DETAILS

Manager Huong Crawford  
Laboratory SGS Alexandria Environmental  
Address Unit 16, 33 Maddox St  
Alexandria NSW 2015

Telephone +61 2 8594 0400  
Facsimile +61 2 8594 0499  
Email au.environmental.sydney@sgs.com

Samples Received Mon 4/3/2024  
Report Due Tue 12/3/2024  
SGS Reference **SE261677**

### SUBMISSION DETAILS

This is to confirm that 1 sample was received on Monday 4/3/2024. Results are expected to be ready by COB Tuesday 12/3/2024. Please quote SGS reference SE261677 when making enquiries. Refer below for details relating to sample integrity upon receipt.

|                                        |          |                                 |          |
|----------------------------------------|----------|---------------------------------|----------|
| Sample counts by matrix                | 1 Soil   | Type of documentation received  | COC      |
| Date documentation received            | 4/3/2024 | Samples received in good order  | Yes      |
| Samples received without headspace     | Yes      | Sample temperature upon receipt | 8.0°C    |
| Sample container provider              | SGS      | Turnaround time requested       | Standard |
| Samples received in correct containers | Yes      | Sufficient sample for analysis  | Yes      |
| Sample cooling method                  | Ice      | Samples clearly labelled        | Yes      |
| Complete documentation received        | Yes      |                                 |          |

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

### COMMENTS

PFAS subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420.

This document is issued by the Company under its General Conditions of Service accessible at [www.sgs.com/en/Terms-and-Conditions.aspx](http://www.sgs.com/en/Terms-and-Conditions.aspx). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



SAMPLE RECEIPT ADVICE

SE261677

CLIENT DETAILS

Client EDP CONSULTANTS PTY LTD

Project S-05667.095

SUMMARY OF ANALYSIS

| No. | Sample ID            | Mercury in Soil | PAH (Polynuclear Aromatic Hydrocarbons) in Soil | Total Recoverable Elements in Soil/Waste | TRH (Total Recoverable Hydrocarbons) in Soil | VOC's in Soil | Volatile Petroleum Hydrocarbons in Soil |
|-----|----------------------|-----------------|-------------------------------------------------|------------------------------------------|----------------------------------------------|---------------|-----------------------------------------|
| 001 | EDP-DSI.M7.BH99A.QC1 | 1               | 26                                              | 7                                        | 10                                           | 11            | 7                                       |

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.  
The numbers shown in the table indicate the number of results requested in each package.  
Please indicate as soon as possible should your request differ from these details .  
Testing as per this table shall commence immediately unless the client intervenes with a correction .





SAMPLE RECEIPT ADVICE

SE261677

CLIENT DETAILS

Client EDP CONSULTANTS PTY LTD

Project S-05667.095

SUMMARY OF ANALYSIS

| No. | Sample ID            | Moisture Content | Per- and Polyfluoroalkyl Substances (PFAS) in |
|-----|----------------------|------------------|-----------------------------------------------|
| 001 | EDP-DSI.M7.BH99A.QC1 | 1                | 23                                            |

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.  
The numbers shown in the table indicate the number of results requested in each package.  
Please indicate as soon as possible should your request differ from these details .  
Testing as per this table shall commence immediately unless the client intervenes with a correction .

## CLIENT DETAILS

Contact Gonzalo Diaz  
Client EDP CONSULTANTS PTY LTD  
Address LEVEL 4, 38 OXLEY STREET  
ST LEONARDS NSW 2065

Telephone 61 2 84845810  
Facsimile (Not specified)  
Email gonzalo.erna.diaz@edp-au.com

Project **S-05667.095**  
Order Number **S-05667.095**  
Samples 1

## LABORATORY DETAILS

Manager Huong Crawford  
Laboratory SGS Alexandria Environmental  
Address Unit 16, 33 Maddox St  
Alexandria NSW 2015

Telephone +61 2 8594 0400  
Facsimile +61 2 8594 0499  
Email au.environmental.sydney@sgs.com

SGS Reference **SE261677 R0**  
Date Received 4/3/2024  
Date Reported 12/3/2024

## COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

PFAS subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420. Report No. ME348146 R0

MA-1523: Majority of surrogate recoveries within acceptance criteria.

## SIGNATORIES



**Akhreeqar BENIAMEEN**  
Chemist



**Dong LIANG**  
Metals/Inorganics Team Leader



**Ly Kim HA**  
Organic Section Head



**Shane MCDERMOTT**  
Inorganic/Metals Chemist



ANALYTICAL RESULTS

SE261677 R0

VOC's in Soil [AN433]    Tested: 5/3/2024

|                    |       |     | EDP-DSI.M7.BH99A.C |
|--------------------|-------|-----|--------------------|
|                    |       |     | C1                 |
|                    |       |     | SOIL               |
|                    |       |     | -                  |
|                    |       |     | 27/2/2024          |
|                    |       |     | SE261677.001       |
| PARAMETER          | UOM   | LOR |                    |
| Benzene            | mg/kg | 0.1 | <0.1               |
| Toluene            | mg/kg | 0.1 | <0.1               |
| Ethylbenzene       | mg/kg | 0.1 | <0.1               |
| m/p-xylene         | mg/kg | 0.2 | <0.2               |
| o-xylene           | mg/kg | 0.1 | <0.1               |
| Total Xylenes*     | mg/kg | 0.3 | <0.3               |
| Total BTEX*        | mg/kg | 0.6 | <0.6               |
| Naphthalene (VOC)* | mg/kg | 0.1 | <0.1               |



ANALYTICAL RESULTS

SE261677 R0

Volatile Petroleum Hydrocarbons in Soil [AN433]    Tested: 5/3/2024

|                            |       |     | EDP-DSI.M7.BH99A.C |
|----------------------------|-------|-----|--------------------|
|                            |       |     | C1                 |
|                            |       |     | SOIL               |
|                            |       |     | -                  |
|                            |       |     | 27/2/2024          |
| PARAMETER                  | UOM   | LOR | SE261677.001       |
| TRH C6-C9                  | mg/kg | 20  | <20                |
| Benzene (F0)               | mg/kg | 0.1 | <0.1               |
| TRH C6-C10                 | mg/kg | 25  | <25                |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25                |





ANALYTICAL RESULTS

SE261677 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403]    Tested: 5/3/2024

|                                 |       |     | EDP-DSI.M7.BH99A.C |
|---------------------------------|-------|-----|--------------------|
|                                 |       |     | C1                 |
|                                 |       |     | SOIL               |
|                                 |       |     | -                  |
|                                 |       |     | 27/2/2024          |
|                                 |       |     | SE261677.001       |
| PARAMETER                       | UOM   | LOR |                    |
| TRH C10-C14                     | mg/kg | 20  | <20                |
| TRH C15-C28                     | mg/kg | 45  | <45                |
| TRH C29-C36                     | mg/kg | 45  | <b>68</b>          |
| TRH C37-C40                     | mg/kg | 100 | <100               |
| TRH >C10-C16                    | mg/kg | 25  | <25                |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25                |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <b>94</b>          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120               |
| TRH C10-C36 Total               | mg/kg | 110 | <110               |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210               |

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420]    Tested: 5/3/2024

|                                        |             |     | EDP-DSI.M7.BH99A.C |
|----------------------------------------|-------------|-----|--------------------|
|                                        |             |     | C1                 |
|                                        |             |     | SOIL               |
|                                        |             |     | -                  |
|                                        |             |     | 27/2/2024          |
|                                        |             |     | SE261677.001       |
| PARAMETER                              | UOM         | LOR |                    |
| Naphthalene                            | mg/kg       | 0.1 | <0.1               |
| 2-methylnaphthalene                    | mg/kg       | 0.1 | <0.1               |
| 1-methylnaphthalene                    | mg/kg       | 0.1 | <0.1               |
| Acenaphthylene                         | mg/kg       | 0.1 | <0.1               |
| Acenaphthene                           | mg/kg       | 0.1 | <0.1               |
| Fluorene                               | mg/kg       | 0.1 | <0.1               |
| Phenanthrene                           | mg/kg       | 0.1 | <0.1               |
| Anthracene                             | mg/kg       | 0.1 | <0.1               |
| Fluoranthene                           | mg/kg       | 0.1 | <0.1               |
| Pyrene                                 | mg/kg       | 0.1 | <0.1               |
| Benzo(a)anthracene                     | mg/kg       | 0.1 | <0.1               |
| Chrysene                               | mg/kg       | 0.1 | <0.1               |
| Benzo(b&j)fluoranthene                 | mg/kg       | 0.1 | <0.1               |
| Benzo(k)fluoranthene                   | mg/kg       | 0.1 | <0.1               |
| Benzo(a)pyrene                         | mg/kg       | 0.1 | <0.1               |
| Indeno(1,2,3-cd)pyrene                 | mg/kg       | 0.1 | <0.1               |
| Dibenzo(ah)anthracene                  | mg/kg       | 0.1 | <0.1               |
| Benzo(ghi)perylene                     | mg/kg       | 0.1 | <0.1               |
| Carcinogenic PAHs, BaP TEQ <LOR=0*     | TEQ (mg/kg) | 0.2 | <0.2               |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | TEQ (mg/kg) | 0.3 | <0.3               |
| Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | TEQ (mg/kg) | 0.2 | <0.2               |
| Total PAH (18)                         | mg/kg       | 0.8 | <0.8               |
| Total PAH (NEPM/WHO 16)                | mg/kg       | 0.8 | <0.8               |



ANALYTICAL RESULTS

SE261677 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320]    Tested: 5/3/2024

|              |       |     | EDP-DSI.M7.BH99A.C |
|--------------|-------|-----|--------------------|
|              |       |     | C1                 |
|              |       |     | SOIL               |
|              |       |     | -                  |
|              |       |     | 27/2/2024          |
|              |       |     | SE261677.001       |
| PARAMETER    | UOM   | LOR |                    |
| Arsenic, As  | mg/kg | 1   | 5                  |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3               |
| Chromium, Cr | mg/kg | 0.5 | 14                 |
| Copper, Cu   | mg/kg | 0.5 | 18                 |
| Lead, Pb     | mg/kg | 1   | 27                 |
| Nickel, Ni   | mg/kg | 0.5 | 8.8                |
| Zinc, Zn     | mg/kg | 2   | 100                |



ANALYTICAL RESULTS

SE261677 R0

Mercury in Soil [AN312]    Tested: 7/3/2024

|           |       |      |                    |
|-----------|-------|------|--------------------|
|           |       |      | EDP-DSI.M7.BH99A.C |
|           |       |      | C1                 |
|           |       |      | SOIL               |
|           |       |      | -                  |
|           |       |      | 27/2/2024          |
| PARAMETER | UOM   | LOR  | SE261677.001       |
| Mercury   | mg/kg | 0.05 | <0.05              |





ANALYTICAL RESULTS

SE261677 R0

Moisture Content [AN002]    Tested: 5/3/2024

|            |      |     |                    |
|------------|------|-----|--------------------|
|            |      |     | EDP-DSI.M7.BH99A.C |
|            |      |     | C1                 |
|            |      |     | SOIL               |
|            |      |     | -                  |
|            |      |     | 27/2/2024          |
|            |      |     | SE261677.001       |
| PARAMETER  | UOM  | LOR |                    |
| % Moisture | %w/w | 1   | 16.9               |

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523]    Tested: 12/3/2024

|                                                       |       |        | EDP-DSI.M7.BH99A.C |
|-------------------------------------------------------|-------|--------|--------------------|
|                                                       |       |        | C1                 |
|                                                       |       |        | SOIL               |
|                                                       |       |        | -                  |
|                                                       |       |        | 27/2/2024          |
|                                                       |       |        | SE261677.001       |
| PARAMETER                                             | UOM   | LOR    |                    |
| Perfluorobutanoic acid (PFBA)                         | mg/kg | 0.0016 | <0.0016            |
| Perfluoropentanoic acid (PFPeA)                       | mg/kg | 0.0016 | <0.0016            |
| Perfluorohexanoic acid (PFHxA)                        | mg/kg | 0.0016 | <0.0016            |
| Perfluoroheptanoic acid (PFHpA)                       | mg/kg | 0.0016 | <0.0016            |
| Perfluorooctanoic Acid (PFOA)                         | mg/kg | 0.0008 | <b>0.0009</b>      |
| Perfluorobutane sulfonate (PFBS)                      | mg/kg | 0.0016 | <0.0016            |
| Perfluoropentane sulfonate (PFPeS)                    | mg/kg | 0.0016 | <0.0016            |
| Perfluorohexane sulfonate (PFHxS)                     | mg/kg | 0.0016 | <0.0016            |
| Perfluoroheptane sulfonate (PFHpS)                    | mg/kg | 0.0016 | <0.0016            |
| Perfluorooctane sulfonate (PFOS)                      | mg/kg | 0.0016 | <0.0016            |
| Sum PFOS and PFHXS                                    | mg/kg | 0.0016 | <0.0016            |
| Perfluorononane sulfonate (PFNS)                      | mg/kg | 0.0016 | <0.0016            |
| 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS) | mg/kg | 0.0016 | <0.0016            |
| 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS) | mg/kg | 0.0016 | <0.0016            |
| 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS) | mg/kg | 0.0016 | <0.0016            |

## METHOD

## METHODOLOGY SUMMARY

### AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

### AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

### AN040

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by AAS or ICP as per USEPA Method 200.8.

### AN312

Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500

### AN403

Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.

### AN403

Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.

### AN403

The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.

### AN420

(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

Total PAH calculated from individual analyte detections at or above the limit of reporting.

### AN420

Carcinogenic PAHs may be expressed as Benzo(a)pyrene equivalents by applying the BaP toxicity equivalence factor (NEPM 1999, June 2013, B7). These can be reported as the individual PAHs and as a sum of carcinogenic PAHs. The sum is reported three ways, the first assuming all <LOR results are zero, the second assuming all <LOR results are half the LOR and the third assuming all <LOR results are the LOR.

### AN433

VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

### MA-1523

This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

FOOTNOTES

|     |                                                                    |     |                                   |     |                                    |
|-----|--------------------------------------------------------------------|-----|-----------------------------------|-----|------------------------------------|
| *   | NATA accreditation does not cover the performance of this service. | -   | Not analysed.                     | UOM | Unit of Measure.                   |
| **  | Indicative data, theoretical holding time exceeded.                | NVL | Not validated.                    | LOR | Limit of Reporting.                |
|     |                                                                    | IS  | Insufficient sample for analysis. | ↑↓  | Raised/lowered Limit of Reporting. |
| *** | Indicates that both * and ** apply.                                | LNR | Sample listed, but not received.  |     |                                    |

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.  
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be  $1.6 / 2$  (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the  $\pm$  sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: [www.sgs.com.au/en-gb/environment-health-and-safety](http://www.sgs.com.au/en-gb/environment-health-and-safety).

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## STATEMENT OF QA/QC PERFORMANCE

SE261677 R0

### CLIENT DETAILS

Contact Gonzalo Diaz  
Client EDP CONSULTANTS PTY LTD  
Address LEVEL 4, 38 OXLEY STREET  
ST LEONARDS NSW 2065

Telephone 61 2 84845810  
Facsimile (Not specified)  
Email gonzalo.serna.diaz@edp-au.com

Project **S-05667.095**  
Order Number **S-05667.095**  
Samples 1

### LABORATORY DETAILS

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Laboratory SGS Alexandria Environmental  
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Alexandria NSW 2015

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Email au.environmental.sydney@sgs.com

SGS Reference **SE261677 R0**  
Date Received 04 Mar 2024  
Date Reported 12 Mar 2024

### COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

|              |                                                                     |        |
|--------------|---------------------------------------------------------------------|--------|
| Matrix Spike | Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES | 1 item |
|              | TRH (Total Recoverable Hydrocarbons) in Soil                        | 1 item |

### SAMPLE SUMMARY

|                                        |          |                                 |          |
|----------------------------------------|----------|---------------------------------|----------|
| Sample counts by matrix                | 1 Soil   | Type of documentation received  | COC      |
| Date documentation received            | 4/3/2024 | Samples received in good order  | Yes      |
| Samples received without headspace     | Yes      | Sample temperature upon receipt | 8.0°C    |
| Sample container provider              | SGS      | Turnaround time requested       | Standard |
| Samples received in correct containers | Yes      | Sufficient sample for analysis  | Yes      |
| Sample cooling method                  | Ice      | Samples clearly labelled        | Yes      |
| Complete documentation received        | Yes      |                                 |          |

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH99A.QC1 | SE261677.001 | LB305934 | 27 Feb 2024 | 04 Mar 2024 | 26 Mar 2024    | 07 Mar 2024 | 26 Mar 2024  | 07 Mar 2024 |

### Moisture Content

Method: ME-(AU)-[ENV]AN002

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH99A.QC1 | SE261677.001 | LB305932 | 27 Feb 2024 | 04 Mar 2024 | 12 Mar 2024    | 05 Mar 2024 | 10 Mar 2024  | 07 Mar 2024 |

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH99A.QC1 | SE261677.001 | LB305918 | 27 Feb 2024 | 04 Mar 2024 | 12 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |

### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH99A.QC1 | SE261677.001 | LB305933 | 27 Feb 2024 | 04 Mar 2024 | 25 Aug 2024    | 05 Mar 2024 | 25 Aug 2024  | 07 Mar 2024 |

### TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH99A.QC1 | SE261677.001 | LB305918 | 27 Feb 2024 | 04 Mar 2024 | 12 Mar 2024    | 05 Mar 2024 | 14 Apr 2024  | 07 Mar 2024 |

### VOC's in Soil

Method: ME-(AU)-[ENV]AN433

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH99A.QC1 | SE261677.001 | LB305919 | 27 Feb 2024 | 04 Mar 2024 | 12 Mar 2024    | 05 Mar 2024 | 12 Mar 2024  | 07 Mar 2024 |

### Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

| Sample Name          | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|----------------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| EDP-DSI.M7.BH99A.QC1 | SE261677.001 | LB305919 | 27 Feb 2024 | 04 Mar 2024 | 12 Mar 2024    | 05 Mar 2024 | 12 Mar 2024  | 07 Mar 2024 |

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|------------------------------|----------------------|---------------|-------|-----------|------------|
| 2-fluorobiphenyl (Surrogate) | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 70 - 130% | 96         |
| d14-p-terphenyl (Surrogate)  | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 70 - 130% | 108        |
| d5-nitrobenzene (Surrogate)  | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 70 - 130% | 118        |

**Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples**

Method: MA-1523

| Parameter                                                     | Sample Name          | Sample Number | Units | Criteria | Recovery % |
|---------------------------------------------------------------|----------------------|---------------|-------|----------|------------|
| (13C3-PFBS) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 103        |
| (13C3-PFHxS) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 95         |
| (13C4_PFOA) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 96         |
| (13C4-PFBA) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 104        |
| (13C4-PFHpA) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 87         |
| (13C5-PFHxA) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 102        |
| (13C5-PFPeA) Isotopically Labelled Internal Recovery Standard | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 103        |
| (13C8-PFOS) Isotopically Labelled Internal Recovery Standard  | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 0 - 150% | 90         |

**VOC's in Soil**

Method: ME-(AU)-[ENV]AN433

| Parameter                         | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------|----------------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate)    | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 60 - 130% | 86         |
| d4-1,2-dichloroethane (Surrogate) | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 60 - 130% | 82         |
| d8-toluene (Surrogate)            | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 60 - 130% | 85         |

**Volatile Petroleum Hydrocarbons in Soil**

Method: ME-(AU)-[ENV]AN433

| Parameter                         | Sample Name          | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------|----------------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate)    | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 60 - 130% | 86         |
| d4-1,2-dichloroethane (Surrogate) | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 60 - 130% | 82         |
| d8-toluene (Surrogate)            | EDP-DSI.M7.BH99A.QC1 | SE261677.001  | %     | 60 - 130% | 85         |

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

**Mercury in Soil**

Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result |
|---------------|-----------|-------|------|--------|
| LB305934.001  | Mercury   | mg/kg | 0.05 | <0.05  |

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result |
|---------------|------------------------------|-------|-----|--------|
| LB305918.001  | Naphthalene                  | mg/kg | 0.1 | <0.1   |
|               | 2-methylnaphthalene          | mg/kg | 0.1 | <0.1   |
|               | 1-methylnaphthalene          | mg/kg | 0.1 | <0.1   |
|               | Acenaphthylene               | mg/kg | 0.1 | <0.1   |
|               | Acenaphthene                 | mg/kg | 0.1 | <0.1   |
|               | Fluorene                     | mg/kg | 0.1 | <0.1   |
|               | Phenanthrene                 | mg/kg | 0.1 | <0.1   |
|               | Anthracene                   | mg/kg | 0.1 | <0.1   |
|               | Fluoranthene                 | mg/kg | 0.1 | <0.1   |
|               | Pyrene                       | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)anthracene           | mg/kg | 0.1 | <0.1   |
|               | Chrysene                     | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)pyrene               | mg/kg | 0.1 | <0.1   |
|               | Indeno(1,2,3-cd)pyrene       | mg/kg | 0.1 | <0.1   |
|               | Dibenzo(ah)anthracene        | mg/kg | 0.1 | <0.1   |
|               | Benzo(ghi)perylene           | mg/kg | 0.1 | <0.1   |
|               | Total PAH (18)               | mg/kg | 0.8 | <0.8   |
| Surrogates    | d5-nitrobenzene (Surrogate)  | %     | -   | 106    |
|               | 2-fluorobiphenyl (Surrogate) | %     | -   | 96     |
|               | d14-p-terphenyl (Surrogate)  | %     | -   | 97     |

**Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES**

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB305933.001  | Arsenic, As  | mg/kg | 1   | <1     |
|               | Cadmium, Cd  | mg/kg | 0.3 | <0.3   |
|               | Chromium, Cr | mg/kg | 0.5 | <0.5   |
|               | Copper, Cu   | mg/kg | 0.5 | <0.5   |
|               | Nickel, Ni   | mg/kg | 0.5 | <0.5   |
|               | Lead, Pb     | mg/kg | 1   | <1     |
|               | Zinc, Zn     | mg/kg | 2   | <2.0   |

**TRH (Total Recoverable Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter         | Units | LOR | Result |
|---------------|-------------------|-------|-----|--------|
| LB305918.001  | TRH C10-C14       | mg/kg | 20  | <20    |
|               | TRH C15-C28       | mg/kg | 45  | <45    |
|               | TRH C29-C36       | mg/kg | 45  | <45    |
|               | TRH C37-C40       | mg/kg | 100 | <100   |
|               | TRH C10-C36 Total | mg/kg | 110 | <110   |

**VOC's in Soil**

Method: ME-(AU)-[ENV]AN433

| Sample Number |                                  | Parameter                         | Units | LOR | Result |
|---------------|----------------------------------|-----------------------------------|-------|-----|--------|
| LB305919.001  | Monocyclic Aromatic Hydrocarbons | Benzene                           | mg/kg | 0.1 | <0.1   |
|               |                                  | Toluene                           | mg/kg | 0.1 | <0.1   |
|               |                                  | Ethylbenzene                      | mg/kg | 0.1 | <0.1   |
|               |                                  | m/p-xylene                        | mg/kg | 0.2 | <0.2   |
|               |                                  | o-xylene                          | mg/kg | 0.1 | <0.1   |
|               | Polycyclic VOCs                  | Naphthalene (VOC)*                | mg/kg | 0.1 | <0.1   |
|               | Surrogates                       | d4-1,2-dichloroethane (Surrogate) | %     | -   | 95     |
|               |                                  | d8-toluene (Surrogate)            | %     | -   | 87     |
|               |                                  | Bromofluorobenzene (Surrogate)    | %     | -   | 78     |
|               | Totals                           | Total BTEX*                       | mg/kg | 0.6 | <0.6   |

**Volatile Petroleum Hydrocarbons in Soil**

Method: ME-(AU)-[ENV]AN433

| Sample Number | Parameter  | Units                             | LOR | Result |
|---------------|------------|-----------------------------------|-----|--------|
| LB305919.001  | TRH C6-C9  | mg/kg                             | 20  | <20    |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | %   | -      |



Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

#### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| Original     | Duplicate    | Parameter | Units | LOR  | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|------|----------|-----------|------------|-------|
| SE261635.002 | LB305934.014 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |
| SE261687.003 | LB305934.022 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |

#### Moisture Content

Method: ME-(AU)-[ENV]AN002

| Original     | Duplicate    | Parameter  | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-------|-----|----------|-----------|------------|-------|
| SE261634.001 | LB305932.011 | % Moisture | %w/w  | 1   | 7.4      | 8.5       | 43         | 14    |
| SE261687.003 | LB305932.025 | % Moisture | %w/w  | 1   | 8.1      | 7.7       | 43         | 4     |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    | Parameter                              | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261634.001 | LB305918.014 | Naphthalene                            | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 2-methylnaphthalene                    | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 1-methylnaphthalene                    | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthylene                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluorene                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Phenanthrene                           | mg/kg | 0.1 | 0.2      | 0.2       | 84         | 21    |
|              |              | Anthracene                             | mg/kg | 0.1 | 0.1      | <0.1      | 129        | 8     |
|              |              | Fluoranthene                           | mg/kg | 0.1 | 0.4      | 0.5       | 52         | 30    |
|              |              | Pyrene                                 | mg/kg | 0.1 | 0.4      | 0.7       | 48         | 39    |
|              |              | Benzo(a)anthracene                     | mg/kg | 0.1 | 0.1      | 0.2       | 95         | 16    |
|              |              | Chrysene                               | mg/kg | 0.1 | 0.2      | 0.2       | 77         | 6     |
|              |              | Benzo(b&i)fluoranthene                 | mg/kg | 0.1 | 0.2      | 0.3       | 71         | 31    |
|              |              | Benzo(k)fluoranthene                   | mg/kg | 0.1 | 0.1      | 0.1       | 114        | 29    |
|              |              | Benzo(a)pyrene                         | mg/kg | 0.1 | 0.2      | 0.3       | 70         | 25    |
|              |              | Indeno(1,2,3-cd)pyrene                 | mg/kg | 0.1 | 0.2      | 0.2       | 81         | 27    |
|              |              | Dibenzo(ah)anthracene                  | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(ghi)perylene                     | mg/kg | 0.1 | 0.2      | 0.3       | 71         | 18    |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=0*     | mg/kg | 0.2 | 0.3      | 0.4       | 72         | 25    |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | mg/kg | 0.2 | 0.3      | 0.4       | 63         | 21    |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | mg/kg | 0.3 | 0.4      | 0.5       | 81         | 19    |
|              |              | Total PAH (18)                         | mg/kg | 0.8 | 2.4      | 2.9       | 34         | 19    |
|              |              | Surrogates                             |       |     |          |           |            |       |
|              |              | d5-nitrobenzene (Surrogate)            | mg/kg | -   | 0.6      | 0.6       | 30         | 1     |
|              |              | 2-fluorobiphenyl (Surrogate)           | mg/kg | -   | 0.5      | 0.4       | 30         | 16    |
|              |              | d14-p-terphenyl (Surrogate)            | mg/kg | -   | 0.5      | 0.5       | 30         | 0     |
| SE261687.003 | LB305918.023 | Naphthalene                            | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 2-methylnaphthalene                    | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 1-methylnaphthalene                    | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthylene                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluorene                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Phenanthrene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Anthracene                             | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluoranthene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Pyrene                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)anthracene                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Chrysene                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(b&i)fluoranthene                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(k)fluoranthene                   | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)pyrene                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Indeno(1,2,3-cd)pyrene                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Dibenzo(ah)anthracene                  | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(ghi)perylene                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=0*     | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | mg/kg | 0.2 | <0.2     | <0.2      | 175        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | mg/kg | 0.3 | <0.3     | <0.3      | 134        | 0     |
|              |              | Total PAH (18)                         | mg/kg | 0.8 | <0.8     | <0.8      | 200        | 0     |
|              |              | Surrogates                             |       |     |          |           |            |       |
|              |              | d5-nitrobenzene (Surrogate)            | mg/kg | -   | 0.6      | 0.5       | 30         | 15    |
|              |              | 2-fluorobiphenyl (Surrogate)           | mg/kg | -   | 0.5      | 0.5       | 30         | 1     |

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]JAN420

| Original     | Duplicate    | Parameter                              | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261687.003 | LB305918.023 | Surrogates d14-p-terphenyl (Surrogate) | mg/kg | -   | 0.5      | 0.5       | 30         | 1     |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]JAN040/JAN320

| Original     | Duplicate    | Parameter    | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|--------------|-------|-----|----------|-----------|------------|-------|
| SE261687.003 | LB305933.022 | Arsenic, As  | mg/kg | 1   | 1        | 2         | 95         | 6     |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 7.9      | 8.2       | 36         | 4     |
|              |              | Copper, Cu   | mg/kg | 0.5 | 2.4      | 2.1       | 53         | 14    |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 4.6      | 4.7       | 41         | 3     |
|              |              | Lead, Pb     | mg/kg | 1   | 19       | 18        | 35         | 2     |
|              |              | Zinc, Zn     | mg/kg | 2   | 48       | 48        | 34         | 0     |

#### TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]JAN403

| Original     | Duplicate    | Parameter         | Units                           | LOR   | Original | Duplicate | Criteria % | RPD % |    |
|--------------|--------------|-------------------|---------------------------------|-------|----------|-----------|------------|-------|----|
| SE261634.001 | LB305918.014 | TRH C10-C14       | mg/kg                           | 20    | 24       | 22        | 117        | 11    |    |
|              |              | TRH C15-C28       | mg/kg                           | 45    | 270      | 300       | 46         | 13    |    |
|              |              | TRH C29-C36       | mg/kg                           | 45    | 300      | 330       | 44         | 10    |    |
|              |              | TRH C37-C40       | mg/kg                           | 100   | 120      | 120       | 111        | 1     |    |
|              |              | TRH C10-C36 Total | mg/kg                           | 110   | 590      | 660       | 48         | 11    |    |
|              |              | TRH F Bands       | TRH >C10-C40 Total (F bands)    | mg/kg | 210      | 720       | 780        | 58    | 9  |
|              |              |                   | TRH >C10-C16                    | mg/kg | 25       | 38        | 34         | 99    | 11 |
|              |              |                   | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25       | 38        | 34         | 99    | 11 |
|              |              |                   | TRH >C16-C34 (F3)               | mg/kg | 90       | 450       | 510        | 49    | 12 |
|              |              |                   | TRH >C34-C40 (F4)               | mg/kg | 120      | 230       | 240        | 82    | 5  |
| SE261687.003 | LB305918.023 | TRH C10-C14       | mg/kg                           | 20    | <20      | <20       | 200        | 0     |    |
|              |              | TRH C15-C28       | mg/kg                           | 45    | <45      | <45       | 200        | 0     |    |
|              |              | TRH C29-C36       | mg/kg                           | 45    | <45      | <45       | 176        | 0     |    |
|              |              | TRH C37-C40       | mg/kg                           | 100   | <100     | <100      | 200        | 0     |    |
|              |              | TRH C10-C36 Total | mg/kg                           | 110   | <110     | <110      | 200        | 0     |    |
|              |              | TRH F Bands       | TRH >C10-C40 Total (F bands)    | mg/kg | 210      | <210      | <210       | 200   | 0  |
|              |              |                   | TRH >C10-C16                    | mg/kg | 25       | <25       | <25        | 200   | 0  |
|              |              |                   | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25       | <25       | <25        | 200   | 0  |
|              |              |                   | TRH >C16-C34 (F3)               | mg/kg | 90       | <90       | <90        | 200   | 0  |
|              |              |                   | TRH >C34-C40 (F4)               | mg/kg | 120      | <120      | <120       | 200   | 0  |

#### VOC's in Soil

Method: ME-(AU)-[ENV]JAN433

| Original       | Duplicate    |            | Parameter                         | Units   | LOR   | Original | Duplicate | Criteria % | RPD % |
|----------------|--------------|------------|-----------------------------------|---------|-------|----------|-----------|------------|-------|
| SE261583.027   | LB305919.026 | Monocyclic | Benzene                           | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              |            | Aromatic                          | Toluene | mg/kg | 0.1      | <0.1      | <0.1       | 200   |
|                |              |            | Ethylbenzene                      | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              |            | m/p-xylene                        | mg/kg   | 0.2   | <0.2     | <0.2      | 200        | 0     |
|                |              |            | o-xylene                          | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              | Polycyclic | Naphthalene (VOC)*                | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg   | -     | 7.9      | 8.1       | 50         | 3     |
|                |              |            | d8-toluene (Surrogate)            | mg/kg   | -     | 8.3      | 8.2       | 50         | 1     |
|                |              |            | Bromofluorobenzene (Surrogate)    | mg/kg   | -     | 8.4      | 8.0       | 50         | 4     |
|                |              | Totals     | Total BTEX*                       | mg/kg   | 0.6   | <0.6     | <0.6      | 200        | 0     |
| Total Xylenes* | mg/kg        |            | 0.3                               | <0.3    | <0.3  | 200      | 0         |            |       |
| SE261687.003   | LB305919.024 | Monocyclic | Benzene                           | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              |            | Aromatic                          | Toluene | mg/kg | 0.1      | <0.1      | <0.1       | 200   |
|                |              |            | Ethylbenzene                      | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              |            | m/p-xylene                        | mg/kg   | 0.2   | <0.2     | <0.2      | 200        | 0     |
|                |              |            | o-xylene                          | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              | Polycyclic | Naphthalene (VOC)*                | mg/kg   | 0.1   | <0.1     | <0.1      | 200        | 0     |
|                |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg   | -     | 8.4      | 8.6       | 50         | 2     |
|                |              |            | d8-toluene (Surrogate)            | mg/kg   | -     | 8.6      | 8.7       | 50         | 2     |
|                |              |            | Bromofluorobenzene (Surrogate)    | mg/kg   | -     | 8.5      | 8.4       | 50         | 1     |
|                |              | Totals     | Total BTEX*                       | mg/kg   | 0.6   | <0.6     | <0.6      | 200        | 0     |
| Total Xylenes* | mg/kg        |            | 0.3                               | <0.3    | <0.3  | 200      | 0         |            |       |

#### Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]JAN433

| Original | Duplicate | Parameter | Units | LOR |
|----------|-----------|-----------|-------|-----|
|----------|-----------|-----------|-------|-----|

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

## Volatile Petroleum Hydrocarbons in Soil (continued)

Method: ME-(AU)-ENVJAN433

| Original     | Duplicate    | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE261583.027 | LB305919.026 | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates                        |       |     |          |           |            |       |
|              |              | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.9      | 8.1       | 50         | 3     |
|              |              | d8-toluene (Surrogate)            | mg/kg | -   | 8.3      | 8.2       | 50         | 1     |
|              |              | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.4      | 8.0       | 50         | 4     |
|              |              | VPH F Bands                       |       |     |          |           |            |       |
|              |              | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
| SE261687.003 | LB305919.024 | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates                        |       |     |          |           |            |       |
|              |              | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.4      | 8.6       | 50         | 2     |
|              |              | d8-toluene (Surrogate)            | mg/kg | -   | 8.6      | 8.7       | 50         | 2     |
|              |              | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.5      | 8.4       | 50         | 1     |
|              |              | VPH F Bands                       |       |     |          |           |            |       |
|              |              | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

**Mercury in Soil**

Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|------|--------|----------|------------|------------|
| LB305934.002  | Mercury   | mg/kg | 0.05 | 0.23   | 0.2      | 80 - 120   | 116        |

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------------------------|-------|-----|--------|----------|------------|------------|
| LB305918.002  | Naphthalene                  | mg/kg | 0.1 | 3.8    | 4        | 60 - 140   | 96         |
|               | Acenaphthylene               | mg/kg | 0.1 | 3.6    | 4        | 60 - 140   | 90         |
|               | Acenaphthene                 | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 99         |
|               | Phenanthrene                 | mg/kg | 0.1 | 3.7    | 4        | 60 - 140   | 92         |
|               | Anthracene                   | mg/kg | 0.1 | 4.6    | 4        | 60 - 140   | 114        |
|               | Fluoranthene                 | mg/kg | 0.1 | 4.6    | 4        | 60 - 140   | 115        |
|               | Pyrene                       | mg/kg | 0.1 | 3.9    | 4        | 60 - 140   | 98         |
|               | Benzo(a)pyrene               | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 100        |
|               | Surrogates                   |       |     |        |          |            |            |
|               | d5-nitrobenzene (Surrogate)  | mg/kg | -   | 0.5    | 0.5      | 40 - 130   | 105        |
|               | 2-fluorobiphenyl (Surrogate) | mg/kg | -   | 0.5    | 0.5      | 40 - 130   | 108        |
|               | d14-p-terphenyl (Surrogate)  | mg/kg | -   | 0.6    | 0.5      | 40 - 130   | 112        |

**Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES**

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|--------------|-------|-----|--------|----------|------------|------------|
| LB305933.002  | Arsenic, As  | mg/kg | 1   | 320    | 318.22   | 80 - 120   | 102        |
|               | Cadmium, Cd  | mg/kg | 0.3 | 4.1    | 4.81     | 70 - 130   | 84         |
|               | Chromium, Cr | mg/kg | 0.5 | 43     | 38.31    | 80 - 120   | 112        |
|               | Copper, Cu   | mg/kg | 0.5 | 310    | 290      | 80 - 120   | 106        |
|               | Nickel, Ni   | mg/kg | 0.5 | 190    | 187      | 80 - 120   | 103        |
|               | Lead, Pb     | mg/kg | 1   | 95     | 89.9     | 80 - 120   | 106        |
|               | Zinc, Zn     | mg/kg | 2   | 270    | 273      | 80 - 120   | 98         |

**TRH (Total Recoverable Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------------|-------|-----|--------|----------|------------|------------|
| LB305918.002  | TRH C10-C14       | mg/kg | 20  | 40     | 40       | 60 - 140   | 100        |
|               | TRH C15-C28       | mg/kg | 45  | <45    | 40       | 60 - 140   | 102        |
|               | TRH C29-C36       | mg/kg | 45  | <45    | 40       | 60 - 140   | 74         |
|               | TRH F Bands       |       |     |        |          |            |            |
|               | TRH >C10-C16      | mg/kg | 25  | 41     | 40       | 60 - 140   | 103        |
|               | TRH >C16-C34 (F3) | mg/kg | 90  | <90    | 40       | 60 - 140   | 91         |
|               | TRH >C34-C40 (F4) | mg/kg | 120 | <120   | 20       | 60 - 140   | 75         |

**VOC's in Soil**

Method: ME-(AU)-[ENV]AN433

| Sample Number |            | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB305919.002  | Monocyclic | Benzene                           | mg/kg | 0.1 | 4.2    | 5        | 60 - 140   | 83         |
|               | Aromatic   | Toluene                           | mg/kg | 0.1 | 4.3    | 5        | 60 - 140   | 86         |
|               |            | Ethylbenzene                      | mg/kg | 0.1 | 4.3    | 5        | 60 - 140   | 87         |
|               |            | m/p-xylene                        | mg/kg | 0.2 | 8.7    | 10       | 60 - 140   | 87         |
|               |            | o-xylene                          | mg/kg | 0.1 | 4.4    | 5        | 60 - 140   | 87         |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 9.4    | 10       | 70 - 130   | 94         |
|               |            | d8-toluene (Surrogate)            | mg/kg | -   | 9.2    | 10       | 70 - 130   | 92         |
|               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 9.1    | 10       | 70 - 130   | 91         |

**Volatile Petroleum Hydrocarbons in Soil**

Method: ME-(AU)-[ENV]AN433

| Sample Number | Parameter   | Units                             | LOR   | Result | Expected | Criteria % | Recovery % |    |
|---------------|-------------|-----------------------------------|-------|--------|----------|------------|------------|----|
| LB305919.002  | TRH C6-C10  | mg/kg                             | 25    | 69     | 92.5     | 60 - 140   | 75         |    |
|               | TRH C6-C9   | mg/kg                             | 20    | 62     | 80       | 60 - 140   | 78         |    |
|               | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -      | 9.4      | 10         | 70 - 130   | 94 |
|               |             | Bromofluorobenzene (Surrogate)    | mg/kg | -      | 9.1      | 10         | 70 - 130   | 91 |
|               | VPH F Bands | TRH C6-C10 minus BTEX (F1)        | mg/ka | 25     | 43       | 62.5       | 60 - 140   | 69 |
|               |             |                                   |       |        |          |            |            |    |

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| QC Sample    | Sample Number | Parameter | Units | LOR  | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------|-------|------|--------|----------|-------|-----------|
| SE261583.020 | LB305934.004  | Mercury   | mg/kg | 0.05 | 0.26   | 0.07     | 0.2   | 99        |

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter                              | Units       | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|----------------------------------------|-------------|-----|--------|----------|-------|-----------|
| SE261583.020 | LB305918.004  | Naphthalene                            | mg/kg       | 0.1 | 3.9    | <0.1     | 4     | 97        |
|              |               | 2-methylnaphthalene                    | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | 1-methylnaphthalene                    | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Acenaphthylene                         | mg/kg       | 0.1 | 3.6    | <0.1     | 4     | 90        |
|              |               | Acenaphthene                           | mg/kg       | 0.1 | 3.9    | <0.1     | 4     | 97        |
|              |               | Fluorene                               | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Phenanthrene                           | mg/kg       | 0.1 | 3.8    | <0.1     | 4     | 95        |
|              |               | Anthracene                             | mg/kg       | 0.1 | 4.1    | <0.1     | 4     | 101       |
|              |               | Fluoranthene                           | mg/kg       | 0.1 | 4.2    | <0.1     | 4     | 102       |
|              |               | Pyrene                                 | mg/kg       | 0.1 | 4.2    | 0.1      | 4     | 102       |
|              |               | Benzo(a)anthracene                     | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Chrysene                               | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Benzo(b&j)fluoranthene                 | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Benzo(k)fluoranthene                   | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Benzo(a)pyrene                         | mg/kg       | 0.1 | 3.9    | <0.1     | 4     | 96        |
|              |               | Indeno(1,2,3-cd)pyrene                 | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Dibenzo(ah)anthracene                  | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Benzo(ghi)perylene                     | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <LOR=0*     | TEQ (mg/kg) | 0.2 | 3.9    | <0.2     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <LOR=LOR/2* | TEQ (mg/kg) | 0.2 | 4.0    | <0.2     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <LOR=LOR*   | TEQ (mg/kg) | 0.3 | 4.1    | <0.3     | -     | -         |
|              |               | Total PAH (18)                         | mg/kg       | 0.8 | 32     | <0.8     | -     | -         |
|              | Surrogates    | d5-nitrobenzene (Surrogate)            | mg/kg       | -   | 0.5    | 0.6      | -     | 104       |
|              |               | 2-fluorobiphenyl (Surrogate)           | mg/kg       | -   | 0.4    | 0.4      | -     | 83        |
|              |               | d14-p-terphenyl (Surrogate)            | mg/kg       | -   | 0.5    | 0.5      | -     | 101       |

## Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| QC Sample    | Sample Number | Parameter    | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|--------------|-------|-----|--------|----------|-------|-----------|
| SE261583.020 | LB305933.004  | Arsenic, As  | mg/kg | 1   | 45     | 4        | 50    | 82        |
|              |               | Cadmium, Cd  | mg/kg | 0.3 | 41     | <0.3     | 50    | 82        |
|              |               | Chromium, Cr | mg/kg | 0.5 | 55     | 10       | 50    | 90        |
|              |               | Copper, Cu   | mg/kg | 0.5 | 59     | 17       | 50    | 84        |
|              |               | Nickel, Ni   | mg/kg | 0.5 | 48     | 3.8      | 50    | 89        |
|              |               | Lead, Pb     | mg/kg | 1   | 89     | 65       | 50    | 49 @      |

## TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

| QC Sample    | Sample Number | Parameter                       | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|---------------------------------|-------|-----|--------|----------|-------|-----------|
| SE261583.020 | LB305918.004  | TRH C10-C14                     | mg/kg | 20  | 94     | 56       | 40    | 96        |
|              |               | TRH C15-C28                     | mg/kg | 45  | 400    | 370      | 40    | 79        |
|              |               | TRH C29-C36                     | mg/kg | 45  | 300    | 270      | 40    | 69        |
|              |               | TRH C37-C40                     | mg/kg | 100 | 110    | 110      | -     | -         |
|              |               | TRH C10-C36 Total               | mg/kg | 110 | 790    | 700      | -     | -         |
|              |               | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | 880    | 800      | -     | -         |
|              | TRH F Bands   | TRH >C10-C16                    | mg/kg | 25  | 130    | 88       | 40    | 101       |
|              |               | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | 130    | 88       | -     | -         |
|              |               | TRH >C16-C34 (F3)               | mg/kg | 90  | 540    | 520      | 40    | 56 @      |
|              |               | TRH >C34-C40 (F4)               | mg/kg | 120 | 210    | 190      | -     | -         |

## VOC's in Soil

Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number |                     | Parameter          | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|---------------------|--------------------|-------|-----|--------|----------|-------|-----------|
| SE261583.020 | LB305919.004  | Monocyclic Aromatic | Benzene            | mg/kg | 0.1 | 4.0    | <0.1     | 5     | 80        |
|              |               |                     | Toluene            | mg/kg | 0.1 | 4.4    | <0.1     | 5     | 87        |
|              |               |                     | Ethylbenzene       | mg/kg | 0.1 | 4.2    | <0.1     | 5     | 83        |
|              |               |                     | m/p-xylene         | mg/kg | 0.2 | 8.4    | <0.2     | 10    | 83        |
|              |               |                     | o-xylene           | mg/kg | 0.1 | 4.3    | <0.1     | 5     | 85        |
|              |               | Polycyclic          | Naphthalene (VOC)* | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |



Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE261583.020 | LB305919.004  | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.9    | 8.0      | 10    | 79        |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.1    | 7.4      | 10    | 81        |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.8    | 7.2      | 10    | 78        |
|              |               | Totals     | Total BTEX*                       | mg/kg | 0.6 | 25     | <0.6     | -     | -         |
|              |               |            | Total Xylenes*                    | mg/kg | 0.3 | 13     | <0.3     | -     | -         |

## Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number | Parameter  | Units                             | LOR   | Result | Original | Spike | Recovery% |    |
|--------------|---------------|------------|-----------------------------------|-------|--------|----------|-------|-----------|----|
| SE261583.020 | LB305919.004  | TRH C6-C10 | mg/kg                             | 25    | 75     | <25      | 92.5  | 81        |    |
|              |               | TRH C6-C9  | mg/kg                             | 20    | 63     | <20      | 80    | 78        |    |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -      | 7.9      | 8.0   | 10        | 79 |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -      | 8.1      | 7.4   | 10        | 81 |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -      | 7.8      | 7.2   | -         | 78 |
|              |               | VPH F      | Benzene (F0)                      | mg/kg | 0.1    | 4.0      | <0.1  | -         | -  |
|              |               | Bands      | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25     | 50       | <25   | 62.5      | 80 |
|              |               |            |                                   |       |        |          |       |           |    |

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here : [https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022\\_QA\\_QC\\_Plan.pdf](https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022_QA_QC_Plan.pdf)

- \* NATA accreditation does not cover the performance of this service .
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* Indicates that both \* and \*\* apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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## APPENDIX H: EQUIPMENT CALIBRATION RECORDS

## Certificate of Service and Calibration

**Gas Detector**  
**MiniRAE 3000**

|                       |                                                |
|-----------------------|------------------------------------------------|
| <b>Company Name</b>   | WAM Scientific                                 |
| <b>Office Address</b> | 26 Bungarra Crescent, Chipping Norton NSW 2170 |
| <b>Phone Number</b>   | +61 405 241 484                                |
| <b>Contact Name</b>   | William Pak                                    |
| <b>Instrument</b>     | MiniRAE 3000 (PGM 7320)                        |
| <b>Serial Number</b>  | 592-920878                                     |
| <b>Client Name</b>    | Gonzalo Serna Diaz (EDP)                       |
| <b>Project Number</b> | S-05667                                        |

| Instrument Check            |                                  |             |                                              |
|-----------------------------|----------------------------------|-------------|----------------------------------------------|
| Item                        | Test                             | Test Passed | Comments                                     |
| Li-Ion Rechargeable Battery | Battery Charge and Drain         | ✓           | Unit runs for > 8 hours on a full charge     |
| Charger and Power Supply    | Operation/Check                  | ✓           | No damage                                    |
| Unit Display                | Operation                        | ✓           | Screen visible, no damage                    |
| Keypad                      | Operation                        | ✓           | Responsive, no damage                        |
| Pump                        | Flow Check                       | ✓           | Flow rate > 0.5 L/min                        |
| Monitor Housing             | Condition/Check                  | ✓           | No damage                                    |
| Rubber Boot                 | Check                            | ✓           | Clean, no damage                             |
| Flexi Probe                 | Condition/Check                  | ✓           | No leaks, no damage                          |
| Water Trap Filter           | Visual Check                     | ✓           | Clean                                        |
| Alarms                      | Audible, Visual, Vibration Check | ✓           | All modes of alarms are functional           |
| Data Logger                 | Operation                        | ✓           | Unit records data, default set at 60 seconds |
| Lamp and Sensor             | Clean and Calibration            | ✓           | Lamp and PID sensor cleaned and calibrated   |
| PCB                         | Operation                        | ✓           | Unit is fully functional                     |
| Firmware                    | Version                          | ✓           | v2.20A                                       |

| Instrument Readings |                 |               |               |              |              |
|---------------------|-----------------|---------------|---------------|--------------|--------------|
| Parameter           | Calibration Gas | Concentration | Reference No. | Zero Reading | Span Reading |
| PID (10.6eV)        | Isobutylene     | 100 ppm       | WO383117-18   | 0 ppm        | 100.8 ppm    |

| Declaration                                                                                                                                                                                                                                                                                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p><b>WAM Scientific</b> certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The calibration data supplied was obtained in accordance with manufacturer's specifications using gases of known concentrations.</p> |  |

|                         |             |
|-------------------------|-------------|
| <b>Calibrated By</b>    | William Pak |
| <b>Calibration Date</b> | 10/12/2023  |
| <b>Calibration Due</b>  | 10/06/2024  |



## Gas Calibration Certificate



Instrument **MX6**  
Serial No. **22032JC-002**  
Sensors **O2, CH4, CO, H2S**

Air-Met Scientific Pty Ltd  
1300 137 067

| Item          | Test                 | Pass | Comments |        |       |       |
|---------------|----------------------|------|----------|--------|-------|-------|
| Battery       | Charge Condition     | ✓    |          |        |       |       |
|               | Fuses                | ✓    |          |        |       |       |
|               | Capacity             | ✓    |          |        |       |       |
|               | Recharge OK?         | ✓    |          |        |       |       |
| Switch/keypad | Operation            | ✓    |          |        |       |       |
| Display       | Intensity            | ✓    |          |        |       |       |
|               | Operation (segments) | ✓    |          |        |       |       |
| Grill Filter  | Condition            | ✓    |          |        |       |       |
|               | Seal                 | ✓    |          |        |       |       |
| Pump          | Operation            | ✓    |          |        |       |       |
|               | Filter               | ✓    |          |        |       |       |
|               | Flow                 | ✓    |          |        |       |       |
|               | Valves, Diaphragm    | ✓    |          |        |       |       |
| PCB           | Condition            | ✓    |          |        |       |       |
| Connectors    | Condition            | ✓    |          |        |       |       |
|               |                      |      | Low      | High   | TWA   | STEL  |
| Sensor        | Oxygen               | ✓    | 19.50%   | 23.50% | NA    | NA    |
|               | CH4 Methane          | ✓    | 5.00%    | 10.00% | N/A   | N/A   |
|               | CO                   | ✓    | 30ppm    | 60ppm  | 30ppm | 50ppm |
|               | H2S                  | ✓    | 10ppm    | 15ppm  | 10ppm | 15ppm |
|               |                      |      |          |        |       |       |
| Alarms        | Beeper               | ✓    |          |        |       |       |
|               | Settings             | ✓    |          |        |       |       |
| Software      | Version              |      |          |        |       |       |
| Datalogger    | Operation            | ✓    |          |        |       |       |
| Download      | Operation            | ✓    |          |        |       |       |
| Other tests:  |                      |      |          |        |       |       |

## Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode      Aspiration mode

| Sensor | Serial no | Calibration gas and concentration | Certified | Gas bottle No | Instrument Reading |
|--------|-----------|-----------------------------------|-----------|---------------|--------------------|
| CH4    |           | 50% LEL Methane                   | NIST      | SY396         | 49% LEL            |
| O2     |           | 20.9% VOL                         |           | Fresh Air     | 20.90%             |
| CO     |           | 100ppm CO                         | NIST      | SY396         | 101 ppm            |
| H2S    |           | 25 ppm H2S                        | NIST      | SY396         | 25.1 ppm           |

Calibrated by: \_\_\_\_\_ Miriam Poyitt

Calibration date: 11-Dec-23

Next calibration due: 08-Jun-24

## APPENDIX I: QUALITY ASSURANCE / QUALITY CONTROL

## QUALITY ASSURANCE/ QUALITY CONTROL

### Sampling Procedures

Fieldwork was undertaken by experienced EDP environmental consultants/LAAs in accordance with work practices defined by industry accepted standard practice and NEPM 2013.

Phosphate-free detergent was used to clean sampling instruments between sample locations. The sampling instruments were rinsed in deionised water and then sprayed with deionised water to minimise the potential for cross-contamination to occur.

Samples were placed directly into laboratory supplied jars and bags. The samples were stored on ice before being transported to the laboratory along with CoC documentation, which is included in **Appendix F. Field Duplicates Samples**

The purpose of field duplicate samples was to estimate the variability of a given characteristic or contaminant associated with a population.

Field duplicate samples were collected placing approximately equal portions of the primary sample into additional one or two sample containers. Samples were labelled so as to conceal their relationship to the primary sample from the laboratory.

The inter-laboratory and intra-laboratory duplicate samples analysed are outlined in **Table I-3**.

**Table I-3: Field Duplicate Samples Analysed**

| Medium | Primary Sample       | Field Duplicate      | Analysis                           |
|--------|----------------------|----------------------|------------------------------------|
| Soil   | EDP-M7.BH99A-0.2     | EDP-M7.BH99A-QA2     | TRH, BTEX, Heavy Metals, PFAS      |
| Soil   | EDP-M7.BH99A-0.2     | EDP-DSI.M7.BH99A.QC1 | TRH, BTEX, Heavy Metals, PFAS, PAH |
| Soil   | EDP-DSI.M7.BH98A-0.2 | EDP-DSI.M7.BH98A-QC2 | TRH, BTEX, Heavy Metals, PFAS, PAH |
| Soil   | EDP-DSI.M7.BH98A-0.2 | EDP-DSI.M7.BH98A.QC1 | TRH, BTEX, Heavy Metals, PFAS, PAH |
| Soil   | EDP-DSI.M7.BH98A-7.0 | EDP-DSI.M7.BH98A-QC4 | TRH, BTEX, Heavy Metals, PFAS, PAH |
| Soil   | EDP-DSI.M7.BH98A-7.0 | EDP-DSI.M7.BH98A.QC3 | TRH, BTEX, Heavy Metals, PFAS, PAH |
| Soil   | EDP-M7.BH99A-0.2     | EDP-M7.BH99A-QA2     | TRH, BTEX, Heavy Metals, PFAS, PAH |

The quantity of duplicate samples analysed generally conformed to the frequency set in the DQI outlined in **Table I-2**.

RPDs were calculated for each of the duplicate samples analysed. RPDs were calculated by dividing the difference between the primary sample and duplicate sample by the average of the two, as shown below:

$$RPD = \frac{(X_1 - X_2)}{(X_1 + X_2)/2} \times 100\%$$

Where:  $X_1$  = Primary sample result; and

$X_2$  = Replicate sample result.

When calculating the RPDs, the following procedures were also considered:

*RPDs were only considered when a concentration was greater than the PQL; and*

*In instances where results were greater than the PQL for the one sample, but below PQL for the corresponding primary or duplicate sample, a result equal to the PQL value was adopted where necessary in order to make a calculation possible.*

RPDs for duplicate samples were calculated and the results are attached in **Table I** provided in **Appendix I**.

RPDs for primary and duplicate samples were generally found to be within the acceptable limits, as summarised in **Table I** provided in **Appendix I**.

**Table I-4: Field Duplicate RPD Results**

| Primary Sample       | Field Duplicate      | Results                                                                                                                                                                       |
|----------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EDP-M7.BH99A-0.2     | EDP-M7.BH99A-QA2     | RPD results were within the acceptable ranges set out in the DQIs.                                                                                                            |
| EDP-M7.BH99A-0.2     | EDP-DSI.M7.BH99A.QC1 | RPD results were within the acceptable ranges set out in the DQIs, apart for concentration for copper. This is likely attributed to the heterogeneous nature of fill.         |
| EDP-DSI.M7.BH98A-0.2 | EDP-DSI.M7.BH98A-QC2 | RPD results were within the acceptable ranges set out in the DQIs.                                                                                                            |
| EDP-DSI.M7.BH98A-0.2 | EDP-DSI.M7.BH98A.QC1 | RPD results were within the acceptable ranges set out in the DQIs.                                                                                                            |
| EDP-DSI.M7.BH98A-7.0 | EDP-DSI.M7.BH98A-QC4 | RPD results were within the acceptable ranges set out in the DQIs.                                                                                                            |
| EDP-DSI.M7.BH98A-7.0 | EDP-DSI.M7.BH98A.QC3 | RPD results were within the acceptable ranges set out in the DQIs apart for concentration for copper and zinc. This is likely attributed to the heterogeneous nature of fill. |
| EDP-M7.BH99A-0.2     | EDP-M7.BH99A-QA2     | RPD results were within the acceptable ranges set out in the DQIs.                                                                                                            |

The RPDs of the duplicated sample pairs were generally below the acceptable limits. The exceedance of RPDs reported in soils was likely attributable to heterogeneity of the fill. The exceedance of RPDs reported in water was likely attributable to the difficulties associated with obtaining homogenous duplicate samples during sampling. The RPD exceedances were not deemed to indicate significant deficiencies in the sampling methodology but rather related primarily to variations within soil samples, given the percentage of samples reported within acceptable ranges. Therefore, the elevated RPDs were not considered to affect the integrity of reliability of the overall results.

## Laboratory QA/QC

The laboratory conducted their own internal quality program for assessment of the repeatability of the analytical procedures and instrument accuracy under their NATA accreditation. This included analysis of laboratory blank samples, duplicate samples, spike samples, control samples and surrogate spikes. The laboratory QA/QC procedures and results are described within the laboratory reports presented in **Appendix F**.

The laboratory internal QA/QC sample results were reviewed and were consistent with the laboratory's NATA guidelines. Furthermore, the adoption of the general advisory ranges for specific recoveries has been used to screen laboratory data. Where recoveries were outside these ranges the data was assessed in relation to specific laboratory comments, published industry 'norms' for specific parameters and/or the likely impact on the interpretation of the meaning of the results.

Based on the reported laboratory QA/QC samples and methods used, the results were considered to be acceptable.

## Summary

Based on the results of the QA/QC assessment, the data was appropriate for the objectives of the assessment. Given the level of field and laboratory QA measures adhered to, the level of QC analysis conducted was considered to be appropriate based on the sampling frequency and nature of the assessment and as such the DQIs outlined in **Table I-2** are considered to have been met.

TABLE A: SUMMARY OF QUALITY CONTROL SAMPLE RESULTS

| Lab Report Number                    |                                             |                               | Field ID    | ES2406769        | ES2406769        | ES2406769        | ES261677            | ES261519            | ES261519            | ES261519            | ES2407032           | ES261519            | ES261519            | ES261519            | ES2407032           |
|--------------------------------------|---------------------------------------------|-------------------------------|-------------|------------------|------------------|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Date                                 |                                             |                               | Date        | EDP-M7.BH98A-0.2 | EDP-M7.BH98A-QA2 | EDP-M7.BH98A-0.2 | EDP-DSLM7.BH98A-QC1 | EDP-DSLM7.BH98A-0.2 | EDP-DSLM7.BH98A-QC2 | EDP-DSLM7.BH98A-0.2 | EDP-DSLM7.BH98A-QC1 | EDP-DSLM7.BH98A-7.0 | EDP-DSLM7.BH98A-QC4 | EDP-DSLM7.BH98A-7.0 | EDP-DSLM7.BH98A-QC3 |
| Matrix Type                          |                                             |                               | Matrix Type | Soil             | Soil             | Soil             | Soil                | Soil                | Soil                | Soil                | Soil                | Soil                | Soil                | Soil                | Soil                |
| Unit                                 |                                             |                               | Unit        | EQI              | EQI              | EQI              | EQI                 | EQI                 | EQI                 | EQI                 | EQI                 | EQI                 | EQI                 | EQI                 | EQI                 |
| BTX                                  | Naphthalene (VOC)                           | mg/kg                         | 0.1         | <1               | <1               | NC               | <1                  | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Benzene                                     | mg/kg                         | 0.1         | <0.2             | <0.2             | NC               | <0.2                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Toluene                                     | mg/kg                         | 0.1         | <0.5             | <0.5             | NC               | <0.5                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Ethylbenzene                                | mg/kg                         | 0.1         | <0.5             | <0.5             | NC               | <0.5                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Xylene (m & p)                              | mg/kg                         | 0.2         | <0.5             | <0.5             | NC               | <0.5                | <0.2                | NC                  | <0.2                | <0.5                | NC                  | <0.2                | <0.2                | NC                  |
|                                      | Xylene (o)                                  | mg/kg                         | 0.1         | <0.5             | <0.5             | NC               | <0.5                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Xylene Total                                | mg/kg                         | 0.3         | <0.5             | <0.5             | NC               | <0.5                | <0.3                | NC                  | <0.3                | <0.5                | NC                  | <0.3                | <0.3                | NC                  |
|                                      | Total BTX                                   | mg/kg                         | 0.2         | <0.2             | <0.2             | NC               | <0.2                | <0.6                | NC                  | <0.6                | <0.2                | NC                  | <0.6                | <0.6                | NC                  |
| TRH                                  | C6-C10 Fraction (F3)                        | mg/kg                         | 10          | <10              | <10              | NC               | <10                 | <25                 | NC                  | <25                 | <10                 | NC                  | <25                 | <25                 | NC                  |
|                                      | C6-C10 (F3 minus BTX)                       | mg/kg                         | 10          | <10              | <10              | NC               | <10                 | <25                 | NC                  | <25                 | <10                 | NC                  | <25                 | <25                 | NC                  |
|                                      | >C10-C16 Fraction (F2)                      | mg/kg                         | 25          | <50              | <50              | NC               | <50                 | <25                 | NC                  | <25                 | <50                 | NC                  | <25                 | <25                 | NC                  |
|                                      | >C10-C16 Fraction (F2 minus Naphthalene)    | mg/kg                         | 25          | <50              | <50              | NC               | <50                 | <25                 | NC                  | <25                 | <50                 | NC                  | <25                 | <25                 | NC                  |
|                                      | >C16-C34 Fraction (F3)                      | mg/kg                         | 90          | <100             | <100             | NC               | <100                | 94                  | 0                   | 110                 | <100                | 10                  | <90                 | <90                 | NC                  |
|                                      | >C34-C40 Fraction (F4)                      | mg/kg                         | 100         | <100             | <100             | NC               | <100                | <120                | NC                  | <120                | <100                | <120                | <100                | <100                | NC                  |
|                                      | >C10-C40 Fraction (Sum)                     | mg/kg                         | 50          | <50              | <50              | NC               | <50                 | <210                | NC                  | <210                | <50                 | NC                  | <210                | <210                | NC                  |
|                                      | Perfluoroalkane Carboxylic Acids            | Perfluorobutanoic acid (PFBA) | mg/kg       | 0.001            | <0.001           | <0.001           | NC                  | <0.001              | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             |
| Perfluorohexanoic acid (PFHxA)       |                                             | mg/kg                         | 0.0002      | 0.0003           | 0.0003           | 0                | 0.0003              | <0.0016             | 0                   | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| Perfluorooctanoic acid (PFPA)        |                                             | mg/kg                         | 0.0002      | 0.0007           | 0.0007           | 0                | 0.0007              | <0.0016             | 0                   | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| Perfluorodecanoic acid (PFDA)        |                                             | mg/kg                         | 0.0002      | <0.0002          | <0.0002          | NC               | <0.0002             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| Perfluorododecanoic acid (PFDDA)     |                                             | mg/kg                         | 0.0002      | 0.0009           | 0.0009           | 0                | 0.0009              | <0.0016             | 0                   | 0.001               | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| Perfluorotetradecanoic acid (PFTeDA) |                                             | mg/kg                         | 0.0002      | 0.0009           | 0.0009           | 0                | 0.0009              | <0.0016             | 0                   | 0.001               | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| Perfluorohexadecanoic acid (PFHxDA)  |                                             | mg/kg                         | 0.0002      | 0.0009           | 0.0009           | 0                | 0.0009              | <0.0016             | 0                   | 0.001               | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| Perfluorooctadecanoic acid (PFODDA)  |                                             | mg/kg                         | 0.0002      | 0.0009           | 0.0009           | 0                | 0.0009              | <0.0016             | 0                   | 0.001               | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| (n-2) Fluorotelomer Sulfonic Acids   | 4,2 Fluorotelomer sulfonic acid (4-2 FTS)   | mg/kg                         | 0.0005      | <0.0005          | <0.0005          | NC               | <0.0005             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | 6,2 Fluorotelomer sulfonic acid (6-2 FTS)   | mg/kg                         | 0.0005      | <0.0005          | <0.0005          | NC               | <0.0005             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | 8,2 Fluorotelomer sulfonic acid (8-2 FTS)   | mg/kg                         | 0.0005      | <0.0005          | <0.0005          | NC               | <0.0005             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | 10-2 Fluorotelomer sulfonic acid (10-2 FTS) | mg/kg                         | 0.0005      | <0.0005          | <0.0005          | NC               | <0.0005             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Perfluorobutane sulfonic acid (PFBS)        | mg/kg                         | 0.0002      | <0.0002          | <0.0002          | NC               | <0.0002             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Perfluoropentane sulfonic acid (PFPS)       | mg/kg                         | 0.0016      | <0.0016          | <0.0016          | NC               | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Perfluorohexane sulfonic acid (PFHxS)       | mg/kg                         | 0.0002      | <0.0002          | <0.0002          | NC               | <0.0002             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Perfluoroheptane sulfonic acid (PFHpS)      | mg/kg                         | 0.0016      | <0.0016          | <0.0016          | NC               | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
| PFAS                                 | Perfluorooctane sulfonic acid (PFOS)        | mg/kg                         | 0.0002      | 0.0003           | 0.0003           | 0                | 0.0003              | <0.0016             | 0                   | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | 6-2 Fluorotelomer Sulfonate (6-2 FTS)       | µg/kg                         | 1.6         | <1.6             | <1.6             | NC               | <1.6                | <1.6                | NC                  | <1.6                | <1.6                | NC                  | <1.6                | <1.6                | NC                  |
|                                      | Perfluorobutanesulfonate                    | mg/kg                         | 0.0016      | <0.0016          | <0.0016          | NC               | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Perfluorohexanesulfonate                    | mg/kg                         | 0.0016      | <0.0016          | <0.0016          | NC               | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Perfluorooctanesulfonate (PFOS)             | mg/kg                         | 0.0002      | 0.0003           | 0.0003           | 0                | 0.0003              | <0.0016             | 0                   | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Sum of PFHxS and PFOS                       | mg/kg                         | 0.0002      | 0.0003           | 0.0003           | 0                | 0.0003              | <0.0016             | 0                   | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Sum of PFAS (WA DER List)                   | mg/kg                         | 0.0002      | 0.0022           | 0.0022           | 0                | 0.0022              | <0.0016             | 0                   | <0.0016             | <0.0016             | NC                  | <0.0016             | <0.0016             | NC                  |
|                                      | Metals                                      | Arsenic                       | mg/kg       | 1                | 7                | 7                | 0                   | 7                   | 5                   | 33                  | 8                   | 8                   | 0                   | 8                   | 6                   |
| Cadmium                              |                                             | mg/kg                         | 0.3         | <1               | <1               | NC               | <1                  | <0.3                | NC                  | <0.3                | <0.3                | NC                  | <0.3                | <0.3                | NC                  |
| Chromium (III-VI)                    |                                             | mg/kg                         | 0.5         | 15               | 18               | 18               | 15                  | 14                  | 7                   | 17                  | 17                  | 0                   | 17                  | 16                  | 6                   |
| Copper                               |                                             | mg/kg                         | 0.5         | 27               | 23               | 16               | 27                  | 19                  | 20                  | 27                  | 27                  | 0                   | 27                  | 26                  | 4                   |
| Lead                                 |                                             | mg/kg                         | 1           | 22               | 24               | 9                | 22                  | 27                  | 20                  | 27                  | 29                  | 7                   | 27                  | 26                  | 4                   |
| Mercury                              |                                             | mg/kg                         | 0.05        | <0.1             | <0.1             | NC               | <0.1                | <0.05               | NC                  | <0.05               | <0.05               | NC                  | <0.05               | <0.05               | NC                  |
| Nickel                               |                                             | mg/kg                         | 0.5         | 13               | 10               | 26               | 13                  | 8.8                 | 39                  | 10                  | 12                  | 18                  | 10                  | 12                  | 18                  |
| Zinc                                 |                                             | mg/kg                         | 2           | 103              | 113              | 9                | 103                 | 100                 | 3                   | 130                 | 100                 | 26                  | 130                 | 100                 | 26                  |
| PAH                                  | 1-Methylnaphthalene                         | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | 2-methylnaphthalene                         | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Acenaphthene                                | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Acenaphthylene                              | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Anthracene                                  | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Benzo(a)anthracene                          | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Benzo(a)pyrene                              | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Benzo(b)fluoranthene                        | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
| TPH                                  | Benzo(k)fluoranthene                        | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Benzo(l)pyrene                              | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Benzo(m)fluoranthene                        | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Chrysene                                    | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Dibenz(a,h)anthracene                       | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Fluoranthene                                | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Fluorene                                    | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Indeno(1,2,3-c,d)pyrene                     | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
| PAHs (Sum of total)                  | Naphthalene                                 | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Phenanthrene                                | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | Pyrene                                      | mg/kg                         | 0.1         | <0.1             | <0.1             | NC               | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  | <0.1                | <0.1                | NC                  |
|                                      | PAHs (Sum of total)                         | mg/kg                         | 0.5         | <0.5             | <0.5             | NC               | <0.5                | <0.5                | NC                  | <0.5                | <0.5                | NC                  | <0.5                | <0.5                | NC                  |
|                                      | PAHs (Sum of positives)                     | mg/kg                         | 0.8         | <0.8             | <0.8             | NC               | <0.8                | <0.8                | NC                  | <0.8                | <0.8                | NC                  | <0.8                | <0.8                | NC                  |
| TPH                                  | C17-C40 Fraction                            | µg/kg                         | 100,000     | <100,000         | <100,000         | NC               | <100,000            | <100,000            | NC                  | <100,000            | <100,000            | NC                  | <100,000            | <100,000            | NC                  |
|                                      | C6-C9 Fraction                              | mg/kg                         | 20          | <10              | <10              | NC               | <10                 | <20                 | NC                  | <20                 | <20                 | NC                  | <20                 | <20                 | NC                  |
|                                      | C10-C14 Fraction                            | mg/kg                         | 20          | <20              | <20              | NC               | <20                 | <20                 | NC                  | <20                 | <20                 | NC                  | <20                 | <20                 | NC                  |
|                                      | C15-C28 Fraction                            | mg/kg                         | 45          | <100             | <100             | NC               | <100                | <45                 | NC                  | <45                 | <100                | NC                  | <45                 | <45                 | NC                  |
|                                      | C29-C36 Fraction                            | mg/kg                         | 45          | <100             | <100             | NC               | <100                | <45                 | NC                  | <45                 | <100                | NC                  | <45                 | <45                 | NC                  |
|                                      | C10-C36 Fraction (Sum)                      | mg/kg                         | 50          | <50              | <50              | NC               | <50                 | <110                | NC                  | <110                | <50                 | NC                  | <110                | <110                | NC                  |
|                                      | C6-C9 Fraction                              | mg/kg                         | 20          | <10              | <10              | NC               | <10                 | <20                 | NC                  | <20                 | <20                 | NC                  | <20                 | <20                 | NC                  |
|                                      | C10-C14 Fraction                            | mg/kg                         | 20          | <20              | <20              | NC               | <20                 | <20                 | NC                  | <20                 | <20                 | NC                  | <20                 | <20                 | NC                  |
| C15-C28 Fraction                     | mg/kg                                       | 45                            | <100        | <100             | NC               | &                |                     |                     |                     |                     |                     |                     |                     |                     |                     |





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