SMEC

Member of the Surbana Jurong Group

SMEC INTERNAL REF. 30018043

Detailed Site Investigation

Leppington Public School upgrade

Client Reference No. 30018043
Prepared for: Department of Education
3 February 2025

Through our specialist expertise, we deliver advanced infrastructure solutions for our clients and partners.

Leveraging our 70-year history of delivering nation-building infrastructure, we provide technical expertise and advanced engineering services to resolve complex challenges.

Through our network of global specialists collaborating with local partners, we connect you with the best teams and capabilities to deliver innovative and sustainable solutions.

We’re redefining exceptional

Document Control

Document Type	Detailed Site Investigation
Project Title	Leppington Public School upgrade
Project Number	30018043
File Location	X:\Projects\300180\30018043 - SINSW Projects\200 Reporting\ESS\07. Leppington PS DSI\Final\Rev 5
Revision Number	5 (Final)

Revision History

Revision No.	Date	Prepared By	Reviewed By	Approved for Issue By
0 (DRAFT)	15/08/2023	Harrison Wood/Pauline Voukidis	Bob Campbell	Bob Campbell
1 (DRAFT)	21/08/2023	Harrison Wood/Pauline Voukidis	Bob Campbell	Steven Drysdale
2 (FINAL)	13/11/2023	Sam Vaughan	Bob Campbell	Bob Campbell
3 (DRAFT)	12/12/2024	New edits to naming by Manuel Fernandez	-	Manuel Fernandez
4 (DRAFT)	21/01/2025	New edits to naming by Manuel Fernandez	-	Manuel Fernandez
5 (FINAL)	03/02/2025	New edits to naming by Manuel Fernandez	-	Manuel Fernandez

Issue Register

Distribution List	Date Issued	Number of Copies
Department of Education	3/02/2025	1 PDF

SMEC Company Details

Approved by	Manuel Fernandez
Address	Level 5, 20 Berry Street, North Sydney NSW 2060
Phone	+61 2 9925 5555
Email	Manuel.Fernandez@smec.com
Website	www.smec.com
Signature	 

Important Notice

This report is confidential and is provided solely for the purposes of providing a Detailed Site Investigation (with respect to contamination) at Leppington Public School. This report is provided pursuant to a Consultancy Agreement between SMEC Australia Pty Limited ("SMEC") and Department of Education, under which SMEC undertook to perform a specific and limited task for Department of Education. This report is strictly limited to the matters stated in it and subject to the various assumptions, qualifications and limitations in it and does not apply by implication to other matters. SMEC makes no representation that the scope, assumptions, qualifications and exclusions set out in this report will be suitable or sufficient for other purposes nor that the content of the report covers all matters which you may regard as material for your purposes.

This report must be read as a whole. The executive summary is not a substitute for this. Any subsequent report must be read in conjunction with this report.

The report supersedes all previous draft or interim reports, whether written or presented orally, before the date of this report. This report has not and will not be updated for events or transactions occurring after the date of the report or any other matters which might have a material effect on its contents, or which come to light after the date of the report. SMEC is not obliged to inform you of any such event, transaction or matter nor to update the report for anything that occurs, or of which SMEC becomes aware, after the date of this report.

Unless expressly agreed otherwise in writing, SMEC does not accept a duty of care or any other legal responsibility whatsoever in relation to this report, or any related enquiries, advice or other work, nor does SMEC make any representation in connection with this report, to any person other than Department of Education. Any other person who receives a draft or a copy of this report (or any part of it) or discusses it (or any part of it) or any related matter with SMEC, does so on the basis that he or she acknowledges and accepts that he or she may not rely on this report nor on any related information or advice given by SMEC for any purpose whatsoever.

The findings of this this report are the result of methodologies used in accordance with normal practices and standards. We consider that they represent a reasonable interpretation of the general conditions of the site at the time they were assessed, but under no circumstances, can it be considered that these findings represent the actual state of the site in all areas. This report applies to the Site at the point in time it was observed and/or tested and does not apply if changes to the site are made post that time.

Contents

Appendices

Figures (in text)

Tables

Abbreviations and Acronyms

Table 1 Abbreviations and acronyms.

Abbreviation / Acronym	Meaning
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AHD	Australian Height Datum
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BYD	Before You Dig
CEC	Cation Exchange Capacity
CEMP	Construction Environmental Management Plan
CoC	Chain of Custody
CoPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DoE	Department of Education
DQI	Data Quality Indicators
DQO	Data Quality Objective
DSI	Detailed Site Investigation
EFSG	Education Facilities Standards and Guidelines
EIL	Ecological Investigation Levels
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
ESL	Ecological Screening Levels
ESMP	Environmental Site Management Plan
FOI	Freedom of Information
FTE	Full time equivalent
ha	Hectares
HBM	Hazardous Building Material
HIL	Health-based Investigation Levels
HSL	Health-based Screening Levels
LCS	Laboratory Control Samples
LOR	Limit of Reporting
LPS	Leppington Public School
MAH	Monocyclic Aromatic Hydrocarbons
m bgl	Metres Below Ground Level
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
OCP	Organochlorinated Pesticide

Abbreviation / Acronym	Meaning
OPP	Organophosphorus Pesticide
PAH	Polycyclic Aromatic Hydrocarbons
PPM	Parts Per Million
PCB	Polychlorinated Biphenyls
PID	Photo-Ionisation Detector
PQL	Practical Quantitation Limit
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance and Quality Control
RAP	Remedial Action Plan
RPD	Relative Percentage Difference
SAQP	Sampling, Analysis and Quality Plan
SOP	Standard Operating Procedure
S-P-R	Source-Pathway-Receptor
SRA	Sample Receipt Advice
SWMS	Safe Work Method Statements
T&I SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbon
UCL	Upper Confidence Limit
USCS	Unified Soil Classification System
VOC	Volatile Organic Compounds

Executive Summary

This Detailed Site Investigation (DSI) (with respect to contamination) has been prepared to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the upgrade of Leppington Public School (LPS) (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP.

The proposed activity is for upgrades to the existing LPS at 144 Rickard Road, Leppington, NSW, 2179 (the Site).

The purpose of this report is to provide information on site contamination to support the REF.

The purpose of this investigation is to provide DoE with additional advice on the contamination status of the Site. Specifically, investigations were to:

- Assess the nature and extent of contamination on the Site (identified as part of the PSI assessment).
- Provide recommendations on the suitability of the Site for the proposed activity.
- Provide recommendations on the need for further investigations and/or management based on the findings.

The scope of work included:

- Sampling of soils at targeted locations across the Site especially within selected identified areas of environmental concern
- Forty-one (41) locations excavated to the top of natural soils (to a maximum depth of 1m bgl using a hand auger or mechanical excavator
- All soil samples will be collected in duplicate and screened for volatile contaminants using a photoionisation detector (PID)
- Laboratory testing of soil samples at a NATA accredited laboratory for the identified contaminants of potential concern
- Review of relevant previous documents and guidelines
- Preparing this report presenting the findings of the assessment and making conclusions and recommendations as per the objectives identified in Section 1.3 above.

The PSI identified five potential Areas of Environmental Concern (AEC) and associated potentially contaminating sources were identified, including the following:

- AEC 1: Areas near former/existing building structures from weathering and/or ineffective demolition of hazardous building materials including unknown rubbish materials to the south of the greenhouse structures and in the crawl spaces beneath some structures.
- AEC 2: Areas of possible filling of unknown origin and/or quality including scattered small stockpiles and areas of unknown rubbish debris.
- AEC 3: Potential spraying of pesticides and herbicides, and from application of pesticides related to crop growing activities and general agricultural activities within areas of historical agricultural land use.
- AEC 4: Septic Tanks prone to overflowing during heavy rainfall at the eastern portion of the school property.
- AEC 5: Areas near historical incinerators from the burning of unknown waste materials.

Based on the findings of this assessment, the following is concluded:

- All soil analysis results were below the adopted human health criteria. Based on the soils tested the Site is not considered to represent a human health risk to existing or future users of the Site.
- TRH fractions (C10-C16 and C16-C34) exceeded adopted ecological criteria within HA03/0.-0.2 (C16-C34 only) and HA09/0.0-0.1 including elevated PID readings for HA09/0.0-0.1, the exceedances are considered to be minor.

- Following the investigation undertaken by SMEC, the Site is considered generally suitable for the proposed activity and continued use as a school provided the recommendations (Section 10.2) are implemented.
- Based on the site observations of AEC 4, and review of soil logs and available laboratory data, shallow soils within the area of overflowing septic system are recommended to be stripped and disposed offsite due to the sensitive land use and aesthetic considerations.

A revised CSM was developed which indicates that there are plausible source-pathway-receptor linkages with respect to the TRH ecological exceedances and from the overflowing septic system. Based on the results of this DSI, we recommend the following:

- Preparation of a Construction Environmental Management Plan (CEMP) outlining unexpected finds, including for areas underneath building footprints post demolition.
- Undertake a review of the septic system to prevent future overflows occurring.
- Segregation and stripping of shallow soils impacted by the overflowing septic system, with classification and disposal offsite at a licensed facility. Based on the area observed during the site inspection and soil logs, approximately 4.5 m^3 is anticipated to require disposal (3m by 3m by 0.5m depth).
- A Hazardous Building Material (HBM) Management Plan be prepared and implemented outlining:
  - How HBMs will be removed from existing buildings safely and effectively in accordance with relevant WHS guidelines.
  - Validation protocols for post demolition soil surfaces.
- When details of known disturbance areas for the proposed activity are known, further assessment could be carried out to target those areas to increase the confidence in the assessment and avoid unexpected finds, otherwise works could be managed through an unexpected finds procedure.
- It should be noted that hazardous materials may have been used in the construction of on-site structures but an assessment of this is beyond the scope of this investigation.

1. Introduction

1.1 General

This Detailed Site Investigation (DSI) (with respect to contamination) has been prepared to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the upgrade of Leppington Public School (LPS) (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP.

The proposed activity is for upgrades to the existing LPS at 144 Rickard Road, Leppington, NSW, 2179 (the Site).

The purpose of this report is to provide information on site contamination to support the REF.

In 2023, SMEC were engaged by DoE to carry out a Preliminary Site Investigation (PSI) for the Site and surrounding land. At the request of DoE, the PSI assessment area included the School grounds (i.e. the Site) and additional parcels of land surrounding the Site as there was some potential for DoE to use this land as part of the proposed activity, however, following further conversations between SMEC and DoE the study area for the DSI was refined to include the current School grounds only, the assessment area for this DSI report is represented by the red 'Site Boundary' polygon shown in Figure 1, Appendix A. The PSI (SMEC, 2023) identified a range of potential Areas of Concern (AEC) based on the site history and site observations (a summary is presented in Section 4). The PSI concluded that '*intrusive investigations will be required to assess and characterise the Site with respect to contamination, fill data gaps, develop the CSM and assess the need for remediation/management with respect to the proposed use of the Site during construction. This should be carried out by developing a Sampling, Analysis and Quality Plan and then implementing this plan through a Detailed Site Investigation (DSI)'.*

This DSI was carried out in general accordance with our proposal (Ref: 360018043 VAR01, dated 31 March 2023). This report presents the SAQP and DSI findings.

1.2 Proposed Activity Description

The proposed activity involves upgrades to the existing LPS, including the following:

- Demolition of existing structures and trees;
- Erection of a new 3-storey teaching space along the northern boundary that includes 20 permanent teaching spaces and 3 support teaching spaces;
- Erection of a new hall and COLA comprising of a hall, canteen and OSHC hub towards the eastern boundary of site;
- Extension of the existing library (Building E) and adjoining playground;
- Upgraded sports and play facilities;
- Relocation of the Yarning Circle;
- Erection of a substation and upgrades to site services;
- Footpaths, fencing and associated works; and
- Landscaping.

The intent of the activity is to allow for upgrades to LPS that will provide a 'CORE 35' school standard in line with the Educational Facilities Standards and Guidelines (EFSG). The activity will increase the capacity of the school from 430 to 621 students.

Figure 1-1 below shows the scope of works for the proposed activity.

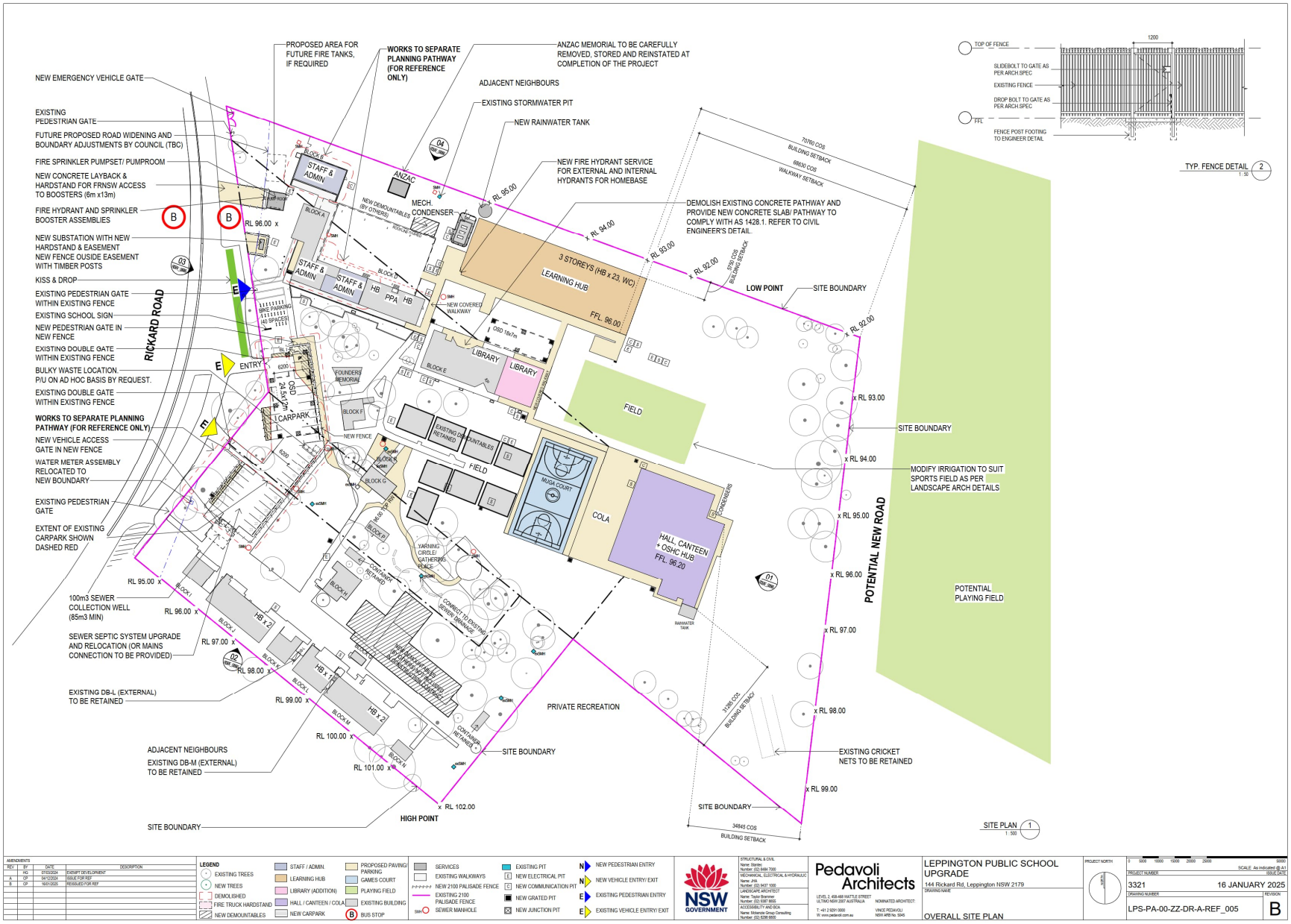


Figure 1-1 Proposed Activity (Source: Pedavoli Architects, Overall Site Plan (Rev B))

1.3 Objectives

The objectives of the DSI were to:

- Assess the potential for contamination to be present at the Site with respect to the proposed school upgrade works
- Provide recommendations on the suitability of the Site for the proposed activity
- Provide recommendations on the need for further investigations and/or management based on the findings.

1.4 Definition of Contaminated Land

The NSW Contaminated Land Management Act 1997 defines contamination of land as "the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment."

1.5 Scope of Work

The scope of the report has been prepared with refence to the policy, standards and guidelines outlined in Section 1.6. To fulfil the objective stated in Section 1.3, the following scope of works was undertaken:

- Preparation of site and task specific Safe Working Method Statements (SWMS)
- Excavation of 31 test pits using a mechanical excavator and excavation of 10 hand auger locations, all testing locations were excavated down to top of natural soils (to a maximum depth of 1m bgl)
- Collection of soil samples from test pit and hand auger locations followed by submission to a National Association of Testing Authorities (NATA) accredited laboratory for analysis of a suite of identified potential contaminants of concern
- Preparation of this report presenting the findings of the assessment and making conclusions and recommendations as per the objectives identified in Section 1.3 above.

1.6 Published Guidelines

Preparation of this report, was done with reference to relevant sections of the following guidelines:

- NEPC, National Environment Protection (Assessment of site contamination) Measure 1999
- NSW EPA (2022) Sampling Design Guidelines: Part 1 – Application and Part 2 – Interpretation
- NSW EPA (2020), Contaminated land guidelines: Consultants reporting on contaminated land
- State Environmental Planning Policy (Resilience and Hazards) 2021.
- NSW EPA (2017) *Contaminated Land Management, Guidelines for the NSW Site Auditor Scheme (3rd Edition)*, NSW Environment Protection Authority, October 2017
- CRC CARE. (2017). *Technical Report No. 39 - Risk-based management and remediation guidance for benzo(a)pyrene*
- WA DOH, 2009. *Guidelines for Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia,* Western Australia Department of Health (WA DOH).
- Standards Australia (2005) *Australian Standard AS 4482.1-2005 – Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds*. Standards Australia, Homebush, NSW (withdrawn)

- Standards Australia (1999) *Australian Standard AS 4482.2-1999 - Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances*. Standards Australia, Homebush, NSW (now Withdrawn)

2. Site Identification

The information presented in Section 2 is sourced and summarised from the Preliminary Site Investigation (PSI) (SMEC, 2023).

2.1 Site location

LPS is located at 144 Rickard Road, Leppington on the eastern side of Rickard Road, north of Ingleburn Road and south of Byron Road. The Site has an area of 3.013 ha and comprises 4 allotments, legally described as:

- Lot 1 DP 127446
- Lot 1 DP 439310
- Lot 38E DP 8979
- Lot 39C DP 8979

The Site currently comprises an existing co-education primary (K-6) public school with:

- 14 permanent buildings;
- 11 demountable structures (including 2 male/female toilet blocks);
- interconnected paths;
- covered walkways;
- play areas; and
- at-grade parking.

The Site also contains locally listed heritage buildings along its southern boundary.

The buildings are 1 storey in height and there is a sports oval in the eastern portion of the Site. The existing buildings are clustered in the north-western part of the Site.

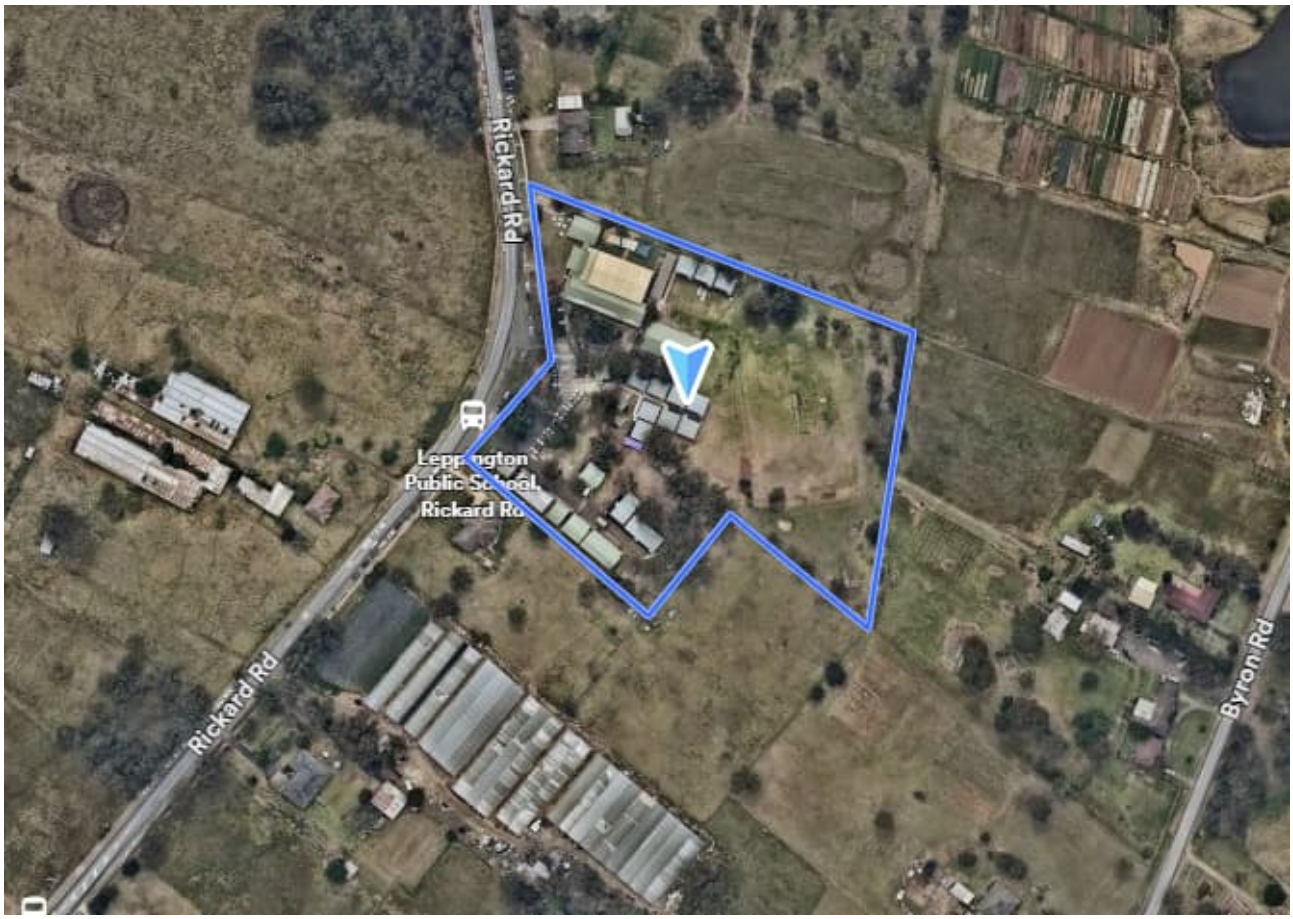


Figure 2-1 Aerial image of the site, outlined in blue (Source: NearMap, taken 24 Sept 2024)

A summary of Site information is presented below in Table 2. The Site location and layout are provided in Figure 1 and Figure 2, Appendix A.

Table 2 Site location and layout

Item	Description
Title Identifiers	Lot 1/DP127446, Lot 1/DP439310, Lot 38E/DP8979 and Lot 39C/DP8979.
Address	Leppington Public School, 144 Rickard Road Leppington NSW 2179.
Area	Approximately 3.013 ha.
Land Owner	The Minister for Education and Early Learning
Zoning	B7 Business Park (State Environmental Planning Policy (Sydney Region Growth Centres) Amendment (Leppington Precinct) (2015).
Current Land use	Leppington Public School – Sensitive land use
Proposed land use	Leppington Public School – Sensitive land use
Surrounding land use	North: Agricultural land and associated residential dwellings and storage sheds are located immediately north of the Site. South: Agricultural land and associated residential dwellings are located immediately south of the Site. East: Agricultural land and associated residential dwellings and storage sheds are located immediately east of the Site. West: Rickard Road runs along the western boundary of the Site. Agricultural land and associated residential dwellings and storage sheds are located across Rickard Road.

2.2 Site conditions and surrounding environment

A summary of Site environmental setting is presented below in Table 3.

Table 3 Summary of Site environmental setting (information sourced from SMEC 2023 PSI report).

Aspect	Detail
Topography and Landforms	Topography details were obtained from publicly available mapping with topographic contours shown in Figure 1, Appendix A and from site observations. The majority of the Site appears to be approximately flat with a gradual slope downward from around 102m AHD (southern corner of the site) down to approximately 94m AHD in the north eastern portion of the Site.
Vegetation	During the site walkover overgrown vegetation was observed near the north-eastern boundary of the Site. The majority of the Site is comprised of short, maintained grasses, and scattered mature trees located in several areas of the Site. With reference to NSW Office of Environment and Heritage Vegetation Mapping (accessed 12 July 2022), several clusters of 'Shale Plains Woodland' are mapped within the Site. Shale Plains Woodland is classified as critically endangered under Australia's national environment law—the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The client has advised that the Site is biodiversity certified under the South West Growth Area.
Geology	Reference to the Penrith 1:100,000 Geological Sheet indicates that the Site is likely underlain by Bringelly Shale, described as comprising: shale, carbonaceous claystone, claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff.
Hydrology and Hydrogeology	Reference to Commonwealth of Australia (Geoscience Australia) hydrogeology maps (accessed 07 July 2022) indicate that underlying aquifers are anticipated to consist of extensive aquifers of low to moderate productivity. A review of nearby waterbodies was undertaken through MinView website (accessed 14 July 2022) which indicates the presence of a non-perennial (i.e. ephemeral) waterbody feeding into Kemps Creek flowing south to north approximately 100m West of the Site. A non-perennial waterbody feeding into the Upper Canal flowing south to north is also located approximately 50m east of the Site. A search of registered groundwater bores was carried out on 07 July 2022, there were no publicly registered groundwater bores within a 500m radius of the Site. Based on topographic contour mapping for the Site and surrounds and based on the location of nearby watercourses (NSW spatial services data set: perennial and non-perennial water courses) (viewed through the MinView website – accessed 14 July 2022), groundwater is inferred to in a north easterly direction. Limited groundwater data is available, however, based on proximity of the Site to nearby watercourses, depth to groundwater is anticipated to be <5m below ground level (bgl). During the DSI fieldworks, 41 sample locations were excavated across the Site to a maximum depth of 0.9m bgl, groundwater seepage/ingress was not observed in any of the test pits.
Groundwater Use	A search of registered groundwater bores was carried out on 07 July 2022, the nearest registered bore to the Site was located around 900m south (across assumed hydraulic gradient), the reported use of the bore was for 'monitoring'. Since the nearest groundwater bore is reportedly located 900m form the Site and is located in an inferred across-hydraulic gradient location of the Site, it appears that groundwater is not being abstracted in the area. A review of Before You Dig Australia (BYDA) mapping for the Site shows the presence of a potable water supply main in the street on the western side of the school, therefore it is unlikely that groundwater at the Site is being abstracted for drinking water.
Summary of Site observations made by SMEC	A SMEC environmental engineer made observations of accessible parts of the Site on 05 July 2022 as part of the PSI walkover. Site layout and features are presented in Figure 2, Appendix A. The observations at that time noted the following: • Scattered general rubbish items were observed within the school boundaries • General demolition waste (plastic, pipes, metal framing, wood sheets) was observed within crawl spaces beneath buildings

Aspect	Detail
	• A locked shipping container was observed to the south of the school premises, containing cleaning and gardening equipment and furniture etc. • A small mound (2.0m length, 0.5m width, 0.5m height) underlying overgrown vegetation with scattered demolition waste (star pickets, concrete rubble, hose, bag of asphalt) was observed near the aforementioned container • Two stockpiles (sand and mulch) were observed near the southern portion of the school property. • A locked storage area under classroom blocks (Building J) in the southwestern portion of the school property appeared to contain possible chemical bottles. A chemical storage room was also observed within building P (incidental volumes of cleaning products etc.) • No evidence of the LPG tanks was observed during the inspection. • Surface water was observed to be pooled at the northern portion of the Site near the playing fields. • No apparent signs of contamination (e.g. dark ground staining, ACM, or unusual odours) were evident in the areas observed.

3. Site history summary

A summary of the Site history obtained from the PSI (SMEC, 2023) is provided below:

- The Site history review indicated that Leppington Public School (originally known as Raby School) was opened in 1923 with around 40 pupils.
- The school appears to have undergone several phases of expansion (around early 1960's and then early 1970's), several building structures associated with the school area appear to have been demolished over this time.
- The areas surrounding the Site appear to have a history of agricultural land use including scattered building structures (some likely residential dwellings and some agricultural use buildings), with some evidence of crop growing (i.e. suspected rows of crops) in several different areas of the Site.
- The site inspection undertaken by OHMS Hygiene in July 2021 indicated that twelve buildings within Leppington Public School contain asbestos containing material (ACM) within eaves linings, ceiling structures/linings, wall linings, vinyl tiles and partition walls. Asbestos is also assumed to be present within several other difficult to access areas.
- No obvious contaminant indicators (e.g. staining, odours or potential ACM) were observed at the surface of the Site from a brief visual inspection .
- Anecdotal information suggests that there have been several recent incidents, whereby, during heavy rainfall, septic tanks within the school have overflowed.
- Historical records indicate two incinerators were present onsite. A map presented in the PSI (SMEC, 2023) indicates the presence of an incinerator within the south-east portion of the Site. As these have been removed, the exact location could not be identified during the site inspection.

3.1 Site information and site history data gaps

The following data gaps were identified as part of the PSI:

- There is limited groundwater data available for the Site, noting that no groundwater bores were registered within 500m of the Site. The groundwater levels onsite are inferred from nearest surrounding bores; the nearest bore is located approximately 900m from the site.
- The earliest available historical aerial imagery for the site is from 1949 and of low resolution, with information indicating that the school was established in 1923. As such, the site use prior to 1923 is unknown, but is assumed to have been cleared paddocks.

4. Preliminary Conceptual Site Model

The PSI (SMEC, 2023) provided a preliminary Conceptual Site Model (CSM). Based on the Site history and observations at the time, six potential areas of environmental concern (AEC) and potential contamination sources were identified, including:

- AEC 1: Areas near former/existing building structures from weathering and/or ineffective demolition of hazardous building materials including unknown rubbish materials to the south of the greenhouse structures and in the crawl spaces beneath some structures.
- AEC 2: Areas of possible filling of unknown origin and/or quality including scattered small stockpiles and areas of unknown rubbish debris.
- AEC 3: Potential spraying of pesticides and herbicides (whole site) and from application of pesticides related to crop growing activities including crop growing withing on-site greenhouses and also general agricultural activities.
- AEC 4: Septic Tanks prone to overflowing during heavy rainfall at the eastern portion of the school property.
- AEC 5: Areas near historical incinerators from the burning of unknown waste materials.

AECs are presented in Figure 2 Appendix A.

Based on the findings of the PSI there are a number of plausible source-pathway-receptor linkages for the site (in the context of the proposed construction activities) as presented within Table 5 and Table 5.

Table 4 Potential Areas of Environmental Concern

AEC No.	Potential AEC	Likelihood of contamination[1]	CoPC	Comments
1	Areas near former/existing building structures from weathering and/or ineffective demolition of hazardous building materials including unknown rubbish materials to the south of the greenhouse structures and in the crawl spaces beneath some structures.	Moderate	Asbestos Lead (from lead-based paints), zinc (from weathering of galvanised iron).	Records show hazardous materials including asbestos within existing buildings with demolition waste observed within crawl spaces.
2	Areas of possible filling of unknown origin and/or quality including scattered small stockpiles and areas of unknown rubbish debris.	Low to moderate	Heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn), PAHs, TPH, BTEX, PCB, OCP, OPP, asbestos (potentially others depending on source).	The Site generally appears to be at grade with the surrounding natural topography, however, some filling may have occurred to level the site during various construction phases.
3	Whole Site from potential spraying of pesticides and herbicides and from application of pesticides related to crop growing activities including crop growing withing on-site greenhouses and also general agricultural activities.	Low to moderate	PAH, OCP, OPP, phenoxy acid herbicides, lead, and arsenic.	Potential use of pesticides and historical agricultural activities.
4	Septic Tanks prone to overflowing during heavy rainfall at the eastern portion of the School property.	Moderate	Faecal coliforms, nutrients	Interview and anecdotal information confirmed that the septic tanks at sites are prone to overflowing during heavy rainfall.

AEC No.	Potential AEC	Likelihood of contamination[1]	CoPC	Comments
5	Areas near historical incinerators from the burning of unknown waste materials.	Low to moderate	PAH, TRH, BTEX, metals (potentially others depending on waste incinerated).	Potential for burnt/buried waste. Location not confirmed.

Table 5 Potentially complete contamination source, pathway and receptor linkages

Source	Pathway	Receptor
Contaminants associated with AEC 1, AEC 2, AEC 3, AEC 4 and AEC5.	• Ingestion of potentially contaminated Soil • Direct contact with potentially contaminated soils • Migration of contaminated dust/fibres1 (inhalation) • Migration of contaminated run-off • Leaching from soils to groundwater	Future users of the site, e.g., students and staff Site workers during future construction works or maintenance activities Off-site residential receptors (from windblown dusts/fibres1) On-site and off-site terrestrial ecology e.g. protected trees (area of Shale Plains Woodland) On-site and off-site groundwater

5. Data Quality Objectives

The data quality objectives (DQOs) in Table 6 were developed for this project and are based on the requirements detailed in the ASC NEPM (1999) (amended 2013). Data Quality Indicators (DQIs) are included in Appendix B.

Table 6 Data Quality Objectives

Step	Tasks
Step 1 State the problem	Five Areas of Environmental Concern (AEC) were identified as part of the PSI and the PSI assessment identified that that there were potentially complete source-pathway-receptor linkages associated with the AEC. The problem to be addressed as part of this DSI is that the identified AEC have not been investigated and therefore it is unknown if contamination is present at the Site which pose an unacceptable risk to the identified receptors. The DSI objectives are: • Assess the potential for contamination to be present at the Site with respect to the proposed school upgrade works • Provide recommendations on the suitability of the Site for the proposed activity • Provide recommendations on the need for further investigations and/or management based on the findings. The main considerations are: • What sample layout should be used to achieve the above objectives? • How many samples should be collected? • What analytes should be tested? • What media should be tested? A preliminary conceptual site model outlining potential sources/areas and contaminants of potential concern was developed in the PSI (summarised in Section 4). The key assessment team consisted of SMEC staff: Harrison Wood (Graduate Environmental Engineer), Sam Vaughan (Project Manager), and Manuel Fernandez (technical reviewer).
Step 2 Identify the decisions	The decisions to be made are: • Whether the soil data supports that the Site is suitable for ongoing use as a school under the layout of the proposed activity, based on contaminant levels and aesthetics. • Whether there is a need for further assessment or remediation/management required? The alternative outcomes will be: • The soil is suitable for a public-school land use (HIL A) Or • The soil is not suitable for a public-school land use (HIL A) and requires remediation/management to allow the proposed activity. The Site is approximately 3.013 ha in size. With reference to the NSW EPA (2022) Sampling Design Guidelines, 40 sampling points are required to assess a 3.013 ha site (based on a square grid sampling pattern with 27m grid spacing), based on this sampling density, it should be possible (with 95% confidence) to detect a contamination hotspot of at least 32.3m diameter.
Step 3 Identify information inputs	The inputs required to make the decisions listed in Step 2 were as follows: • Information from the PSI • Site observations made during the intrusive investigations, including observations of fill/natural soil depth, and contamination indicators (e.g. suspected ACM, unusual odours, staining or buried waste materials if present) • Field soil headspace screening for VOCs using a photo-ionisation detector (PID) during fieldwork • Soil physical-chemical parameters (for derivation of EILs)

Step	Tasks
	• Soil sample results (tested at a NATA accredited laboratory for the contaminants of potential concern identified as part of the PSI) • Applicable NSW EPA endorsed guidelines (refer to Assessment Criteria Section 6) • Sampling and analytical methods will be assessed against Data Quality Indicators (Appendix B)
Step 4 Define the study boundaries	Laterally, the study boundary is generally defined by the Site boundary (i.e. the investigation boundary), as shown on Figure 1 and Figure 2, Appendix A (3.013 ha), the Site boundary does not include the full extent of the PSI boundary (as stated in Section 1). The north-western and south-western portions of the Site currently comprise multiple school buildings and paved areas and it was not possible to test soils beneath these areas, therefore the investigation was limited to accessible portions of the Site. Vertically, the study boundary for this detailed investigation will be to the top of natural materials (<0.8m bgl). The decision is to be based on the complete decision area. However, following data analysis, some form of segregation may be considered, i.e. some of the decision area may be suitable for HIL-A and some may require remediation/management.
Step 5 Develop the analytical approach (decision rule)	The decision rule for soils was as follows: • A data validation assessment will be carried out for all data collected with respect to quality assurance and quality control (QA/QC) and conclude if the data collected is useable, partially useable with some limitations, or unusable in forming conclusions to the assessment. Data Quality Indicators (against which the QAQC data will be assessed) is presented in Appendix B. • If there is no field evidence of contamination and contaminant concentrations for each sample are below the assessment criteria, then no further assessment will be required with respect to that contaminant or area • For areas where sufficient data has been collected in a systematic pattern and with respect to human health, the 95% Upper Confidence Limit (UCL) of the arithmetic mean contaminant concentration should be below the assessment criteria and the results must also meet the following: – No single value is to exceed 250% of the human health criteria – The standard deviation must be less than 50% of the human health criteria Additional considerations will include aesthetic requirements as per Section 6.5. If the statistical parameters (or aesthetics) of the sampling data exceed the assessment criteria, then remediation/management will be required, otherwise soils will be considered suitable for a HIL-A land use. The CSM will be updated and used to make an assessment of the data along with consulting judgement and experience.
Step 6 Specify performance or acceptance criteria	We have assumed the following to be true in the absence of contrary evidence (i.e., the null hypothesis): • Contamination at the Site currently poses an unacceptable risk to human and/or environmental receptors. The possibility exists of making the following decision errors based on the data obtained during this investigation: • Type 1 error – Deciding the above null hypothesis is false, when it is true • Type 2 error – Deciding the above null hypothesis is true, when it is false. The consequence of making a Type 1 error is more detrimental as it can result in adverse consequences or may include material impact to human and environmental health. The consequence of making a Type 2 error may result in 'over-conservatism' and unnecessary expense of conceptual remediation options and capping design. The potential for decision errors will be minimised by completing a robust quality control (QA/QC) program and by completing an investigation that has an appropriate sampling and analytical density for the purposes of the investigation. The QA/QC program would conclude if the data collected is useable, partially useable with some limitations, or unusable in forming conclusions to the assessment. The assessment will be carried out as

Step	Tasks
	per the Data Quality Indicators (DQIs) (completeness, comparability, representativeness, precision and accuracy) in Appendix B.
Step 7 Optimise the design for obtaining data	Sampling was carried out in accordance with the methodology in Section 7, and optimised the design for obtaining data using the following measures: • Field investigations were carried out by trained environmental scientist/engineer, under direction of senior staff experienced contaminated land assessment • In addition, the first day of fieldwork was supervised by the project manager (Sam Vaughan – Senior Environmental Scientist) • Site observations of visual and olfactory evidence of contamination were made at sampling locations • Sampling was generally carried out on a roughly equally spaced systematic grid, in some instances, sampling locations needed to be adjusted to account for logistical issues e.g. inaccessible area, trees, paved areas, buried services etc. • Analysis was selected based on subsurface observations and field PID soil headspace screening.

6. Assessment Criteria

6.1 General

Evaluation against assessment criteria is used to identify levels of contamination that may pose ecological or health risks to potential receptors or future users of the Site.

The National Environment Protection (Assessment of Site Contamination) Measure (NEPM) was first published in 1999 and updated in 2013 by the National Environment Protection Council (NEPC) and provides national standards for a variety of environmental issues, including the assessment of Site contamination in Schedule B (1) Guideline on Investigation Levels for Soil and Groundwater.

The NEPM requires consideration be given to Health-based Investigation Levels (HIL), Health-based Screening Levels (HSL), Ecological Investigation Levels (EIL), Ecological Screening Levels (ESL), Management Limits, asbestos criteria and aesthetic issues. The following sub-sections outline the rationale for the selection of the appropriate levels for the DSI.

6.2 Health Investigation Levels (HILs) and Health Screening Levels (HSLs)

6.2.1 Soil assessment criteria

Health investigation levels (HIL) are scientifically based, generic assessment criteria designed to be used in the first stage (Tier 1 or 'screening') of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario for four generic land use settings, for a primary school, the following criteria is applicable:

- HIL A – residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake, (no poultry), also includes children's day care centres, preschools and primary schools

Adopted HILs for contaminants were sourced from NEPM (2013) Schedule B1.

The Site is currently a primary school and will continue to operate as a primary school into the future, therefore HIL A criteria is considered relevant.

Health Screening Levels (HSLs) for petroleum hydrocarbons are available from ASC NEPM (2013) and CRC Care (Friebel E and Nadebaum P, 2010). These references provide HSLs for vapour intrusion for soil at various depth ranges and soil types. CRC Care also provides HSLs for direct contact and for vapour intrusion for intrusive maintenance worker (shallow trench). A conservative approach has been adopted for this assessment with initial results compared to HSLs for 'sand', 0 to <1m and coarse-grained soils.

To summarise, with respect to human health, the following assessment criteria was adopted for soils for this DSI:

- Table 1A (1) Health-based investigation levels – residential with garden/accessible soil (HIL A) (NEPM Schedule B1 (2013))
- Table 1A (3) Soil HSLs for vapour intrusion – residential with garden/accessible soil (HIL A) (NEPM Schedule B1 (2013))
- Table B4 Soil HSL for direct contact – residential with garden/accessible soil (HIL A) and Intrusive maintenance worker (CRC Care Technical Report No. 10 (Friebel and Nadebaum 2011))

6.3 Ecological Screening and Investigation Levels (EILs/ESLs)

EILs and ESLs are relevant where ecological receptors are likely to be present and exposure pathways are complete.

With reference to NSW Office of Environment and Heritage Vegetation Mapping (accessed 12 July 2022), several clusters of 'Shale Plains Woodland' are mapped within the Site. Shale Plains Woodland is classified as critically endangered under Australia's national environment law—the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The following ecological soil assessment criteria has been used for the investigation:

- NEPM (1999) Table 1B (1) to 1B (5) Ecological investigation levels (EILs) – Urban residential and public open space – Generic EILs[*1]
- NEPM (1999) Table 1B (1) to 1B (5) Ecological investigation levels (EILs) – Urban residential and public open space – Site-specific EILs[*2]
- NEPM (1999) Table 1B (6) Ecological screening levels (ESLs) – Urban residential and public open space

Notes

[*1] *CRC Care provides a high reliability, derived ecological assessment criteria for fresh BaP for an urban/residential site use of 33mg/kg which is considered more reliable than the NEPM EIL for B(a)P. The CRC Care criteria of 33/mg/kg will be adopted for B(a)P for this assessment.*

[*2]*For assessment against EILs, soil analytical results were compared with the NEPM (2013) Generic EILs to assess potential risks to current and future ecological receptors at the Site for selected analytes (arsenic, DDT, lead, and naphthalene). For other analytes (including copper, chromium(III), nickel and zinc) the EIL values rely on site-specific inputs and calculations. These were calculated using the NEPM (2013) ASC Toolbox.*

Site-specific EIL input values were calculated by incorporating the average values of soil physiochemical parameters (pH, CEC and TOC) from two selected soil samples that were considered to be indicative of the general Site surface soil conditions, the average were calculated using the results presented in Table 7 below:

Table 7 Physiochemical parameters to calculate site-specific EILs.

Sample name	pH_{CaCl2}	Cation Exchange Capacity (CEC) (meq/100g)	Total Organic Carbon (TOC) (%)	Clay (%)
EIL-TP03-0.0-0.1	6.0	9.1	2.1	26
EIL-TP26-0.1-0.2	6.2	11.5	2.7	30
Average	6.1	10.3	2.4	28

EILs apply principally to contaminants within the top 2m of soil at the finished surface/ground level, which corresponds to the root zone and habitation zone of many species. In general, the toxicity of soil contaminants (both organic and inorganic) will reduce or age over time to a lower and more stable level by binding to various soil components and decreasing their biological availability. For the purposes of site-specific EIL derivation, a contaminant incorporated in soil for at least 2 years is considered to be 'aged', based on the preliminary conceptual site model, it is considered that the use of site-specific EIL criteria applying to 'aged' contamination is most appropriate for this Site.

Site-specific EIL criteria were derived by putting the average values from Table 7 into the NEMP (2013) ASX toolbox, the calculated criteria are presented in Table 8 below.

Table 8 Site-specific EILs.

	Copper	Nickel	Chromium (III)	Zinc
	mg/kg	*mg/kg*	*mg/kg*	*mg/kg*
Urban residential and open public spaces	210	180	410	490

6.4 Asbestos Criteria

The adopted Site screening level in accordance with NEPM (2013) includes no visible asbestos for surface soil. The adopted assessment criteria for this Site have been conservatively assumed to be:

- No asbestos detected
- No asbestos at the ground surface.

6.5 Aesthetic Criteria

Since some areas of the Site could be used for playing fields for the school, the following aesthetic criteria has been adopted:

- Soils shall not be discoloured or affected by odours or inclusions, such as demolition rubble, litter, or domestic waste, to an extent that this would be considered a hazard or nuisance.

6.6 Groundwater

A search of registered groundwater bores was carried out on 07 July 2022, the nearest registered bore to the Site was located around 900m south (across assumed hydraulic gradient), the reported use of the bore was for 'monitoring'. Since the nearest groundwater bore is reportedly located approximately 900m from the Site and is inferred to be cross-hydraulic gradient of the Site, SMEC assumes that this well is not hydraulically connected to the Site.

A review of Before You Dig Australia (BYDA) mapping for the Site shows the presence of a potable water supply main in the street on the western side of the school, therefore it is unlikely that groundwater at the Site is being abstracted for drinking water. It is not anticipated that the proposed design will include deep foundations which may interact with groundwater. For these reasons, groundwater will not be assessed as part of this DSI.

7. Sampling methodology

7.1 General

The DSI assessment area is approximately 3.013 ha. With reference to Table 2: Minimum number of sampling points for a square grid, based on Site area (NSW EPA (2022) Sampling Design Guidelines: Part 1 – Application) a 3.013 hectare site requires approximately 41 sampling points. The investigation included a systematic grid based sampling design.

Based on the Site history, AECs and access, 41 sample locations were used to assess the Site with respect to contamination. Sampling locations are presented in Figure 3, Appendix A. Sample locations were excavated using a combination of mechanically excavated test pits and hand auger (for locations which were not accessible for the excavator), as follows:

In total, 41 sample locations were excavated (as presented in Figure 3, Appendix A) to further assess accessible parts of the Site using a combination of mechanical excavation methods and hand tools. A summary is provided below:

- 31x mechanically excavated test pits advanced using a 3t tracked excavator with a 450mm width toothed bucket (generally to the base of fill varying between about 0.3m to 0.8m bgl).
- 10x hand auger locations where access was not achievable with the mechanical excavator (generally to a maximum depth of 0.5m bgl).

Table 9 below provides a summary of the methodology for sampling locations. Sampling locations are presented in Figure 3, Appendix A.

Table 9 Sampling Justification

AEC (identified in SMEC (2023) PSI)		Sampling locations
AEC 1	Areas near former/existing building structures	The PSI included a review of historical building structures from historical aerial imagery and recent satellite imagery, a selection of these structures were targeted using a judgemental sampling technique. The majority of identified historical structures were targeted (noting that some could not be targeted because they are located within the footprint of an existing structure. Some sampling points targeting this AEC were hand augers (due to access constraints for the excavator), this sampling technique was used to gain an initial assessment of widespread contamination from this AEC.
AEC 2	Areas of possible filling of unknown origin	All sample locations (41) have been used to assess the extent and quality of fill across the Site. This is considered adequate based on the Site area.
AEC 3	Areas of potential spraying of pesticides and herbicides	All sample locations (41) have been used to assess the extent and quality of fill across the Site,
AEC 4	Septic Tanks prone to overflowing	This area is relatively small (~20m^2). One hand auger (HA09) was undertaken in this area to the base of fill, however a discrepancy occurred within the laboratory associated with the type of sample container used and the samples were not analysed for faecal coliforms as planned. SMEC has utilised site observations and available laboratory data to provide an assessment of risk for this error.
AEC 5	Areas near historical incinerators	This area is relatively small (~50m^2). One test pit (TP15) targeted this AEC. The test pit was excavated to the top of natural materials.
AEC 6	Material stockpiled onsite	One test pit (TP05) targeted this AEC. The test pit was excavated through the stockpile and then continued into the ground beneath the stockpile and down to the top of natural materials.

7.2 Excavation and soil sampling procedure

The following excavation and soil sampling method was adopted for the field investigation:

- Prior to breaking ground at the Site, Before You Dig (BYD) Australia plans were reviewed, and an accredited service locator were engaged to clear each of the proposed investigation locations
- Fieldwork was attended on a full-time basis by a trained and experienced environmental scientist
- A new pair of nitrile gloves was worn for each different sampling location.
- For test pits the excavator would strip a section of turf (where present) and place this to the side of proposed test pit (in grassed areas). As far as practicable, excavated spoil was backfilled in reverse order (e.g. deepest material backfilled first) with test pits 'tamped' with the excavator bucket to reduce the likelihood of future settlement. Soil samples from test pits were collected from spoil which has not come into direct contact with the excavator bucket.
- The hand auger was decontaminated prior to use and between sampling locations, the adopted triple rinse procedure is further described in Section 7.4.1.2.
- All soil sample were collected within clean laboratory supplied containers.
- All soil samples were collected in duplicate into a separate zip lock bag and field-screened using a photoionization detector (PID). The PID were calibrated in accordance with manufacturer instructions. Calibration certificates/records are provided in Appendix D.
- Soils were logged using the Unified Soil Classification System (USCS) in general accordance with SMEC Standard Operating Procedures (SOPs).
- A visual assessment was made of encountered soil material for the potential presence of contamination indicators such as staining or odours.

7.3 Field and Laboratory Testing Schedule

Samples for contamination testing were submitted to the following laboratories for testing for the nominated potential contaminants of concern:

- Primary samples: ALS Environmental (277-289 Woodpark Road, Smithfield NSW 2164)
- Secondary samples: Eurofins Services (179 Magowar Road, Girraween, NSW 2145)

Both laboratories are accredited by the National Association of Testing Authorities Australia (NATA) for the tests to be performed. A summary of testing quantities is presented below:

- 40 primary samples for asbestos identification in soils (AS4964) testing
- 60 primary samples for metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg), Organochlorine Pesticides (OCPs) and organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH) and phenols.
- 2 samples for clay content, iron (%), cation exchange capacity, total organic carbon (results were used for calculation of Site-Specific Ecological Investigation Level calculation).

7.4 Quality Assurance and Quality Control

The following quality assurance and quality control plan was adopted for the environmental sampling in general accordance with NEPM requirements. DQIs are presented in Appendix B.

7.4.1 Field QA/QC

7.4.1.1 Sample handling, storage and transportation

Sampling of soils were carried out by trained and experienced environmental staff using sampling protocols which minimise potential cross contamination occurring in between sampling locations. The field scientist was also supported by a senior environmental scientist on the first day of the field investigation.

During fieldworks, samples were placed in an ice-filled chest to keep the samples below the recommended preservation temperature of approximately 6°C. Samples were kept refrigerated until delivered to the testing laboratory.

During fieldworks, samples were placed in an ice-filled chest in an attempt to keep the soil samples below the recommended preservation temperature of approximately 6 °C. Samples were kept refrigerated until delivered to the testing laboratory. Samples Receipt Advice/Notifications confirmed that samples were received at the following temperatures:

Samples Receipt Advice/Notifications confirmed that samples were received at the following temperatures:

- Batch ES2312936 (ALS): 5.5ºC
- Batch ES2312519 (ALS): 19.8 ºC[*1]
- Batch 982505 (Eurofins) 3.8 ºC

It is unclear as to why ALS batch ES2312519 was received by the laboratory at 19.8 ºC, the samples were collected by the same field person and packaged the same as all other batches, trip spike recoveries for this batch were within acceptable ranges and recorded results were within the same ranges as Batch ES2312936, we consider that despite the elevated sample receipt temperature, this data is still useable for the purposes of this assessment.

Samples, including QA samples, were transported to the laboratories with relevant Chain of Custody (CoC) documentation. The CoC form were completed with the sample names, sampling date and required analyses. The samples were sent in a sealed ice chest to the laboratory for analysis within the prescribed analyte holding times, except for the following:

- Batch ES2312936 – pH in soil using 0.01m CaCl extract was analysed one day outside of holding time. We consider this to be a minor discrepancy and given that this batch was received chilled (5.5ºC) and kept chilled within the lab, this is unlikely to affect the useability of the data for the purposes of this assessment.

Sample obtained from AEC 4 were unable to be analysed for microbial organisms due to the appropriately sterilised sample containers not being available at the time of sampling. As such upon submission to the laboratory the analysis was unable to be undertaken. SMEC considers available laboratory data, as well as site observations to be adequate to appropriately assess potential risk posed to receptors within AEC 4.

7.4.1.2 Equipment decontamination

Reusable sampling equipment with the potential to cross contaminate samples (e.g. hand auger), was decontaminated using a triple wash procedure; that is, washed in diluted Liquinox detergent solution, rinsed in potable water and then rinsed in distilled water. At a minimum, equipment decontamination occurred prior to use, in between each sample, at the end of each day, and prior to equipment return to suppliers.

7.4.1.3 Equipment rinsate

One rinsate blank was collected from the triple rinsed hand auger head and analysed for all identified potential contaminants of concern.

A rinsate sample was collected to assess the effectiveness of equipment decontamination. One rinsate sample (Rinsate 1) was collected as part of the QA/QC procedure in the field by running laboratory prepared rinsate water across the end of the decontaminated hand auger. The blank water was collected directly into sample containers for analysis. The rinsate sample was treated in the same manner as other samples collected during the investigation. The rinsate sample was analysed for metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg), Organochlorine Pesticides (OCPs) and organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH) and phenols.

None of the tested analytes were detected above the laboratory limits of reporting. The rinsate result is presented in Table H3, Appendix H.

7.4.1.4 Equipment calibration

Monitoring equipment used to collect data was calibrated and/or serviced at a regular frequency in accordance with manufacturers recommendations. At a minimum, this included a PID calibration within one month of fieldwork (i.e. minimum monthly). Regular 'bump' tests were carried out in the field to assess potential calibration drift during monitoring. Calibration certificates are included in Appendix D.

7.4.1.5 Trip blank and trip spike samples

One BTEX/ volatile TPH trip spike and two trip blanks sample (prepared by the laboratory) were taken into the field during soil sampling. These quality control samples were stored in the same manner as other samples. These were later analysed to assess potential loss of volatiles and/or volatile cross contamination during soil sampling. One trip spike recorded acceptable recoveries and the two trip blanks recorded concentrations below the laboratory reporting limits.

7.4.2 Field duplicate samples

Duplicate samples were selected for analysis and are summarised in Table 10. Intra-laboratory samples were analysed with the primary laboratory (ALS) and the inter-laboratory sample was analysed with the secondary laboratory (Eurofins).

Table 10 Field duplicate samples.

Primary Sample ID	Media	Duplicate ID	Type	Analysis*1
DUP01	Soil	DUP01A Inter lab duplicate		Heavy Metals, OCPs, OPPs, PCBs, PAH, TRH, BTEX, Ph
TP04/0.0-0.1	Soil	DUP02	Intra lab duplicate	Heavy Metals, OCPs, OPPs, PCBs, PAH, TRH, BTEX, Ph
		DUP02A	Inter lab duplicate	

Notes:

*1 *PCB (polychlorinated biphenyl), OC (Organochlorine phosphates), OP (Organophosphate pesticides), BTEX (benzene, toluene, ethylbenzene, xylene), PAH (Polycyclic Aromatic Hydrocarbons), TPH (Total Petroleum Hydrocarbons), TRH (Total Recoverable Hydrocarbons)*

Schedule B3 of the NEPM (Guideline on Laboratory analysis of potentially contaminated soils) states that intra and inter laboratory duplicates should be collected at a rate of 1 per 20 samples (5%). In total, 56 primary soil samples were collected and analysed, and 3 duplicate samples were collected and analysed (5.3%).

7.4.3 Relative percente difference (RPD)

Relative percent differences(RPD) were calculated using the method in Section 8.2.6 of AS4482.1-2005 and are presented in Table H4, Appendix H. The adopted control limits for RPD's were as follows:

- Less than 30%, where result is greater than 10 times limit of reporting (LOR)
- No limit where result is less than 10 times LOR.

RPDs above the control limits were recorded for the following analytes:

- TP04/0.0-0.1 recorded chromium^{III+VI} result of 20mg/kg whereas the duplicate sample (DUP02) reported 33mg/kg for the same analyte, the resulting RPD was 49%.

The variability noted above between primary and duplicate soil samples is likely to be associated with the heterogeneous nature of contaminant distribution in the soil matrix. Other RPDs were within the control limits.

7.4.4 Laboratory QA/QC

Laboratory QA/QC, including matrix spikes, laboratory method blanks and laboratory duplicates, were performed in accordance with the laboratory NATA accreditation and the requirements of the ASC NEPM, 2013.

7.4.5 Spikes, blanks and duplicates

The following DQI non-compliances were noted within laboratory QAQC:

- The ALS QA/QC compliance assessment report for batch ES2312936 stated that:
  - No method blank outliers were recorded
  - No laboratory duplicate outliers were recorded
  - No laboratory control outliers were recorded
  - No matrix spike outliers were recorded
  - No quality control sample frequency outliers exist
  - Some surrogate recovery outliers did exist for all regular sample matrices as follows:
    - 1.2-Dichloroethane-D4 analysis within sample HA09-0.0-0.1 (soil), was recorded outside the 63.2%-125% limit at 59.8%. Lab noted: Recovery less than lower data quality objective.
    - 1.2-Dichloroethane-D4 analysis within sample HA09-0.5-0.6 (soil), was recorded outside the 63.2%-125% limit at 57.8%. Lab noted: Recovery less than lower data quality objective.
    - Toluene analysis within sample HA09-0.0-0.1 (soil), was recorded outside the 66.8%-124% limit at 59.8%. Lab noted: Recovery less than lower data quality objective.
    - Toluene analysis within sample HA09-0.5-0.6 (soil), was recorded outside the 66.8%-124% limit at 55.0%. Lab noted: Recovery less than lower data quality objective.
  - Some analysis holding time outliers exist as follows:
    - pH in soil (using 0.01M CaCl extract) analysis within samples TP03-0.0-0.1 (EIL) were extracted 1 days out of holding time.
- The ALS QA/QC compliance assessment report for batch ES2312519 stated that:
  - No method blank outliers were recorded
  - No laboratory control outliers were recorded
  - For all regular samples matrices no surrogate recovery outliers existed
  - No analysis holding time outliers exist
  - Some frequency of quality control outliers exist, as follows:
    - Laboratory duplicate analysis for PAH/Phenols, Pesticides by GCMS, Polychlorinated Biphenyls (PCB) and TRH – Semivolatile Fraction (10% was expected by only 0.0% was achieved).
    - Matrix Spike analysis for PAH/Phenols, Pesticides by GCMS, Polychlorinated Biphenyls (PCB) and TRH – Semivolatile Fraction (5% was expected by only 0.0% was achieved)
  - Some laboratory quality control outliers were recorded, as follows:
    - Chromium analysis within the anonymous laboratory duplicate (soil), was recorded outside the 0%-20% RPD at 43.1%. Lab noted: RPD exceeds LOR based limits.
  - Some matrix spike outliers were recorded, as follows:
    - Organic Matter and Total Organic Carbon (soil) within sample EIL-TP26-0.1-0.2. Lab noted: MS recovery not determined, background level greater than or equal to 4x spike level.

7.4.5.1 Laboratory limit of reporting

All laboratory limits of reporting were below the adopted assessment criteria.

7.4.6 QA/QC Summary

Based on the above data evaluation, SMEC consider the data to be useable for the purposes of this assessment.

8. Field and Laboratory Results

The following sections discuss the field and laboratory results from the fieldwork completed by SMEC as part of the DSI.

8.1 Subsurface Conditions

Test pit, and hand auger logs are presented in Appendix E. Photographs of typical soil profiles and examples of the soil material observed during sampling are included in Appendix C.

The generalised subsurface conditions encountered at the sampling locations during the DSI are summarised in Table 11 below.

Table 11 Summary of subsurface conditions observed at test pit and hand auger locations.

Unit	Typical Description	Depth range to top of unit (m bgl)	Indicative thickness (m)	Location and Photo Reference
Topsoil	*Silt, silty clay, clay, reworked clay, sand, pale brown w/ yellow and grey mottle, brown*	0.0	~0.0-0.3	TP01-30 HA01-10 (Refer to Image 16, Appendix C)
	Silt, dark brown	0.0	~0.0-0.3	TP04, TP06, TP08, TP13, TP17-20, TP30 (Refer to Image 20, Appendix C)
Fill	*Silty clay, reworked clay, red brown sand, pale brown w/ yellow and grey mottle, brown* - Anthropogenic inclusions at TP15 (porcelain tile, glass). - Ash inclusions at HA01	0.1	~0.3	TP15 and HA01 (Refer to Image 36, Appendix C)
	Sand, light brown	0.0	~0.7	TP14 (Refer to Image 29, Appendix C)
Residual	General residual soil layers: *Clay, brown and red-brown, pale orangey-red, grey w/ red mottle*	0.3-0.7	~0.3-0.9 (termination depth)	TP01-30 HA01-10 (Refer to Image 18, Appendix C)

8.1.1 Staining and odours

A weak organic odour was noted during sampling at HA09 test location. At all other DSI test locations, unusual staining or odours were not noted during sampling.

8.1.2 Field soil screening for VOCs

PID field screening results ranged between 0.8 parts per million (ppm) to 49.1ppm these results generally indicate a low potential for volatile contamination within the sampled layers. Field screening of a sample collected from HA09/0.1-0.2 recorded a reading of 656.1ppm (at 0.1 to 0.2m bgl). PID records are provided in Appendix F.

8.1.3 Groundwater inflows

Groundwater seepage or inflow was not observed in the test pits or hand auger boreholes to the nominated excavation depths.

8.2 Laboratory Results

Tabulated analytical results for soil analysis are summarised in Tables H1 and H2, Appendix H. The laboratory analysis reports are included in Appendix G. Exceedances of adopted assessment criteria are described in the sections below and are presented on Figure 4, Appendix A.

8.2.1 Health Criteria

- ACM was not identified at any of the sampling locations.
- No exceedances of the adopted health criteria were recorded for any analytes in sampled material.

8.2.2 Ecological Criteria

Ecological Screening Levels (ESLs) were exceeded for the following analytes:

- The TRH fraction >C10-C16 fraction (F2 minus naphthalene) EIL of 120 mg/kg was exceeded in sample HA09/0.0-0.1 with a concentration of 130 mg/kg.
- The TRH fraction >C16-C34 Fraction (F3) EIL of 300 mg/kg was exceeded for samples HA09/0.0-0.1 and HA03/0.1-0.2 with reported concentrations of 770 mg/kg and 390 mg/kg respectively.

Locations of ecological criteria exceedances are shown on Figure 4, Appendix A.

8.2.3 Aesthetic Criteria

Anthropogenic materials were identified in the soil profiles at DSI sample locations TP15. Ash inclusions were identified in the soil profile at DSI sample locations HA01. Surface debris was observed in some areas across the Site as part of the PSI.

Anthropogenic materials and ash inclusions observed in fill layers are described in Section 8.1. The quantities observed did not typically suggest a widespread aesthetic issue but should be considered for the proposed activity. Ash and some anthropogenic materials may present an aesthetic issue if exposed or used in upper parts of recreational/landscape areas.

Dark colouring topsoils were observed, as well as evidence of previously occurred septic overflows within AEC 4 during the site inspection. While odours or significant staining were not observed at the time, it is considered that should the septic system continue to overflow, or significant soil disturbance occur exposing current areas of overflow, there is the potential for aesthetic impacts including malodorous and stained soils to be present.

9. Discussion and Revised Conceptual Site Model

9.1 Discussion

AEC 1 - Areas near former/existing building structures

The majority of identified historical structures were targeted (noting that some could not be targeted because they are located within the footprint of an existing structure). Some sampling points targeting this AEC were hand augured (due to access constraints for the excavator), this sampling technique was used to gain an initial assessment of widespread contamination from this AEC. No exceedances of the identified contaminants of concern were recorded above adopted assessment criteria at any of the sampling locations which targeted this AEC. Based on the results of the investigation the likelihood of widespread contamination associated with this AEC is considered to be low, however, it should be noted that we could not investigate directly beneath the footprint of existing structures, hazardous materials may have been used in the construction of on-site structures but an assessment of this is beyond the scope of this investigation, and, due to safety constraints, the crawl spaces beneath buildings were not accessible, and SMEC was unable to carry out a thorough inspection of demolition waste.

AEC 2 - Areas of possible filling of unknown origin and/or quality

41 sampling locations were carried out across the Site. Fill was observed in TP14 and TP15 to a maximum depth of 0.7m bgl . Some minor quantities of anthropogenic fill inclusions (e.g. porcelain, tile and glass were observed). Samples were collected from all sampling locations and analysed for CoPC. Generally, contaminants of concern did not exceed adopted assessment criteria within samples collected from on-site fill, noting some generally minor exceedances of adopted ecological criteria for TRH (C10-C12 and C16-C34 fraction). Based on the results of the investigation the likelihood of widespread contamination associated with this AEC is considered to be low (except for the noted exceedances of TRH at HA09/0.0-0.1 and HA03/0.1-0.2).

AEC 3 - Whole Site from potential spraying of pesticides and herbicides

60 samples were analysed from across the Site for OCP/OPP and metals, no exceedances of adopted assessment criteria for these CoPC were reported. Based on the results of the investigation the likelihood of widespread contamination associated with this AEC is considered to be low.

AEC4 - Septic Tanks prone to overflowing

Interview and anecdotal information confirmed that the septic tanks at sites are prone to overflowing during heavy rainfall. Due to a fieldwork omission, samples were not analysed for faecal coliforms, however did report elevated concentrations of nutrients (total phosphorous, ammonia, and nitrogen (total and Kjeldahl)) and TRH fractions in concentrations above the adopted ESLs in shallow soils. These contaminants can be attributed to effluent, and as such, are considered indicative of impacts to shallow soils as a result of the overflowing septic system. In addition to the laboratory results, dark coloured surface soils, and surficial indicators of overflowing effluent were observed within AEC 4 and were attributed to the septic system. Based on this, there is considered to be a moderate risk from the system, with management measures recommended in Section 10.2.

AEC5 - Areas near historical incinerators

Incinerator areas were targeted, no exceedances of adopted assessment criteria for these CoPC were recorded in samples collected from sampling locations which were considered to target this AEC. Based on the results of the investigation the likelihood of widespread contamination associated with this AEC is considered to be low.

9.2 Revised Conceptual Site Model

A critical element of any Site assessment is the development of a conceptual Site model (CSM). The CSM describes the environmental setting, identifies contaminant sources (potential areas of concern and associated contaminants), modes of contaminant movement (migration pathways), the person/ecosystem components/environmental values potentially affected by the contamination (potential receptors) and how exposure may occur (exposure routes).

The development of the CSM is an iterative process, whereby the initial CSM (refer to Section 4) is developed in the first stage of Site assessment and revised as more detailed information on the Site and the nature of contamination becomes available. A preliminary CSM has been prepared which presents potential source(s), pathway(s), and ecological/human receptor(s) linkages. Potential source(s), pathway(s) and ecological/human receptor(s) are identified below. The preliminary CSM is used to identify risks to human health, the environment, and environmental values, as well as uncertainties or critical gaps in information that need to be addressed in subsequent stages. For a risk to exist all three components (source, pathway, receptor) of the CSM must exist. The CSM is made up of contaminants of potential concern (CoPC) and receptors that could be exposed to the CoPC, a revised conceptual site model is presented in Table 12.

Table 12 Revised conceptual site model'

Source	Potential Pathway		Potential Receptor (s)	S-P-R Linkage
Primary	Migration Pathway(s)	Exposure Pathway(s)		
TRH ecological exceedances at HA09/0.0-0.1 and HA03/0.1-0.2	• Exposing soil during earthworks	• Root uptake	• Onsite ecological receptors	Plausible if disturbed and not managed
Septic tanks prone to overflowing	• Continued overflow of septic tanks onto school grounds • Exposing soil during earthworks	• Dermal contact • Incidental ingestion (human)	• Future users of the site e.g. students and staff • Site workers during future construction works or maintenance activities	Plausible if disturbed and not managed

9.3 Data Gaps

- Due to safety constraints, the crawl spaces beneath buildings were not accessible, and SMEC was unable to carry out a thorough inspection of demolition waste. The potential presence of ACM in this area has not been fully assessed.
- SMEC did not investigate the soils beneath the buildings.
- There is limited groundwater data available for the Site, noting that no groundwater bores were registered within 500m of the Site. The groundwater levels onsite are inferred from nearest surrounding bores; the nearest bore is located 882m from the site.

10. Conclusions

Based on the findings of this assessment, the following is concluded:

- All soil analysis results were below the adopted human health criteria. Based on the soils tested the Site is not considered to represent a human health risk to existing or future users of the Site.
- TRH fractions (C10-C16 and C16-C34) exceeded adopted ecological criteria within HA03/0.-0.2 (C16-C34 only) and HA09/0.0-0.1 including elevated PID readings for HA09/0.0-0.1, the exceedances are considered to be minor.
- Following the investigation undertaken by SMEC, the Site is considered generally suitable for the proposed activity and continued use as a school provided the recommendations (Section 10.2) are implemented.
- Based on the site observations of AEC 4, and review of soil logs and available laboratory data, shallow soils within the area of overflowing septic system is recommended to be stripped and disposed offsite due to the sensitive land use and aesthetic considerations.

11. Recommendations and Mitigation Measures

11.1 Recommendations

A revised CSM was developed which indicates that there are plausible source-pathway-receptor linkages with respect to the TRH ecological exceedances and from the overflowing septic system. Based on the results of this DSI, we recommend the following:

- Preparation of a Construction Environmental Management Plan (CEMP) outlining unexpected finds, including for areas underneath building footprints post demolition.
- Undertake a review of the septic system to prevent future overflows occurring.
- Segregation and stripping of shallow soils impacted by the overflowing septic system, with classification and disposal offsite at a licensed facility. Based on the area observed during the site inspection and soil logs, approximately 4.5 m^3 is anticipated to require disposal (3m by 3m by 0.5m depth).
- A Hazardous Building Material (HBM) Management Plan be prepared and implemented outlining:
  - How HBMs will be removed from existing buildings safely and effectively in accordance with relevant WHS guidelines.
  - Validation protocols for post demolition soil surfaces.
- When details of known disturbance areas for the proposed activity are known, further assessment could be carried out to target those areas to increase the confidence in the assessment and avoid unexpected finds, otherwise works could be managed through an unexpected finds procedure.
- It should be noted that hazardous materials may have been used in the construction of on-site structures but an assessment of this is beyond the scope of this investigation.

11.2 Mitigation Measures

Mitigation measures are required for a Review of Environmental Factors (REF) and are actions or measures to avoid, minimise, rectify (by repairing, rehabilitating or restoring) and/or reduce or eliminate over time (by preservation and maintenance) the adverse environmental impacts of a Division 5.1 activity. Mitigation measures specific to contamination with respect to the proposed activity are provided in Table 13.

Table 13 Mitigation Measures

Mitigation Number/ Name	Aspect/Section	Mitigation Measure	Reason for Mitigation Measure
1. Managing unexpected finds	Unexpected finds	• Further assessment to target disturbance areas to increase the confidence in the assessment and avoid unexpected finds, or • Preparing a CEMP with an unexpected finds procedure to manage potential unexpected finds of contamination including for areas underneath building footprints post demolition	• To better assess the condition of the Site and/or reduce likelihood of dealing with unexpected finds
2. Septic System	Overflows from septic system	• The septic tank is being upgraded as part of the proposed activity • Segregation and stripping of shallow soils impacted by the overflowing septic system, with classification and disposal offsite at a licensed facility (approx. (3m by 3m by 0.5m depth). • Put in place a management procedure to prevent access to areas affected by overflows if overflows are unpreventable in certain rain events	• To reduce potential of health impacts from exposure to septic system overflows
3. Hazardous Building Materials (HBM)	Managing HBM	• Prepare and implement HBM Management Plan • Removal of all hazardous building materials from structures that require demolition in accordance with relevant regulations and codes along with adequate assessment and clearance prior to demolition	• To reduce potential of exposure to HBM and avoid introduction of contaminants to the ground.

12. References

Asbestos Register (Hazardous Materials and Risk Assessment), Leppington Public School (2926)

Australian Standard AS4482.1-2005 Guide the investigation and sampling of site with potentially contaminated soil Part 1: Non-volatile and semi-volatile compounds

CRCCare (2017), Technical Report No. 39 – Risk-based management and remediation guidance for benzo(a)pyrene

GYDE Consulting (2022), Due Diligence Report (Draft): Leppington Public School, 144 Rickard Road, Leppington, Prepared for School Infrastructure NSW

National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended in 2013, National Environment Protection Council.

National Environment Protection Council (2013) Assessment of Site Contamination NEPM Toolbox.

NSW EPA (2022) Contaminated Land Guidelines: Sampling design part 1 - application.

NSW EPA (2015) Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997.

NSW EPA (2020), Consultants Reporting on Contaminated Land, Contaminated Land Guidelines, April 2020.

SMEC (2023), Leppington Public School: Preliminary Site Investigation (Contamination), 30018043 PSI, dated 13 March 2023.

Appendix A

Figures

LEGEND

- Contours 0.5 m
- Site Boundary
- Cadastre

RICKARD ROAD

BYRON RO

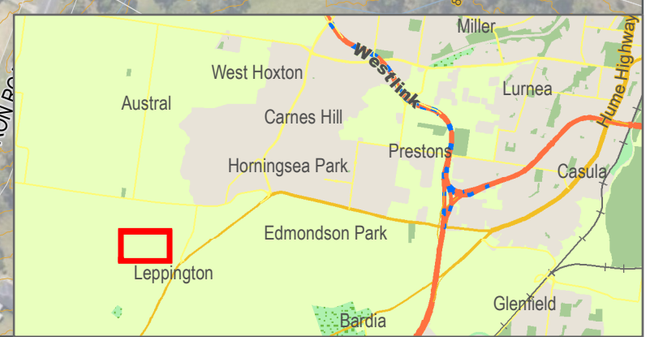


FIG NO. 1	**FIGURE TITLE** Site Location - Leppington Public School Leppington Public School, Rickard Road, Leppington, NSW 2179	**DATE** 12/05/2023	0 12.5 25 50 75 100 125 1:2,500 Meters	**PAGE SIZE** A3
PROJECT NO. 30018043	**PROJECT TITLE**:Leppington Public School Detailed Site Investigation (DSI)	**CREATED BY** FA13847	**SOURCES** Roadnet MDS 2020, NSW Land Parcel © Spatial Services MetroMap Imagery © Aerometrex Pty Ltd	**COORDINATE SYSTEM** GDA2020 MGA Zone 56

SMEC
Member of the Surbana Jurong Group

Location: X:\Projects\300180\30018043 - SINSW Projects\100 Data\GIS\Maps\DSI 2023 - Leppington\30018043_DSI_LEP_F0001_SiteLocn.mxd or X:\Projects\300128\30012830 - Family and Community Services Projects\160 GIS\Maps

Last updated by: FA13847 on 12/05/2023 at 13:52

LEGEND

Areas of Environmental Concern

- AEC 1 - Areas near former/ existing building structures from weathering and/or ineffective demolition of hazardous building materials
- AEC 2 - Whole Site from fill of unknown origin and/or quality
- AEC 3 - Whole Site from potential spraying or application of pesticides and herbicides
- AEC 4 - Septic Tanks prone to overflowing during heavy rainfall
- AEC 5 - Areas near historical incinerators from the burning of unknown waste materials

Building Structures

- Existing Structure (AEC 1)
- Former Structure/Demolished (AEC 1)
- Site Boundary

1975 to present - Building structure
1998 to present - Building structure
1984 to present - Building structure
Former Above Ground LPG Tanks
1975 to 1986 Building structure
1975 - 1978 Unknown building structure
1947 - 1965 - area of clearing (possible crop growing activities)
Areas near historical incinerators from the burning of unknown waste materials
1947 - 1965 Unknown buildings
1978 to present - Suspected sports field
1975 to present - Historical building structure
2005 to present - suspected crop growing acitvities
Septic Tanks prone to overflowing during heavy rainfall
2007 to present - stockpile
1965 - 1998 Unknown structure
1965 to 1984 Cluster of structures
Former Above Ground LPG Tanks
1991 to present - Building structure
1978 to 1984 Building structure
1965 to present - Existing structure
1965 to 1975 Cluster of building structures unknown use
1978 to present - Building structure - residential
1947 - 1965 Unknown circular structure
1965 - 1978 Evidence of crop growing activities
1975 to present - Building structure
1978 - 1984 Suspected topsoil stripping related to house building
1965 - 1984 Suspected crop growing activities
1965 - 1984 Unknown structure/s
1986 to 1998 Building structure
1998 to present - Greenhouse structures (expanding and redcuing land area over time)
1986 to 1998 Cluster of structures
1965 - 1984 Cluster of structures unknown use
1986 to present - Cluster of buildings
1986 to present - Building structure - residential
1998 to 2007 Building structure
1978 - 1988 suspected crop growing activities
1965 to 1975 Cluster of historical building structures
1965 - 1984 Unknown building structure
1965 - 1975 Unknown ground distrubance
Building structure - 2011 to present
1998 to2004 area of suspectec demolition debrit/stockpiles
2011 to present - area of rubbish/structures/waste etc
2021 to present - stockpile
1986 - 1998 Unknown structure
2019 to present - stockpile
1984 to 1986 - Strockpile - unknown material

BYRON ROAD
RICKARD ROAD
RICKARD ROAD
N

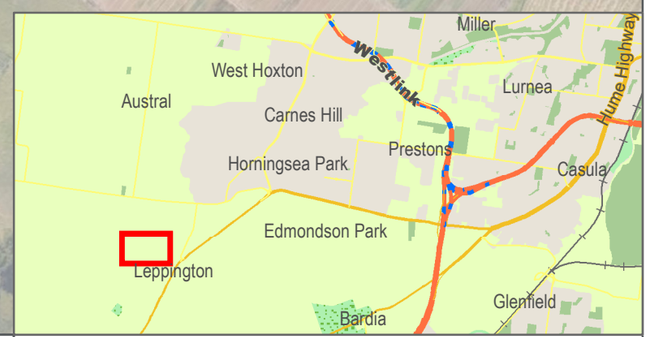


FIG NO. 2	**FIGURE TITLE** Areas of Environmental Concern - Leppington Public School	**DATE** 12/05/2023	0 12.5 25 50 75 100 125 Meters 1:2,500	**PAGE SIZE** A3	**COORDINATE SYSTEM** GDA2020 MGA Zone 56
PROJECT NO. 30018043	**PROJECT TITLE**:Leppington Public School Detailed Site Investigation (DSI)	**CREATED BY** FA13847	**SOURCES** Roadnet MDS 2020, NSW Land Parcel © Spatial Services MetroMap Imagery © Aerometrex Pty Ltd		

SMEC
Member of the Surbana Jurong Group

Location: X:\Projects\300180\30018043 - SINSW Projects\100 Data\GIS\Maps\DSI 2023 - Leppington\30018043_PSI_LEP_F0002_AEC.mxd or X:\Projects\300180\30018043 - SINSW Projects\100 Data\GIS

Last updated by: FA13847 on 12/05/2023 at 13:56

LEGEND

- Hand Auger Location
- Test Pit Location
- Site Boundary

HA6 HA7 HA5 HA1 HA8 HA2 HA3 HA4 HA9 HA10

TP19 TP10 TP28 TP11 TP9 TP1 TP27 TP18 TP29 TP12 TP8 TP2 TP17 TP20 TP3 TP7 TP13 TP16 TP30 TP31 TP21 TP26 TP4 TP15 TP22 TP6 TP14 TP25 TP23 TP5 TP24

RICKARD ROAD

N

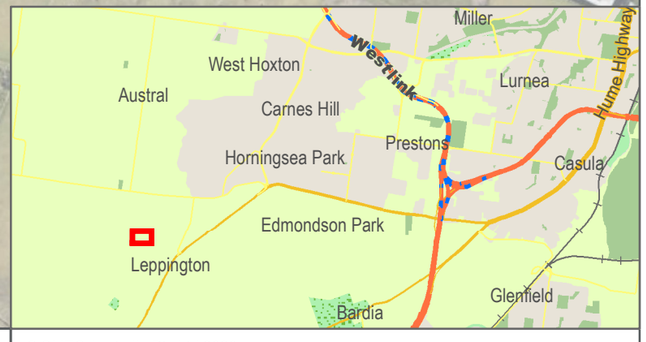


FIG NO. 3

FIGURE TITLE Sample Locations - Leppington Public School
Leppington Public School, Rickard Road, Leppington, NSW 2179

DATE 12/05/2023

0 5 10 20 30 40 50
1:1,000 Meters

PAGE SIZE A3

COORDINATE SYSTEM GDA2020 MGA Zone 56

PROJECT NO. 30018043

PROJECT TITLE:Leppington Public School
Detailed Site Investigation (DSI)

CREATED BY FA13847

SOURCES Roadnet MDS 2020, NSW Land Parcel © Spatial Services
MetroMap Imagery © Aerometrex Pty Ltd

SMEC
Member of the Surbana Jurong Group

Location: X:\Projects\300180\30018043 - SINSW Projects\100 Data\GIS\Maps\DSI 2023 - Leppington\30018043_DSI_LEP_F0003_SampleLocn.mxd or X:\Projects\300128\30012830 - Family and Community Services Projects\160 GIS\Maps

Last updated by: FA13847 on 12/05/2023 at 14:33

LEGEND

- Hand Auger Location
- Test Pit Location
- Site Boundary

HA09/0.0-0.1

TRH(C10-C16) (130mg/kg) exceeded adopted ecological criteria (120mg/kg)

TRH(C16-C34) (770mg/kg) exceeded adopted ecological criteria (300mg/kg)

HA03/0.1-0.2

TRH(C16-C34) (390mg/kg) exceeded adopted ecological criteria (300mg/kg)

HA6, HA7, HA5, HA1, HA8, HA2, TP19, TP10, TP28, TP11, TP9, TP1, TP27, HA3, TP18, TP2, TP29, TP12, TP8, HA4, TP17, HA9, TP20, RICKARD ROAD, TP30, TP31, TP21, TP16, TP13, TP7, TP3, TP26, TP15, TP4, TP22, TP6, HA10, TP14, TP25, TP23, TP5, TP24

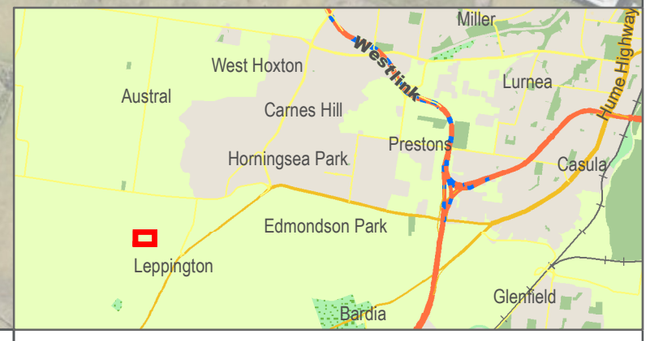


FIG NO. 4	**FIGURE TITLE** Soil exceedance figure	**DATE** 12/05/2023	0 5 10 20 30 40 50 Meters 1:1,000	**PAGE SIZE** A3	**COORDINATE SYSTEM** GDA2020 MGA Zone 56
PROJECT NO. 30018043	**PROJECT TITLE**:Leppington Public School Detailed Site Investigation (DSI)	**CREATED BY** FA13847	**SOURCES** Roadnet MDS 2020, NSW Land Parcel © Spatial Services MetroMap Imagery © Aerometrex Pty Ltd		

SMEC
Member of the Surbana Jurong Group

Location: X:\Projects\300180\30018043 - SINSW Projects\100 Data\GIS\Maps\DSI 2023 - Leppington\30018043_DSI_LEP_F0003_SampleLocn.mxd or X:\Projects\300128\30012830 - Family and Community Services Projects\160 GIS\Maps

Last updated by: FA13847 on 12/05/2023 at 14:33

Appendix B

Data Quality Indicators

DQIs for the project will be based on the field and laboratory considerations in NEPM Schedule B2 Appendix B, (NEPC 1999), which include:

- Completeness – a measure of the amount of useable data (expressed as %) from a data collection activity;
- Comparability – the confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event;
- Representativeness – the confidence (expressed qualitatively) that data are representative of each media present on the site;
- Precision – A quantitative measure of the variability (or reproducibility) of data; and
- Accuracy – a quantitative measure of the closeness of reported data to the true value.

The DQIs adopted for this assessment and checking of compliance is discussed in the tables below.

Completeness					
Field considerations	DQI	DQI Compliance	Laboratory considerations	DQI	DQI Compliance
All critical locations will be sampled	Samples will be collected as per Section 7.	Yes	All critical samples analysed.	Samples will be analysed as per Section 7.3.	Yes
All samples collected	Samples will be collected from relevant media as per Section 7.3.	Yes	All analytes analysed according to sampling plan	Samples will be analysed as per Section 7.3.	Yes
Standard Operating Procedures (SOPs) appropriate and complied with	SMEC SOPs/Field instructions will be implemented	Yes	Appropriate methods and limits of reporting	Samples will be analysed by laboratories NATA accredited for the analyses to be performed and appropriate methods will be used. LORs will be less than or equal to the assessment criteria.	Yes
Experienced sampler	An experienced SMEC environmental consultant will conduct the sampling	Yes	Sample documentation complete	CoCs will be returned, signed and dated by laboratory. NATA endorsed laboratory certificates will be completed in accordance with NEPC (1999). Field documentation will be completed in accordance with SMEC SOPs/Field instructions.	Yes (Appendix G)
Documentation correct	Samples will be handled and transported under appropriate chain of custody documentation. Sample Receipt Advice (SRA) (or equivalent) from the laboratory will be reviewed to assess that samples are received cool and in good condition. Calibration certificates for the field instruments will be provided on a daily basis.	Yes, with some exceptions	Sample holding times complied with	Samples will be analysed within holding times specified by NEPC (1999, amended 2013)	Yes, with some exceptions (refer to Section 7.4.6)

Representativeness					
Field considerations	DQI	DQI Compliance	Laboratory considerations	DQI	DQI Compliance
Appropriate media sampled according to sample plan	Samples will be collected and analysed as listed in Section 7. Any variations will be justified.	Yes	All samples analysed according to sample plan All samples analysed according to sample plan	Samples will be collected and analysed as listed in Section 7. NATA accredited environmental testing laboratories will implement a quality control plan conforming to Schedule B(3) 'Guideline on Laboratory Analysis of Potentially Contaminated Soils' of the National Environment Protection (Assessment of Site Contamination Measure 1999 as amended (NEPC, 1999).	Yes
All media identified in sample plan sampled	Samples will be collected and analysed as listed in Section 7.	Yes		Samples will be collected and analysed as listed in Section 7.	Yes

Precision					
Field considerations	DQI	DQI Compliance	Laboratory considerations	DQI	DQI Compliance
SOPs appropriate and complied with	SMEC SOPs/Field instructions will be implemented	Yes	Analysis of laboratory duplicates	The number of duplicate analyses should be the smaller of one per process batch or one per 10 samples.	
Analysis of: field duplicates	Collection of field duplicate samples including: • Field intra-laboratory duplicate samples (1 in 20 samples). • Field inter-laboratory duplicate samples (1 in 20 samples).	Yes	Analysis of: field duplicates	Field duplicates have relative percentage difference (RPD) control limits: • Less than 30%, • Less than 50%, where result is greater than 10 times limit of reporting (LOR). • No limit where result is less than 10 times LOR.	Yes, minor exceptions (refer to Section 7.4.3)
	Experienced and trained staff to carry out sampling. Sampling methodologies appropriate and complied with.	Yes	Analysis of: laboratory duplicates	Laboratory duplicates have RPD control limits: • Results <10 times the LOR: No Limit • Results between 10-20 times the LOR: RPD must lie between 0-50% • Results >20 times the LOR: RPD must lie between 0-30% In accordance with laboratory specific QC Acceptance criteria.	Yes, minor exceptions (refer to Section 7.4.3)
			Analysis of: laboratory-prepared volatile trip spikes	At least one BTEX trip spike per batch will be analysed for volatile contaminants (BTEX).	Yes
			Analysis of: laboratory-prepared volatile trip blanks	At least one trip blank per batch will be analysed for volatile contaminants (BTEX).	Yes

Accuracy (bias)					
Field considerations	DQI	DQI Compliance	Laboratory considerations	DQI	DQI Compliance
SOP appropriate and complied with	SMEC SOPs/Field instructions will be implemented	Yes	Analysis of field blanks	A laboratory prepared trip blank will be analysed per batch (as defined in AS4482.2-1999 and NEPC (1999). Results are to be less than the limit of reporting (LOR).	Yes
Rinsate blank	Where reusable sampling equipment is utilised (if any) a rinsate blank will be analysed and results compared against the PQL.	Yes	Analysis of method blank	Method blanks will be analysed as per NEPC (1999) at least 1 per process batch (typically 1 in 20). Results to be less than LOR	Yes
Trip spike	One BTEX trip spike will be taken in the field and analysed. DQI - recoveries to be within 70% - 130% for organics	Yes	Analysis of matrix spike	Matrix spikes will be analysed as per NEPC (1999) (one matrix spike per soil type per process batch). Results to be within laboratory acceptance limits based on NEPC (1999). Acceptance limits are on the laboratory certificates (typically 70-130%, depends on analyte. A lower range typically accepted for phenols 30%-130%)	Yes, with minor exceedances (refer to section 7.4.5)
Preservation, transport and storage	Samples appropriately preserved in laboratory supplied containers, stored and transported correctly and within holding times	Yes	Analysis of surrogate spike	Surrogates will be analysed as per NEPC Schedule B3 (1999). All samples spiked where appropriate (e.g. chromatographic analysis of organics). Acceptance limits 70% to 130% (inorganics), or 50% to 150% (organics).	Yes
			Analysis of laboratory control samples (LCS)	LCSs will be analysed as per NEPC Schedule B3 (1999) (at least 1 per batch). Results to be within laboratory acceptance limits based on NEPC (1999). Acceptance limits are on the laboratory certificates (typically 70-130%, depends on analyte)	Yes
			Analysis of laboratory-prepared spikes (LPS)	LPS will be analysed as per NEPC Schedule B3 (1999). Recovery results to be within laboratory acceptance limits based on NEPC Schedule B3 (1999). Acceptance limits are on the laboratory certificates.	Yes

Appendix C

Photographic Log

Appendix E – Site Photographs

Image 1: Carpark area near main entrance at Rickard Road (taken on 05/07/2022)

Image 2: Leppington Public School main entrance (taken 05/07/2022)

Appendix E – Site Photographs

Image 3: Building B (General Learning Building) located in the north west portion of the Site reported on the asbestos register to contain ACM (taken 05/07/2022)

Image 4: Play area located at the central portion of the Site (taken 05/07/2022)

Appendix E – Site Photographs

Image 5: Example of scattered general rubbish observed (taken 05/07/2022)

Image 6: General demolition waste and building materials observed within crawl spaces beneath buildings (taken 05/07/2022)

Appendix E – Site Photographs

Image 7: Locked shipping container located at the southern portion of the school premises (taken on 05/07/2022)

Image 8: Demolition waste mound located at the southern portion of the school premises (taken on 05/07/2022)

Appendix E – Site Photographs

Image 9: Locked storage area under building J (taken 05/07/2022)

Image 10: Enclosure for former above ground LPG tank (2500L) located in the south-west portion of the school boundary (taken 05/07/2022)

Appendix E – Site Photographs

Image 11: Enclosure for former above ground LPG tank (4500L) located in the north-west portion of the school boundary (taken 05/07/2022)

Image 12: Area of cut at the oval (taken 17/04/2023)

Appendix E – Site Photographs

Image 13: North east portion of site (taken 17/04/2023)

Image 14: South portion of site (taken 17/04/2023)

Appendix E – Site Photographs

Image 15: Test pit TP01 (taken 13/04/2023)

Image 16: Representative fill observed in TP01 (taken 13/04/2023)

Appendix E – Site Photographs

Image 17: Test pit TP02 (taken 13/04/2023)

Image 18: Representative residual material observed in TP01 (taken 13/04/2023)

Appendix E – Site Photographs

Image 19: Test pit TP03 (taken 13/04/2023)

Image 20: Test pit TP04 (taken 13/04/2023)

Appendix E – Site Photographs

Image 21: Test pit TP05, taken at AEC 6 (taken 13/04/2023)

Image 22: Test pit TP05 (taken 13/04/2023)

Appendix E – Site Photographs

Image 23: Test pit TP07 (taken 13/04/2023)

Image 24: Test pit TP08 (taken 13/04/2023)

Appendix E – Site Photographs

Image 25: Test pit TP09 (taken 13/04/2023)

Image 26: Test pit TP10 (taken 13/04/2023)

Appendix E – Site Photographs

Image 27: Area of fill within AEC 5 (taken 13/04/2023)

Image 28: Test pit TP14 (taken 13/04/2023)

Appendix E – Site Photographs

Image 29: Representaive sand material of AEC 5 (taken 13/04/2023)

Image 30: Test pit TP24, taken at AEC 6 (taken 14/04/2023)

Appendix E – Site Photographs

Image 31: Test pit TP24 (taken 14/04/2023)

Image 32: Test pit TP28 within the bark play area (taken 17/04/2023)

Appendix E – Site Photographs

Image 33: Test pit TP27 (taken 17/04/2023)

Image 34: Test pit TP28 within the bark play area (taken 17/04/2023)

Appendix E – Site Photographs

Image 35: Test pit TP28 (taken 17/04/2023)

Image 36: Test pit HA01 (taken 13/04/2023)

Image 37: Test pit HA02 (taken 13/04/2023)

Image 38: Test pit HA03 (taken 13/04/2023)

Appendix E – Site Photographs

Image 39: Test pit HA04 (taken 13/04/2023)

Image 40: Test pit HA06 (taken 13/04/2023)

Appendix E – Site Photographs

Image 41: Test pit HA09 (taken 13/04/2023)

Image 42: Overflow of septic tank near HA09 (taken 13/04/2023)

Appendix E – Site Photographs

Image 43: Test pit HA10 (taken 13/04/2023)

Appendix D

Calibration Certificates

Calibration and Service Report

ABN: 74 619 717 350
Contact: 02 9730 2019
Email: rentals@experttesting.com.au
9/171 Power Street, Glendenning NSW 2761
Web: www.experttesting.com.au

Company:	Expert Testing Services (Hire) Pty Ltd	**Manufacturer:**	AMS	**Serial #:**	N/A
Address:	9/171 Power Street GLENDENNING NSW 2761	**Instrum./Model:**	Auger Kit 70 mm	**ETS Code:**	Auger 1
Phone:	02 9730 2019	**Client Company:**	SMEC	**Client Email:**	
Email:	rentals@experttesting.com.au	**Client Name:**	Sam Vaughan	**Client Phone:**	

AMS Soil Auger Kit – 70 mm

AUGER 2

Item	Test	Pass	Comments
Ratchet Handle	Working Opperation	✓	New
Sand Auger	Condition	✓	New
Mud Auger	Condition	✓	New
Soil Auger	Condition	✓	New
Finger Ring	Condition	✓	New
3 SS Extensions	Condition	✓	3x 90cm extension & 1 x 65 cm ext.
T - handle	Condition	✓	New
Plastic Carry box	Condition	✓	New

Comments

New unit.

This is to certify that the above instrument has been checked and is in good working order.

Checked By: Milenko Sisic
Check Date: 12/04/2023 **Due for Check:** 12/10/2023

EXPERT TESTING SERVICES

Expert Testing Services

;. ABN: 74 619 717 350
Contact: 02 9730 2019
Email: sales@experttesting.com.au
9/171 Power Street, Glendenning NSW 2761

Calibration and Service Report

Company:	ETS Rentals Department	**Manufacturer:**	Honeywell	**Serial #:**	592-918929
Contact:	Aachal Chand	**Instrument:**	MiniRAE 3000	**Asset #:**	-
Address:	9/171 Power Street, GLENDENNING NSW 2761	**Model:**	PGM7320	**Part #:**	-
		Configuration:	VOC	**Sold:**	-
Phone:	02 9730 2019	**Wireless:**	-	**Last Cal:**	12.04.2023
Fax:		**Network ID:**	-	**Job #:**	
Email:	rentals@experttesting.com.au	**Unit ID:**	-	**Cal Spec:**	Std
				Order #:	EFT

Item	Test	Pass/Fail	Comments	Part Code	S/W
Battery	NiCd, NiMH, Dry cell, Li Ion	✓			
Charger	Charger, Power supply	✓			
	Cradle	✓			
Pump	Flow	✓	>500ml/min		
Filter	Filter, fitting, etc	✓			
Alarms	Audible, visual, vibration	✓			
Display	Operation	✓			
Switches	Operation	✓			
PCB	Operation	✓			
Connectors	Condition	✓			
Firmware	Version	✓	Version: 2.22		
Datalogger	Operation	✓			
Monitor Housing	Condition	✓			
Case	Condition/Type	✓			
Sensors					
PID	Lamp	✓			
PID	Sensor	✓			
THP	Sensor	✓			

Engineer's Report

Checked unit settings and configuration – okay
Unit allowed to stabilize and zero calibration performed as per manufacturers specifications
Calibration procedure written and performed to manufacturers specification using traceable gases.

Calibration Certificate

Sensor	Type	Serial No:	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
PID	10.6eV	-	Isobutylene	100ppm	WO205484-9	1	0	100ppm

Calibrated/Repaired by: **Milenko Sisic** Date: **12.04.2023** Next Due: **12.10.2023**

GLOBAL COMPLIANCE CERTIFICATION GCC ISO 9001 Certified
GLOBAL COMPLIANCE CERTIFICATION GCC ISO 14001 Certified
JAS-ANZ WWW.JAS-ANZ.ORG/REGISTER

Appendix E

Logs

Member of the Surbana Jurong Group

local people
global experience

Explanatory Notes of Abbreviations and Terms

Used on Borehole and Excavation Logs

General

The “Geological and Engineering Log” presents data from drilling or excavation operations where material recovery is soil and or rock. Data presented is a combination of material recovered, regular sampling and in-situ testing. Excavations may present data obtained on the subsurface profile from observations of natural or man-made excavations. Logs may contain scaled graphical presentations, photography, or downhole imagery results. Logs may not contain all data types presented in these notes.

The “Non Core Drill Hole Engineering Log” presents data from drilling operations where a core barrel has not been used. The material is penetrated using methods other than those designed to recover core and is commonly soil or extremely to highly weathered. The “Cored Drill Hole Engineering Log” presents data from drilling operations where a core barrel has been used. The “Excavation - Geological Log” presents data obtained on the subsurface profile from observations of excavations, either natural or anthropogenic.

As far as is practicable, the data contained on the log sheet is factual. Some interpretation is inevitable with respect to the:

a. assessment of material boundaries in areas of partial sampling and recovery,

b. location of areas of core loss,

c. description and classification of material,

d. estimate of field strength, and

e. identification of drilling induced fractures.

Material description and classification is generally based on AS1726-2017 (as amended).

Drilling Method

Code	Description
ADT	Auger drilling with TC-bit
ADV	Auger drilling V-bit
AS	Auger screwing
AT	Air track
CA	Casing advancer
CC	Concrete core
CTR	Cable tool rig
DB	Wash bore drag bit
HA	Hand auger
HAND	Hand methods
HF	Hollow flight auger
HMLC	Diamond core 63.5 mm diameter
HQ / HRQ	Wire line core barrel 63.5 mm diameter
HQ3	Wire line core barrel 61.1 mm diameter
NDD	Non destructive drilling
NMLC	Diamond core 51.9 mm diameter
NQ	Wire line core barrel 47.6 mm diameter
NQ3	Wire line core barrel 45.1 mm diameter
PT	Continuous push tube
PQ	Wire line core barrel 85.0 mm diameter
RAB	Rotary air blast
RC	Reverse circulation
RD	Rotary blade or drag bit
RR	Rock roller
RT	Rotary tricone bit
SD	Sonic drilling
TBX	Tube-X
VC	Vibro-core drilling
WB	Wash bore drilling

Drilling Penetration

Ease of penetration in non-core drilling

Term	Description
VE	Very easy
E	Easy
F	Firm
H	Hard
VH	Very hard

Support and Casing

Code	Description	Code	Description
C	Casing	Hw	114.3 mm
M	Mud	Nw	88.9 mm
W	Water	PVC 150	150 mm

Core Run

Core lifts are identified by a line and depth with core loss per run as a percentage. Core loss is shown in the core run unless otherwise indicated.

Defect Spacing

The average distance between defects is measured parallel to the core axis in mm and may be expressed as a range or average.

Angle / Orientation

Angle from horizontal and orientation to magnetic north.

For inclined cored boreholes the Alpha and Beta angles are presented for orientated core. Alpha (α) is measured relative to the core axis, whilst Beta (β) is measured clockwise from the reference line looking down the core axis in the direction of drilling.

Excavation Method

Term	Definition
N	Natural exposure
X	Existing excavation
BB	Tractor mounted backhoe bucket
EX	Hydraulic excavator
EH	Hydraulic excavator with hammer
B	Bulldozer blade
R	Ripper

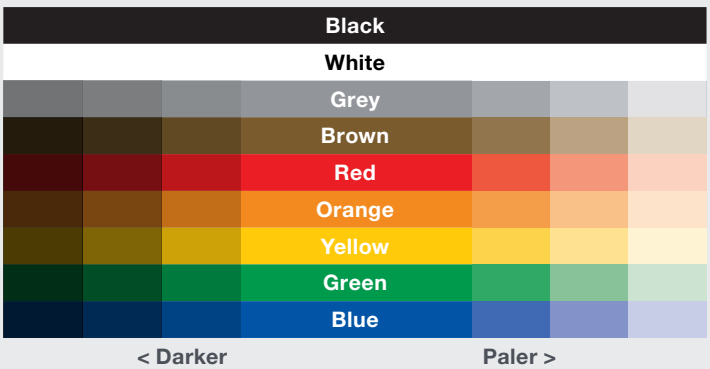
Water / Drilling Fluid

The drilling fluid used is identified and loss of return to the surface is estimated as a percentage, generally of each core lift.

Symbol	Description
	Water inflow
	Water outflow
	Water level: during drilling or immediately after completion of drilling
	Groundwater level with date observed prior to introduction of fluids or after standpipe construction
Not observed	The observation of groundwater, whether present or not, was not possible due to drilling water, surface seepage or cave in of the borehole / test pit.
Not encountered	The borehole / test pit was dry soon after excavation, however groundwater could be present in less permeable strata. Inflow may have been observed had the borehole / test pit been left open for a longer period.

Colour

The colour of a soil or rock is described in a moist/wet condition using simple terms, such as black, white, grey, red, brown, orange, yellow green or blue. These are modified as necessary by 'pale', 'dark' or 'mottled'. Borderline colours are described as a combination of these colours (e.g. orange-brown). Where a soil or rock consists of a primary colour with a secondary mottling it is described as (primary colour) mottled (first colour) and (secondary colour). Where colour is described outside of the material description it is for the interval.



Description of Soil

vi. Soil name (BLOCK LETTERS)

vii. Plasticity or particle size of soil

viii. Colour (i.e. dominant colour of material)

ix. Secondary soil components names & estimated proportions, including their plasticity / particle characteristics, colour

x. Minor soil components name, estimated proportions, including their plasticity / particle characteristics, colour

xi. Other minor soil components

xii. Moisture condition

xiii. Consistency / density

xiv. Structure of soil, geological origin

xv. Additional observations

Particle Size

Term		Grain Size
Clay		< 2 µm
Silt		2 – 75 µm
Sand	Fine	0.075 – 0.21 mm
	Medium	0.21 – 0.6 mm
	Coarse	0.6 – 2.36 mm
Gravel	Fine	2.36 – 6.7 mm
	Medium	6.7 – 19 mm
	Coarse	19 – 63 mm
Cobbles		63 – 200 mm
Boulders		> 200 mm

Fine Grained and Coarse Grained Soils

Term	Description
Fine Grained Soil (cohesive)	More than 35% of the material less than 63 mm is smaller than 0.075 mm (silts and clays)
Coarse Grained Soil	More than 65% of the material less than 63 mm is larger than 0.075 mm (sands, gravels and cobbles)

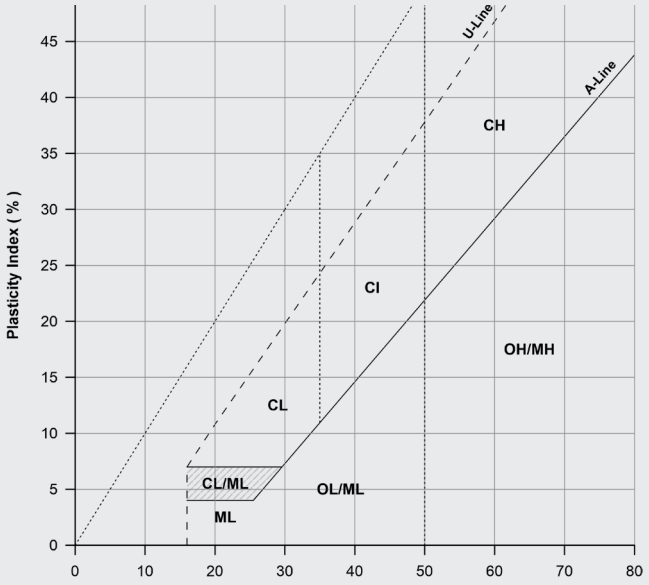
Descriptive Terms for Secondary and Minor Components

Designation of Components	In coarse grained soils				In fine grained soils	
	% Fines	Terminology	% Accessory coarse fraction	Terminology	% Sand / Gravel	Terminology
Minor	≤5	trace	≤ 15	trace	≤ 15	trace
	> 5, ≤ 12	with	> 15, ≤ 30	with	> 15, ≤ 30	with
Secondary	> 12	prefix	> 30	prefix	> 30	prefix

Plasticity – Fine Grained Soils

Liquid Limit (LL) %	Description
≤ 35	Low plasticity (L)
> 35 to ≤ 50	Medium plasticity (I)
> 50	High plasticity (H)

Plasticity Chart– Fine Grained Soils



Consistency Terms – Fine Grained Soils

Term	Undrained shear strength (kPa)	Indicative SPT (N) Blow Count	Field Guide to Consistency
Very Soft (VS)	< 12	0 – 2	Easily penetrated several centimetres by fist, exudes between fingers when squeezed in fist
Soft (S)	12 – 25	2 – 4	Easily penetrated several centimetres by thumb, easily moulded by light finger pressure
Firm (F)	25 – 50	4 – 8	Can be penetrated several centimetres by thumb with moderate effort, and moulded between the fingers by strong pressure
Stiff (St)	50 – 100	8 – 15	Readily indented by thumb but penetrated only with difficultly. Cannot be moulded by fingers
Very Stiff (VSt)	100 – 200	15 – 30	Readily indented by thumb nail, still very tough
Hard (H)	> 200	> 30	Indented with difficulty by thumb nail, brittle
Friable (Fr)	-		Can be easily crumbled or broken into small pieces

Density Terms – Coarse Grained Soils

Term	Density Index (%)	SPT (N) Blow Count
Very Loose (VL)	< 15	0 – 4
Loose (L)	15 – 35	4 – 10
Medium Dense (MD)	35 – 65	10 – 30
Dense (D)	65 – 85	30 – 50
Very Dense (VD)	> 85	> 50

Particle Characteristics – Coarse Grained Soils

Term	Description
Well graded	Having good representation of all particle sizes
Poorly graded	With one or more intermediate size poorly represented
Gap graded	With one or more intermediate sizes absent
Uniform	Essentially of one size

Angularity – Coarse Grained Soils

	Rounded
	Sub-rounded
	Angular
	Sub-angular

Origin of Soil

Fill	Formed by anthropogenic activity
Aeolian	Formed by wind
Alluvial	Formed by streams and rivers
Colluvial	Formed on slopes (talus)
Estuarine	Formed in marine environments
Lacustrine	Formed in lakes
Residual	Formed by weathering insitu

Soil Moisture

	Term	Code	Description
Coarse Grained	Dry	D	Looks and feels dry and free running
	Moist	M	Soil feels cool, darkened in colour, soils tend to stick together, soil grains do not run freely through fingers and no visible free water
	Wet	W	Soil feels cool, darkened in colour, soils tend to stick together, free water on remoulding
Fine Grained	Moist, Less than Plastic Limit	W < PL	Hard and friable or powdery, moisture content well below Plastic Limit
	Moist, Near Plastic Limit	W ≈ PL	Soil feels cool, darkened in colour, can be moulded, near Plastic Limit
	Moist, Wet of Plastic Limit	W > PL	Soil feels cool, dark, usually weakened, free water, moisture content well above Plastic Limit
	Wet, Near Liquid Limit	W ≈ LL	Soil exudes easily
	Wet, Wet of Liquid Limit	W > LL	Soil behaves as a liquid

Boundary Classifications

Soils possessing characteristics of two groups are designated by combinations of group symbols. For example, GW-GC, well graded gravel-sand mixture with clay binder.

Graphic Symbols

	Asphalt		MH
	CH		ML
	CI		OH
	CL		OL
	Concrete		PT
	Fill		SC
	GC		SM
	GM		SP
	GP		SW
	GW		Topsoil

Soil Classification

Soils are described in general accordance with AS1726-2017 as shown below.

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 63 mm and basing fractions on estimated mass)						GROUP SYMBOL	PRIMARY NAME
COARSE GRAINED SOILS More than 65% of the material is less than 63 mm and is larger than 0.075 mm	A particle size of 0.075 is about the smallest size distinguishable to the naked eye	**GRAVELS** More than half of coarse fraction is larger than 2.36 mm	**CLEAN GRAVELS** (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes, not enough fines to bind coarse grains, no dry strength; ≤ 5% fines		GW	GRAVEL
				Predominantly one size or a range of sizes with more intermediate sizes missing, not enough fines to bind coarse grains, no dry strength; ≤ 5% fines		GP	GRAVEL
			GRAVELS w/ FINES (Appreciable amount of fines)	'Dirty' materials with excess of non-plastic fines, none to medium dry strength; ≥ 12% silty fines		GM	SILTY GRAVEL
				'Dirty' materials with excess of plastic fines, medium to high dry strength; ≥ 12% clayey fines		GC	CLAYEY GRAVEL
		SANDS More than half of coarse fraction is smaller than 2.36 mm	**CLEAN SANDS** (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes, not enough fines to bind coarse grains, no dry strength; ≤ 5% fines		SW	SAND
				Predominantly one size or a range of sizes with more intermediate sizes missing, not enough fines to bind coarse grains, no dry strength; ≤ 5% fines		SP	SAND
			SANDS w/ FINES (Appreciable amount of fines)	'Dirty' materials with excess of non-plastic fines, none to medium dry strength; ≥ 12% silty fines		SM	SILTY SAND
				'Dirty' materials with excess of plastic fines, medium to high dry strength; ≥ 12% clayey fines		SC	CLAYEY SAND
FINE GRAINED SOILS More than 35% of the material less than 63 mm is less than 0.075 mm		**IDENTIFICATION PROCEDURES ON FRACTIONS** < 0.075 mm					
		SILTS AND CLAYS Liquid Limit < 50%	**DRY STRENGTH**	**DILATANCY**	**TOUGHNESS**	**GROUP SYMBOL**	**PRIMARY NAME**
			None to low	Slow to rapid	Low	ML	SILT
			Medium to high	≥ 12% clayey fines	Medium	CL, CI*	CLAY
			Low to medium	Slow	Low	OL	ORGANIC SILT
		SILTS AND CLAYS Liquid Limit > 50%	Low to medium	None to slow	Low to medium	MH	SILT
			High to very high	None	High	CH	CLAY
			Medium to high	None to very slow	Low to medium	OH	ORGANIC CLAY
HIGHLY ORGANIC SOILS: readily identified by colour, odour, spongy feel and frequently fibrous texture						PT	PEAT

* CL is low plasticity clay, CI is medium plasticity clay

Description of Rock

i. Rock name (BLOCK LETTERS)

ii. Grain size and mineralogy

iii. Colour (i.e. dominant colour of material)

iv. Fabric and texture

v. Features, inclusions, minor components, moisture content and durability

vi. Strength

vii. Weathering and/or alteration

viii. Rock mass properties – discontinuities and structure of rock

ix. Interpreted stratigraphic unit

x. Additional observations including geological structure

Simple rock names are used to provide a reasonable engineering description, rather than a precise geological classification. The rock name is chosen by considering the nature and shape of the grains or crystals, the texture and fabric of the rock material, the geological structure and setting, and information from the geological map of the area. Further guidance on the naming of rocks can be found in AS1726-2017, Tables 15, 16, 17 and 18. Typical rock types are described below, though subject to site specific variations.

Rock Type	Description	Example of Rock Name
Sedimentary	Formed by deposited beds of sediments, have grains that are cemented together and often rounded. Significant porosity	COMMON: Conglomerate, Breccia, Sandstone, Mudstone, Siltstone, Claystone ≥90% CARBONATE: Limestone, Dolomite, Calcirudite, Calcarenite, Calcisiltite, Calcilutite PYROCLASTIC: Agglomerate, Volcanic Breccia, Tuff
Igneous	Formed from molten rock and have a crystalline texture. Typically massive and low porosity. Rock types are from coarse to fine grained.	HIGH QUARTZ CONTENT: Granite, Microgranite, Rhyolite MODERATE QUARTZ CONTENT: Diorite, Microdiorite, Andesite LOW QUARTZ CONTENT: Gabbro, Dolerite, Basalt
Metamorphic	Formed when rocks are subject to heat and/or pressure and have typically have directional fabric. Typically have low porosity and crystalline structure. Rock types are from coarse to fine grained	FOLIATED: Gneiss, Schist, Phyllite, Slate NON-FOLIATED: Marble, Quartzite, Serpentinite, Hornfels
Duricrust	Formed as part of a weathering profile and show evidence of being cemented in situ. Cementation is typically irregular and exhibits replacement textures.	Ferricrete (Iron oxides and hydroxides) Silicrete (Silica) Calcrete (Calcium carbonate) Gypcrete (Gypsum)

Note: ( ) denotes dominant cementing mineralogy

Grain Size

Terms describing dominate grain size in sedimentary rocks.

Term	Grain size
Coarse	Mainly 0.6 mm to 2.0 mm
Medium	Mainly 0.2 mm to 0.6 mm
Fine	Mainly 0.06 mm (just visible) to 0.2 mm

Terms describing dominate grain size in igneous and metamorphic rocks

Term	Grain size
Coarse	Mainly greater than 2 mm
Medium	0.06 mm to 2 mm
Fine	Mainly less than 0.06 mm (just visible) to 0.2 mm

Texture and Fabric

Sedimentary rocks

Thickness	Bedding Term
< 6 mm	Thinly laminated
6 – 20 mm	Laminated
20 – 60 mm	Very thinly bedded
60 – 200 mm	Thinly bedded
0.2 – 0.6 m	Medium bedding
0.6 – 2 m	Thickly bedded
> 2 m	Very thickly bedded

Igneous rocks

Term	Definition
Amorphous	Indicates that the rock has no obvious crystalline structure
Crystalline	A regular molecular structure, showing crystal structure and symmetry.
Cryptocrystalline	The texture comprises crystals that are too small to recognise under an ordinary microscope. Indistinctly crystalline.
Porphyritic	Indicates the presence of phenocrysts (relatively large crystals in a fine grained ground mass) in igneous rocks.
Flow banded	Indicates visible flow lines in volcanic rocks and some intrusive rocks
Glassy	Entirely glass like. No crystalline units and without crystalline structure.
Vesicular	A texture of volcanic rocks that indicates the presence of vesicles (small gas bubbles). Where the vesicles are filled with a mineral substance they are termed Amygdales and the texture is Amygdaloidal.

Metamorphic

Term	Definition
Foliation	The parallel arrangement of minerals due to metamorphic process, which shall be defined by the terms in weak, moderate and strongly foliated.
Porphyroblastic	A texture indicating the presence of porphyroblasts (larger crystals formed by recrystallization during metamorphism, such as garnet or staurolite in a mica schist).
Cleavage	A type of foliation developed in fine grained metamorphic rocks such as slates.

Bedding and Fabric Development

Type	Definition
Massive	No obvious development of bedding – rock appears homogeneous
Poorly Developed	Bedding is barely obvious as faint mineralogical layering or grain size banding, but bedding planes are poorly defined.
Well Developed	Bedding is apparent in outcrops or drill core as distinct layers or lines marked by mineralogical or grain size layering.
Very Well Developed	Bedding is often marked by a distinct colour banding as well as by mineralogical or grain size layering.
Indistinct Fabric	There is little effect on strength properties
Distinct Fabric	The rock may break more easily parallel to the fabric

Rock Strength

Term (Code)	UCS (MPa)	$Is_{(50)}$ (MPa)	Field Guide to Strength
Very Low (VL)	0.6 - 2	> 0.03 to ≤ 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 3 cm thick can be broken by finger pressure.
Low (L)	2 - 6	> 0.1 to ≤ 0.3	Easily scored with a knife; indentations 1 mm to 3 mm show in the specimen with firm blow of the pick point; has dull sound under hammer. A piece of core 150 mm long 50 mm in diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium (M)	6 - 20	> 0.3 to ≤ 1.0	Readily scored with a knife; a piece of core 150 mm long by 50 mm in diameter can be broken by hand with difficulty.
High (H)	20 - 60	> 1 to ≤ 3	A piece of core 150 mm long by 50 mm in diameter cannot be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High (VH)	60 - 200	> 3 to ≤ 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
Extremely High (EH)	> 200	> 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

Rock strength is assessed by laboratory Uniaxial Compressive Strength (UCS) testing and/or Point Load Strength Index (PLT) testing to obtain the $Is_{(50)}$ the strength table implies a 20 times correlation between $Is_{(50)}$ and UCS used for classification. Note however, multiplier may range from 4 (e.g. some carbonated and low strength rocks) to 40 (e.g. some igneous rocks and/or some high strength rocks). A site specific correlation based on testing, previous investigation or literature may be used where available. These terms refer to the strength of the rock material and not to the strength of the rock mass which may be considered weaker due to the effect of rock defects.

Visual Log

A diagrammatic plot of defects showing type, spacing and orientation in relation to the core axis.

- Defects open in situ or clay sealed
- Defects closed in-situ
- Drill induced fractures or handling breaks
- Infilled seam

Rock Weathering and or Alteration Classification

Term (Code)		Definition	
Residual soil (RS)		Soil developed on extremely weathered rock. The rock mass structure and substance fabric are no longer evident but the soil has not been significantly transported.	
Extremely weathered (XW) Extremely altered (XA)		Rock is weathered to such an extent that it has 'soil' properties, i.e, it either disintegrates or can be remoulded in water, but the texture of original rock is still evident.	
Highly weathered (HW) Highly Altered (HA)	Distinctly weathered (DW)*	Whole rock material is discoloured usually by extent that iron staining or bleaching and other signs of chemical or physical decomposition are evident. Porosity and strength may be increased or decreased compared to the fresh rock usually as a result of iron leaching or deposition. The colour and strength of the original rock substance is no longer recognisable	*Where is it not practical to distinguish between 'HW' and MW'. Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores
Moderately weathered (MW) Moderately Altered (MA)	Distinctly Altered (DA)	Whole rock material is discoloured usually by staining that original colour of the fresh rock is no longer recognisable	
Slightly weathered (SW) Slightly altered (SA)		Rock is slightly discoloured but shows little or no change of strength from fresh rock	
Fresh rock (FR)		Rock shows no sign of decomposition or staining.	

Rock Core Recovery

TCR = Total Core Recovery (%)

$$\frac{\textbf{Length of Core Recovered}}{\textbf{Length of Core run}} \times 100$$

SCR = Solid Core Recovery (%)

$$\frac{\textbf{Sum Length of Cylindrical Core Recovered}}{\textbf{Length of Core run}} \times 100$$

RQD = Rock Quality Designation (%)

$$\frac{\textbf{Sum Length of Sound Core Pieces > 100mm in length}}{\textbf{Length of Core run}} \times 100$$

Types of Defects

Term		Code	Description
Parting		PT	A surface or crack across which the rock has little or no tensile strength. Parallel or sub-parallel to layering (e.g. bedding) or a planar anisotropy in the rock material (i.e. cleavage). May be opened or closed.
Joint		JT	A surface or crack with no apparent shear displacement and across which the rock has little or no tensile strength, but which is not parallel or sub-parallel to layering or to planar anisotropy in the rock material. May be open or closed.
Sheared Surface		SR	A near planar, curved or undulating surface which is usually smooth, polished or slickensided and which shows evidence of shear displacement.
Sheared Zone		SZ	Zone of rock material with roughly parallel, near planar, curved, or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.
Crushed Zone [a]		CZ	A zone of broken and disturbed ground containing more than one identifiable Crushed Seam.
Fracture Zone [a]		FZ	A zone of broken ground with parallel to opposing boundaries dominated by abundant, extremely closely to closely spaced defects, which may be intact or open, and planar, curved, undulating, irregular, or stepped, resulting in a dissected rock mass of angular trapezoidal, triangular or rectangular fragments.
Seam (SE)	Sheared Seam	SS	Seam of soil material with roughly parallel almost planar boundaries, composed of soil materials with roughly parallel near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.
	Crushed Seam	CS	Seam of soil material with roughly parallel almost planar boundaries, composed of disoriented, usually angular fragments of the host rock material which may be more weathered than the host rock. The seam has soil properties.
	Infilled Seam	IS	Seam of soil material usually with distinct roughly parallel boundaries formed by the migration of soil into an open cavity or joint, infilled seams less than 1 mm thick may be described as a veneer or coating on a joint surface.
	Extremely Weathered Seam	XS	Seam of soil material, often with gradational boundaries. Formed by weathering of the rock material in place.
Fault [b]		FT	A fracture (defect) or fracture zone along which there has been an observable amount of displacement.
Vein [c]		VE	Any fracture that contains mineralized material. Veins can display either crack-normal extension or shear displacement coupled with crack-normal extension.
Vugh [a]		VG	An open void with secondary crystallisation which may be coated, partly or nearly completely filled.
Void [a]		VO	An open space created through natural or anthropogenic processes, including, but not limited to, caves, kettles, tunnels, mines, pipes, piping, landslides, faulting, shearing, dissolution, & erosion.
Mechanical Break		MB	A fracture or break induced or created by the sampling process (i.e. drilling (DB) handling (HB), drill lift (DL), excavation, or blasting).

All definitions as per AS1726-2017, except:

[a] SMEC Field Manual,
[b] British Standard BS 5930:2015, and
[c] Glossary of Geology (Fifth Edition - revised) (2011), American Geosciences Institute.

Defect Planarity

Code	Description
CR	Curved – A defect with a gradual change in orientation
IR	Irregular – A defect with many sharp changes in orientation
PL	Planar – Defect forms a continuous plane without variation in orientation
ST	Stepped – A defect with distinct sharp steps or step
UN	Undulose – A defect with undulations

Defect Roughness

Code	Description
RO	Rough – Many small surface irregularities generally related to the grain size of the parent rock
SM	Smooth – Few or no surface irregularities related to the grain size of the parent rock
PO	Polished – Planes have a distinct sheen or a smoothness
SL	Slickensided – Planes have a polished, grooved or striated surface consistent with differential movement of the parent rock along the plane
VR	Very rough – many large surface irregularities, amplitude generally more than 1mm

Type of Structures

Term	Code	Description
Bedding	BD	A layered arrangement of minerals parallel to the surface of deposition which has caused planar anisotropy in the rock substance.
Cleavage	CV	An alignment of fine grained minerals caused by deformation.
Schistosity	SH	A layered arrangement of minerals to each other
Foliation	FO	A planar alignment of minerals caused by deformation.
Void	VO	A completely empty space
Dyke	DK	Sheet-like bodies of igneous rock that cut across sedimentary bedding or foliations in rocks. They may be single or multiple in nature
Sill	SL	A sill is an intrusion of magma that spreads underground between the layers of another kind of rock
Contact	CX	A contact between intrusive and stratigraphic units.
Boundary	BN	A distinct boundary between two stratigraphic units
Vugh	VG	An open void with crystalisation

Note: Drill breaks (DB) and handling breaks (HB) are not included as natural discontinuity.

Discontinuity Spacing

Spacing (mm)	Description
> 6000	Extremely Widely Spaced
2000 - 6000	Very Widely Spaced
600 - 2000	Widely Spaced
200 - 600	Medium Spaced
60 - 200	Closely Spaced
20 - 60	Very Closely Spaced
< 20	Extremely Closely Spaced

Infill Material

Code	Name	Code	Name
Ap	Apatite	Ga	Galena
Ca	Calcite	Gp	Gypsum
Ch	Chlorite	Mn	Manganese
Cl	Clay	MnO	Manganese Oxide
Co	Coal	MS	Secondary mineral
Ep	Epidote	Py	Pyrite
Fe	Limonite/ Ironstone/ Goethite	Um	Unidentified mineral
FeO	Iron oxide	Qz	Quartz
Fs	Feldspar	X	Carbonaceous
		Ze	Zeolite

Discontinuity Observation

Term	Code	Description
Clean	CN	No visible coating or infill
Stain	SN	No visible coating or infill but surfaces are discoloured by mineral staining
Veneer < 1 mm	VN	A visible coating or soil or mineral substance but usually unable to be measured. If discontinuous over the plane, patchy veneer.
Coating > 1 mm to < 10 mm	CT	A visible coating or infilling of soil or mineral substance. Describe composition and thickness.
Filling (Filled) > 10 mm	FD	A visible filling of soil or mineral substance. Describe composition and thickness.

Discontinuity Orientation

Code	Description
VT	Vertical
HO	Horizontal
RL	Top right to bottom left
LR	Top left to bottom right

Samples and Field Tests

Code	Description
B	Bulk disturbed sample
BLK	Block sample
C	Core sample
CBR	CBR Mould Sample
CPT_u	Cone Penetration Test (with pore pressure)
DT	Dilatometer
DS	Small disturbed sample
ES	Soil sample for environmental testing
EW	Water sample for environmental testing
FP	Pressuremeter
G	Gas sample
H	Hydraulic fracturing
HP	Hand penetrometer test
I	Impression device
$Is_{(50)}$	Point Load Index
K	Permeability
LB	Large bulk disturbed sample
N	Standard penetration test result (N* denotes SPT sample recovery)
O	Core orientation
P	Piston sample
PID	Photoionisation detector reading in ppm
PP	Penetrometer
R	Hammer bouncing / refusal
SPT	Standard Penetration Test
U	Undisturbed push in sample
UCS	Uniaxial Compressive Strength
U50	Undisturbed tube sample (50 mm diameter)
U75	Undisturbed tube sample (75 mm diameter)
U100	Undisturbed tube sample (100 mm diameter)
VS	Vane shear test
● (A)	Axial Test
○ (D)	Diametral Test
□	Irregular Lump test

Laboratory Tests

Code	Description
ACM	Asbestos Containing Material
CD	Consolidated Drained
CU	Consolidated Undrained
LL	Liquid Limit
LS	Linear Shrinkage
MC	Moisture Content
MDD	Maximum Dry Density
OMC	Optimum Moisture Content
PBT	Plate Bearing Test
PI	Plasticity Index
PL	Plastic Limit
PSD	Particle Size Distribution
ρ_b	Bulk Density
ρ_p	Particle Density
ρ_d	Dry Density
UU	Undrained Unconsolidated

Backfill / Standpipe Detail

Symbol	Description	Symbol	Description
	Cement seal		Filter pack: sand filter
	Grout backfill GP -Cement BE - Bentonite Cement		Filter pack: gravel filter
	Un-slotted pipe		Bentonite seal
	Slotted pipe		Cutting – excavated material backfill
	Surface Completion: Monument Above Ground		Surface Completion: Gatic Ground Monument

Completion Details

Type	Description
Collapse	Exploratory hole collapsed before reaching planned depth
Equipment Failure	Boring or excavator equipment operational failure
Flooding	Flooding of excavation
Machine Limit	Limit of machine capability reached
Obstruction	Obstruction preventing further advancement
Operator Limit	Limit of operator limit/safety reached
Possible services	Indication of possible services below
Services present	Services encountered during exploratory hole
Squeezing	Hole squeezing boring equipment
Target Depth	Depth reached as planned
Target Depth (Instrumentation Installed)	Depth reached as planned instrumentation installed
Target Depth (Standpipe Installed)	Depth reached as planned open standpipe constructed
Material Refusal	Material preventing further advancement

Status

Code	Description
-2	Historic
-1	For information
0	Preliminary
1	Checked
2	Draft
3	Final

Member of the Surbana Jurong Group

TEST: HA01

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged SV

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL Clayey SILT: low plasticity, dark brown, trace fine grained sand.	M	VS	TOPSOIL 0.00: PID = 20.3ppm
				0.10						
	F		0.2		ES 0.20-0.30 m		FILL Silty CLAY: high plasticity, red-brown mottled grey.	M	St	FILL (RE-WORKED NATURAL) 0.20: trace charcoal; 0.20: PID = 22.4ppm
				0.30						
	F				ES 0.30-0.40 m		CLAY: high plasticity, red-brown.	M	St	RESIDUAL SOIL 0.30: PID = 46.1ppm
			0.4	*0.40*			HA Terminated at 0.40 m Target Depth No dark staining or unusual odours observed			
			0.6							
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA02

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged SV

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	VE	Not Encountered	0.0		ES 0.10-0.20 m		TOPSOIL Clayey SILT: low plasticity, dark brown, trace fine grained sand.	M	VS	TOPSOIL 0.10: PID = 8.8ppm
			0.2							
			0.4	0.40	ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	St	RESIDUAL SOIL 0.40: PID = 5.5ppm
	F		0.6	0.60			HA Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA03

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged SV

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	VE	Not Encountered	0.0				MULCH.			MULCH
				0.10						
	VE		0.2		ES 0.10-0.20 m		TOPSOIL Clayey SILT: low plasticity, dark brown, trace fine grained sand.	M	VS	TOPSOIL 0.10: PID = 49.1ppm
				0.40						
	F		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	St	RESIDUAL SOIL 0.40: PID = 36.6ppm
			0.6	0.60			HA Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA04

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged SV

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	F	Not Encountered	0.0		ES 0.00-0.10 m		CLAY: high plasticity, red-brown, very dry.	D	St	REWORKED/ RE-COMPACTED RESIDUAL SOIL 0.00: PID = 13.8ppm
			0.2							
			0.4	*0.40*	ES 0.40-0.50 m		CLAY: high plasticity, red-brown, very dry.	D	St	RESIDUAL SOIL 0.40: PID = 15.1ppm
	F		0.6	*0.60*			HA Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA05

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged HW

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	VE	Not Encountered	0.0				Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL
			0.2	*0.30*	ES 0.20-0.30 m					0.20: PID = 2.6ppm
							HA Terminated at 0.30 m Target Depth No dark staining or unusual odours observed			
			0.4							
			0.6							
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA06

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged HW

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
	VE		0.0				TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL
				0.10						
HA	H	Not Encountered	0.2		ES 0.10-0.20 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.10: PID = 2.4ppm
			0.4		ES 0.40-0.50 m					0.40: PID = 3.3ppm
				0.50						
			0.6				HA Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA07

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged HW

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	VE	Not Encountered	0.0		ES 0.10-0.20 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.10: PID = 3.2ppm
			0.2	0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 2.8ppm
			0.6	0.60			HA Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA08

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged HW

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	VE	Not Encountered	0.0		ES 0.10-0.20 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.10: PID = 2.4ppm
				0.20						
	H		0.2		ES 0.30-0.40 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.30: PID = 2.7ppm
			0.4	*0.50*						
			0.6				HA Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA09

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged SV

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA	VE		0.0 – 0.2		ES 0.00-0.10 m		Silty CLAY: high plasticity, red-brown mottled grey, very wet.	W	VS	RE-WORKED NATURAL 0.00: PID = 656.1ppm 0.05: groundwater filled hole back up to 0.05m below ground level
			0.4	*0.40*						
	VE		0.4 – 0.6		ES 0.40-0.50 m		CLAY: high plasticity, red-brown, very wet.	W	VS	RESIDUAL SOIL 0.40: PID = 310.3ppm
			0.8	*0.80*			HA Terminated at 0.80 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST: HA10

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor SMEC
Excavation Method Hand Auger
Inclination -90°

Date Started 13/04/2023
Date Completed 13/04/2023
Logged SV

Drilling					Sampling	Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
HA		Not Encountered	0.0				CLAY: high plasticity, red-brown.			RESIDUAL SOIL 0.00: grass over residual soil
			0.2		ES 0.20-0.30 m					0.20: PID = 18.9ppm
				0.30			HA Terminated at 0.30 m Target Depth No dark staining or unusual odours observed			
			0.4							
			0.6							
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP01

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 5.2ppm
				0.20						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 5ppm
			0.4	*0.50*						
	H				ES 0.50-0.60 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.50: PID = 6.9ppm
			0.6	*0.60*			TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP02

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.40 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, light brown/ grey, high organics.	D	S	TOPSOIL 0.00: PID = 9.3ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: low plasticity, light brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 7.5ppm
				0.30						
	H		0.4		ES 0.50-0.60 m		CLAY: high plasticity, pale red.	M	VSt	RESIDUAL SOIL 0.50: PID = 10.9ppm
			0.6	0.70						
			0.8				TP Terminated at 0.70 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP03

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 2.00 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 7.6ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 6.1ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 0.8ppm
			0.6	*0.70*						
			0.8				TP Terminated at 0.70 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP04

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 5.3ppm
			0.2							
				0.30						
	VE				ES 0.30-0.40 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.30: PID = 7.2ppm
				0.40						
			0.4				CLAY: high plasticity, red-brown.			RESIDUAL SOIL
	H				ES 0.50-0.60 m			M	VSt	0.50: PID = 16.2ppm
				0.60						
			0.6				TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP05

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 6.9ppm
			0.2							
			0.4	0.40						
	VE				ES 0.40-0.50 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.40: PID = 9.3ppm
				0.50						
	H		0.6		ES 0.50-0.60 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.50: PID = 17.2ppm
				0.70						
			0.8				TP Terminated at 0.70 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP06

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 13.2ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 24.3ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 9.6ppm
			0.6	*0.60*			TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP07

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 9.8ppm
				0.10						
	F				ES 0.10-0.20 m		REWORKED CLAY: medium plasticity, pale red with grey mottle.	M	St	RE-WORKED NATURAL 0.10: PID = 17.3ppm
			0.2	0.20						
	H						CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL
			0.4		ES 0.40-0.50 m					0.40: PID = 36.4ppm
				0.50						
							TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.6							
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP08

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 8ppm
			0.2	0.20						
	VE				ES 0.30-0.40 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.30: PID = 14.7ppm
			0.4	0.40						
	H				ES 0.50-0.60 m		CLAY: high plasticity, grey with orange and pale red mottle.	M	VSt	RESIDUAL SOIL 0.50: PID = 27.8ppm
			0.6	0.60			TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP09

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 3.1ppm
				0.10						
	E		0.2		ES 0.20-0.30 m		SILT: medium plasticity, dark brown.	D	F	RE-WORKED NATURAL 0.20: PID = 9.1ppm
			0.4	0.40						
	H		0.6		ES 0.50-0.60 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.50: PID = 12.2ppm
			0.8	0.80			TP Terminated at 0.80 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP10

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 10.1ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 9.4ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 18.4ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP11

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 9.8ppm
			0.2	*0.20*						
	VE				ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 7.5ppm
			0.4	*0.50*						
	H				ES 0.50-0.60 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.50: PID = 7.1ppm
			0.6	*0.60*			TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP12

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 27.9ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 9.7ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, grey with orange and pale red mottle.	M	VSt	RESIDUAL SOIL 0.40: PID = 26.6ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP13

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 10.3ppm
				0.10						
	F		0.2		ES 0.20-0.30 m		REWORKED CLAY: medium plasticity, pale red with grey mottle.	M	St	RE-WORKED NATURAL 0.20: PID = 1.2ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 16.1ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP14

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 13/04/2023
Logged HW

Excavation					Sampling		Field Material Description			
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		FILL SAND: medium grained, pale brown, yellow.	M	L	FILL 0.00: PID = 10.1ppm
			0.2							
			0.4							
			0.6							
				0.70						
	H		0.8		ES 0.70-0.80 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.70: PID = 16.5ppm
				0.90						
							TP Terminated at 0.90 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP15

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 10ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		FILL Silty CLAY: medium plasticity, pale brown with yellow and grey mottle, with tiles and glass.	D	F	FILL 0.20: PID = 11.2ppm
				0.30						
	H		0.4		ES 0.30-0.40 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.30: PID = 13.9ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP16

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 18.9ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 13.2ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 4.7ppm
			0.6	*0.60*			TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP17

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 3ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 2.6ppm
				0.40						
	H		0.4		ES 0.50-0.60 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.50: PID = 2.1ppm
			0.6	*0.70*						
			0.8				TP Terminated at 0.70 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP18

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 2.1ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 2.3ppm
			0.4	*0.40*	ES 0.40-0.50 m					
	H			*0.50*			CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 2.4ppm
							TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.6							
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP19

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 3.3ppm
			0.2	0.20						
	VE				ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 2.4ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 2.2ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP20

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 2.5ppm
				0.10						
	H		0.2				CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL
			0.4		ES 0.40-0.50 m					0.40: PID = 2.5ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP21

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 2.5ppm
				0.10						
	VE		0.2		ES 0.10-0.20 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.10: PID = 2.1ppm
				0.30						
	H		0.4		ES 0.30-0.40 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.30: PID = 2.5ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP22

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 2.5ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 2.4ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 2.4ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP23

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 2.3ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 2.7ppm
			0.4	0.40						
	H				ES 0.50-0.60 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.50: PID = 2.6ppm
			0.6	0.60			TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP24

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 3ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 3.1ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 3ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP25

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 2.2ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 3.3ppm
				0.30						
	H				ES 0.30-0.40 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.30: PID = 2.8ppm
			0.4	*0.40*			TP Terminated at 0.40 m Target Depth No dark staining or unusual odours observed			
			0.6							
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

TEST PIT: TP26

Member of the Surbana Jurong Group

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 17/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, pale brown.	D	S	TOPSOIL 0.00: PID = 0.3ppm
				0.20						
	H		0.2				CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL
			0.4		ES 0.40-0.50 m					0.40: PID = 1.3ppm
				0.50			TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.6							
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP27

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	E	Not Encountered	0.0		ES 0.00-0.10 m		CLAY: medium plasticity, grey with brown mottle.	M	S	RE-WORKED NATURAL 0.00: PID = 2.7ppm
			0.2							
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	D	VSt	RESIDUAL SOIL 0.40: PID = 1.7ppm
			0.6	*0.60*			TP Terminated at 0.60 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP28

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.00: PID = 1.8ppm
			0.2							
				0.30						
	H		0.4		ES 0.30-0.40 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.30: PID = 1.1ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP29

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		SILT: low plasticity, pale brown.	D	S	RE-WORKED NATURAL 0.00: PID = 1.5ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	0.20: PID = 1.4ppm
			0.4							
			0.6	0.60						
	H				ES 0.60-0.70 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.60: PID = 0.9ppm
				0.70						
			0.8				TP Terminated at 0.70 m Target Depth No dark staining or unusual odours observed			
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP30

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 1.8ppm
				0.10						
	VE		0.2		ES 0.20-0.30 m		Silty CLAY: medium plasticity, pale brown with yellow and grey mottle.	D	F	RE-WORKED NATURAL 0.20: PID = 2.4ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 1.4ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Member of the Surbana Jurong Group

TEST PIT: TP31

Sheet 1 OF 1

Project SINSW Projects
Location Leppington Public School
Job No. 30018043
Client SINSW

Contractor Ken Coles Excavations Pty Ltd
Excavation Method CAT 302-7D 3 tonne excavator
Dimensions 0.60 m x 0.45 m

Date 14/04/2023
Logged HW

Excavation					Sampling	Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE & SPT	GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE, FIELD TEST & Other Observations
EX	VE	Not Encountered	0.0		ES 0.00-0.10 m		TOPSOIL SILT: low plasticity, dark brown.	M	S	TOPSOIL 0.00: PID = 2.9ppm
				0.10						
	E		0.2		ES 0.20-0.30 m		CLAY: medium plasticity, dark brown with pale red mottle.	M	F	RE-WORKED NATURAL 0.20: PID = 1.1ppm
				0.30						
	H		0.4		ES 0.40-0.50 m		CLAY: high plasticity, red-brown.	M	VSt	RESIDUAL SOIL 0.40: PID = 2.1ppm
				0.50						
			0.6				TP Terminated at 0.50 m Target Depth No dark staining or unusual odours observed			
			0.8							
			1.0							
			1.2							
			1.4							
			1.6							
			1.8							
			2.0							

Comments

Checked MF
Date 05/06/2023

Appendix F

PID Results

SMEC Australia Pty Ltd
20 Berry St, North Sydney NSW 2060
Phone: (02) 9925 5555 Fax: (02) 9925 5566

PHOTOIONISATION DETECTOR

Project:	SINSW Detailed Site Investigations	**Project No:**	30018043
Location:	Leppington Public School	**Date:**	13-14/04/2023, 17/04/2023
Feature:	-	**Tested By:**	HW

Equipment: Photoionisation Detector
Equip. ID: PID S/N: 592-918929 **Calibrated on:** *Refer to Appendix F*

Is calibration certificate attached?: *Yes - refer to Appendix F*
Calibration reading following field calibration: *Refer to Appendix F*

Method: Place portion of sample in separate ziplock bag and allowing to sit for 15 minutes. Pierce and record maximum PID result (ppmv) on fieldnotes. Discard sample onsite.

Location ID	Depth (m)	PID Screen Date	PID result (ppmv)	Comments (i.e. Odours, staining, fill)
TP01-0.2-0.2	-	13/04/2023	5.2	No odour, no staining, FILL, 1 jar, 1 bag
TP01-0.2-0.3	-	13/04/2023	5.0	No odour, no staining, FILL, 1 jar, 1 bag
TP01-0.5-0.6	-	13/04/2023	6.9	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP02-0.0-0.1	-	13/04/2023	9.3	No odour, no staining, FILL, 1 jar, 1 bag
TP02-0.2-0.3	-	13/04/2023	7.5	No odour, no staining, FILL, 1 jar, 1 bag
TP02-0.5-0.6	-	13/04/2023	10.9	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP03-0.0-0.1	-	13/04/2023	7.6	No odour, no staining, FILL, 1 jar, 1 bag
TP03-0.2-0.3	-	13/04/2023	6.1	No odour, no staining, FILL, 1 jar, 1 bag
TP03-0.4-0.5	-	13/04/2023	0.8	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP04-0.0-0.1	-	13/04/2023	5.3	No odour, no staining, FILL, 1 jar, 1 bag
TP04-0.3-0.4	-	13/04/2023	7.2	No odour, no staining, FILL, 1 jar, 1 bag
TP04-0.5-0.6	-	13/04/2023	16.2	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP05-0.0-0.1	-	13/04/2023	6.9	No odour, no staining, FILL, 1 jar, 1 bag
TP05-0.4-0.5	-	13/04/2023	9.3	No odour, no staining, FILL, 1 jar, 1 bag
TP05-0.5-0.6	-	13/04/2023	17.2	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP06-0.0-0.1	-	13/04/2023	13.2	No odour, no staining, FILL, 1 jar, 1 bag
TP06-0.2-0.3	-	13/04/2023	24.3	No odour, no staining, FILL, 1 jar, 1 bag
TP06-0.4-0.5	-	13/04/2023	9.6	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP07-0.0-0.1	-	13/04/2023	9.8	No odour, no staining, FILL, 1 jar, 1 bag
TP07-0.1-0.2	-	13/04/2023	17.3	No odour, no staining, FILL, 1 jar, 1 bag
TP07-0.4-0.5	-	13/04/2023	36.4	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP08-0.0-0.1	-	13/04/2023	8.0	No odour, no staining, FILL, 1 jar, 1 bag
TP08-0.3-0.4	-	13/04/2023	14.7	No odour, no staining, FILL, 1 jar, 1 bag
TP08-0.5-0.6	-	13/04/2023	27.8	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP09-0.0-0.1	-	13/04/2023	3.1	No odour, no staining, FILL, 1 jar, 1 bag
TP09-0.2-0.3	-	13/04/2023	9.1	No odour, no staining, FILL, 1 jar, 1 bag
TP09-0.5-0.6	-	13/04/2023	12.2	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP10-0.0-0.1	-	13/04/2023	10.1	No odour, no staining, FILL, 1 jar, 1 bag
TP10-0.2-0.3	-	13/04/2023	9.4	No odour, no staining, FILL, 1 jar, 1 bag
TP10-0.4-0.5	-	13/04/2023	18.4	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP11-0.0-0.1	-	13/04/2023	9.8	No odour, no staining, FILL, 1 jar, 1 bag
TP11-0.2-0.3	-	13/04/2023	7.5	No odour, no staining, FILL, 1 jar, 1 bag
TP11-0.5-0.6	-	13/04/2023	7.1	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP12-0.0-0.1	-	13/04/2023	27.9	No odour, no staining, FILL, 1 jar, 1 bag
TP12-0.2-0.3	-	13/04/2023	9.7	No odour, no staining, FILL, 1 jar, 1 bag
TP12-0.4-0.5	-	13/04/2023	26.6	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP13-0.0-0.1	-	13/04/2023	10.3	No odour, no staining, FILL, 1 jar, 1 bag
TP13-0.2-0.3	-	13/04/2023	1.2	No odour, no staining, FILL, 1 jar, 1 bag
TP13-0.4-0.5	-	13/04/2023	16.1	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP14-0.0-0.1	-	13/04/2023	10.1	No odour, no staining, FILL, 1 jar, 1 bag
TP14-0.7-0.8	-	13/04/2023	16.5	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP15-0.0-0.1	-	14/04/2023	10.0	No odour, no staining, FILL, 1 jar, 1 bag
TP15-0.2-0.3	-	14/04/2023	11.2	No odour, no staining, FILL, 1 jar, 1 bag
TP15-0.3-0.4	-	14/04/2023	13.9	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP16-0.0-0.1	-	14/04/2023	18.9	No odour, no staining, FILL, 1 jar, 1 bag
TP16-0.2-0.3	-	14/04/2023	13.2	No odour, no staining, FILL, 1 jar, 1 bag

SMEC Australia Pty Ltd
20 Berry St, North Sydney NSW 2060
Phone: (02) 9925 5555 Fax: (02) 9925 5566

PHOTOIONISATION DETECTOR

Project:	SINSW Detailed Site Investigations	**Project No:**	30018043
Location:	Leppington Public School	**Date:**	13-14/04/2023, 17/04/2023
Feature:	-	**Tested By:**	HW

Equipment: Photoionisation Detector
Equip. ID: PID S/N: 592-918929 **Calibrated on:** *Refer to Appendix F*

Is calibration certificate attached?: *Yes - refer to Appendix F*
Calibration reading following field calibration: *Refer to Appendix F*

Method: Place portion of sample in separate ziplock bag and allowing to sit for 15 minutes. Pierce and record maximum PID result (ppmv) on fieldnotes. Discard sample onsite.

Location ID	Depth (m)	PID Screen Date	PID result (ppmv)	Comments (i.e. Odours, staining, fill)
TP16-0.4-0.5	-	14/04/2023	4.7	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP17-0.0-0.1	-	14/04/2023	3.0	No odour, no staining, FILL, 1 jar, 1 bag
TP17-0.2-0.3	-	14/04/2023	2.6	No odour, no staining, FILL, 1 jar, 1 bag
TP17-0.5-0.6	-	14/04/2023	2.1	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP18-0.0-0.1	-	14/04/2023	2.1	No odour, no staining, FILL, 1 jar, 1 bag
TP18-0.2-0.3	-	14/04/2023	2.3	No odour, no staining, FILL, 1 jar, 1 bag
TP18-0.4-0.5	-	14/04/2023	2.4	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP19-0.0-0.1	-	14/04/2023	3.3	No odour, no staining, FILL, 1 jar, 1 bag
TP19-0.2-0.3	-	14/04/2023	2.4	No odour, no staining, FILL, 1 jar, 1 bag
TP19-0.4-0.5	-	14/04/2023	2.2	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP20-0.0-0.1	-	14/04/2023	2.5	No odour, no staining, FILL, 1 jar, 1 bag
TP20-0.4-0.5	-	14/04/2023	2.5	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP21-0.0-0.1	-	14/04/2023	2.5	No odour, no staining, FILL, 1 jar, 1 bag
TP21-0.1-0.2	-	14/04/2023	2.1	No odour, no staining, FILL, 1 jar, 1 bag
TP21-0.3-0.4	-	14/04/2023	2.5	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP22-0.0-0.1	-	14/04/2023	2.5	No odour, no staining, FILL, 1 jar, 1 bag
TP22-0.2-0.3	-	14/04/2023	2.4	No odour, no staining, FILL, 1 jar, 1 bag
TP22-0.4-0.5	-	14/04/2023	2.4	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP23-0.0-0.1	-	14/04/2023	2.3	No odour, no staining, FILL, 1 jar, 1 bag
TP23-0.2-0.3	-	14/04/2023	2.7	No odour, no staining, FILL, 1 jar, 1 bag
TP23-0.5-0.6	-	14/04/2023	2.6	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP24-0.0-0.1	-	14/04/2023	3.0	No odour, no staining, FILL, 1 jar, 1 bag
TP24-0.2-0.3	-	14/04/2023	3.1	No odour, no staining, FILL, 1 jar, 1 bag
TP24-0.4-0.5	-	14/04/2023	3.0	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP25-0.0-0.1	-	14/04/2023	2.2	No odour, no staining, FILL, 1 jar, 1 bag
TP25-0.2-0.3	-	14/04/2023	3.3	No odour, no staining, FILL, 1 jar, 1 bag
TP25-0.3-0.4	-	14/04/2023	2.8	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP26-0.0-0.1	-	17/04/2023	0.3	No odour, no staining, FILL, 1 jar, 1 bag
TP26-0.4-0.5	-	17/04/2023	1.3	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP27-0.0-0.1	-	17/04/2023	2.7	No odour, no staining, FILL, 1 jar, 1 bag
TP27-0.4-0.5	-	17/04/2023	1.7	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP28-0.0-0.1	-	17/04/2023	1.8	No odour, no staining, FILL, 1 jar, 1 bag
TP28-0.3-0.4	-	17/04/2023	1.1	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP29-0.0-0.1	-	17/04/2023	1.5	No odour, no staining, FILL, 1 jar, 1 bag
TP29-0.2-0.3	-	17/04/2023	1.4	No odour, no staining, FILL, 1 jar, 1 bag
TP29-0.6-0.7	-	17/04/2023	0.9	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP30-0.0-0.1	-	17/04/2023	1.8	No odour, no staining, FILL, 1 jar, 1 bag
TP30-0.2-0.3	-	17/04/2023	2.4	No odour, no staining, FILL, 1 jar, 1 bag
TP30-0.4-0.5	-	17/04/2023	1.4	No odour, no staining, Residual Natural, 1 jar, 1 bag
TP31-0.0-0.1	-	17/04/2023	2.9	No odour, no staining, FILL, 1 jar, 1 bag
TP31-0.2-0.3	-	17/04/2023	1.1	No odour, no staining, FILL, 1 jar, 1 bag
TP31-0.4-0.5	-	17/04/2023	2.1	No odour, no staining, Residual Natural, 1 jar, 1 bag
HA01-0.0-0.1	-	13/04/2023	20.3	No odour, no staining, FILL, 1 jar, 1 bag
HA01-0.2-0.3	-	13/04/2023	22.4	No odour, no staining, FILL, 1 jar, 1 bag
HA01-0.4-0.5	-	13/04/2023	46.1	No odour, no staining, Residual Natural, 1 jar, 1 bag
HA02-0.1-0.2	-	13/04/2023	8.8	No odour, no staining, FILL, 1 jar, 1 bag

SMEC Australia Pty Ltd
20 Berry St, North Sydney NSW 2060
Phone: (02) 9925 5555 Fax: (02) 9925 5566

PHOTOIONISATION DETECTOR

Project:	SINSW Detailed Site Investigations	**Project No:**	30018043
Location:	Leppington Public School	**Date:**	13-14/04/2023, 17/04/2023
Feature:	-	**Tested By:**	HW

Equipment: Photoionisation Detector
Equip. ID: PID S/N: 592-918929 **Calibrated on:** *Refer to Appendix F*

Is calibration certificate attached?: *Yes - refer to Appendix F*
Calibration reading following field calibration: *Refer to Appendix F*

Method: Place portion of sample in separate ziplock bag and allowing to sit for 15 minutes. Pierce and record maximum PID result (ppmv) on fieldnotes. Discard sample onsite.

Location ID	Depth (m)	PID Screen Date	PID result (ppmv)	Comments (i.e. Odours, staining, fill)
HA02-0.4-0.5	-	13/04/2023	5.5	No odour, no staining, Residual Natural, 1 jar, 1 bag
HA03-0.1-0.2	-	13/04/2023	49.1	No odour, no staining, FILL, 1 jar, 1 bag
HA03-0.4-0.5	-	13/04/2023	36.6	No odour, no staining, Residual Natural, 1 jar, 1 bag
HA04-0.0-0.1	-	13/04/2023	13.8	No odour, no staining, FILL, 1 jar, 1 bag
HA04-0.4-0.5	-	13/04/2023	15.1	No odour, no staining, Residual Natural, 1 jar, 1 bag
HA05-0.2-0.3	-	17/04/2023	2.6	No odour, no staining, FILL, 1 jar, 1 bag
HA06-0.1-0.2	-	17/04/2023	2.4	No odour, no staining, FILL, 1 jar, 1 bag
HA06-0.4-0.5	-	17/04/2023	3.3	No odour, no staining, Residual Natural, 1 jar, 1 bag
HA07-0.1-0.2	-	17/04/2023	3.2	No odour, no staining, FILL, 1 jar, 1 bag
HA07-0.4-0.5	-	17/04/2023	2.8	No odour, no staining, Residual Natural, 1 jar, 1 bag
HA08-0.1-0.2	-	17/04/2023	2.4	No odour, no staining, FILL, 1 jar, 1 bag
HA08-0.3-0.4	-	17/04/2023	2.7	No odour, no staining, FILL, 1 jar, 1 bag
HA09-0.0-0.1	-	13/04/2023	656.1	Hydrocarbon odour, dark staining, FILL, 1 jar, 1 bag
HA09-0.4-0.5	-	13/04/2023	310.3	Hydrocarbon odour, dark staining, FILL, 1 jar, 1 bag
HA10-0.2-0.3	-	13/04/2023	18.9	No odour, no staining, FILL, 1 jar, 1 bag

Abbreviations:

ppmv	parts per million (volume)
PID	Photoionisation detector

Appendix G

Laboratory Reports

CERTIFICATE OF ANALYSIS

Work Order	: **ES2312936**	Page	: 1 of 61
Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Contact	: Katie Davis
Address	: Level 5, 20 Berry Street, North Sydney, NSW 2060 North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Date Samples Received	: 19-Apr-2023 10:20
Order number	: 30018043	Date Analysis Commenced	: 20-Apr-2023
C-O-C number	: ----	Issue Date	: 28-Apr-2023 09:05
Sampler	: HARRISON WOOD		
Site	: ----		
Quote number	: EN/025/21		
No. of samples received	: 91		
No. of samples analysed	: 54		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- 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*
Alana Smylie	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Vincent Emerton-Bell	Laboratory Technician	Newcastle - Inorganics, Mayfield West, 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.

- EA150H: Soil particle density results fell outside the scope of AS1289.3.6.3. Results should be scrutinised accordingly.
- EK059G/EK058G: LOR raised for NOX/Nitrate on sample 1 due to sample matrix.
- 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.
- EP075(SIM): LOR for sample raised due to high amount of moisture content.
- EP080: Surrogate recovery bias low for ES2312936#88 and #89 due to sample matrix interferences, confirmed by re-extraction and re-analysis.
- EP080: The trip spike and its control have been analysed for volatile TPH and BTEXN only. The trip spike and control were prepared in the lab using reagent grade sand spiked with petrol. The spike was dispatched from the lab and the control retained. Confirmed by re-extraction and re-analysis.
- 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
- ED007 and ED008: When Exchangeable Al is reported from these methods, it should be noted that Rayment & Lyons (2011) suggests Exchange Acidity by 1M KCl - Method 15G1 (ED005) is a more suitable method for the determination of exchange acidity (H+ + Al3+).
- 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.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP01-0.0-0.1	TP01-0.2-0.3	TP02-0.0-0.1	TP03-0.0-0.1	TP03-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-001	ES2312936-002	ES2312936-004	ES2312936-007	ES2312936-008
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	13.2	10.6	8.9	----	23.1
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	No	No	----
Asbestos (Trace)	1332-21-4	5	Fibres	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	109	----	114	111	----
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	----	A. SMYLIE	A. SMYLIE	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	13	12	8	----	12
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	<1
Chromium	7440-47-3	2	mg/kg	19	21	16	----	25
Copper	7440-50-8	5	mg/kg	23	20	20	----	18
Lead	7439-92-1	5	mg/kg	28	25	18	----	17
Nickel	7440-02-0	2	mg/kg	13	10	11	----	5
Zinc	7440-66-6	5	mg/kg	80	46	78	----	20
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	----	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<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
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<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
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Aldrin	309-00-2	0.05	mg/kg	<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
^ Total Chlordane (sum)	----	0.05	mg/kg	<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
alpha-Endosulfan	959-98-8	0.05	mg/kg	<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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP01-0.0-0.1	TP01-0.2-0.3	TP02-0.0-0.1	TP03-0.0-0.1	TP03-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-001	ES2312936-002	ES2312936-004	ES2312936-007	ES2312936-008
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
Dieldrin	60-57-1	0.05	mg/kg	<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
Endrin	72-20-8	0.05	mg/kg	<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
^ **Endosulfan (sum)**	115-29-7	0.05	mg/kg	<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
Endrin aldehyde	7421-93-4	0.05	mg/kg	<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
4.4`-DDT	50-29-3	0.2	mg/kg	<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
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<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	----	<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	----	<0.05
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<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
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Diazinon	333-41-5	0.05	mg/kg	<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
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2
Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Parathion	56-38-2	0.2	mg/kg	<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
Chlorfenvinphos	470-90-6	0.05	mg/kg	<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
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Carbophenothion	786-19-6	0.05	mg/kg	<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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP01-0.0-0.1	TP01-0.2-0.3	TP02-0.0-0.1	TP03-0.0-0.1	TP03-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-001	ES2312936-002	ES2312936-004	ES2312936-007	ES2312936-008
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	**0.6**	**0.6**	**0.6**	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	**1.2**	**1.2**	**1.2**	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP01-0.0-0.1	TP01-0.2-0.3	TP02-0.0-0.1	TP03-0.0-0.1	TP03-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-001	ES2312936-002	ES2312936-004	ES2312936-007	ES2312936-008
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C6 - C9 Fraction	----	10	mg/kg	<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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	----	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	----	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	<50
>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
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**114**	**75.1**	**67.2**	----	**90.6**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**90.4**	**70.0**	**74.4**	----	**76.2**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**69.4**	**52.4**	**50.9**	----	**76.9**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**75.5**	**76.0**	**78.4**	----	**79.8**
2-Chlorophenol-D4	93951-73-6	0.5	%	**79.0**	**80.7**	**81.8**	----	**82.9**
2.4.6-Tribromophenol	118-79-6	0.5	%	**64.3**	**65.5**	**70.8**	----	**70.8**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP01-0.0-0.1	TP01-0.2-0.3	TP02-0.0-0.1	TP03-0.0-0.1	TP03-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-001	ES2312936-002	ES2312936-004	ES2312936-007	ES2312936-008
				Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**80.8**	**84.7**	**87.3**	**----**	**86.0**
Anthracene-d10	1719-06-8	0.5	%	**72.1**	**68.4**	**70.4**	**----**	**66.6**
4-Terphenyl-d14	1718-51-0	0.5	%	**99.9**	**110**	**104**	**----**	**96.8**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**124**	**116**	**116**	**----**	**97.1**
Toluene-D8	2037-26-5	0.2	%	**100**	**98.2**	**99.2**	**----**	**80.3**
4-Bromofluorobenzene	460-00-4	0.2	%	**93.8**	**90.5**	**92.4**	**----**	**84.3**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP04-0.0-0.1	TP04-0.3-0.4	TP05-0.0-0.1	TP06-0.0-0.1	TP06-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-010	ES2312936-011	ES2312936-013	ES2312936-016	ES2312936-017
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	24.6	24.5	26.4	15.8	18.9
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	No	No	----
Asbestos (Trace)	1332-21-4	5	Fibres	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	165	----	148	103	----
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	----	A. SMYLIE	A. SMYLIE	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	10	13	6	8	6
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	20	26	11	26	22
Copper	7440-50-8	5	mg/kg	24	20	17	35	28
Lead	7439-92-1	5	mg/kg	17	18	20	22	20
Nickel	7440-02-0	2	mg/kg	10	9	7	11	9
Zinc	7440-66-6	5	mg/kg	29	34	62	45	37
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP04-0.0-0.1	TP04-0.3-0.4	TP05-0.0-0.1	TP06-0.0-0.1	TP06-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-010	ES2312936-011	ES2312936-013	ES2312936-016	ES2312936-017
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ 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
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP04-0.0-0.1	TP04-0.3-0.4	TP05-0.0-0.1	TP06-0.0-0.1	TP06-0.2-0.3
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-010	ES2312936-011	ES2312936-013	ES2312936-016	ES2312936-017
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP04-0.0-0.1	TP04-0.3-0.4	TP05-0.0-0.1	TP06-0.0-0.1	TP06-0.2-0.3
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-010	ES2312936-011	ES2312936-013	ES2312936-016	ES2312936-017
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
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
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**80.7**	**78.6**	**94.0**	**92.2**	**96.0**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**66.2**	**65.2**	**62.1**	**73.7**	**70.2**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**81.2**	**78.5**	**117**	**52.6**	**51.0**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**75.1**	**76.6**	**76.8**	**76.5**	**76.6**
2-Chlorophenol-D4	93951-73-6	0.5	%		**78.4**	**78.0**	**79.4**	**79.0**	**78.9**
2.4.6-Tribromophenol	118-79-6	0.5	%		**66.3**	**69.1**	**57.4**	**67.0**	**66.2**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP04-0.0-0.1	TP04-0.3-0.4	TP05-0.0-0.1	TP06-0.0-0.1	TP06-0.2-0.3
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-010	ES2312936-011	ES2312936-013	ES2312936-016	ES2312936-017
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**82.1**	**80.6**	**77.5**	**81.0**	**79.8**
Anthracene-d10	1719-06-8	0.5	%		**71.7**	**76.7**	**75.8**	**81.3**	**81.2**
4-Terphenyl-d14	1718-51-0	0.5	%		**89.5**	**88.5**	**85.9**	**85.8**	**85.4**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**104**	**106**	**113**	**114**	**108**
Toluene-D8	2037-26-5	0.2	%		**85.2**	**88.2**	**91.5**	**98.1**	**91.4**
4-Bromofluorobenzene	460-00-4	0.2	%		**82.6**	**83.6**	**84.0**	**91.2**	**87.1**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP07-0.0-0.1	TP08-0.0-0.1	TP08-0.3-0.4	TP09-0.0-0.1	TP10-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-019	ES2312936-022	ES2312936-023	ES2312936-025	ES2312936-028
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	36.1	27.4	17.8	35.6	31.4
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	----	No	No
Asbestos (Trace)	1332-21-4	5	Fibres	No	No	----	No	No
Asbestos Type	1332-21-4	-	--	-	-	----	-	-
Synthetic Mineral Fibre	----	-	--	No	No	----	No	No
Organic Fibre	----	-	--	No	No	----	No	No
Sample weight (dry)	----	0.01	g	158	138	----	130	129
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	A. SMYLIE	----	A. SMYLIE	A. SMYLIE
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	9	7	9	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	29	21	25	10	14
Copper	7440-50-8	5	mg/kg	26	31	22	12	21
Lead	7439-92-1	5	mg/kg	32	23	22	10	31
Nickel	7440-02-0	2	mg/kg	9	9	9	7	7
Zinc	7440-66-6	5	mg/kg	40	74	44	52	57
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP07-0.0-0.1	TP08-0.0-0.1	TP08-0.3-0.4	TP09-0.0-0.1	TP10-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-019	ES2312936-022	ES2312936-023	ES2312936-025	ES2312936-028
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ **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
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP07-0.0-0.1	TP08-0.0-0.1	TP08-0.3-0.4	TP09-0.0-0.1	TP10-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-019	ES2312936-022	ES2312936-023	ES2312936-025	ES2312936-028
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07-0.0-0.1	TP08-0.0-0.1	TP08-0.3-0.4	TP09-0.0-0.1	TP10-0.0-0.1
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-019	ES2312936-022	ES2312936-023	ES2312936-025	ES2312936-028
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
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	**100**	<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	**130**	**140**	**120**
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	**130**	**140**	**120**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**82.9**	**97.8**	**79.6**	**124**	**78.7**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**79.4**	**84.6**	**87.3**	**67.3**	**73.4**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**90.9**	**117**	**122**	**74.5**	**85.7**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**76.7**	**76.1**	**74.6**	**75.4**	**77.3**
2-Chlorophenol-D4	93951-73-6	0.5	%		**79.2**	**77.7**	**76.4**	**76.2**	**74.2**
2.4.6-Tribromophenol	118-79-6	0.5	%		**65.9**	**67.5**	**68.6**	**65.1**	**69.0**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07-0.0-0.1	TP08-0.0-0.1	TP08-0.3-0.4	TP09-0.0-0.1	TP10-0.0-0.1
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-019	ES2312936-022	ES2312936-023	ES2312936-025	ES2312936-028
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		80.2	77.5	79.2	79.4	77.9
Anthracene-d10	1719-06-8	0.5	%		82.9	86.3	86.2	89.4	89.9
4-Terphenyl-d14	1718-51-0	0.5	%		85.2	82.7	82.2	82.8	71.0
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		107	114	121	107	110
Toluene-D8	2037-26-5	0.2	%		89.1	93.2	102	89.5	87.5
4-Bromofluorobenzene	460-00-4	0.2	%		82.7	85.6	93.3	82.5	82.4

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP10-0.2-0.3	TP11-0.0-0.1	TP12-0.0-0.1	TP12-0.2-0.3	TP13-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-029	ES2312936-031	ES2312936-034	ES2312936-035	ES2312936-037
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	26.3	30.8	22.6	25.3	25.3
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	No	----	No
Asbestos (Trace)	1332-21-4	5	Fibres	----	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	----	133	107	----	121
APPROVED IDENTIFIER:	----	-	--	----	A. SMYLIE	A. SMYLIE	----	A. SMYLIE
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	7	<5	9	7	11
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	19	12	30	21	34
Copper	7440-50-8	5	mg/kg	22	14	26	26	26
Lead	7439-92-1	5	mg/kg	19	15	27	18	33
Nickel	7440-02-0	2	mg/kg	9	8	10	7	10
Zinc	7440-66-6	5	mg/kg	37	46	44	37	51
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP10-0.2-0.3	TP11-0.0-0.1	TP12-0.0-0.1	TP12-0.2-0.3	TP13-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-029	ES2312936-031	ES2312936-034	ES2312936-035	ES2312936-037
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ **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
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP10-0.2-0.3	TP11-0.0-0.1	TP12-0.0-0.1	TP12-0.2-0.3	TP13-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-029	ES2312936-031	ES2312936-034	ES2312936-035	ES2312936-037
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP10-0.2-0.3	TP11-0.0-0.1	TP12-0.0-0.1	TP12-0.2-0.3	TP13-0.0-0.1
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-029	ES2312936-031	ES2312936-034	ES2312936-035	ES2312936-037
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
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
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**126**	**64.7**	**82.3**	**71.6**	**76.9**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**103**	**66.0**	**85.4**	**67.3**	**84.5**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**93.6**	**75.7**	**75.8**	**52.3**	**102**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**72.3**	**74.9**	**70.4**	**74.0**	**74.7**
2-Chlorophenol-D4	93951-73-6	0.5	%		**75.2**	**79.5**	**74.4**	**70.6**	**77.6**
2.4.6-Tribromophenol	118-79-6	0.5	%		**61.8**	**64.9**	**62.9**	**63.8**	**62.4**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP10-0.2-0.3	TP11-0.0-0.1	TP12-0.0-0.1	TP12-0.2-0.3	TP13-0.0-0.1
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-029	ES2312936-031	ES2312936-034	ES2312936-035	ES2312936-037
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		75.0	76.9	78.3	79.2	77.3
Anthracene-d10	1719-06-8	0.5	%		85.8	87.4	86.0	84.4	85.8
4-Terphenyl-d14	1718-51-0	0.5	%		67.6	88.7	88.8	89.9	76.4
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		104	110	111	109	106
Toluene-D8	2037-26-5	0.2	%		89.1	88.4	93.2	90.3	97.5
4-Bromofluorobenzene	460-00-4	0.2	%		81.6	82.4	86.5	83.5	82.6

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP13-0.2-0.3	TP14-0.0-0.1	TP15-0.0-0.1	TP15-0.2-0.3	TP16-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-038	ES2312936-040	ES2312936-042	ES2312936-043	ES2312936-045
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	17.9	20.6	29.1	26.6	18.5
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	No	----	No
Asbestos (Trace)	1332-21-4	5	Fibres	----	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	----	152	119	----	143
APPROVED IDENTIFIER:	----	-	--	----	A. SMYLIE	A. SMYLIE	----	A. SMYLIE
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	9	<5	7	9	6
Cadmium	7440-43-9	1	mg/kg	<1	<1	1	<1	<1
Chromium	7440-47-3	2	mg/kg	21	<2	20	25	26
Copper	7440-50-8	5	mg/kg	25	<5	43	29	24
Lead	7439-92-1	5	mg/kg	23	<5	40	27	22
Nickel	7440-02-0	2	mg/kg	9	<2	9	8	8
Zinc	7440-66-6	5	mg/kg	35	<5	122	70	38
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP13-0.2-0.3	TP14-0.0-0.1	TP15-0.0-0.1	TP15-0.2-0.3	TP16-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-038	ES2312936-040	ES2312936-042	ES2312936-043	ES2312936-045
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ 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
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP13-0.2-0.3	TP14-0.0-0.1	TP15-0.0-0.1	TP15-0.2-0.3	TP16-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-038	ES2312936-040	ES2312936-042	ES2312936-043	ES2312936-045
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP13-0.2-0.3	TP14-0.0-0.1	TP15-0.0-0.1	TP15-0.2-0.3	TP16-0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-038	ES2312936-040	ES2312936-042	ES2312936-043	ES2312936-045
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**96.8**	**82.4**	**89.2**	**108**	**97.2**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**78.6**	**84.1**	**80.8**	**105**	**102**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**56.1**	**78.9**	**77.4**	**102**	**91.7**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**69.4**	**80.4**	**77.1**	**77.6**	**79.6**
2-Chlorophenol-D4	93951-73-6	0.5	%	**72.0**	**82.2**	**76.4**	**79.4**	**80.6**
2.4.6-Tribromophenol	118-79-6	0.5	%	**46.5**	**52.8**	**63.0**	**63.0**	**66.2**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP13-0.2-0.3	TP14-0.0-0.1	TP15-0.0-0.1	TP15-0.2-0.3	TP16-0.0-0.1
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-038	ES2312936-040	ES2312936-042	ES2312936-043	ES2312936-045
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		77.7	104	97.8	101	102
Anthracene-d10	1719-06-8	0.5	%		71.2	100	94.6	96.9	97.8
4-Terphenyl-d14	1718-51-0	0.5	%		80.9	97.8	93.2	95.1	96.5
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		113	101	115	122	109
Toluene-D8	2037-26-5	0.2	%		95.3	94.3	81.9	86.2	91.7
4-Bromofluorobenzene	460-00-4	0.2	%		87.8	96.3	79.3	85.8	99.1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP17-0.0-0.1	TP17-0.5-0.6	TP18-0.0-0.1	TP19-0.0-0.1	TP19-0.2-0.3
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-048	ES2312936-050	ES2312936-051	ES2312936-054	ES2312936-055
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	29.4	23.6	33.1	11.8	24.3
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	No	No	----
Asbestos (Trace)	1332-21-4	5	Fibres	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	123	----	144	164	----
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	----	A. SMYLIE	A. SMYLIE	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	7	5	5	<5	10
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	24	15	15	9	21
Copper	7440-50-8	5	mg/kg	19	22	20	10	41
Lead	7439-92-1	5	mg/kg	26	14	26	16	15
Nickel	7440-02-0	2	mg/kg	8	4	9	6	11
Zinc	7440-66-6	5	mg/kg	67	17	86	31	63
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP17-0.0-0.1	TP17-0.5-0.6	TP18-0.0-0.1	TP19-0.0-0.1	TP19-0.2-0.3
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-048	ES2312936-050	ES2312936-051	ES2312936-054	ES2312936-055
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ **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
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP17-0.0-0.1	TP17-0.5-0.6	TP18-0.0-0.1	TP19-0.0-0.1	TP19-0.2-0.3
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-048	ES2312936-050	ES2312936-051	ES2312936-054	ES2312936-055
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP17-0.0-0.1	TP17-0.5-0.6	TP18-0.0-0.1	TP19-0.0-0.1	TP19-0.2-0.3
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-048	ES2312936-050	ES2312936-051	ES2312936-054	ES2312936-055
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
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	**100**	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**92.0**	**92.0**	**119**	**89.9**	**108**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**85.9**	**93.8**	**94.7**	**109**	**106**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**83.8**	**86.0**	**92.4**	**98.1**	**108**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**77.4**	**75.9**	**75.2**	**78.6**	**77.8**
2-Chlorophenol-D4	93951-73-6	0.5	%	**78.0**	**77.3**	**76.1**	**82.7**	**79.2**
2.4.6-Tribromophenol	118-79-6	0.5	%	**68.1**	**62.4**	**75.2**	**66.0**	**65.0**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP17-0.0-0.1	TP17-0.5-0.6	TP18-0.0-0.1	TP19-0.0-0.1	TP19-0.2-0.3
				Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-048	ES2312936-050	ES2312936-051	ES2312936-054	ES2312936-055
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		99.7	98.5	97.6	103	100
Anthracene-d10	1719-06-8	0.5	%		94.1	95.0	93.4	97.7	97.7
4-Terphenyl-d14	1718-51-0	0.5	%		94.4	93.6	92.0	97.1	95.2
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		102	112	104	102	116
Toluene-D8	2037-26-5	0.2	%		82.6	83.5	83.4	95.3	89.0
4-Bromofluorobenzene	460-00-4	0.2	%		75.2	84.8	92.9	97.7	85.9

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP20-0.0-0.1	TP21-0.0-0.1	TP21-0.1-0.2	TP22-0.0-0.1	TP23-0.0-0.1
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-057	ES2312936-059	ES2312936-060	ES2312936-062	ES2312936-065
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	17.4	22.5	13.8	9.1	35.6
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	----	No	No
Asbestos (Trace)	1332-21-4	5	Fibres	No	No	----	No	No
Asbestos Type	1332-21-4	-	--	-	-	----	-	-
Synthetic Mineral Fibre	----	-	--	No	No	----	No	No
Organic Fibre	----	-	--	No	No	----	No	No
Sample weight (dry)	----	0.01	g	166	163	----	160	211
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	A. SMYLIE	----	A. SMYLIE	A. SMYLIE
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	9	6	8	<5	6
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	24	22	27	17	34
Copper	7440-50-8	5	mg/kg	32	21	23	27	42
Lead	7439-92-1	5	mg/kg	22	25	23	14	49
Nickel	7440-02-0	2	mg/kg	11	12	13	7	25
Zinc	7440-66-6	5	mg/kg	59	48	49	36	281
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP20-0.0-0.1	TP21-0.0-0.1	TP21-0.1-0.2	TP22-0.0-0.1	TP23-0.0-0.1
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-057	ES2312936-059	ES2312936-060	ES2312936-062	ES2312936-065
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ **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
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP20-0.0-0.1	TP21-0.0-0.1	TP21-0.1-0.2	TP22-0.0-0.1	TP23-0.0-0.1
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-057	ES2312936-059	ES2312936-060	ES2312936-062	ES2312936-065
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP20-0.0-0.1	TP21-0.0-0.1	TP21-0.1-0.2	TP22-0.0-0.1	TP23-0.0-0.1
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-057	ES2312936-059	ES2312936-060	ES2312936-062	ES2312936-065
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**95.8**	**81.3**	**80.4**	**72.7**	**70.8**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**91.9**	**80.8**	**71.2**	**85.0**	**76.3**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**98.5**	**84.4**	**72.8**	**88.1**	**70.8**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**76.3**	**77.8**	**77.3**	**78.6**	**76.1**
2-Chlorophenol-D4	93951-73-6	0.5	%	**76.3**	**78.5**	**79.2**	**79.4**	**76.4**
2.4.6-Tribromophenol	118-79-6	0.5	%	**68.7**	**68.2**	**64.6**	**65.0**	**67.5**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP20-0.0-0.1	TP21-0.0-0.1	TP21-0.1-0.2	TP22-0.0-0.1	TP23-0.0-0.1
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-057	ES2312936-059	ES2312936-060	ES2312936-062	ES2312936-065
				Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	97.8	99.3	102	100	99.4
Anthracene-d10	1719-06-8	0.5	%	93.8	95.7	96.4	96.7	94.2
4-Terphenyl-d14	1718-51-0	0.5	%	92.6	94.2	95.9	95.5	94.3
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	113	116	117	122	102
Toluene-D8	2037-26-5	0.2	%	89.5	84.2	90.0	88.7	77.9
4-Bromofluorobenzene	460-00-4	0.2	%	83.7	83.1	84.5	84.6	92.1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP23-0.2-0.3	TP24-0.0-0.1	TP25-0.0-0.1	TP25-0.2-0.3	DUP01
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-066	ES2312936-068	ES2312936-071	ES2312936-072	ES2312936-074
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	11.3	26.1	29.2	13.0	22.9
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	No	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	No	No	----	----
Asbestos Type	1332-21-4	-	--	----	-	-	----	----
Synthetic Mineral Fibre	----	-	--	----	No	No	----	----
Organic Fibre	----	-	--	----	No	No	----	----
Sample weight (dry)	----	0.01	g	----	163	170	----	----
APPROVED IDENTIFIER:	----	-	--	----	A. SMYLIE	A. SMYLIE	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	5	<5	<5	14
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	1
Chromium	7440-47-3	2	mg/kg	16	22	10	21	26
Copper	7440-50-8	5	mg/kg	29	36	13	23	24
Lead	7439-92-1	5	mg/kg	20	34	20	26	16
Nickel	7440-02-0	2	mg/kg	11	19	6	11	6
Zinc	7440-66-6	5	mg/kg	63	240	70	57	25
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP23-0.2-0.3	TP24-0.0-0.1	TP25-0.0-0.1	TP25-0.2-0.3	DUP01
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-066	ES2312936-068	ES2312936-071	ES2312936-072	ES2312936-074
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ 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
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP23-0.2-0.3	TP24-0.0-0.1	TP25-0.0-0.1	TP25-0.2-0.3	DUP01
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-066	ES2312936-068	ES2312936-071	ES2312936-072	ES2312936-074
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP23-0.2-0.3	TP24-0.0-0.1	TP25-0.0-0.1	TP25-0.2-0.3	DUP01
			Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-066	ES2312936-068	ES2312936-071	ES2312936-072	ES2312936-074
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**60.4**	**79.0**	**89.0**	**63.5**	**105**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**67.8**	**87.6**	**103**	**80.0**	**115**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**65.4**	**87.4**	**97.8**	**75.5**	**98.6**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**72.8**	**74.6**	**73.2**	**74.1**	**72.7**
2-Chlorophenol-D4	93951-73-6	0.5	%	**75.6**	**75.9**	**72.6**	**73.7**	**74.3**
2.4.6-Tribromophenol	118-79-6	0.5	%	**62.1**	**70.6**	**55.8**	**54.9**	**58.7**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP23-0.2-0.3	TP24-0.0-0.1	TP25-0.0-0.1	TP25-0.2-0.3	DUP01
				Sampling date / time	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	14-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-066	ES2312936-068	ES2312936-071	ES2312936-072	ES2312936-074
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		99.6	103	104	104	103
Anthracene-d10	1719-06-8	0.5	%		90.2	93.8	94.8	93.9	94.1
4-Terphenyl-d14	1718-51-0	0.5	%		90.3	94.2	94.1	94.1	94.9
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		124	118	118	121	125
Toluene-D8	2037-26-5	0.2	%		91.4	82.1	84.9	88.1	81.4
4-Bromofluorobenzene	460-00-4	0.2	%		88.4	77.8	79.2	84.7	81.5

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	DUP02	Trip Blank	Trip Spike - 15	TP03/0.0-0.1 (EIL) Received as TP03/0.1-0.2 (EIL)	HA01/0.01-0.1
				Sampling date / time	13-Apr-2023 00:00	11-Apr-2023 00:00	11-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
					ES2312936-075	ES2312936-076	ES2312936-077	ES2312936-078	ES2312936-079
					Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl2)	----	0.1	pH Unit		----	----	----	4.5	----
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	----	6.0	----
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	----	25	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		----	----	----	7.8	----
Moisture Content	----	1.0	%		18.2	----	----	----	35.4
EA150: Soil Classification based on Particle Size									
Clay (<2 µm)	----	1	%		----	----	----	26	----
EA152: Soil Particle Density									
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3		----	----	----	2.24	----
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		----	----	----	----	No
Asbestos (Trace)	1332-21-4	5	Fibres		----	----	----	----	No
Asbestos Type	1332-21-4	-	--		----	----	----	----	-
Synthetic Mineral Fibre	----	-	--		----	----	----	----	No
Organic Fibre	----	-	--		----	----	----	----	No
Sample weight (dry)	----	0.01	g		----	----	----	----	87.7
APPROVED IDENTIFIER:	----	-	--		----	----	----	----	A. SMYLIE
ED007: Exchangeable Cations									
Exchangeable Calcium	----	0.1	meq/100g		----	----	----	2.2	----
Exchangeable Magnesium	----	0.1	meq/100g		----	----	----	5.9	----
Exchangeable Potassium	----	0.1	meq/100g		----	----	----	0.3	----
Exchangeable Sodium	----	0.1	meq/100g		----	----	----	0.7	----
Cation Exchange Capacity	----	0.1	meq/100g		----	----	----	9.1	----
Exchangeable Sodium Percent	----	0.1	%		----	----	----	7.3	----
EG005(ED093)T: Total Metals by ICP-AES									
Iron	7439-89-6	0.005	%		----	----	----	5.88	----
Arsenic	7440-38-2	5	mg/kg		13	----	----	----	9
Cadmium	7440-43-9	1	mg/kg		<1	----	----	----	<1
Chromium	7440-47-3	2	mg/kg		33	----	----	----	11

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	DUP02	Trip Blank	Trip Spike - 15	TP03/0.0-0.1 (EIL) Received as TP03/0.1-0.2 (EIL)	HA01/0.01-0.1
				Sampling date / time	13-Apr-2023 00:00	11-Apr-2023 00:00	11-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-075	ES2312936-076	ES2312936-077	ES2312936-078	ES2312936-079
					Result	Result	Result	Result	Result
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Copper	7440-50-8	5	mg/kg		**28**	----	----	----	**25**
Lead	7439-92-1	5	mg/kg		**25**	----	----	----	**20**
Nickel	7440-02-0	2	mg/kg		**12**	----	----	----	**6**
Zinc	7440-66-6	5	mg/kg		**39**	----	----	----	**87**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	----	----	----	<0.1
EP004: Organic Matter									
Organic Matter	----	0.5	%		----	----	----	**3.6**	----
Total Organic Carbon	----	0.5	%		----	----	----	**2.1**	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----	----	----	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	----	----	----	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	----	----	----	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	----	----	----	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	----	----	----	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	----	----	----	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	----	----	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	----	----	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	----	----	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	----	----	----	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	----	----	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	----	----	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	----	----	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	----	----	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	----	----	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	----	----	----	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	----	----	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	----	----	----	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	----	----	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	----	----	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	----	----	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	----	----	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	DUP02	Trip Blank	Trip Spike - 15	TP03/0.0-0.1 (EIL) Received as TP03/0.1-0.2 (EIL)	HA01/0.01-0.1
				Sampling date / time	13-Apr-2023 00:00	11-Apr-2023 00:00	11-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-075	ES2312936-076	ES2312936-077	ES2312936-078	ES2312936-079
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	----	----	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	----	----	<0.2
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	----	----	----	<0.05
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	----	----	----	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	----	----	----	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	----	----	----	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	----	----	----	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	----	----	----	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	----	----	----	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	----	----	----	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	----	----	----	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	----	----	----	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	----	----	----	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	----	----	----	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	----	----	----	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	----	----	----	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	----	----	----	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	----	----	----	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	----	----	----	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	----	----	----	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	----	----	----	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	----	----	----	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	----	----	----	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	----	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	----	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	----	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	----	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	----	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	----	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	DUP02	Trip Blank	Trip Spike - 15	TP03/0.0-0.1 (EIL) Received as TP03/0.1-0.2 (EIL)	HA01/0.01-0.1
				Sampling date / time	13-Apr-2023 00:00	11-Apr-2023 00:00	11-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-075	ES2312936-076	ES2312936-077	ES2312936-078	ES2312936-079
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	----	----	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	----	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	----	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	----	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	----	----	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	----	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	----	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	----	----	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	----	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	----	----	----	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	----	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	----	----	----	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	----	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	----	----	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	----	----	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	----	----	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	----	----	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<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	----	----	----	**110**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	----	----	**110**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	DUP02	Trip Blank	Trip Spike - 15	TP03/0.0-0.1 (EIL) Received as TP03/0.1-0.2 (EIL)	HA01/0.01-0.1
				Sampling date / time	13-Apr-2023 00:00	11-Apr-2023 00:00	11-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-075	ES2312936-076	ES2312936-077	ES2312936-078	ES2312936-079
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	----	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	----	----	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	----	----	----	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	----	----	----	150
>C34 - C40 Fraction	----	100	mg/kg		<100	----	----	----	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	----	----	----	150
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	----	----	----	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	3.2	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	5.7	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	6.2	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	2.7	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	17.8	----	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	8.9	----	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	----	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		98.0	----	----	----	90.7
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		119	----	----	----	100
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		100	----	----	----	138
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		75.3	----	----	----	66.7
2-Chlorophenol-D4	93951-73-6	0.5	%		76.3	----	----	----	78.2
2.4.6-Tribromophenol	118-79-6	0.5	%		57.5	----	----	----	87.3
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		108	----	----	----	106
Anthracene-d10	1719-06-8	0.5	%		96.4	----	----	----	102
4-Terphenyl-d14	1718-51-0	0.5	%		97.1	----	----	----	98.6

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	DUP02	Trip Blank	Trip Spike - 15	TP03/0.0-0.1 (EIL) Received as TP03/0.1-0.2 (EIL)	HA01/0.01-0.1
			Sampling date / time	13-Apr-2023 00:00	11-Apr-2023 00:00	11-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-075	ES2312936-076	ES2312936-077	ES2312936-078	ES2312936-079
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**123**	**81.2**	**73.6**	**----**	**79.6**
Toluene-D8	2037-26-5	0.2	%	**85.3**	**78.6**	**73.8**	**----**	**80.8**
4-Bromofluorobenzene	460-00-4	0.2	%	**78.5**	**76.4**	**81.2**	**----**	**77.8**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	HA01/0.2-0.3	HA02/0.1-0.2	HA03/0.1-0.2	HA03/0.4-0.5	HA04/0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-080	ES2312936-082	ES2312936-084	ES2312936-085	ES2312936-086
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**36.8**	**----**	**21.5**	**15.2**	**26.9**
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	**----**	**No**	**No**	**----**	**No**
Asbestos (Trace)	1332-21-4	5	Fibres	**----**	**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	**----**	**64.5**	**43.8**	**----**	**75.5**
APPROVED IDENTIFIER:	----	-	--	**----**	**A. SMYLIE**	**A. SMYLIE**	**----**	**A. SMYLIE**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**6**	**----**	**6**	**6**	**7**
Cadmium	7440-43-9	1	mg/kg	<1	**----**	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	**16**	**----**	**16**	**24**	**12**
Copper	7440-50-8	5	mg/kg	**27**	**----**	**25**	**36**	**23**
Lead	7439-92-1	5	mg/kg	**17**	**----**	**20**	**20**	**16**
Nickel	7440-02-0	2	mg/kg	**7**	**----**	**10**	**9**	**4**
Zinc	7440-66-6	5	mg/kg	**63**	**----**	**90**	**46**	**44**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	**----**	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	**----**	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<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
beta-BHC	319-85-7	0.05	mg/kg	<0.05	**----**	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<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
Heptachlor	76-44-8	0.05	mg/kg	<0.05	**----**	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<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
^ Total Chlordane (sum)	----	0.05	mg/kg	<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
alpha-Endosulfan	959-98-8	0.05	mg/kg	<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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	HA01/0.2-0.3	HA02/0.1-0.2	HA03/0.1-0.2	HA03/0.4-0.5	HA04/0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-080	ES2312936-082	ES2312936-084	ES2312936-085	ES2312936-086
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
Dieldrin	60-57-1	0.05	mg/kg	<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
Endrin	72-20-8	0.05	mg/kg	<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
^ **Endosulfan (sum)**	115-29-7	0.05	mg/kg	<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
Endrin aldehyde	7421-93-4	0.05	mg/kg	<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
4.4`-DDT	50-29-3	0.2	mg/kg	<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
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	----	<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	<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	<0.05
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<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
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg	<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
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg	<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
Chlorfenvinphos	470-90-6	0.05	mg/kg	<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
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg	<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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	HA01/0.2-0.3	HA02/0.1-0.2	HA03/0.1-0.2	HA03/0.4-0.5	HA04/0.0-0.1
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312936-080	ES2312936-082	ES2312936-084	ES2312936-085	ES2312936-086
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	----	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	----	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	**0.6**	----	**0.6**	**0.6**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	**1.2**	----	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	HA01/0.2-0.3	HA02/0.1-0.2	HA03/0.1-0.2	HA03/0.4-0.5	HA04/0.0-0.1
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-080	ES2312936-082	ES2312936-084	ES2312936-085	ES2312936-086
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C6 - C9 Fraction	----	10	mg/kg		<10	----	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	----	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	----	**260**	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	----	**210**	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	**470**	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	----	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	----	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	----	**390**	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	----	**110**	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	----	**500**	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	----	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	----	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	----	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	----	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	----	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	----	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	----	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	----	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	----	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**102**	----	**126**	**103**	**95.7**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**115**	----	**98.9**	**74.4**	**77.7**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**128**	----	**122**	**82.6**	**58.7**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**73.2**	----	**76.2**	**74.7**	**70.6**
2-Chlorophenol-D4	93951-73-6	0.5	%		**67.9**	----	**80.2**	**83.6**	**75.1**
2.4.6-Tribromophenol	118-79-6	0.5	%		**50.3**	----	**85.3**	**91.2**	**78.6**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	HA01/0.2-0.3	HA02/0.1-0.2	HA03/0.1-0.2	HA03/0.4-0.5	HA04/0.0-0.1
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312936-080	ES2312936-082	ES2312936-084	ES2312936-085	ES2312936-086
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**108**	**----**	**106**	**102**	**90.8**
Anthracene-d10	1719-06-8	0.5	%		**103**	**----**	**92.7**	**100**	**87.8**
4-Terphenyl-d14	1718-51-0	0.5	%		**98.0**	**----**	**95.8**	**95.3**	**83.1**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**76.9**	**----**	**81.5**	**81.4**	**81.5**
Toluene-D8	2037-26-5	0.2	%		**76.3**	**----**	**83.0**	**83.1**	**77.8**
4-Bromofluorobenzene	460-00-4	0.2	%		**74.6**	**----**	**81.8**	**82.4**	**77.7**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	HA09/0.0-0.1	HA09/0.5-0.6	HA10/0.2-0.3	Trip Spike Control - 15	----
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	11-Apr-2023 00:00	----
Compound	CAS Number	LOR	Unit	ES2312936-088	ES2312936-089	ES2312936-090	ES2312936-091	--------
				Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**54.1**	**22.5**	**22.4**	**----**	**----**
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	**No**	**----**	**----**	**----**	**----**
Asbestos (Trace)	1332-21-4	5	Fibres	**No**	**----**	**----**	**----**	**----**
Asbestos Type	1332-21-4	-	--	**-**	**----**	**----**	**----**	**----**
Synthetic Mineral Fibre	----	-	--	**No**	**----**	**----**	**----**	**----**
Organic Fibre	----	-	--	**No**	**----**	**----**	**----**	**----**
Sample weight (dry)	----	0.01	g	**78.4**	**----**	**----**	**----**	**----**
APPROVED IDENTIFIER:	----	-	--	**A. SMYLIE**	**----**	**----**	**----**	**----**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	**8**	**5**	**----**	**----**
Cadmium	7440-43-9	1	mg/kg	<1	**2**	<1	**----**	**----**
Chromium	7440-47-3	2	mg/kg	**12**	**28**	**21**	**----**	**----**
Copper	7440-50-8	5	mg/kg	**23**	**30**	**28**	**----**	**----**
Lead	7439-92-1	5	mg/kg	**13**	**32**	**34**	**----**	**----**
Nickel	7440-02-0	2	mg/kg	**8**	**16**	**12**	**----**	**----**
Zinc	7440-66-6	5	mg/kg	**131**	**69**	**164**	**----**	**----**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	**----**	**----**
EK055: Ammonia as N								
Ammonia as N	7664-41-7	20	mg/kg	**120**	<20	**----**	**----**	**----**
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	**0.7**	**0.2**	**----**	**----**	**----**
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N (Sol.)	14797-55-8	0.1	mg/kg	<1.0	**0.8**	**----**	**----**	**----**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<1.0	**1.0**	**----**	**----**	**----**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	----	20	mg/kg	**6250**	**550**	**----**	**----**	**----**
EK062: Total Nitrogen as N (TKN + NOx)								
^ Total Nitrogen as N	----	20	mg/kg	**6250**	**550**	**----**	**----**	**----**
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	2	mg/kg	**1040**	**148**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	HA09/0.0-0.1	HA09/0.5-0.6	HA10/0.2-0.3	Trip Spike Control - 15	----
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	11-Apr-2023 00:00	----
Compound	CAS Number	LOR	Unit	ES2312936-088	ES2312936-089	ES2312936-090	ES2312936-091	--------
				Result	Result	Result	Result	----
EK071G: Reactive Phosphorus as P by discrete analyser								
Reactive Phosphorus as P	14265-44-2	0.1	mg/kg	**5.9**	**0.8**	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
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	72-54-8/72-55-9/50-29-3	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	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	HA09/0.0-0.1	HA09/0.5-0.6	HA10/0.2-0.3	Trip Spike Control - 15	----
			Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	11-Apr-2023 00:00	----
Compound	CAS Number	LOR	Unit	ES2312936-088	ES2312936-089	ES2312936-090	ES2312936-091	--------
				Result	Result	Result	Result	----
EP068B: Organophosphorus Pesticides (OP) - Continued								
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	----	----
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<2	<1	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.8	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.8	<0.5	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	HA09/0.0-0.1	HA09/0.5-0.6	HA10/0.2-0.3	Trip Spike Control - 15	----
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	11-Apr-2023 00:00	----
Compound	CAS Number	LOR	Unit		ES2312936-088	ES2312936-089	ES2312936-090	ES2312936-091	--------
					Result	Result	Result	Result	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		**1.6**	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		**1.8**	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		**1.2**	<0.5	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		**0.9**	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.8	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		**5.5**	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		**1.0**	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**1.5**	**0.6**	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**2.1**	**1.2**	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		**100**	<50	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		**510**	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		**620**	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**1230**	<50	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		**130**	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		**770**	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		**500**	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		**1400**	<50	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		**130**	<50	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	HA09/0.0-0.1	HA09/0.5-0.6	HA10/0.2-0.3	Trip Spike Control - 15	----
				Sampling date / time	13-Apr-2023 00:00	13-Apr-2023 00:00	13-Apr-2023 00:00	11-Apr-2023 00:00	----
Compound	CAS Number	LOR	Unit		ES2312936-088	ES2312936-089	ES2312936-090	ES2312936-091	--------
					Result	Result	Result	Result	----
EP080: BTEXN - Continued									
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	**5.5**	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	**8.7**	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	**9.6**	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	**3.9**	----
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	**27.7**	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	**13.5**	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**78.3**	**73.9**	**114**	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**56.9**	**56.3**	**94.2**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**75.4**	**53.2**	**66.4**	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**69.0**	**66.9**	**66.7**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**78.7**	**71.3**	**78.4**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**95.6**	**79.4**	**80.3**	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**106**	**85.4**	**92.2**	----	----
Anthracene-d10	1719-06-8	0.5	%		**99.3**	**85.5**	**88.9**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		**94.9**	**79.7**	**83.7**	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**59.8**	**57.8**	**81.6**	**80.6**	----
Toluene-D8	2037-26-5	0.2	%		**59.6**	**55.0**	**79.2**	**77.6**	----
4-Bromofluorobenzene	460-00-4	0.2	%		**74.8**	**69.9**	**78.0**	**81.9**	----

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	TP01-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP02-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP03-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP04-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP05-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP06-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP07-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP08-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP09-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP10-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP11-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP12-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP13-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP14-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP15-0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	TP16-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP17-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP18-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP19-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP20-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP21-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP22-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP23-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP24-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	TP25-0.0-0.1 - 14-Apr-2023 00:00	Soil sample.
EA200: Description	HA01/0.01-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	HA02/0.1-0.2 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	HA03/0.1-0.2 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	HA04/0.0-0.1 - 13-Apr-2023 00:00	Soil sample.
EA200: Description	HA09/0.0-0.1 - 13-Apr-2023 00:00	Soil sample.

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
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

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

(SOIL) EA150: Soil Classification based on Particle Size

(SOIL) EA152: Soil Particle Density

QUALITY CONTROL REPORT

Work Order	: **ES2312936**	Page	: 1 of 35
Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Contact	: Katie Davis
Address	: Level 5, 20 Berry Street, North Sydney, NSW 2060 North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Date Samples Received	: 19-Apr-2023
Order number	: 30018043	Date Analysis Commenced	: 20-Apr-2023
C-O-C number	: ----	Issue Date	: 28-Apr-2023
Sampler	: HARRISON WOOD		
Site	: ----		
Quote number	: EN/025/21		
No. of samples received	: 91		
No. of samples analysed	: 54		

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*
Alana Smylie	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Vincent Emerton-Bell	Laboratory Technician	Newcastle - Inorganics, Mayfield West, 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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5005694)									
ES2312901-021	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	7	3	83.7	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	5	3	46.5	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	7	<5	32.6	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	10	9	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	36	29	20.6	No Limit
ES2312936-019	TP07-0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	29	30	3.7	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	9	11	15.2	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	10	14.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	26	31	18.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	32	32	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	40	46	12.6	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	59600	65000	8.8	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5005748)									
ES2312936-038	TP13-0.2-0.3	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	21	18	15.1	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	9	9	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	6	36.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	25	22	13.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	23	19	19.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	35	32	9.3	No Limit
ES2312936-057	TP20-0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5005748) - continued									
ES2312936-057	TP20-0.0-0.1	EG005T: Chromium	7440-47-3	2	mg/kg	24	29	17.7	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	11	9	19.3	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	9	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	32	26	21.7	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	22	26	16.1	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	59	48	20.1	0% - 50%
		EG005T: Iron	7439-89-6	50	mg/kg	57200	65200	13.1	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5005750)									
ES2312936-075	DUP02	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	33	27	19.9	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	12	12	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	13	11	15.5	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	28	27	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	25	19	27.8	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	39	37	4.7	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	67900	58100	15.6	0% - 20%
ME2300751-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	4	4	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	5	4	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	5	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	9	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	53	40	28.2	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	318	261	19.7	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	505	465	8.3	0% - 20%
		EG005T: Iron	7439-89-6	50	mg/kg	4090	3820	6.7	0% - 20%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 5004838)									
ES2312519-023	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	5.4	5.4	0.0	0% - 20%
ES2312602-034	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	4.7	4.7	0.0	0% - 20%
EA002: pH 1:5 (Soils) (QC Lot: 5001529)									
ES2312558-010	Anonymous	EA002: pH Value	----	0.1	pH Unit	8.5	8.5	0.0	0% - 20%
ES2312558-001	Anonymous	EA002: pH Value	----	0.1	pH Unit	7.8	7.9	0.0	0% - 20%
EA010: Conductivity (1:5) (QC Lot: 5001528)									
ES2312558-010	Anonymous	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	177	183	3.5	0% - 20%
ES2312558-001	Anonymous	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	242	226	7.1	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5005698)									
ES2312936-002	TP01-0.2-0.3	EA055: Moisture Content	----	0.1	%	10.6	10.8	1.5	0% - 50%
ES2312936-025	TP09-0.0-0.1	EA055: Moisture Content	----	0.1	%	35.6	38.6	8.3	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5005752)									
ES2312936-042	TP15-0.0-0.1	EA055: Moisture Content	----	0.1	%	29.1	34.4	16.8	0% - 20%
ES2312936-062	TP22-0.0-0.1	EA055: Moisture Content	----	0.1	%	9.1	8.7	4.4	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 (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5005753)									
ES2312936-079	HA01/0.01-0.1	EA055: Moisture Content	----	0.1	%	35.4	36.6	3.3	0% - 20%
ME2300751-004	Anonymous	EA055: Moisture Content	----	0.1	%	33.9	34.0	0.0	0% - 20%
ED007: Exchangeable Cations (QC Lot: 5008183)									
ES2312519-023	Anonymous	ED007: Exchangeable Sodium Percent	----	0.1	%	2.9	2.9	0.0	0% - 20%
		ED007: Exchangeable Calcium	----	0.1	meq/100g	6.1	6.0	2.2	0% - 20%
		ED007: Exchangeable Magnesium	----	0.1	meq/100g	4.7	4.6	2.4	0% - 20%
		ED007: Exchangeable Potassium	----	0.1	meq/100g	0.3	0.3	0.0	No Limit
		ED007: Exchangeable Sodium	----	0.1	meq/100g	0.3	0.3	0.0	No Limit
		ED007: Cation Exchange Capacity	----	0.1	meq/100g	11.5	11.2	2.3	0% - 20%
ME2300721-005	Anonymous	ED007: Exchangeable Sodium Percent	----	0.1	%	0.9	0.9	0.0	No Limit
		ED007: Exchangeable Calcium	----	0.1	meq/100g	2.6	2.7	0.0	0% - 20%
		ED007: Exchangeable Magnesium	----	0.1	meq/100g	1.2	1.3	0.0	0% - 50%
		ED007: Exchangeable Potassium	----	0.1	meq/100g	0.7	0.7	0.0	No Limit
		ED007: Exchangeable Sodium	----	0.1	meq/100g	<0.1	<0.1	0.0	No Limit
		ED007: Cation Exchange Capacity	----	0.1	meq/100g	4.6	4.7	0.0	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5005695)									
ES2312901-021	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2312936-019	TP07-0.0-0.1	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: 5005749)									
ES2312936-038	TP13-0.2-0.3	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2312936-057	TP20-0.0-0.1	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: 5005751)									
ES2312936-075	DUP02	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ME2300751-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.2	0.0	No Limit
EK055: Ammonia as N (QC Lot: 5004744)									
ES2312642-001	Anonymous	EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	<20	0.0	No Limit
ES2313113-003	Anonymous	EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	<20	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 5001531)									
ES2312936-088	HA09/0.0-0.1	EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	0.7	0.6	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 5001533)									
ES2312936-088	HA09/0.0-0.1	EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<1.0	<1.0	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 5001885)									
ES2312567-006	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	1740	1670	4.3	0% - 20%
ES2312936-088	HA09/0.0-0.1	EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	6250	7150	13.5	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 5001886)									
ES2312624-001	Anonymous	EK067G: Total Phosphorus as P	----	2	mg/kg	135	152	11.6	0% - 20%
EW2301773-001	Anonymous	EK067G: Total Phosphorus as P	----	2	mg/kg	3720	3780	1.7	0% - 20%
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 5001532)									

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 (%)*
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 5001532) - continued									
ES2312936-088	HA09/0.0-0.1	EK071G: Reactive Phosphorus as P	14265-44-2	0.1	mg/kg	5.9	5.7	2.7	0% - 20%
EP004: Organic Matter (QC Lot: 5005941)									
ES2312896-006	Anonymous	EP004: Organic Matter	----	0.5	%	1.0	1.1	0.0	No Limit
		EP004: Total Organic Carbon	----	0.5	%	0.6	0.6	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5002041)									
ES2312936-001	TP01-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5002087)									
ES2312936-040	TP14-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5002094)									
ES2312799-021	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2312936-079	HA01/0.01-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5002040)									
ES2312936-001	TP01-0.0-0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

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 (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5002040) - continued									
ES2312936-022	TP08-0.0-0.1	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
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5002086)									
ES2312936-040	TP14-0.0-0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5002086) - continued									
ES2312936-059	TP21-0.0-0.1	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
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5002093)									
ES2312799-021	Anonymous	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

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 (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5002093) - continued									
ES2312799-021	Anonymous	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
ES2312936-079	HA01/0.01-0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5002040)									
ES2312936-001	TP01-0.0-0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5002040) - continued									
ES2312936-001	TP01-0.0-0.1	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
ES2312936-022	TP08-0.0-0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		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
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5002086)									
ES2312936-040	TP14-0.0-0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5002086) - continued									
ES2312936-040	TP14-0.0-0.1	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
ES2312936-059	TP21-0.0-0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		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
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5002093)									
ES2312799-021	Anonymous	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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5002093) - continued									
ES2312799-021	Anonymous	EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2312936-079	HA01/0.01-0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		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)A: Phenolic Compounds (QC Lot: 5002039)									
ES2312936-001	TP01-0.0-0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	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)A: Phenolic Compounds (QC Lot: 5002039) - continued									
ES2312936-022	TP08-0.0-0.1	EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 5002085)									
ES2312936-040	TP14-0.0-0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 5002092)									
ES2312799-021	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	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)A: Phenolic Compounds (QC Lot: 5002092) - continued									
ES2312799-021	Anonymous	EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES2312936-079	HA01/0.01-0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5002039)									
ES2312936-001	TP01-0.0-0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
ES2312936-022	TP08-0.0-0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

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: 5002039) - continued									
ES2312936-022	TP08-0.0-0.1	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5002085)									
ES2312936-040	TP14-0.0-0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
ES2312936-059	TP21-0.0-0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

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: 5002085) - continued									
ES2312936-059	TP21-0.0-0.1	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5002092)									
ES2312799-021	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
ES2312936-079	HA01/0.01-0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

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: 5002092) - continued									
ES2312936-079	HA01/0.01-0.1	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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: 5002038)									
ES2312936-001	TP01-0.0-0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5002084)									
ES2312936-040	TP14-0.0-0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5002091)									
ES2312799-021	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
ES2312936-079	HA01/0.01-0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	110	110	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5004993)									
ES2312936-001	TP01-0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5004994)									
ES2312936-040	TP14-0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5005451)									
ES2313061-007	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2313061-006	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5002038)									
ES2312936-001	TP01-0.0-0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5002084)									
ES2312936-040	TP14-0.0-0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5002091)									
ES2312799-021	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
ES2312936-079	HA01/0.01-0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	150	170	14.3	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: 5004993)									
ES2312936-001	TP01-0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	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: 5004994)									
ES2312936-040	TP14-0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	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: 5005451)									
ES2313061-007	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2313061-006	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP080: BTEXN (QC Lot: 5004993)									
ES2312936-001	TP01-0.0-0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2312936-022	TP08-0.0-0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP080: BTEXN (QC Lot: 5004994)									
ES2312936-040	TP14-0.0-0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2312936-059	TP21-0.0-0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP080: BTEXN (QC Lot: 5005451)									
ES2313061-007	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	108-38-3 106-42-3	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
ES2313061-006	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP080: BTEXN (QC Lot: 5005451) - continued									
ES2313061-006	Anonymous	EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit

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

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

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005694)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	107	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	104	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	122	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	111	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	----	----	----	----
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	113	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	108	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	102	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005748)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	88.2	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	102	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	102	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	95.4	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	31660 mg/kg	93.7	89.0	112
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	91.5	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	89.1	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	87.0	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005750)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	93.8	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	70.2	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	99.8	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	94.4	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	31660 mg/kg	92.8	89.0	112
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	89.0	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	90.2	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	81.2	66.0	133
EA002: pH 1:5 (Soils) (QCLot: 5001529)								
EA002: pH Value	----	----	pH Unit	----	4 pH Unit	99.8	98.8	101
				----	7 pH Unit	99.3	98.8	101
EA010: Conductivity (1:5) (QCLot: 5001528)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EA010: Conductivity (1:5) (QCLot: 5001528) - continued								
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	1412 µS/cm	99.6	92.0	108
ED007: Exchangeable Cations (QCLot: 5008183)								
ED007: Exchangeable Calcium	----	0.1	meq/100g	<0.1	1 meq/100g	104	75.8	120
ED007: Exchangeable Magnesium	----	0.1	meq/100g	<0.1	1.67 meq/100g	105	74.9	115
ED007: Exchangeable Potassium	----	0.1	meq/100g	<0.1	0.51 meq/100g	109	80.0	120
ED007: Exchangeable Sodium	----	0.1	meq/100g	<0.1	0.87 meq/100g	101	80.0	120
ED007: Cation Exchange Capacity	----	0.1	meq/100g	<0.1	----	----	----	----
ED007: Exchangeable Sodium Percent	----	0.1	%	<0.1	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005695)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	101	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005749)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	74.7	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005751)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	87.9	70.0	125
EK055: Ammonia as N (QCLot: 5004744)								
EK055: Ammonia as N	7664-41-7	20	mg/kg	<20	125 mg/kg	99.4	84.0	104
EK057G: Nitrite as N by Discrete Analyser (QCLot: 5001531)								
EK057G: Nitrite as N (Sol.)	14797-65-0	0.1	mg/kg	<0.1	2.5 mg/kg	102	85.0	111
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 5001533)								
EK059G: Nitrite + Nitrate as N (Sol.)	----	0.1	mg/kg	<0.1	2.5 mg/kg	113	88.0	118
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 5001885)								
EK061G: Total Kjeldahl Nitrogen as N	----	20	mg/kg	<20	1000 mg/kg	85.6	72.0	106
				<20	100 mg/kg	116	70.0	122
				<20	500 mg/kg	121	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 5001886)								
EK067G: Total Phosphorus as P	----	2	mg/kg	<2	442 mg/kg	78.0	76.0	108
				<2	44.2 mg/kg	97.0	70.0	118
				<2	100 mg/kg	112	70.0	130
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 5001532)								
EK071G: Reactive Phosphorus as P	14265-44-2	0.1	mg/kg	<0.1	2.5 mg/kg	112	86.0	118
EP004: Organic Matter (QCLot: 5005941)								
EP004: Organic Matter	----	0.5	%	<0.5	2.53 %	96.8	82.0	98.0
EP004: Total Organic Carbon	----	0.5	%	<0.5	1.46 %	97.3	81.0	99.0
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5002041)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5002041) - continued								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	112	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5002087)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	102	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5002094)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	89.7	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002040)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.7	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	101	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	100	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	95.4	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	100	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	102	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	100	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	101	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	100	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	98.4	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	94.6	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	98.8	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	96.8	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002086)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	85.4	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	88.6	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.0	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.2	67.0	115

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002086) - continued								
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	86.2	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	86.5	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	88.0	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.9	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.8	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.4	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	92.5	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.5	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	92.6	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	94.8	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	91.8	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	91.1	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	98.4	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002093)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	81.7	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	82.7	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	85.1	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	85.2	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	82.5	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.5	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	83.8	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	82.3	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	83.1	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.4	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	84.6	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	85.0	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.5	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.7	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	83.8	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.2	62.0	124

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002093) - continued								
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	88.4	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	85.6	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	77.3	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5002040)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	101	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	82.1	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	98.4	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	101	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	100	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	98.8	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	96.6	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	101	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	99.3	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	100	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	96.3	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	101	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	100.0	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	98.4	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	101	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	81.0	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5002086)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	77.6	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	90.3	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	90.9	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.2	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	87.2	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	102	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.3	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.6	76.0	118

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5002086) - continued								
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	86.8	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	89.6	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	85.9	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.2	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	101	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	89.7	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	91.4	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	99.4	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	87.0	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5002093)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	94.2	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	75.2	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	84.0	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	78.4	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	84.9	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	81.6	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	78.2	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	79.8	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	82.8	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	84.6	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	79.7	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	83.7	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	75.3	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	83.5	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	75.0	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	85.0	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	84.1	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	55.3	41.0	123
EP075(SIM)A: Phenolic Compounds (QCLot: 5002039)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	97.2	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	96.4	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	95.0	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	94.4	67.0	127

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 5002039) - continued								
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	81.7	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	90.8	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	85.4	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	93.1	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	88.6	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	84.0	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	88.9	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	49.8	10.0	80.0
EP075(SIM)A: Phenolic Compounds (QCLot: 5002085)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	110	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	112	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	114	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	111	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	81.8	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	103	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	113	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	111	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	99.8	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	101	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	105	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	44.0	10.0	80.0
EP075(SIM)A: Phenolic Compounds (QCLot: 5002092)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	91.4	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	99.6	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	93.5	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	99.4	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	61.8	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	90.6	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	88.3	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	93.1	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	84.5	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	93.0	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	95.5	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	50.3	10.0	80.0

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5002039)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	95.4	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	92.5	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	95.0	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	92.3	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	101	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	102	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	102	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	104	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	94.5	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	98.6	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	94.6	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	95.4	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	98.5	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	96.6	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	99.3	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5002085)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	117	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	119	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	111	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	120	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	104	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	104	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	117	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	112	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	118	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	114	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	108	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	116	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	114	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	97.2	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	90.7	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	94.2	63.0	121

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5002092)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	98.7	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	111	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	112	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	115	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	108	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	109	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	109	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	111	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	97.4	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	106	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	87.4	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	108	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	114	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	102	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	102	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	105	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5002038)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	94.9	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	99.6	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	102	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5002084)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	109	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	102	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	103	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5002091)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	92.3	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	92.8	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	89.6	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5004993)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	110	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5004994)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	101	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5005451)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5005451) - continued								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	87.2	72.2	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5002038)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	98.4	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	100	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	98.9	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5002084)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	105	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	102	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	101	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5002091)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	92.5	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	90.2	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	85.6	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5004993)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	110	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5004994)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	102	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5005451)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	89.4	72.4	133
EP080: BTEXN (QCLot: 5004993)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	106	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	95.2	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	95.4	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	97.0	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	96.2	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	95.9	78.8	122
EP080: BTEXN (QCLot: 5004994)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	100	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	99.0	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	91.2	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	96.7	78.2	121
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	95.8	78.8	122

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080: BTEXN (QCLot: 5005451)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	90.5	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	88.9	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	84.5	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	85.7	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	85.3	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	89.4	78.8	122

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005694)							
ES2312901-021	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	111	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	108	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	107	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	106	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	112	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	116	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	109	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005748)							
ES2312936-038	TP13-0.2-0.3	EG005T: Arsenic	7440-38-2	50 mg/kg	100.0	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	106	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	100	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	107	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	101	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	102	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	98.8	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005750)							
ES2312936-075	DUP02	EG005T: Arsenic	7440-38-2	50 mg/kg	106	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	111	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	93.9	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	114	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	105	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	108	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
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005750) - continued							
ES2312936-075	DUP02	EG005T: Zinc	7440-66-6	250 mg/kg	106	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005695)							
ES2312901-021	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	99.9	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005749)							
ES2312936-038	TP13-0.2-0.3	EG035T: Mercury	7439-97-6	5 mg/kg	99.2	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005751)							
ES2312936-075	DUP02	EG035T: Mercury	7439-97-6	5 mg/kg	98.6	70.0	130
EK055: Ammonia as N (QCLot: 5004744)							
ES2312642-001	Anonymous	EK055: Ammonia as N	7664-41-7	125 mg/kg	87.4	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 5001531)							
ES2312936-088	HA09/0.0-0.1	EK057G: Nitrite as N (Sol.)	14797-65-0	2.5 mg/kg	97.4	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 5001533)							
ES2312936-088	HA09/0.0-0.1	EK059G: Nitrite + Nitrate as N (Sol.)	----	25 mg/kg	119	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 5001885)							
ES2312567-006	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	500 mg/kg	76.1	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 5001886)							
ES2312624-001	Anonymous	EK067G: Total Phosphorus as P	----	100 mg/kg	72.1	70.0	130
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 5001532)							
ES2312936-088	HA09/0.0-0.1	EK071G: Reactive Phosphorus as P	14265-44-2	2.5 mg/kg	80.3	70.0	130
EP004: Organic Matter (QCLot: 5005941)							
ES2312896-006	Anonymous	EP004: Organic Matter	----	1.05 %	88.5	70.0	130
		EP004: Total Organic Carbon	----	0.61 %	88.9	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5002041)							
ES2312936-001	TP01-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	102	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5002087)							
ES2312936-040	TP14-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	114	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5002094)							
ES2312799-021	Anonymous	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	94.5	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002040)							
ES2312936-001	TP01-0.0-0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	93.7	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	89.2	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	94.6	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	97.4	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	86.6	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
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002040) - continued							
ES2312936-001	TP01-0.0-0.1	EP068: 4.4`-DDT	50-29-3	2 mg/kg	76.8	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002086)							
ES2312936-040	TP14-0.0-0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	86.7	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	88.1	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	89.7	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	101	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	92.2	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	94.1	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5002093)							
ES2312799-021	Anonymous	EP068: gamma-BHC	58-89-9	0.5 mg/kg	86.0	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	81.1	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	83.4	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	90.1	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	77.3	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	77.5	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5002040)							
ES2312936-001	TP01-0.0-0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	77.2	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	84.3	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	82.5	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	88.0	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	76.1	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5002086)							
ES2312936-040	TP14-0.0-0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	84.8	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	82.4	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	88.8	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	88.3	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	80.1	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5002093)							
ES2312799-021	Anonymous	EP068: Diazinon	333-41-5	0.5 mg/kg	78.2	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	75.6	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	80.6	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	80.1	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	79.8	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5002039)							
ES2312936-001	TP01-0.0-0.1	EP075(SIM): Phenol	108-95-2	10 mg/kg	94.0	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	96.5	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	87.0	60.0	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
EP075(SIM)A: Phenolic Compounds (QCLot: 5002039) - continued							
ES2312936-001	TP01-0.0-0.1	EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	90.0	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	67.9	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5002085)							
ES2312936-040	TP14-0.0-0.1	EP075(SIM): Phenol	108-95-2	10 mg/kg	109	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	110	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	82.4	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	96.3	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	37.4	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5002092)							
ES2312799-021	Anonymous	EP075(SIM): Phenol	108-95-2	10 mg/kg	97.3	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	105	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	72.5	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	89.6	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	82.0	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5002039)							
ES2312936-001	TP01-0.0-0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	97.1	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	111	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5002085)							
ES2312936-040	TP14-0.0-0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	103	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	116	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5002092)							
ES2312799-021	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	111	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	113	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5002038)							
ES2312936-001	TP01-0.0-0.1	EP071: C10 - C14 Fraction	----	480 mg/kg	114	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	119	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	128	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5002084)							
ES2312936-040	TP14-0.0-0.1	EP071: C10 - C14 Fraction	----	480 mg/kg	117	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	118	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	126	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5002091)							
ES2312799-021	Anonymous	EP071: C10 - C14 Fraction	----	480 mg/kg	80.6	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	88.6	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	98.9	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5004993)							

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: 5004993) - continued							
ES2312936-001	TP01-0.0-0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	106	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5004994)							
ES2312936-040	TP14-0.0-0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	92.6	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5005451)							
ES2313061-007	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	77.4	60.4	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5002038)							
ES2312936-001	TP01-0.0-0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	111	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	123	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	120	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5002084)							
ES2312936-040	TP14-0.0-0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	111	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	122	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	117	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5002091)							
ES2312799-021	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	73.1	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	91.7	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	100	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5004993)							
ES2312936-001	TP01-0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	105	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5004994)							
ES2312936-040	TP14-0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	93.0	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5005451)							
ES2313061-007	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	77.0	61.1	142
EP080: BTEXN (QCLot: 5004993)							
ES2312936-001	TP01-0.0-0.1	EP080: Benzene	71-43-2	2.5 mg/kg	99.6	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	95.1	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	98.8	67.4	123
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	97.0	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	99.1	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	76.7	61.1	115
EP080: BTEXN (QCLot: 5004994)							
ES2312936-040	TP14-0.0-0.1	EP080: Benzene	71-43-2	2.5 mg/kg	86.6	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	91.0	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.6	67.4	123

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: BTEXN (QCLot: 5004994) - continued							
ES2312936-040	TP14-0.0-0.1	EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	90.4	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	91.9	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	89.7	61.1	115
EP080: BTEXN (QCLot: 5005451)							
ES2313061-007	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	72.0	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	76.0	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	74.2	67.4	123
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	72.6	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	73.9	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	81.0	61.1	115

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2312936**	Page	: 1 of 21
Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Telephone	: +61-2-8784 8555
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Date Samples Received	: 19-Apr-2023
Site	: ----	Issue Date	: 28-Apr-2023
Sampler	: HARRISON WOOD	No. of samples received	: 91
Order number	: 30018043	No. of samples analysed	: 54

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

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP080S: TPH(V)/BTEX Surrogates	ES2312936-088	HA09/0.0-0.1	**1.2-Dichloroethane-D4**	17060-07-0	59.8 %	63.2-125 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES2312936-089	HA09/0.5-0.6	**1.2-Dichloroethane-D4**	17060-07-0	57.8 %	63.2-125 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES2312936-088	HA09/0.0-0.1	**Toluene-D8**	2037-26-5	59.6 %	66.8-124 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES2312936-089	HA09/0.5-0.6	**Toluene-D8**	2037-26-5	55.0 %	66.8-124 %	**Recovery less than lower data quality objective**

Outliers : Analysis Holding Time Compliance

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA001: pH in soil using 0.01M CaCl extract						
Soil Glass Jar - Unpreserved TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)	21-Apr-2023	20-Apr-2023	1	----	----	----

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 / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA001: pH in soil using 0.01M CaCl extract							
Soil Glass Jar - Unpreserved (EA001) TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)	**13-Apr-2023**	**21-Apr-2023**	20-Apr-2023	×	**21-Apr-2023**	21-Apr-2023	✓
EA002: pH 1:5 (Soils)							
Soil Glass Jar - Unpreserved (EA002) TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)	**13-Apr-2023**	**20-Apr-2023**	20-Apr-2023	✓	**20-Apr-2023**	20-Apr-2023	✓
EA010: Conductivity (1:5)							
Soil Glass Jar - Unpreserved (EA010) TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)	**13-Apr-2023**	**20-Apr-2023**	20-Apr-2023	✓	**20-Apr-2023**	18-May-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
TP01-0.0-0.1,	TP01-0.2-0.3,	**13-Apr-2023**	**----**	----	----	**21-Apr-2023**	27-Apr-2023	✓
TP02-0.0-0.1,	TP03-0.2-0.3,							
TP04-0.0-0.1,	TP04-0.3-0.4,							
TP05-0.0-0.1,	TP06-0.0-0.1,							
TP06-0.2-0.3,	TP07-0.0-0.1,							
TP08-0.0-0.1,	TP08-0.3-0.4,							
TP09-0.0-0.1,	TP10-0.0-0.1,							
TP10-0.2-0.3,	TP11-0.0-0.1,							
TP12-0.0-0.1,	TP12-0.2-0.3,							
TP13-0.0-0.1,	TP13-0.2-0.3,							
TP14-0.0-0.1,	TP15-0.0-0.1,							
TP15-0.2-0.3,	DUP01,							
DUP02,	TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL),							
HA01/0.01-0.1,	HA01/0.2-0.3,							
HA03/0.1-0.2,	HA03/0.4-0.5,							
HA04/0.0-0.1,	HA09/0.0-0.1,							
HA09/0.5-0.6,	HA10/0.2-0.3							
Soil Glass Jar - Unpreserved (EA055)								
TP16-0.0-0.1,	TP17-0.0-0.1,	**14-Apr-2023**	**----**	----	----	**21-Apr-2023**	28-Apr-2023	✓
TP17-0.5-0.6,	TP18-0.0-0.1,							
TP19-0.0-0.1,	TP19-0.2-0.3,							
TP20-0.0-0.1,	TP21-0.0-0.1,							
TP21-0.1-0.2,	TP22-0.0-0.1,							
TP23-0.0-0.1,	TP23-0.2-0.3,							
TP24-0.0-0.1,	TP25-0.0-0.1,							
TP25-0.2-0.3								
EA150: Soil Classification based on Particle Size								
Snap Lock Bag - Friable Asbestos/PSD Bag (EA150H)								
TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)		**13-Apr-2023**	**----**	----	----	**27-Apr-2023**	10-Oct-2023	✓
EA152: Soil Particle Density								
Snap Lock Bag - Friable Asbestos/PSD Bag (EA152)								
TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)		**13-Apr-2023**	**----**	----	----	**27-Apr-2023**	10-Oct-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA200: AS 4964 - 2004 Identification of Asbestos in Soils							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200)							
TP01-0.0-0.1, TP02-0.0-0.1, TP03-0.0-0.1, TP04-0.0-0.1, TP05-0.0-0.1, TP06-0.0-0.1, TP07-0.0-0.1, TP08-0.0-0.1, TP09-0.0-0.1, TP10-0.0-0.1, TP11-0.0-0.1, TP12-0.0-0.1, TP13-0.0-0.1, TP14-0.0-0.1, TP15-0.0-0.1, HA01/0.01-0.1, HA02/0.1-0.2, HA03/0.1-0.2, HA04/0.0-0.1, HA09/0.0-0.1	**13-Apr-2023**	**----**	----	----	**21-Apr-2023**	10-Oct-2023	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200)							
TP16-0.0-0.1, TP17-0.0-0.1, TP18-0.0-0.1, TP19-0.0-0.1, TP20-0.0-0.1, TP21-0.0-0.1, TP22-0.0-0.1, TP23-0.0-0.1, TP24-0.0-0.1, TP25-0.0-0.1	**14-Apr-2023**	**----**	----	----	**21-Apr-2023**	11-Oct-2023	✓
ED007: Exchangeable Cations							
Soil Glass Jar - Unpreserved (ED007)							
TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)	**13-Apr-2023**	**24-Apr-2023**	11-May-2023	✓	**24-Apr-2023**	11-May-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1	**13-Apr-2023**	**21-Apr-2023**	10-Oct-2023	✓	**24-Apr-2023**	10-Oct-2023	✓
Soil Glass Jar - Unpreserved (EG005T)							
TP13-0.2-0.3, TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3, DUP01, DUP02, TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL), HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**22-Apr-2023**	10-Oct-2023	✓	**24-Apr-2023**	10-Oct-2023	✓
Soil Glass Jar - Unpreserved (EG005T)							
TP16-0.0-0.1, TP17-0.0-0.1, TP17-0.5-0.6, TP18-0.0-0.1, TP19-0.0-0.1, TP19-0.2-0.3, TP20-0.0-0.1, TP21-0.0-0.1, TP21-0.1-0.2, TP22-0.0-0.1, TP23-0.0-0.1, TP23-0.2-0.3, TP24-0.0-0.1, TP25-0.0-0.1, TP25-0.2-0.3	**14-Apr-2023**	**22-Apr-2023**	11-Oct-2023	✓	**24-Apr-2023**	11-Oct-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)								
TP01-0.0-0.1,	TP01-0.2-0.3,	**13-Apr-2023**	**21-Apr-2023**	11-May-2023	✓	**26-Apr-2023**	11-May-2023	✓
TP02-0.0-0.1,	TP03-0.2-0.3,							
TP04-0.0-0.1,	TP04-0.3-0.4,							
TP05-0.0-0.1,	TP06-0.0-0.1,							
TP06-0.2-0.3,	TP07-0.0-0.1,							
TP08-0.0-0.1,	TP08-0.3-0.4,							
TP09-0.0-0.1,	TP10-0.0-0.1,							
TP10-0.2-0.3,	TP11-0.0-0.1,							
TP12-0.0-0.1,	TP12-0.2-0.3,							
TP13-0.0-0.1								
Soil Glass Jar - Unpreserved (EG035T)								
TP13-0.2-0.3,	TP14-0.0-0.1,	**13-Apr-2023**	**22-Apr-2023**	11-May-2023	✓	**26-Apr-2023**	11-May-2023	✓
TP15-0.0-0.1,	TP15-0.2-0.3,							
DUP01,	DUP02,							
HA01/0.01-0.1,	HA01/0.2-0.3,							
HA03/0.1-0.2,	HA03/0.4-0.5,							
HA04/0.0-0.1,	HA09/0.0-0.1,							
HA09/0.5-0.6,	HA10/0.2-0.3							
Soil Glass Jar - Unpreserved (EG035T)								
TP16-0.0-0.1,	TP17-0.0-0.1,	**14-Apr-2023**	**22-Apr-2023**	12-May-2023	✓	**26-Apr-2023**	12-May-2023	✓
TP17-0.5-0.6,	TP18-0.0-0.1,							
TP19-0.0-0.1,	TP19-0.2-0.3,							
TP20-0.0-0.1,	TP21-0.0-0.1,							
TP21-0.1-0.2,	TP22-0.0-0.1,							
TP23-0.0-0.1,	TP23-0.2-0.3,							
TP24-0.0-0.1,	TP25-0.0-0.1,							
TP25-0.2-0.3								
EK055: Ammonia as N								
Soil Glass Jar - Unpreserved (EK055)								
HA09/0.0-0.1,	HA09/0.5-0.6	**13-Apr-2023**	**----**	----	----	**21-Apr-2023**	11-May-2023	✓
EK057G: Nitrite as N by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK057G)								
HA09/0.0-0.1,	HA09/0.5-0.6	**13-Apr-2023**	**20-Apr-2023**	20-Apr-2023	✓	**21-Apr-2023**	22-Apr-2023	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Soil Glass Jar - Unpreserved (EK059G)								
HA09/0.0-0.1,	HA09/0.5-0.6	**13-Apr-2023**	**20-Apr-2023**	11-May-2023	✓	**21-Apr-2023**	22-Apr-2023	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Soil Glass Jar - Unpreserved (EK061G)								
HA09/0.0-0.1,	HA09/0.5-0.6	**13-Apr-2023**	**20-Apr-2023**	11-May-2023	✓	**21-Apr-2023**	18-May-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK067G: Total Phosphorus as P by Discrete Analyser							
Soil Glass Jar - Unpreserved (EK067G)							
HA09/0.0-0.1, HA09/0.5-0.6	**13-Apr-2023**	**20-Apr-2023**	11-May-2023	✓	**21-Apr-2023**	18-May-2023	✓
EK071G: Reactive Phosphorus as P by discrete analyser							
Soil Glass Jar - Unpreserved (EK071G)							
HA09/0.0-0.1, HA09/0.5-0.6	**13-Apr-2023**	**20-Apr-2023**	20-Apr-2023	✓	**21-Apr-2023**	22-Apr-2023	✓
EP004: Organic Matter							
Soil Glass Jar - Unpreserved (EP004)							
TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)	**13-Apr-2023**	**26-Apr-2023**	11-May-2023	✓	**26-Apr-2023**	11-May-2023	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP066)							
TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3, DUP01, DUP02, HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP066)							
TP16-0.0-0.1, TP17-0.0-0.1, TP17-0.5-0.6, TP18-0.0-0.1, TP19-0.0-0.1, TP19-0.2-0.3, TP20-0.0-0.1, TP21-0.0-0.1, TP21-0.1-0.2, TP22-0.0-0.1, TP23-0.0-0.1, TP23-0.2-0.3, TP24-0.0-0.1, TP25-0.0-0.1, TP25-0.2-0.3	**14-Apr-2023**	**24-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP068)							
TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3, DUP01, DUP02, HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP068)							
TP16-0.0-0.1, TP17-0.0-0.1, TP17-0.5-0.6, TP18-0.0-0.1, TP19-0.0-0.1, TP19-0.2-0.3, TP20-0.0-0.1, TP21-0.0-0.1, TP21-0.1-0.2, TP22-0.0-0.1, TP23-0.0-0.1, TP23-0.2-0.3, TP24-0.0-0.1, TP25-0.0-0.1, TP25-0.2-0.3	**14-Apr-2023**	**24-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP068)							
TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3, DUP01, DUP02, HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP068)							
TP16-0.0-0.1, TP17-0.0-0.1, TP17-0.5-0.6, TP18-0.0-0.1, TP19-0.0-0.1, TP19-0.2-0.3, TP20-0.0-0.1, TP21-0.0-0.1, TP21-0.1-0.2, TP22-0.0-0.1, TP23-0.0-0.1, TP23-0.2-0.3, TP24-0.0-0.1, TP25-0.0-0.1, TP25-0.2-0.3	**14-Apr-2023**	**24-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3, TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
DUP01, DUP02, HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP16-0.0-0.1, TP17-0.0-0.1, TP17-0.5-0.6, TP18-0.0-0.1, TP19-0.0-0.1, TP19-0.2-0.3, TP20-0.0-0.1, TP21-0.0-0.1, TP21-0.1-0.2, TP22-0.0-0.1, TP23-0.0-0.1, TP23-0.2-0.3, TP24-0.0-0.1, TP25-0.0-0.1, TP25-0.2-0.3	**14-Apr-2023**	**24-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3, TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
DUP01, DUP02, HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP16-0.0-0.1, TP17-0.0-0.1, TP17-0.5-0.6, TP18-0.0-0.1, TP19-0.0-0.1, TP19-0.2-0.3, TP20-0.0-0.1, TP21-0.0-0.1, TP21-0.1-0.2, TP22-0.0-0.1, TP23-0.0-0.1, TP23-0.2-0.3, TP24-0.0-0.1, TP25-0.0-0.1, TP25-0.2-0.3	**14-Apr-2023**	**24-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080)							
Trip Blank	**11-Apr-2023**	**21-Apr-2023**	25-Apr-2023	✓	**22-Apr-2023**	25-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA10/0.2-0.3	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**22-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3, HA09/0.0-0.1, HA09/0.5-0.6	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**24-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
DUP01, DUP02	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP071)							
TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3, DUP01, DUP02	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP071)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3, HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP080)							

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons - Continued								
TP16-0.0-0.1,	TP17-0.0-0.1,	**14-Apr-2023**	**21-Apr-2023**	28-Apr-2023	✓	**26-Apr-2023**	28-Apr-2023	✓
TP17-0.5-0.6,	TP18-0.0-0.1,							
TP19-0.0-0.1,	TP19-0.2-0.3,							
TP20-0.0-0.1,	TP21-0.0-0.1,							
TP21-0.1-0.2,	TP22-0.0-0.1,							
TP23-0.0-0.1,	TP25-0.2-0.3							
Soil Glass Jar - Unpreserved (EP080)								
TP23-0.2-0.3,	TP24-0.0-0.1,	**14-Apr-2023**	**21-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	28-Apr-2023	✓
TP25-0.0-0.1								
Soil Glass Jar - Unpreserved (EP071)								
TP16-0.0-0.1,	TP17-0.0-0.1,	**14-Apr-2023**	**24-Apr-2023**	28-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
TP17-0.5-0.6,	TP18-0.0-0.1,							
TP19-0.0-0.1,	TP19-0.2-0.3,							
TP20-0.0-0.1,	TP21-0.0-0.1,							
TP21-0.1-0.2,	TP22-0.0-0.1,							
TP23-0.0-0.1,	TP23-0.2-0.3,							
TP24-0.0-0.1,	TP25-0.0-0.1,							
TP25-0.2-0.3								

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080)							
Trip Blank	**11-Apr-2023**	**21-Apr-2023**	25-Apr-2023	✓	**22-Apr-2023**	25-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA10/0.2-0.3	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**22-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3, HA09/0.0-0.1, HA09/0.5-0.6	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**24-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
DUP01, DUP02	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP071)							
TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3, DUP01, DUP02	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP071)							
TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3, HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA09/0.0-0.1, HA09/0.5-0.6, HA10/0.2-0.3	**13-Apr-2023**	**24-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	03-Jun-2023	✓
Soil Glass Jar - Unpreserved (EP080)							

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
TP16-0.0-0.1,	TP17-0.0-0.1,	**14-Apr-2023**	**21-Apr-2023**	28-Apr-2023	✓	**26-Apr-2023**	28-Apr-2023	✓
TP17-0.5-0.6,	TP18-0.0-0.1,							
TP19-0.0-0.1,	TP19-0.2-0.3,							
TP20-0.0-0.1,	TP21-0.0-0.1,							
TP21-0.1-0.2,	TP22-0.0-0.1,							
TP23-0.0-0.1,	TP25-0.2-0.3							
Soil Glass Jar - Unpreserved (EP080)								
TP23-0.2-0.3,	TP24-0.0-0.1,	**14-Apr-2023**	**21-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	28-Apr-2023	✓
TP25-0.0-0.1								
Soil Glass Jar - Unpreserved (EP071)								
TP16-0.0-0.1,	TP17-0.0-0.1,	**14-Apr-2023**	**24-Apr-2023**	28-Apr-2023	✓	**26-Apr-2023**	03-Jun-2023	✓
TP17-0.5-0.6,	TP18-0.0-0.1,							
TP19-0.0-0.1,	TP19-0.2-0.3,							
TP20-0.0-0.1,	TP21-0.0-0.1,							
TP21-0.1-0.2,	TP22-0.0-0.1,							
TP23-0.0-0.1,	TP23-0.2-0.3,							
TP24-0.0-0.1,	TP25-0.0-0.1,							
TP25-0.2-0.3								

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080) Trip Blank, Trip Spike - 15, Trip Spike Control - 15	**11-Apr-2023**	**21-Apr-2023**	25-Apr-2023	✓	**22-Apr-2023**	25-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080) HA01/0.01-0.1, HA01/0.2-0.3, HA03/0.1-0.2, HA03/0.4-0.5, HA04/0.0-0.1, HA10/0.2-0.3	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**22-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080) TP01-0.0-0.1, TP01-0.2-0.3, TP02-0.0-0.1, TP03-0.2-0.3, TP04-0.0-0.1, TP04-0.3-0.4, TP05-0.0-0.1, TP06-0.0-0.1, TP06-0.2-0.3, TP07-0.0-0.1, TP08-0.0-0.1, TP08-0.3-0.4, TP09-0.0-0.1, TP10-0.0-0.1, TP10-0.2-0.3, TP11-0.0-0.1, TP12-0.0-0.1, TP12-0.2-0.3, TP13-0.0-0.1, TP13-0.2-0.3, HA09/0.0-0.1, HA09/0.5-0.6	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**24-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080) TP14-0.0-0.1, TP15-0.0-0.1, TP15-0.2-0.3	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**26-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080) DUP01, DUP02	**13-Apr-2023**	**21-Apr-2023**	27-Apr-2023	✓	**27-Apr-2023**	27-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080) TP16-0.0-0.1, TP17-0.0-0.1, TP17-0.5-0.6, TP18-0.0-0.1, TP19-0.0-0.1, TP19-0.2-0.3, TP20-0.0-0.1, TP21-0.0-0.1, TP21-0.1-0.2, TP22-0.0-0.1, TP23-0.0-0.1, TP25-0.2-0.3	**14-Apr-2023**	**21-Apr-2023**	28-Apr-2023	✓	**26-Apr-2023**	28-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080) TP23-0.2-0.3, TP24-0.0-0.1, TP25-0.0-0.1	**14-Apr-2023**	**21-Apr-2023**	28-Apr-2023	✓	**27-Apr-2023**	28-Apr-2023	✓

Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Buchi Ammonia	EK055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Electrical Conductivity (1:5)	EA010	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	6	60	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	7	**14.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	6	59	**10.17**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	6	58	**10.34**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	6	58	**10.34**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-Soluble By Discrete Analyser	EK071G	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	2	13	**15.38**	**9.52**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	6	59	**10.17**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	60	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	6	59	**10.17**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	6	54	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Buchi Ammonia	EK055	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Electrical Conductivity (1:5)	EA010	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	58	**5.17**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	3	58	**5.17**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-Soluble By Discrete Analyser	EK071G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	3	13	**23.08**	**14.29**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	60	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Control Samples (LCS) - Continued							
Total Phosphorus By Discrete Analyser	EK067G	3	11	**27.27**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	3	54	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Buchi Ammonia	EK055	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Electrical Conductivity (1:5)	EA010	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	58	**5.17**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	3	58	**5.17**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-Soluble By Discrete Analyser	EK071G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	13	**7.69**	**4.76**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	60	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	3	54	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Buchi Ammonia	EK055	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N - Soluble by Discrete Analyser	EK057G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	58	**5.17**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	3	58	**5.17**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-Soluble By Discrete Analyser	EK071G	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TKN as N By Discrete Analyser	EK061G	1	13	**7.69**	**4.76**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	60	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus By Discrete Analyser	EK067G	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	3	54	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl2 extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
pH (1:5)	EA002	SOIL	In house: Referenced to Rayment and Lyons 4A1 and APHA 4500H+. pH is determined on soil samples after a 1:5 soil/water leach. This method is compliant with NEPM Schedule B(3).
Electrical Conductivity (1:5)	EA010	SOIL	In house: Referenced to Rayment and Lyons 3A1 and APHA 2510. Conductivity is determined on soil samples using a 1:5 soil/water leach. This method is compliant with NEPM Schedule B(3).
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Particle Size Analysis by Hydrometer	EA150H	SOIL	Particle Size Analysis by Hydrometer according to AS1289.3.6.3
Soil Particle Density	EA152	SOIL	Soil Particle Density by AS 1289.3.5.1: Methods of testing soils for engineering purposes - Soil classification tests - Determination of the soil particle density of a soil - Standard method
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
Exchangeable Cations	ED007	SOIL	In house: Referenced to Rayment & Lyons Method 15A1. Cations are exchanged from the sample by contact with Ammonium Chloride. They are then quantitated in the final solution by ICPAES and reported as meq/100g of original soil. 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 (SnCl2) (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 SnCl2 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)
Buchi Ammonia	EK055	SOIL	In house: Referenced to APHA 4500-NH3 B&G, H Samples are steam distilled (Buchi) prior to analysis and quantified using titration, FIA or Discrete Analyser.
Nitrite as N - Soluble by Discrete Analyser	EK057G	SOIL	In house: Referenced to APHA 4500-NO3- B. Nitrite in a water extract is determined by direct colourimetry by Discrete Analyser.
Nitrate as N - Soluble by Discrete Analyser	EK058G	SOIL	In house: Referenced to APHA 4500-NO3- F. Nitrate in the 1:5 soil:water extract is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results.
Nitrite and Nitrate as N (NOx)- Soluble by Discrete Analyser	EK059G	SOIL	In house: Thermo Scientific Method D08727 and NEMI (National Environmental Method Index) Method ID: 9171. This method covers the determination of total oxidised nitrogen (NOx-N) and nitrate (NO3-N) by calculation, Combined oxidised Nitrogen (NO2+NO3) in a water extract is determined by direct colourimetry by Discrete Analyser.

Analytical Methods	Method	Matrix	Method Descriptions
TKN as N By Discrete Analyser	EK061G	SOIL	In house: Referenced to APHA 4500-Norg-D Soil samples are digested using Kjeldahl digestion followed by determination by Discrete Analyser.
Total Nitrogen as N (TKN + NOx) By Discrete Analyser	EK062G	SOIL	In house: Referenced to APHA 4500 Norg/NO3- Total Nitrogen is determined as the sum of TKN and Oxidised Nitrrogen, each determined seperately as N.
Total Phosphorus By Discrete Analyser	EK067G	SOIL	In house: Referenced to APHA 4500 P-B&F This procedure involves sulfuric acid digestion and quantification using Discrete Analyser.
Reactive Phosphorus as P-Soluble By Discrete Analyser	EK071G	SOIL	In house: Referenced to APHA 4500 P-F Ammonium molybdate and potassium antimonyl tartrate reacts in acid medium with othophosphate to form a heteropoly acid -phosphomolybdic acid - which is reduced to intensely coloured molybdenum blue by ascorbic acid. Quantification is by Discrete Analyser. This method is compliant with NEPM Schedule B(3).
Organic Matter	EP004	SOIL	In house: Referenced to AS1289.4.1.1. Dichromate oxidation method after Walkley and Black. 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.

Preparation Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl2 extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Exchangeable Cations Preparation Method	ED007PR	SOIL	In house: Referenced to Rayment & Lyons method 15A1. A 1M NH4Cl extraction by end over end tumbling at a ratio of 1:20. There is no pretreatment for soluble salts. Extracts can be run by ICP for cations.
TKN/TP Digestion	EK061/EK067	SOIL	In house: Referenced to APHA 4500 Norg- D; APHA 4500 P - H. Macro Kjeldahl digestion.
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).

Preparation Methods	*Method*	*Matrix*	*Method Descriptions*
Organic Matter	EP004-PR	SOIL	In house: Referenced to AS1289.4.1.1. Dichromate oxidation method after Walkley and Black. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2312936**

Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Contact	: Katie Davis
Address	: Level 5, 20 Berry Street, North Sydney, NSW 2060 North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: sam.vaughan@smec.com	E-mail	: katie.davis@alsglobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Page	: 1 of 5
Order number	: ----	Quote number	: ES2021SMEAUS0010 (EN/025/21)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: HARRISON WOOD		

Dates

Date Samples Received	: 19-Apr-2023 10:20	Issue Date	: 19-Apr-2023
Client Requested Due Date	: 27-Apr-2023	Scheduled Reporting Date	: **27-Apr-2023**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 3	Temperature	: 5.5'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 91 / 54

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
- **S-19 package could not be conducted on samples 7 and 82 and no jar was provided. Asbestos could not be conducted on sample 90 as no bag was provided.**
- **DUP01A and DUP02A have been forwarded to Eurofins.**
- **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.**
- **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.

- **No sample container / preservation non-compliance exists.**

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

ES2312936-078 : [13-Apr-2023] : TP03/0.0-0.1 (EIL) - Received as TP03/0.1-0.2 (EIL)
ES2312936-091 : [11-Apr-2023] : Trip Spike Control - 15

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EP080 BTEXN	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Phi/OC/OP/PCB/8 metals
ES2312936-001	13-Apr-2023 00:00	TP01-0.0-0.1		✓	✓				✓
ES2312936-002	13-Apr-2023 00:00	TP01-0.2-0.3		✓					✓
ES2312936-003	13-Apr-2023 00:00	TP01-0.5-0.6	✓						
ES2312936-004	13-Apr-2023 00:00	TP02-0.0-0.1		✓	✓				✓
ES2312936-005	13-Apr-2023 00:00	TP02-0.2-0.3	✓						
ES2312936-006	13-Apr-2023 00:00	TP02-0.5-0.6	✓						
ES2312936-007	13-Apr-2023 00:00	TP03-0.0-0.1			✓				
ES2312936-008	13-Apr-2023 00:00	TP03-0.2-0.3		✓					✓
ES2312936-009	13-Apr-2023 00:00	TP03-0.4-0.5	✓						
ES2312936-010	13-Apr-2023 00:00	TP04-0.0-0.1		✓	✓				✓
ES2312936-011	13-Apr-2023 00:00	TP04-0.3-0.4		✓					✓
ES2312936-012	13-Apr-2023 00:00	TP04-0.5-0.6	✓						
ES2312936-013	13-Apr-2023 00:00	TP05-0.0-0.1		✓	✓				✓
ES2312936-014	13-Apr-2023 00:00	TP05-0.4-0.5	✓						
ES2312936-015	13-Apr-2023 00:00	TP05-0.5-0.6	✓						
ES2312936-016	13-Apr-2023 00:00	TP06-0.0-0.1		✓	✓				✓
ES2312936-017	13-Apr-2023 00:00	TP06-0.2-0.3		✓					✓
ES2312936-018	13-Apr-2023 00:00	TP06-0.4-0.5	✓						
ES2312936-019	13-Apr-2023 00:00	TP07-0.0-0.1		✓	✓				✓
ES2312936-020	13-Apr-2023 00:00	TP07-0.1-0.2	✓						
ES2312936-021	13-Apr-2023 00:00	TP07-0.4-0.5	✓						
ES2312936-022	13-Apr-2023 00:00	TP08-0.0-0.1		✓	✓				✓
ES2312936-023	13-Apr-2023 00:00	TP08-0.3-0.4		✓					✓
ES2312936-024	13-Apr-2023 00:00	TP08-0.5-0.6	✓						
ES2312936-025	13-Apr-2023 00:00	TP09-0.0-0.1		✓	✓				✓
ES2312936-026	13-Apr-2023 00:00	TP09-0.2-0.3	✓						
ES2312936-027	13-Apr-2023 00:00	TP09-0.5-0.6	✓						
ES2312936-028	13-Apr-2023 00:00	TP10-0.0-0.1		✓	✓				✓
ES2312936-029	13-Apr-2023 00:00	TP10-0.2-0.3		✓					✓
ES2312936-030	13-Apr-2023 00:00	TP10-0.4-0.5	✓						
ES2312936-031	13-Apr-2023 00:00	TP11-0.0-0.1		✓	✓				✓
ES2312936-032	13-Apr-2023 00:00	TP11-0.2-0.3	✓						

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EP080 BTEXN	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals
ES2312936-033	13-Apr-2023 00:00	TP11-0.5-0.6	✓						
ES2312936-034	13-Apr-2023 00:00	TP12-0.0-0.1		✓	✓				✓
ES2312936-035	13-Apr-2023 00:00	TP12-0.2-0.3		✓					✓
ES2312936-036	13-Apr-2023 00:00	TP12-0.4-0.5	✓						
ES2312936-037	13-Apr-2023 00:00	TP13-0.0-0.1		✓	✓				✓
ES2312936-038	13-Apr-2023 00:00	TP13-0.2-0.3		✓					✓
ES2312936-039	13-Apr-2023 00:00	TP13-0.4-0.5	✓						
ES2312936-040	13-Apr-2023 00:00	TP14-0.0-0.1		✓	✓				✓
ES2312936-041	13-Apr-2023 00:00	TP14-0.7-0.8	✓						
ES2312936-042	13-Apr-2023 00:00	TP15-0.0-0.1		✓	✓				✓
ES2312936-043	13-Apr-2023 00:00	TP15-0.2-0.3		✓					✓
ES2312936-044	13-Apr-2023 00:00	TP15-0.3-0.4	✓						
ES2312936-045	14-Apr-2023 00:00	TP16-0.0-0.1		✓	✓				✓
ES2312936-046	14-Apr-2023 00:00	TP16-0.2-0.3	✓						
ES2312936-047	14-Apr-2023 00:00	TP16-0.4-0.5	✓						
ES2312936-048	14-Apr-2023 00:00	TP17-0.0-0.1		✓	✓				✓
ES2312936-049	14-Apr-2023 00:00	TP17-0.2-0.3	✓						
ES2312936-050	14-Apr-2023 00:00	TP17-0.5-0.6		✓					✓
ES2312936-051	14-Apr-2023 00:00	TP18-0.0-0.1		✓	✓				✓
ES2312936-052	14-Apr-2023 00:00	TP18-0.2-0.3	✓						
ES2312936-053	14-Apr-2023 00:00	TP18-0.4-0.5	✓						
ES2312936-054	14-Apr-2023 00:00	TP19-0.0-0.1		✓	✓				✓
ES2312936-055	14-Apr-2023 00:00	TP19-0.2-0.3		✓					✓
ES2312936-056	14-Apr-2023 00:00	TP19-0.4-0.5	✓						
ES2312936-057	14-Apr-2023 00:00	TP20-0.0-0.1		✓	✓				✓
ES2312936-058	14-Apr-2023 00:00	TP20-0.4-0.5	✓						
ES2312936-059	14-Apr-2023 00:00	TP21-0.0-0.1		✓	✓				✓
ES2312936-060	14-Apr-2023 00:00	TP21-0.1-0.2		✓					✓
ES2312936-061	14-Apr-2023 00:00	TP21-0.3-0.4	✓						
ES2312936-062	14-Apr-2023 00:00	TP22-0.0-0.1		✓	✓				✓
ES2312936-063	14-Apr-2023 00:00	TP22-0.2-0.3	✓						
ES2312936-064	14-Apr-2023 00:00	TP22-0.4-0.5	✓						
ES2312936-065	14-Apr-2023 00:00	TP23-0.0-0.1		✓	✓				✓
ES2312936-066	14-Apr-2023 00:00	TP23-0.2-0.3		✓					✓
ES2312936-067	14-Apr-2023 00:00	TP23-0.5-0.6	✓						
ES2312936-068	14-Apr-2023 00:00	TP24-0.0-0.1		✓	✓				✓
ES2312936-069	14-Apr-2023 00:00	TP24-0.2-0.3	✓						
ES2312936-070	14-Apr-2023 00:00	TP24-0.4-0.5	✓						
ES2312936-071	14-Apr-2023 00:00	TP25-0.0-0.1		✓	✓				✓
ES2312936-072	14-Apr-2023 00:00	TP25-0.2-0.3		✓					✓
ES2312936-073	14-Apr-2023 00:00	TP25-0.3-0.4	✓						

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EP080 BTEXN	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals
ES2312936-074	13-Apr-2023 00:00	DUP01		✓					✓
ES2312936-075	13-Apr-2023 00:00	DUP02		✓					✓
ES2312936-076	11-Apr-2023 00:00	Trip Blank						✓	
ES2312936-077	11-Apr-2023 00:00	Trip Spike - 15				✓			
ES2312936-078	13-Apr-2023 00:00	TP03/0.0-0.1 (EIL) ...		✓			✓		
ES2312936-079	13-Apr-2023 00:00	HA01/0.01-0.1		✓	✓				✓
ES2312936-080	13-Apr-2023 00:00	HA01/0.2-0.3		✓					✓
ES2312936-081	13-Apr-2023 00:00	HA01/0.3-0.4	✓						
ES2312936-082	13-Apr-2023 00:00	HA02/0.1-0.2			✓				
ES2312936-083	13-Apr-2023 00:00	HA02/0.4-0.5	✓						
ES2312936-084	13-Apr-2023 00:00	HA03/0.1-0.2		✓	✓				✓
ES2312936-085	13-Apr-2023 00:00	HA03/0.4-0.5		✓					✓
ES2312936-086	13-Apr-2023 00:00	HA04/0.0-0.1		✓	✓				✓
ES2312936-087	13-Apr-2023 00:00	HA04/0.4-0.5	✓						
ES2312936-088	13-Apr-2023 00:00	HA09/0.0-0.1		✓	✓				✓
ES2312936-089	13-Apr-2023 00:00	HA09/0.5-0.6		✓					✓
ES2312936-090	13-Apr-2023 00:00	HA10/0.2-0.3		✓					✓
ES2312936-091	11-Apr-2023 00:00	Trip Spike Control -...				✓			

Matrix: **SOIL**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	SOIL - NT-8AS NH3, NO2, NO3, NOX, TKN, TN, TP, RP
ES2312936-088	13-Apr-2023 00:00	HA09/0.0-0.1	✓
ES2312936-089	13-Apr-2023 00:00	HA09/0.5-0.6	✓

Proactive Holding Time Report

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

Requested Deliverables

ACCOUNTS INVOICES

- A4 - AU Tax Invoice (INV)	Email	accounts.payable@smec.com

SAM VAUGHAN

- *AU Certificate of Analysis - NATA (COA)	Email	sam.vaughan@smec.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	sam.vaughan@smec.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	sam.vaughan@smec.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	sam.vaughan@smec.com
- A4 - AU Tax Invoice (INV)	Email	sam.vaughan@smec.com
- Chain of Custody (CoC) (COC)	Email	sam.vaughan@smec.com
- EDI Format - ENMRG (ENMRG)	Email	sam.vaughan@smec.com
- EDI Format - ESDAT (ESDAT)	Email	sam.vaughan@smec.com

SMEC

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	TURNAROUND REQUIREMENTS : Standard Turnaround time	LAB: ALS Laboratory ATTENTION: Sample Receipt DISPATCH TO (ADDRESS & PHONE NO.):
PROJECT: SINSW - LEPPINGTON PS		
PROJECT NUMBER: 30018043 200.1	LAB QUOTE NO.:	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 OF: 1 2 3 4 5
PROJECT MANAGER: Sam Vaughan	CONTACT PH: +61 403 603 373	ALS Laboratory: 277-289 Woodpark Road Smithfield NSW 2164 (02) 8784 8555
SAMPLED BY: Harrison Wood		

DATE SAMPLED: 14 April 2023	RELINQUISHED BY: SMEC DATE/ TIME: 14/4/23	RECEIVED BY: Eurofins DATE/TIME	RELINQUISHED BY: DATE/TIME	RECEIVED BY: DATE/TIME
Email Reports and Invoice to: sam.vaughan@smec.com				

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS								Contamination analysis requested:											COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE			TOTAL NO. CONTAINERS	S-19	EA200 (asbestos F/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	TPH C6-C9						
1	TP01-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
2	TP01-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
3	TP01-0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
4	TP02-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
5	TP02-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
6	TP02-0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
7	TP03-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
8	TP03-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
9	TP03-0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
10	TP04-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
11	TP04-0.3-0.4	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
12	TP04-0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
13	TP05-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
14	TP05-0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
15	TP05-0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
16	TP06-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
17	TP06-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
18	TP06-0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
19	TP07-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
20	TP07-0.1-0.2	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
21	TP07-0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
22	TP08-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
23	TP08-0.3-0.4	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
24	TP08-0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
25	TP09-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
26	TP09-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
27	TP09-0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
28	TP10-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
29	TP10-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
30	TP10-0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
31	TP11-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
32	TP11-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
33	TP11-0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												

Environmental Division
Sydney
Work Order Reference
ES2312936

Telephone : +61-2-8784 8555

SMEC

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	TURNAROUND REQUIREMENTS : Standard Turnaround time		LAB: ALS Laboratory ATTENTION: Sample Receipt DISPATCH TO (ADDRESS & PHONE NO.):
PROJECT: SINSW - LEPPINGTON PS			
PROJECT NUMBER: 30018043 200.1	LAB QUOTE NO.:	COC SEQUENCE NUMBER (Circle) COC: 1 (2) 3 4 5 OF: 1 2 (3) 4 5	ALS Laboratory: 277-289 Woodpark Road, Smithfield NSW 2164 (02) 8784 8555
PROJECT MANAGER: Sam Vaughan	CONTACT PH: +61 403 503 373		
SAMPLED BY: Harrison Wood			
DATE SAMPLED: 14 April 2023	RELINQUISHED BY: SMEC DATE/TIME: 14/4/23	RECEIVED BY: Eurofins DATE/TIME	RELINQUISHED BY: DATE/TIME
Email Reports and Invoice to: sam.vaughan@smec.com			RECEIVED BY: DATE/TIME 14/4/23 10:20

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS								Contamination analysis requested:											COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE			TOTAL NO. CONTAINERS	8-10	EA200 (asbestos F/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	TPH C6-C9						
34	TP12-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
35	TP12-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
36	TP12-0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
37	TP13-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
38	TP13-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
39	TP13-0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
40	TP14-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
41	TP14-0.7-0.8	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
42	TP15-0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
43	TP15-0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
44	TP15-0.3-0.4	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
45	TP16-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
46	TP16-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
47	TP16-0.4-0.5	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
48	TP17-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
49	TP17-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
50	TP17-0.5-0.6	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
51	TP18-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
52	TP18-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
53	TP18-0.4-0.5	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
54	TP19-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
55	TP19-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
56	TP19-0.4-0.5	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
57	TP20-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
58	TP20-0.4-0.5	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
59	TP21-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
60	TP21-0.1-0.2	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
61	TP21-0.3-0.4	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
62	TP22-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
63	TP22-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
64	TP22-0.4-0.5	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
65	TP23-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
66	TP23-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											

SMEC

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	TURNAROUND REQUIREMENTS : Standard Turnaround time		LAB: ALS Laboratory ATTENTION: Sample Receipt DISPATCH TO (ADDRESS & PHONE NO.): ALS Laboratory, 277-289 Woodpark Road Smithfield NSW 2164 (02) 8784 8555
PROJECT: SINSW - LEPPINGTON PS			
PROJECT NUMBER: 30018043 200.1	LAB QUOTE NO.:	COC SEQUENCE NUMBER (Circle) COC: 1 2 (3) 4 5 OF: 1 2 (3) 4 5	
PROJECT MANAGER: Sam Vaughan	CONTACT PH: +61 403 503 373		
SAMPLED BY: Harrison Wood			
DATE SAMPLED: 14 April 2023	RELINQUISHED BY: SMEC DATE/TIME: 14/4/23	RECEIVED BY: Eurofins DATE/TIME	RELINQUISHED BY: DATE/TIME	RECEIVED BY: DATE/TIME
Email Reports and Invoice to: sam.vaughan@smec.com				

14/4/23 10:22am

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS								Contamination analysis requested:											COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE			TOTAL NO. CONTAINERS	S-19	EA200 (asbestos P/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	TPH C6-C9						
67	TP22-0.5-0.6	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
68	TP24-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
69	TP24-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
70	TP24-0.4-0.5	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
71	TP25-0.0-0.1	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
72	TP25-0.2-0.3	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
73	TP25-0.3-0.4	14/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
74	DUP01	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
X	DUP01A	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	Please send to Eurofins and request B10 suite + PCBs											
75	DUP02	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
X	DUP02A	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	Please send to Eurofins and request B10 suite + PCBs											
76	Trip Blank	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	1					☑	☑						
77	Trip Spike - 15	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	1					☑							
78	TP03/0.0-0.1 (EIL)	13/04/2023	⊟soil	⊟250ml jar	2 x 500ml bag	Ice	3				☑								
79	HA01/0.01-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
80	HA01/0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
81	HA01/0.3-0.4	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
82	HA02/0.1-0.2	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
83	HA02/0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
84	HA03/0.1-0.2	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
X	HA03/0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑											
86	HA04/0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
87	HA04/0.4-0.5	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
88	HA09/0.0-0.1	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑	☑									
89	HA09/0.5-0.6	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑		☑									
90	HA10/0.2-0.3	13/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
					Tare														

CERTIFICATE OF ANALYSIS

Work Order	: **ES2312519**	Page	: 1 of 22
Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Contact	: Katie Davis
Address	: Level 5, 20 Berry Street, North Sydney, NSW 2060 North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Date Samples Received	: 19-Apr-2023 10:20
Order number	: 30018043	Date Analysis Commenced	: 20-Apr-2023
C-O-C number	: ----	Issue Date	: 27-Apr-2023 17:02
Sampler	: Harrison Wood		
Site	: ----		
Quote number	: EN/025/21		
No. of samples received	: 27		
No. of samples analysed	: 15		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- 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
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Vincent Emerton-Bell	Laboratory Technician	Newcastle - Inorganics, Mayfield West, 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.

- P22 (NEPM screen for soil classification) conducted by ALS Newcastle, NATA accreditation no. 825, site no 1656.
- EA150H: Soil particle density results fell outside the scope of AS1289.3.6.3. Results should be scrutinised accordingly.
- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- 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.
- EG005T: Poor precision was obtained for Chromium on sample ES2312604 # 002. Confirmed by re-digestion and reanalysis.
- EP080: The trip spike and its control have been analysed for volatile TPH and BTEXN only. The trip spike and control were prepared in the lab using reagent grade sand spiked with petrol. The spike was dispatched from the lab and the control retained. Confirmed by re-extraction and re-analysis.
- 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
- ED007 and ED008: When Exchangeable Al is reported from these methods, it should be noted that Rayment & Lyons (2011) suggests Exchange Acidity by 1M KCl - Method 15G1 (ED005) is a more suitable method for the determination of exchange acidity (H+ + Al3+).
- 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.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP26-0.0-0.1	TP27-0.0-0.1	TP28-0.0-0.1	TP29-0.0-0.1	TP30-0.0-0.1
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-001	ES2312519-003	ES2312519-005	ES2312519-007	ES2312519-010
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	18.4	21.3	21.4	20.7	18.0
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No
Asbestos (Trace)	1332-21-4	5	Fibres	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	233	183	298	161	235
APPROVED IDENTIFIER:	----	-	--	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	7	5	5	5	7
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	18	15	13	16	16
Copper	7440-50-8	5	mg/kg	25	29	25	24	16
Lead	7439-92-1	5	mg/kg	39	18	15	25	32
Nickel	7440-02-0	2	mg/kg	10	13	7	9	10
Zinc	7440-66-6	5	mg/kg	127	73	37	68	99
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP26-0.0-0.1	TP27-0.0-0.1	TP28-0.0-0.1	TP29-0.0-0.1	TP30-0.0-0.1
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-001	ES2312519-003	ES2312519-005	ES2312519-007	ES2312519-010
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ **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
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP26-0.0-0.1	TP27-0.0-0.1	TP28-0.0-0.1	TP29-0.0-0.1	TP30-0.0-0.1
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-001	ES2312519-003	ES2312519-005	ES2312519-007	ES2312519-010
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	**0.6**
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	**0.6**
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	**1.2**
^ 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								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP26-0.0-0.1	TP27-0.0-0.1	TP28-0.0-0.1	TP29-0.0-0.1	TP30-0.0-0.1
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-001	ES2312519-003	ES2312519-005	ES2312519-007	ES2312519-010
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**101**	**120**	**116**	**90.3**	**129**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**130**	**101**	**87.2**	**107**	**55.5**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**125**	**98.9**	**90.8**	**105**	**53.8**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**77.9**	**78.2**	**77.3**	**78.4**	**77.2**
2-Chlorophenol-D4	93951-73-6	0.5	%	**76.3**	**77.3**	**76.2**	**75.7**	**75.6**
2.4.6-Tribromophenol	118-79-6	0.5	%	**64.2**	**63.8**	**63.4**	**67.2**	**68.8**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP26-0.0-0.1	TP27-0.0-0.1	TP28-0.0-0.1	TP29-0.0-0.1	TP30-0.0-0.1
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-001	ES2312519-003	ES2312519-005	ES2312519-007	ES2312519-010
				Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	80.6	80.9	79.9	78.8	78.4
Anthracene-d10	1719-06-8	0.5	%	89.6	88.2	87.9	91.4	93.4
4-Terphenyl-d14	1718-51-0	0.5	%	89.0	90.5	89.0	86.2	86.6
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	87.3	83.5	85.4	93.3	90.9
Toluene-D8	2037-26-5	0.2	%	91.6	90.8	91.6	96.7	93.4
4-Bromofluorobenzene	460-00-4	0.2	%	99.7	95.8	96.2	100	99.4

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP31-0.0-0.1	HA05-0.2-0.3	HA06-0.1-0.2 Received as HA06-0-0.1	HA07-0.1-0.2	HA08-0.1-0.2
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-013	ES2312519-016	ES2312519-017	ES2312519-019	ES2312519-021
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	21.8	13.0	16.9	10.9	13.0
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No
Asbestos (Trace)	1332-21-4	5	Fibres	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	118	285	174	192	143
APPROVED IDENTIFIER:	----	-	--	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	5	<5	7
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	23	16	19	15	16
Copper	7440-50-8	5	mg/kg	17	26	22	26	24
Lead	7439-92-1	5	mg/kg	26	17	57	15	15
Nickel	7440-02-0	2	mg/kg	11	9	12	6	5
Zinc	7440-66-6	5	mg/kg	47	47	65	32	26
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
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
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
^ 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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP31-0.0-0.1	HA05-0.2-0.3	HA06-0.1-0.2 Received as HA06-0-0.1	HA07-0.1-0.2	HA08-0.1-0.2
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-013	ES2312519-016	ES2312519-017	ES2312519-019	ES2312519-021
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
^ 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
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<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	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP31-0.0-0.1	HA05-0.2-0.3	HA06-0.1-0.2 Received as HA06-0-0.1	HA07-0.1-0.2	HA08-0.1-0.2
			Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit	ES2312519-013	ES2312519-016	ES2312519-017	ES2312519-019	ES2312519-021
				Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued								
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
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP31-0.0-0.1	HA05-0.2-0.3	HA06-0.1-0.2 Received as HA06-0-0.1	HA07-0.1-0.2	HA08-0.1-0.2
				Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312519-013	ES2312519-016	ES2312519-017	ES2312519-019	ES2312519-021
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
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
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**97.3**	**129**	**126**	**105**	**108**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**71.9**	**83.7**	**90.8**	**92.5**	**81.0**
EP068T: Organophosphorus Pesticide Surrogate									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP31-0.0-0.1	HA05-0.2-0.3	HA06-0.1-0.2 Received as HA06-0-0.1	HA07-0.1-0.2	HA08-0.1-0.2
				Sampling date / time	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00	17-Apr-2023 00:00
Compound	CAS Number	LOR	Unit		ES2312519-013	ES2312519-016	ES2312519-017	ES2312519-019	ES2312519-021
					Result	Result	Result	Result	Result
EP068T: Organophosphorus Pesticide Surrogate - Continued									
DEF	78-48-8	0.05	%		69.3	78.4	85.1	88.6	75.3
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		76.5	78.2	77.6	76.6	87.0
2-Chlorophenol-D4	93951-73-6	0.5	%		75.7	76.4	76.6	74.9	74.4
2.4.6-Tribromophenol	118-79-6	0.5	%		62.3	63.2	64.0	62.7	50.6
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		80.2	80.6	80.6	79.4	77.1
Anthracene-d10	1719-06-8	0.5	%		89.1	89.5	90.2	88.8	73.1
4-Terphenyl-d14	1718-51-0	0.5	%		88.8	88.8	89.1	87.6	74.2
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		77.2	86.8	92.1	86.4	86.7
Toluene-D8	2037-26-5	0.2	%		80.1	92.4	92.2	87.6	89.4
4-Bromofluorobenzene	460-00-4	0.2	%		90.7	99.7	95.2	94.3	99.1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	EIL-TP26-0.1-0.2 Received as EIL-TP26-0.0-0.1	Trip Spike - 16	Trip Blank	TSC_01	----
			Sampling date / time	17-Apr-2023 00:00	11-Apr-2023 00:00	17-Apr-2023 00:00	11-Apr-2023 00:00	----
Compound	CAS Number	LOR	Unit	ES2312519-023	ES2312519-024	ES2312519-025	ES2312519-027	--------
				Result	Result	Result	Result	----
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	5.4	----	----	----	----
EA002: pH 1:5 (Soils)								
pH Value	----	0.1	pH Unit	6.2	----	----	----	----
EA010: Conductivity (1:5)								
Electrical Conductivity @ 25°C	----	1	µS/cm	35	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	14.0	----	----	----	----
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	30	----	----	----	----
EA152: Soil Particle Density								
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.26	----	----	----	----
ED007: Exchangeable Cations								
Exchangeable Calcium	----	0.1	meq/100g	6.1	----	----	----	----
Exchangeable Magnesium	----	0.1	meq/100g	4.7	----	----	----	----
Exchangeable Potassium	----	0.1	meq/100g	0.3	----	----	----	----
Exchangeable Sodium	----	0.1	meq/100g	0.3	----	----	----	----
Cation Exchange Capacity	----	0.1	meq/100g	11.5	----	----	----	----
Exchangeable Sodium Percent	----	0.1	%	2.9	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Iron	7439-89-6	0.005	%	5.05	----	----	----	----
EP004: Organic Matter								
Organic Matter	----	0.5	%	4.6	----	----	----	----
Total Organic Carbon	----	0.5	%	2.7	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	----	----	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	----	----	<10	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	<0.2	<0.2	<0.2	----
Toluene	108-88-3	0.5	mg/kg	----	1.7	<0.5	2.2	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	EIL-TP26-0.1-0.2 Received as EIL-TP26-0.0-0.1	Trip Spike - 16	Trip Blank	TSC_01	----
				Sampling date / time	17-Apr-2023 00:00	11-Apr-2023 00:00	17-Apr-2023 00:00	11-Apr-2023 00:00	----
Compound	CAS Number	LOR	Unit		ES2312519-023	ES2312519-024	ES2312519-025	ES2312519-027	--------
					Result	Result	Result	Result	----
EP080: BTEXN - Continued									
Ethylbenzene	100-41-4	0.5	mg/kg		**----**	**3.3**	<0.5	**4.1**	**----**
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		**----**	**3.6**	<0.5	**4.6**	**----**
ortho-Xylene	95-47-6	0.5	mg/kg		**----**	**1.7**	<0.5	**2.1**	**----**
^ **Sum of BTEX**	----	0.2	mg/kg		**----**	**10.3**	<0.2	**13.0**	**----**
^ **Total Xylenes**	----	0.5	mg/kg		**----**	**5.3**	<0.5	**6.7**	**----**
Naphthalene	91-20-3	1	mg/kg		**----**	<1	<1	<1	**----**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**----**	**88.5**	**81.8**	**86.7**	**----**
Toluene-D8	2037-26-5	0.2	%		**----**	**91.4**	**81.0**	**89.7**	**----**
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**95.4**	**91.1**	**95.4**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	Rinsate 1	----	----	----	----
			Sampling date / time	17-Apr-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2312519-026	--------	--------	--------	--------
				Result	----	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L	<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L	<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L	<0.005	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
^ **Total Polychlorinated biphenyls**	----	1	µg/L	<1	----	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	----	----	----	----
beta-BHC	319-85-7	0.5	µg/L	<0.5	----	----	----	----
gamma-BHC	58-89-9	0.5	µg/L	<0.5	----	----	----	----
delta-BHC	319-86-8	0.5	µg/L	<0.5	----	----	----	----
Heptachlor	76-44-8	0.5	µg/L	<0.5	----	----	----	----
Aldrin	309-00-2	0.5	µg/L	<0.5	----	----	----	----
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	----	----	----	----
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	----	----	----	----
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	----	----	----	----
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	----	----	----	----
Dieldrin	60-57-1	0.5	µg/L	<0.5	----	----	----	----
4.4`-DDE	72-55-9	0.5	µg/L	<0.5	----	----	----	----
Endrin	72-20-8	0.5	µg/L	<0.5	----	----	----	----
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	----	----	----	----
4.4`-DDD	72-54-8	0.5	µg/L	<0.5	----	----	----	----
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	----	----	----	----
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	----	----	----	----
4.4`-DDT	50-29-3	2.0	µg/L	<2.0	----	----	----	----
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	----	----	----	----
Methoxychlor	72-43-5	2.0	µg/L	<2.0	----	----	----	----
^ **Total Chlordane (sum)**	----	0.5	µg/L	<0.5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Rinsate 1	----	----	----	----
				Sampling date / time	17-Apr-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2312519-026	--------	--------	--------	--------
					Result	----	----	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.5	µg/L		<0.5	----	----	----	----
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.5	µg/L		<0.5	----	----	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	----	----	----	----
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	----	----	----	----
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	----	----	----	----
Dimethoate	60-51-5	0.5	µg/L		<0.5	----	----	----	----
Diazinon	333-41-5	0.5	µg/L		<0.5	----	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	----	----	----	----
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	----	----	----	----
Malathion	121-75-5	0.5	µg/L		<0.5	----	----	----	----
Fenthion	55-38-9	0.5	µg/L		<0.5	----	----	----	----
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	----	----	----	----
Parathion	56-38-2	2.0	µg/L		<2.0	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	----	----	----	----
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	----	----	----	----
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	----	----	----	----
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	----	----	----	----
Prothiofos	34643-46-4	0.5	µg/L		<0.5	----	----	----	----
Ethion	563-12-2	0.5	µg/L		<0.5	----	----	----	----
Carbophenothion	786-19-6	0.5	µg/L		<0.5	----	----	----	----
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	----	----	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	1.0	µg/L		<1.0	----	----	----	----
2-Chlorophenol	95-57-8	1.0	µg/L		<1.0	----	----	----	----
2-Methylphenol	95-48-7	1.0	µg/L		<1.0	----	----	----	----
3- & 4-Methylphenol	1319-77-3	2.0	µg/L		<2.0	----	----	----	----
2-Nitrophenol	88-75-5	1.0	µg/L		<1.0	----	----	----	----
2.4-Dimethylphenol	105-67-9	1.0	µg/L		<1.0	----	----	----	----
2.4-Dichlorophenol	120-83-2	1.0	µg/L		<1.0	----	----	----	----
2.6-Dichlorophenol	87-65-0	1.0	µg/L		<1.0	----	----	----	----
4-Chloro-3-methylphenol	59-50-7	1.0	µg/L		<1.0	----	----	----	----
2.4.6-Trichlorophenol	88-06-2	1.0	µg/L		<1.0	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Rinsate 1	----	----	----	----
				Sampling date / time	17-Apr-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2312519-026	--------	--------	--------	--------
					Result	----	----	----	----
EP075(SIM)A: Phenolic Compounds - Continued									
2.4.5-Trichlorophenol	95-95-4	1.0	µg/L		<1.0	----	----	----	----
Pentachlorophenol	87-86-5	2.0	µg/L		<2.0	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	----	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	----	----	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	----	----	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	----	----	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	----	----	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	----	----	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	----	----	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	----	----	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	----	----	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	----	----	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	----	----	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		<0.5	----	----	----	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L		<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Rinsate 1	----	----	----	----
				Sampling date / time	17-Apr-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2312519-026	--------	--------	--------	--------
					Result	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ >C10 - C40 Fraction (sum)	----	100	µg/L		<100	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ Total Xylenes	----	2	µg/L		<2	----	----	----	----
^ Sum of BTEX	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	1	%		**102**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.5	%		**82.9**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.5	%		**80.5**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**34.7**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		**65.8**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		**62.8**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**65.6**	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%		**61.8**	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		**85.5**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**102**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**100**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**93.6**	----	----	----	----

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	TP26-0.0-0.1 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	TP27-0.0-0.1 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	TP28-0.0-0.1 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	TP29-0.0-0.1 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	TP30-0.0-0.1 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	TP31-0.0-0.1 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	HA05-0.2-0.3 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	HA06-0.1-0.2Received as HA06-0-0.1 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	HA07-0.1-0.2 - 17-Apr-2023 00:00	A soil sample.
EA200: Description	HA08-0.1-0.2 - 17-Apr-2023 00:00	A soil sample.

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
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

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	45	134
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	67	111
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	67	111
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2.4.6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	72	143
Toluene-D8	2037-26-5	75	131

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP080S: TPH(V)/BTEX Surrogates - Continued			
4-Bromofluorobenzene	460-00-4	73	137

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

(SOIL) EA150: Soil Classification based on Particle Size

(SOIL) EA152: Soil Particle Density

QUALITY CONTROL REPORT

Work Order	: **ES2312519**	Page	: 1 of 19
Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Contact	: Katie Davis
Address	: Level 5, 20 Berry Street, North Sydney, NSW 2060 North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Date Samples Received	: 19-Apr-2023
Order number	: 30018043	Date Analysis Commenced	: 20-Apr-2023
C-O-C number	: ----	Issue Date	: 27-Apr-2023
Sampler	: Harrison Wood		
Site	: ----		
Quote number	: EN/025/21		
No. of samples received	: 27		
No. of samples analysed	: 15		

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
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Vincent Emerton-Bell	Laboratory Technician	Newcastle - Inorganics, Mayfield West, 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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5002832)									
ES2312345-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	3	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	7	6	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	16	0.0	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	4500	4370	2.8	0% - 20%
ES2312345-001	Anonymous	EG005T: Chromium	7440-47-3	2	mg/kg	2	4	48.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	21	33	44.2	No Limit
ME2300721-007	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	30	23	26.2	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	8	9	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	14	15	7.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	14	9	45.3	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	14	16	12.6	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	22500	24400	7.9	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5005563)									
ES2312519-001	TP26-0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	18	18	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	10	9	13.1	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	7	8	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	25	24	5.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	39	37	5.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	127	114	10.6	0% - 20%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5005563) - continued									
ES2312519-001	TP26-0.0-0.1	EG005T: Iron	7439-89-6	50	mg/kg	36600	37800	3.3	0% - 20%
ES2312604-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	38	# 59	43.1	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	4	2	45.5	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	7	42.6	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	9	7	31.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	5	<5	0.0	No Limit
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 5004838)									
ES2312519-023	EIL-TP26-0.1-0.2 Received as EIL-TP26-0.0-0.1	EA001: pH (CaCl2)	----	0.1	pH Unit	5.4	5.4	0.0	0% - 20%
ES2312602-034	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	4.7	4.7	0.0	0% - 20%
EA002: pH 1:5 (Soils) (QC Lot: 5002835)									
ME2300721-001	Anonymous	EA002: pH Value	----	0.1	pH Unit	5.9	6.0	1.7	0% - 20%
ES2312504-001	Anonymous	EA002: pH Value	----	0.1	pH Unit	7.8	7.9	0.0	0% - 20%
EA010: Conductivity (1:5) (QC Lot: 5002834)									
ES2312504-001	Anonymous	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	537	496	7.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5002839)									
ES2312345-001	Anonymous	EA055: Moisture Content	----	0.1	%	12.7	13.0	1.9	0% - 50%
ME2300721-003	Anonymous	EA055: Moisture Content	----	0.1	%	9.6	9.3	2.9	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5005573)									
ES2312519-005	TP28-0.0-0.1	EA055: Moisture Content	----	0.1	%	21.4	21.5	0.0	0% - 20%
ES2312604-008	Anonymous	EA055: Moisture Content	----	0.1	%	11.3	12.4	8.8	0% - 50%
ED007: Exchangeable Cations (QC Lot: 5008183)									
ES2312519-023	EIL-TP26-0.1-0.2 Received as EIL-TP26-0.0-0.1	ED007: Exchangeable Sodium Percent	----	0.1	%	2.9	2.9	0.0	0% - 20%
		ED007: Exchangeable Calcium	----	0.1	meq/100g	6.1	6.0	2.2	0% - 20%
		ED007: Exchangeable Magnesium	----	0.1	meq/100g	4.7	4.6	2.4	0% - 20%
		ED007: Exchangeable Potassium	----	0.1	meq/100g	0.3	0.3	0.0	No Limit
		ED007: Exchangeable Sodium	----	0.1	meq/100g	0.3	0.3	0.0	No Limit
		ED007: Cation Exchange Capacity	----	0.1	meq/100g	11.5	11.2	2.3	0% - 20%
ME2300721-005	Anonymous	ED007: Exchangeable Sodium Percent	----	0.1	%	0.9	0.9	0.0	No Limit
		ED007: Exchangeable Calcium	----	0.1	meq/100g	2.6	2.7	0.0	0% - 20%
		ED007: Exchangeable Magnesium	----	0.1	meq/100g	1.2	1.3	0.0	0% - 50%
		ED007: Exchangeable Potassium	----	0.1	meq/100g	0.7	0.7	0.0	No Limit
		ED007: Exchangeable Sodium	----	0.1	meq/100g	<0.1	<0.1	0.0	No Limit
		ED007: Cation Exchange Capacity	----	0.1	meq/100g	4.6	4.7	0.0	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5005564)									
ES2312519-001	TP26-0.0-0.1	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 (%)*
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5005564) - continued									
ES2312604-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP004: Organic Matter (QC Lot: 5005940)									
ES2312519-023	EIL-TP26-0.1-0.2 Received as EIL-TP26-0.0-0.1	EP004: Organic Matter	----	0.5	%	4.6	4.5	2.6	No Limit
		EP004: Total Organic Carbon	----	0.5	%	2.7	2.6	0.0	No Limit
ES2312602-034	Anonymous	EP004: Organic Matter	----	0.5	%	2.9	2.8	0.0	No Limit
		EP004: Total Organic Carbon	----	0.5	%	1.7	1.5	10.4	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5000982)									
ES2312519-001	TP26-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2312519-021	HA08-0.1-0.2	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5000981)									
ES2312519-001	TP26-0.0-0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2312519-021	HA08-0.1-0.2	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

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 (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5000981) - continued									
ES2312519-021	HA08-0.1-0.2	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: 5000981)									
ES2312519-001	TP26-0.0-0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		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
ES2312519-021	HA08-0.1-0.2	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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5000981) - continued									
ES2312519-021	HA08-0.1-0.2	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)A: Phenolic Compounds (QC Lot: 5000980)									
ES2312519-001	TP26-0.0-0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES2312519-021	HA08-0.1-0.2	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5000980)									
ES2312519-001	TP26-0.0-0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

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: 5000980) - continued									
ES2312519-001	TP26-0.0-0.1	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
ES2312519-021	HA08-0.1-0.2	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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: 5000979)									
ES2312519-001	TP26-0.0-0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5000979) - continued									
ES2312519-001	TP26-0.0-0.1	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
ES2312519-021	HA08-0.1-0.2	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: 5004988)									
ES2312519-001	TP26-0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2312519-021	HA08-0.1-0.2	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5000979)									
ES2312519-001	TP26-0.0-0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2312519-021	HA08-0.1-0.2	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: 5004988)									
ES2312519-001	TP26-0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2312519-021	HA08-0.1-0.2	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 5004988)									
ES2312519-001	TP26-0.0-0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2312519-021	HA08-0.1-0.2	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 5010677)									
ES2312519-026	Rinsate 1	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG020T: Total Metals by ICP-MS (QC Lot: 5010677) - continued									
ES2312519-026	Rinsate 1	EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
ES2312907-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.004	0.005	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.004	<0.001	125	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.001	0.002	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5010736)									
ES2312519-026	Rinsate 1	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
ES2312919-002	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5008315)									
ES2312895-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2312949-008	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5008315)									
ES2312895-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2312949-008	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 5008315)									
ES2312895-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
ES2312949-008	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit

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

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

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5002832)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	104	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	98.4	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	81.9	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	100.0	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	31660 mg/kg	102	89.0	112
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	95.9	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	96.7	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	70.7	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005563)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	101	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	94.1	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	119	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	104	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	----	----	----	----
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	101	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	91.0	66.0	133
EA002: pH 1:5 (Soils) (QCLot: 5002835)								
EA002: pH Value	----	----	pH Unit	----	4 pH Unit	100	98.8	101
				----	7 pH Unit	100	98.8	101
EA010: Conductivity (1:5) (QCLot: 5002834)								
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	1412 µS/cm	101	92.0	108
ED007: Exchangeable Cations (QCLot: 5008183)								
ED007: Exchangeable Calcium	----	0.1	meq/100g	<0.1	1 meq/100g	104	75.8	120
ED007: Exchangeable Magnesium	----	0.1	meq/100g	<0.1	1.67 meq/100g	105	74.9	115
ED007: Exchangeable Potassium	----	0.1	meq/100g	<0.1	0.51 meq/100g	109	80.0	120
ED007: Exchangeable Sodium	----	0.1	meq/100g	<0.1	0.87 meq/100g	101	80.0	120
ED007: Cation Exchange Capacity	----	0.1	meq/100g	<0.1	----	----	----	----
ED007: Exchangeable Sodium Percent	----	0.1	%	<0.1	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005564)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005564) - continued								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	86.8	70.0	125
EP004: Organic Matter (QCLot: 5005940)								
EP004: Organic Matter	----	0.5	%	<0.5	2.53 %	88.5	82.0	98.0
EP004: Total Organic Carbon	----	0.5	%	<0.5	1.46 %	89.0	81.0	99.0
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5000982)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	124	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 5000981)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.2	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	98.8	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	98.0	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	104	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	102	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	107	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	95.0	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	105	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	97.3	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	106	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5000981)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	91.1	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	94.1	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	103	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	103	70.0	120

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5000981) - continued								
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	103	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	105	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	107	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	106	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	102	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	106	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	95.8	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	103	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	105	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	104	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	104	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	85.9	41.0	123
EP075(SIM)A: Phenolic Compounds (QCLot: 5000980)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	84.3	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	85.3	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	81.6	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	81.4	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	55.3	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	79.4	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	74.1	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	82.2	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	74.6	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	73.4	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	75.9	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	35.7	10.0	80.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5000980)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	86.0	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	79.7	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	86.1	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	81.9	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	93.5	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	95.2	77.0	127

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5000980) - continued								
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	93.4	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	94.3	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	82.7	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	89.9	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	72.2	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	81.9	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	84.2	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	71.9	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	69.5	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	70.4	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5000979)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	110	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	101	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	96.4	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5004988)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	108	72.2	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5000979)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	103	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	97.8	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	95.1	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5004988)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	108	72.4	133
EP080: BTEXN (QCLot: 5004988)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	94.8	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	96.3	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	96.5	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	97.1	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	95.3	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	98.2	78.8	122

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 5010677)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 5010677) - continued								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	98.1	82.0	114
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	95.2	84.0	112
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	94.8	86.0	116
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	94.1	83.0	118
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	92.3	85.0	115
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	98.1	84.0	116
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	94.0	79.0	117
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5010736)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	96.9	77.0	111
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5000838)								
EP066: Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	92.1	68.9	113
EP068A: Organochlorine Pesticides (OC) (QCLot: 5000837)								
EP068: alpha-BHC	319-84-6	0.5	µg/L	<0.5	5 µg/L	93.6	64.9	107
EP068: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	5 µg/L	92.1	58.3	111
EP068: beta-BHC	319-85-7	0.5	µg/L	<0.5	5 µg/L	96.7	69.0	117
EP068: gamma-BHC	58-89-9	0.5	µg/L	<0.5	5 µg/L	98.2	70.0	112
EP068: delta-BHC	319-86-8	0.5	µg/L	<0.5	5 µg/L	94.2	68.9	110
EP068: Heptachlor	76-44-8	0.5	µg/L	<0.5	5 µg/L	96.9	65.2	108
EP068: Aldrin	309-00-2	0.5	µg/L	<0.5	5 µg/L	98.8	65.8	109
EP068: Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	5 µg/L	101	67.1	107
EP068: trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	5 µg/L	102	64.1	110
EP068: alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	5 µg/L	99.1	66.7	112
EP068: cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	5 µg/L	98.6	63.2	111
EP068: Dieldrin	60-57-1	0.5	µg/L	<0.5	5 µg/L	105	65.2	113
EP068: 4.4`-DDE	72-55-9	0.5	µg/L	<0.5	5 µg/L	100	66.0	112
EP068: Endrin	72-20-8	0.5	µg/L	<0.5	5 µg/L	98.8	65.2	113
EP068: beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	5 µg/L	92.5	67.3	114
EP068: 4.4`-DDD	72-54-8	0.5	µg/L	<0.5	5 µg/L	105	72.0	122
EP068: Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	5 µg/L	104	66.9	109
EP068: Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	5 µg/L	104	65.2	112
EP068: 4.4`-DDT	50-29-3	2	µg/L	<2.0	5 µg/L	107	65.2	112
EP068: Endrin ketone	53494-70-5	0.5	µg/L	<0.5	5 µg/L	104	63.8	110
EP068: Methoxychlor	72-43-5	2	µg/L	<2.0	5 µg/L	94.6	61.1	114
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5000837)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5000837) - continued								
EP068: Dichlorvos	62-73-7	0.5	µg/L	<0.5	5 µg/L	101	65.6	114
EP068: Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	5 µg/L	101	63.7	113
EP068: Monocrotophos	6923-22-4	2	µg/L	<2.0	5 µg/L	26.2	19.7	48.0
EP068: Dimethoate	60-51-5	0.5	µg/L	<0.5	5 µg/L	95.6	69.5	110
EP068: Diazinon	333-41-5	0.5	µg/L	<0.5	5 µg/L	107	71.1	110
EP068: Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	5 µg/L	103	77.0	119
EP068: Parathion-methyl	298-00-0	2	µg/L	<2.0	5 µg/L	101	70.0	124
EP068: Malathion	121-75-5	0.5	µg/L	<0.5	5 µg/L	106	68.4	116
EP068: Fenthion	55-38-9	0.5	µg/L	<0.5	5 µg/L	89.4	68.6	112
EP068: Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	5 µg/L	104	75.0	119
EP068: Parathion	56-38-2	2	µg/L	<2.0	5 µg/L	106	67.0	121
EP068: Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	5 µg/L	106	69.0	121
EP068: Chlorfenvinphos	470-90-6	0.5	µg/L	<0.5	5 µg/L	99.7	71.8	110
EP068: Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	5 µg/L	105	67.5	112
EP068: Fenamiphos	22224-92-6	0.5	µg/L	<0.5	5 µg/L	83.1	64.1	116
EP068: Prothiofos	34643-46-4	0.5	µg/L	<0.5	5 µg/L	97.7	67.8	114
EP068: Ethion	563-12-2	0.5	µg/L	<0.5	5 µg/L	102	74.0	120
EP068: Carbophenothion	786-19-6	0.5	µg/L	<0.5	5 µg/L	105	66.2	114
EP068: Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	5 µg/L	68.2	51.6	128
EP075(SIM)A: Phenolic Compounds (QCLot: 5000835)								
EP075(SIM): Phenol	108-95-2	1	µg/L	<1.0	5 µg/L	31.6	24.5	61.9
EP075(SIM): 2-Chlorophenol	95-57-8	1	µg/L	<1.0	5 µg/L	65.8	52.0	90.0
EP075(SIM): 2-Methylphenol	95-48-7	1	µg/L	<1.0	5 µg/L	64.2	51.0	91.0
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	2	µg/L	<2.0	10 µg/L	58.0	44.0	88.0
EP075(SIM): 2-Nitrophenol	88-75-5	1	µg/L	<1.0	5 µg/L	67.0	48.0	100
EP075(SIM): 2.4-Dimethylphenol	105-67-9	1	µg/L	<1.0	5 µg/L	62.5	49.0	99.0
EP075(SIM): 2.4-Dichlorophenol	120-83-2	1	µg/L	<1.0	5 µg/L	77.3	53.0	105
EP075(SIM): 2.6-Dichlorophenol	87-65-0	1	µg/L	<1.0	5 µg/L	76.5	57.0	105
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	1	µg/L	<1.0	5 µg/L	80.4	53.0	99.0
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	1	µg/L	<1.0	5 µg/L	79.9	50.0	106
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	1	µg/L	<1.0	5 µg/L	81.1	51.0	105
EP075(SIM): Pentachlorophenol	87-86-5	2	µg/L	<2.0	10 µg/L	63.0	10.0	95.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5000835)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	73.0	50.0	94.0

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5000835) - continued								
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	80.4	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	80.5	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	81.6	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	68.1	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	73.0	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	74.8	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	77.2	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	108	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	96.4	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	5 µg/L	96.5	61.7	119
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	106	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	107	63.3	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	104	59.9	118
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	105	61.2	117
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	104	59.1	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5000836)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	67.8	53.7	97.0
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	83.8	63.3	107
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	83.9	58.3	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5008315)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	88.9	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5000836)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	67.8	53.9	95.5
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	83.5	57.8	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	94.3	50.5	115
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5008315)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	93.3	75.0	127
EP080: BTEXN (QCLot: 5008315)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	87.9	68.3	119
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	88.1	73.5	120
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	89.8	73.8	122
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	90.9	73.0	122
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	92.2	76.4	123

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080: BTEXN (QCLot: 5008315) - continued								
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	102	75.5	124

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5002832)							
ES2312345-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	92.4	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.6	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	99.7	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	99.9	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	97.0	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	94.0	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	104	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5005563)							
ES2312519-001	TP26-0.0-0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	94.4	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.4	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	94.2	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	99.0	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	96.4	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	95.0	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	92.1	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5005564)							
ES2312519-001	TP26-0.0-0.1	EG035T: Mercury	7439-97-6	5 mg/kg	88.2	70.0	130
EP004: Organic Matter (QCLot: 5005940)							
ES2312519-023	EIL-TP26-0.1-0.2 Received as EIL-TP26-0.0-0.1	EP004: Organic Matter	----	0.94 %	# Not Determined	70.0	130
		EP004: Total Organic Carbon	----	0.55 %	# Not Determined	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5000982)							
ES2312519-001	TP26-0.0-0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	88.9	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5000981)							
ES2312519-001	TP26-0.0-0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	100	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	95.9	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
EP068A: Organochlorine Pesticides (OC) (QCLot: 5000981) - continued							
ES2312519-001	TP26-0.0-0.1	EP068: Aldrin	309-00-2	0.5 mg/kg	102	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	108	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	99.9	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	88.0	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5000981)							
ES2312519-001	TP26-0.0-0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	93.8	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	92.3	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	96.7	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	96.7	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	82.0	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5000980)							
ES2312519-001	TP26-0.0-0.1	EP075(SIM): Phenol	108-95-2	10 mg/kg	87.4	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	89.7	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	82.3	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	83.1	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	70.0	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5000980)							
ES2312519-001	TP26-0.0-0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	88.3	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	100	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5000979)							
ES2312519-001	TP26-0.0-0.1	EP071: C10 - C14 Fraction	----	480 mg/kg	102	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	102	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	111	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5004988)							
ES2312519-001	TP26-0.0-0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	92.3	60.4	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5000979)							
ES2312519-001	TP26-0.0-0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	86.4	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	105	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	112	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5004988)							
ES2312519-001	TP26-0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	91.7	61.1	142
EP080: BTEXN (QCLot: 5004988)							
ES2312519-001	TP26-0.0-0.1	EP080: Benzene	71-43-2	2.5 mg/kg	82.3	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	86.3	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	90.4	67.4	123

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: BTEXN (QCLot: 5004988) - continued							
ES2312519-001	TP26-0.0-0.1	EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	87.5	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	88.7	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	83.0	61.1	115

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 5010677)							
ES2312661-001	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	121	70.0	130
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	117	70.0	130
		EG020A-T: Chromium	7440-47-3	1 mg/L	121	70.0	130
		EG020A-T: Copper	7440-50-8	1 mg/L	117	70.0	130
		EG020A-T: Lead	7439-92-1	1 mg/L	128	70.0	130
		EG020A-T: Nickel	7440-02-0	1 mg/L	117	70.0	130
		EG020A-T: Zinc	7440-66-6	1 mg/L	123	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5010736)							
ES2312661-001	Anonymous	EG035T: Mercury	7439-97-6	0.01 mg/L	98.1	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5008315)							
ES2312895-001	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	80.6	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5008315)							
ES2312895-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	78.6	70.0	130
EP080: BTEXN (QCLot: 5008315)							
ES2312895-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	85.4	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	78.9	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	81.0	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	80.1	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	81.9	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	85.6	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2312519**	Page	: 1 of 13
Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Telephone	: +61-2-8784 8555
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Date Samples Received	: 19-Apr-2023
Site	: ----	Issue Date	: 27-Apr-2023
Sampler	: Harrison Wood	No. of samples received	: 27
Order number	: 30018043	No. of samples analysed	: 15

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

- **NO Method Blank value outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Duplicate outliers exist - please see following pages for full details.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **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

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

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005(ED093)T: Total Metals by ICP-AES	ES2312604--002	Anonymous	**Chromium**	7440-47-3	43.1 %	0% - 20%	**RPD exceeds LOR based limits**
Matrix Spike (MS) Recoveries							
EP004: Organic Matter	ES2312519--023	EIL-TP26-0.1-0.2 Received as	**Organic Matter**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP004: Organic Matter	ES2312519--023	EIL-TP26-0.1-0.2 Received as	**Total Organic Carbon**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
	0				
Laboratory Duplicates (DUP)					
PAH/Phenols (GC/MS - SIM)	0	6	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	0	5	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	0	4	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	6	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
PAH/Phenols (GC/MS - SIM)	0	6	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	0	5	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	0	4	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	6	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method / *Container / Client Sample ID(s)*	***Sample Date***	*Extraction / Preparation* ***Date extracted***	*Due for extraction*	*Evaluation*	*Analysis* ***Date analysed***	*Due for analysis*	*Evaluation*
EA001: pH in soil using 0.01M CaCl extract							
Soil Glass Jar - Unpreserved (EA001) EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**21-Apr-2023**	24-Apr-2023	✓	**21-Apr-2023**	21-Apr-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA002: pH 1:5 (Soils)							
Soil Glass Jar - Unpreserved (EA002)							
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**21-Apr-2023**	24-Apr-2023	✓	**21-Apr-2023**	21-Apr-2023	✓
EA010: Conductivity (1:5)							
Soil Glass Jar - Unpreserved (EA010)							
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**21-Apr-2023**	24-Apr-2023	✓	**21-Apr-2023**	19-May-2023	✓
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**----**	----	----	**20-Apr-2023**	01-May-2023	✓
Soil Glass Jar - Unpreserved (EA055)							
TP26-0.0-0.1, TP27-0.0-0.1, TP28-0.0-0.1, TP29-0.0-0.1, TP30-0.0-0.1, TP31-0.0-0.1, HA05-0.2-0.3, HA06-0.1-0.2 - Received as HA06-0-0.1, HA07-0.1-0.2, HA08-0.1-0.2	**17-Apr-2023**	**----**	----	----	**21-Apr-2023**	01-May-2023	✓
EA150: Soil Classification based on Particle Size							
Snap Lock Bag (EA150H)							
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**----**	----	----	**27-Apr-2023**	14-Oct-2023	✓
EA152: Soil Particle Density							
Snap Lock Bag (EA152)							
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**----**	----	----	**27-Apr-2023**	14-Oct-2023	✓
EA200: AS 4964 - 2004 Identification of Asbestos in Soils							
Snap Lock Bag (EA200)							
TP26-0.0-0.1, TP27-0.0-0.1, TP28-0.0-0.1, TP29-0.0-0.1, TP30-0.0-0.1, TP31-0.0-0.1, HA05-0.2-0.3, HA06-0.1-0.2 - Received as HA06-0-0.1, HA07-0.1-0.2, HA08-0.1-0.2	**17-Apr-2023**	**----**	----	----	**21-Apr-2023**	14-Oct-2023	✓
ED007: Exchangeable Cations							
Soil Glass Jar - Unpreserved (ED007)							
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**24-Apr-2023**	15-May-2023	✓	**24-Apr-2023**	15-May-2023	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1	**17-Apr-2023**	**20-Apr-2023**	14-Oct-2023	✓	**21-Apr-2023**	14-Oct-2023	✓
Soil Glass Jar - Unpreserved (EG005T)							
TP26-0.0-0.1, TP27-0.0-0.1, TP28-0.0-0.1, TP29-0.0-0.1, TP30-0.0-0.1, TP31-0.0-0.1, HA05-0.2-0.3, HA06-0.1-0.2 - Received as HA06-0-0.1, HA07-0.1-0.2, HA08-0.1-0.2	**17-Apr-2023**	**24-Apr-2023**	14-Oct-2023	✓	**24-Apr-2023**	14-Oct-2023	✓

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**24-Apr-2023**	15-May-2023	✓	**26-Apr-2023**	15-May-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							
EP004: Organic Matter								
Soil Glass Jar - Unpreserved (EP004)								
EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1		**17-Apr-2023**	**26-Apr-2023**	15-May-2023	✓	**26-Apr-2023**	15-May-2023	✓
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**27-Apr-2023**	05-Jun-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							
EP068A: Organochlorine Pesticides (OC)								
Soil Glass Jar - Unpreserved (EP068)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**26-Apr-2023**	05-Jun-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							
EP068B: Organophosphorus Pesticides (OP)								
Soil Glass Jar - Unpreserved (EP068)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**26-Apr-2023**	05-Jun-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							
EP075(SIM)A: Phenolic Compounds								
Soil Glass Jar - Unpreserved (EP075(SIM))								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**27-Apr-2023**	05-Jun-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**27-Apr-2023**	05-Jun-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**21-Apr-2023**	01-May-2023	✓	**24-Apr-2023**	01-May-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2,							
Trip Blank								
Soil Glass Jar - Unpreserved (EP071)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**27-Apr-2023**	05-Jun-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**21-Apr-2023**	01-May-2023	✓	**24-Apr-2023**	01-May-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2,							
Trip Blank								
Soil Glass Jar - Unpreserved (EP071)								
TP26-0.0-0.1,	TP27-0.0-0.1,	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**27-Apr-2023**	05-Jun-2023	✓
TP28-0.0-0.1,	TP29-0.0-0.1,							
TP30-0.0-0.1,	TP31-0.0-0.1,							
HA05-0.2-0.3,	HA06-0.1-0.2 - Received as HA06-0-0.1,							
HA07-0.1-0.2,	HA08-0.1-0.2							

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
Trip Spike - 16, TSC_01	11-Apr-2023	21-Apr-2023	25-Apr-2023	✓	24-Apr-2023	25-Apr-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
TP26-0.0-0.1, TP27-0.0-0.1, TP28-0.0-0.1, TP29-0.0-0.1, TP30-0.0-0.1, TP31-0.0-0.1, HA05-0.2-0.3, HA06-0.1-0.2 - Received as HA06-0-0.1, HA07-0.1-0.2, HA08-0.1-0.2, Trip Blank	17-Apr-2023	21-Apr-2023	01-May-2023	✓	24-Apr-2023	01-May-2023	✓

Matrix: **WATER**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
Rinsate 1	17-Apr-2023	26-Apr-2023	14-Oct-2023	✓	26-Apr-2023	14-Oct-2023	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T)							
Rinsate 1	17-Apr-2023	----	----	----	27-Apr-2023	15-May-2023	✓
EP066: Polychlorinated Biphenyls (PCB)							
Amber Glass Bottle - Unpreserved (EP066)							
Rinsate 1	17-Apr-2023	20-Apr-2023	24-Apr-2023	✓	25-Apr-2023	30-May-2023	✓
EP068A: Organochlorine Pesticides (OC)							
Amber Glass Bottle - Unpreserved (EP068)							
Rinsate 1	17-Apr-2023	20-Apr-2023	24-Apr-2023	✓	25-Apr-2023	30-May-2023	✓
EP068B: Organophosphorus Pesticides (OP)							
Amber Glass Bottle - Unpreserved (EP068)							
Rinsate 1	17-Apr-2023	20-Apr-2023	24-Apr-2023	✓	25-Apr-2023	30-May-2023	✓
EP075(SIM)A: Phenolic Compounds							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
Rinsate 1	17-Apr-2023	20-Apr-2023	24-Apr-2023	✓	24-Apr-2023	30-May-2023	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
Rinsate 1	17-Apr-2023	20-Apr-2023	24-Apr-2023	✓	24-Apr-2023	30-May-2023	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
Rinsate 1	17-Apr-2023	20-Apr-2023	24-Apr-2023	✓	25-Apr-2023	30-May-2023	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
Rinsate 1	17-Apr-2023	26-Apr-2023	01-May-2023	✓	26-Apr-2023	01-May-2023	✓

Matrix: **WATER**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
Rinsate 1	**17-Apr-2023**	**20-Apr-2023**	24-Apr-2023	✓	**25-Apr-2023**	30-May-2023	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
Rinsate 1	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**26-Apr-2023**	01-May-2023	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
Rinsate 1	**17-Apr-2023**	**26-Apr-2023**	01-May-2023	✓	**26-Apr-2023**	01-May-2023	✓

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)							
Electrical Conductivity (1:5)	EA010	1	10	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	39	**10.26**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	14	**14.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	10	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	5	32	**15.63**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	14	**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)							
Electrical Conductivity (1:5)	EA010	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	14	**7.14**	**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)							
Electrical Conductivity (1:5)	EA010	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	14	**7.14**	**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: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS)							
Organic Matter	EP004	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	32	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	6	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	5	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	4	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	0.00	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 (GC/MS - SIM)	EP075(SIM)	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	6	16.67	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 (GC/MS - SIM)	EP075(SIM)	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	6	16.67	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 (GC/MS - SIM)	EP075(SIM)	0	6	0.00	5.00	×	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	5	0.00	5.00	×	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	4	0.00	5.00	×	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Matrix Spikes (MS) - Continued							
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	**0.00**	**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
pH in soil using a 0.01M CaCl2 extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
pH (1:5)	EA002	SOIL	In house: Referenced to Rayment and Lyons 4A1 and APHA 4500H+. pH is determined on soil samples after a 1:5 soil/water leach. This method is compliant with NEPM Schedule B(3).
Electrical Conductivity (1:5)	EA010	SOIL	In house: Referenced to Rayment and Lyons 3A1 and APHA 2510. Conductivity is determined on soil samples using a 1:5 soil/water leach. This method is compliant with NEPM Schedule B(3).
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Particle Size Analysis by Hydrometer	EA150H	SOIL	Particle Size Analysis by Hydrometer according to AS1289.3.6.3
Soil Particle Density	EA152	SOIL	Soil Particle Density by AS 1289.3.5.1: Methods of testing soils for engineering purposes - Soil classification tests - Determination of the soil particle density of a soil - Standard method
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
Exchangeable Cations	ED007	SOIL	In house: Referenced to Rayment & Lyons Method 15A1. Cations are exchanged from the sample by contact with Ammonium Chloride. They are then quantitated in the final solution by ICPAES and reported as meq/100g of original soil. 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 (SnCl2) (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 SnCl2 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)
Organic Matter	EP004	SOIL	In house: Referenced to AS1289.4.1.1. Dichromate oxidation method after Walkley and Black. 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).

Analytical Methods	Method	Matrix	Method Descriptions
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.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 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	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample 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	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample 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)
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl2 extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Exchangeable Cations Preparation Method	ED007PR	SOIL	In house: Referenced to Rayment & Lyons method 15A1. A 1M NH4Cl extraction by end over end tumbling at a ratio of 1:20. There is no pretreatment for soluble salts. Extracts can be run by ICP for cations.
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.

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).
Organic Matter	EP004-PR	SOIL	In house: Referenced to AS1289.4.1.1. Dichromate oxidation method after Walkley and Black. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2312519**		
Client	: **SMEC AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: SAM VAUGHAN	Contact	: Katie Davis
Address	: Level 5, 20 Berry Street, North Sydney, NSW 2060 North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: sam.vaughan@smec.com	E-mail	: katie.davis@alsglobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: 30018043 200.1 SINSW - LEPPINGTON PS	Page	: 1 of 3
Order number	: ----	Quote number	: ES2021SMEAUS0010 (EN/025/21)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: Harrison Wood		

Dates

Date Samples Received	: 19-Apr-2023 10:20	Issue Date	: 19-Apr-2023
Client Requested Due Date	: 27-Apr-2023	Scheduled Reporting Date	: **27-Apr-2023**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 19.8'C
Receipt Detail	:	No. of samples received / analysed	: 27 / 15

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
- P22 (NEPM screen for soil classification) conducted by ALS Newcastle, NATA accreditation no. 825, site no 1656.
- **Sample #17 'HA06-0.1-0.2' on the COC was received with the ID 'HA06-0-0.1'.**
- **Sample #23 'EIL-TP26-0.1-0.2' on the COC was received with the ID 'EIL-TP26-0.0-0.1'**
- **Snap lock bags for samples 02, 04, 06, 09, 12, 15, 18, 20 & 22 not received**
- **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).**
- **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.

- **No sample container / preservation non-compliance exists.**

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

ES2312519-017 : [17-Apr-2023] : HA06-0.1-0.2 - Received as HA06-0-0.1

ES2312519-023 : [17-Apr-2023] : EIL-TP26-0.1-0.2 - Received as EIL-TP26-0.0-0.1

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EP080 BTEXN	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals
ES2312519-001	17-Apr-2023 00:00	TP26-0.0-0.1		✓	✓				✓
ES2312519-002	17-Apr-2023 00:00	TP26-0.4-0.5	✓						
ES2312519-003	17-Apr-2023 00:00	TP27-0.0-0.1		✓	✓				✓
ES2312519-004	17-Apr-2023 00:00	TP27-0.4-0.5	✓						
ES2312519-005	17-Apr-2023 00:00	TP28-0.0-0.1		✓	✓				✓
ES2312519-006	17-Apr-2023 00:00	TP28-0.3-0.4	✓						
ES2312519-007	17-Apr-2023 00:00	TP29-0.0-0.1		✓	✓				✓
ES2312519-008	17-Apr-2023 00:00	TP29-0.2-0.3	✓						
ES2312519-009	17-Apr-2023 00:00	TP29-0.6-0.7	✓						
ES2312519-010	17-Apr-2023 00:00	TP30-0.0-0.1		✓	✓				✓
ES2312519-011	17-Apr-2023 00:00	TP30-0.2-0.3	✓						
ES2312519-012	17-Apr-2023 00:00	TP30-0.4-0.5	✓						
ES2312519-013	17-Apr-2023 00:00	TP31-0.0-0.1		✓	✓				✓
ES2312519-014	17-Apr-2023 00:00	TP31-0.2-0.3	✓						
ES2312519-015	17-Apr-2023 00:00	TP31-0.4-0.5	✓						
ES2312519-016	17-Apr-2023 00:00	HA05-0.2-0.3		✓	✓				✓
ES2312519-017	17-Apr-2023 00:00	HA06-0.1-0.2 Receiv...		✓	✓				✓
ES2312519-018	17-Apr-2023 00:00	HA06-0.4-0.5	✓						
ES2312519-019	17-Apr-2023 00:00	HA07-0.1-0.2		✓	✓				✓
ES2312519-020	17-Apr-2023 00:00	HA07-0.4-0.5	✓						
ES2312519-021	17-Apr-2023 00:00	HA08-0.1-0.2		✓	✓				✓
ES2312519-022	17-Apr-2023 00:00	HA08-0.3-0.4	✓						
ES2312519-023	17-Apr-2023 00:00	EIL-TP26-0.1-0.2 Re...		✓			✓		
ES2312519-024	11-Apr-2023 00:00	Trip Spike - 16				✓			
ES2312519-025	17-Apr-2023 00:00	Trip Blank						✓	
ES2312519-027	11-Apr-2023 00:00	TSC_01				✓			

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - W-19T TRH/BTEXN/PAH/Phenols/OC/OP/PCB/8 metals
ES2312519-026	17-Apr-2023 00:00	Rinsate 1	✓

Proactive Holding Time Report

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

Requested Deliverables

ACCOUNTS INVOICES

- A4 - AU Tax Invoice (INV)	Email	accounts.payable@smec.com

SAM VAUGHAN

- *AU Certificate of Analysis - NATA (COA)	Email	sam.vaughan@smec.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	sam.vaughan@smec.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	sam.vaughan@smec.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	sam.vaughan@smec.com
- Attachment - Report (SUBCO)	Email	sam.vaughan@smec.com
- Chain of Custody (CoC) (COC)	Email	sam.vaughan@smec.com
- EDI Format - ENMRG (ENMRG)	Email	sam.vaughan@smec.com
- EDI Format - ESDAT (ESDAT)	Email	sam.vaughan@smec.com
- EDI Format - XTab (XTAB)	Email	sam.vaughan@smec.com

Samples received without CoC

CLIENT / SENDER:	SMEC
PROJECT:	
CONTACT NAME:	Harrison W
CONTACT NUMBER:	0411 754 451
CARRIER:	CLIENT
CONNOTE REFERENCE:	
SAMPLER:	HW
NUMBER OF SAMPLES:	
Client services notified by:	Fadi

COC SEQUENCE NUMBER (Circle)

COC:	1	2	3	4	5	6	7
OF:	1	2	3	4	5	6	7

SAMPLES RECEIVED BY: Jack

DATE/TIME: 17/04/23

ANALYSIS RECEIVED BY:

DATE/TIME:

Comments: 1 eshy 19.8°c

Environmental Division Sydney

Work Order Reference

ES2312519

Telephone : +61-2-8784 8555

LAB ID	SAMPLE ID	DATE	MATRIX	NUMBER OF CONTAINERS
	Rinsate -01	17/04/23	W	
	EIL_TP26-0.0-0.1	17/04/23	S	
		TOTAL		

Additional Information

Sam V to send coc.

eshy ~~a mobile coolroom~~ on brown trolley

SMEC
Member of the Surbana Jurong Group

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	**TURNAROUND REQUIREMENTS :** Standard Turnaround time		**LAB:** ALS Laboratory **ATTENTION:** Sample Receipt **DISPATCH TO (ADDRESS & PHONE NO.):** ALS Laboratory, 277-289 Woodpark Road, Smithfield NSW 2164 (02) 8784 8555
PROJECT: SINSW - LEPPINGTON PS			
PROJECT NUMBER: 30018043 200.1	**LAB QUOTE NO.:**	**COC SEQUENCE NUMBER** (Circle) COC: 1 2 3 4 5 OF: 1 2 3 4 5	
PROJECT MANAGER: Sam Vaughan	**CONTACT PH:** 0401010617		
SAMPLED BY: Harrison Wood			

DATE SAMPLED: 17 April 2023	RELINQUISHED BY: SMEC DATE/ TIME: 17/4/22	**RECEIVED BY: ALS** DATE/TIME:	**RELINQUISHED BY:** DATE/TIME:	**RECEIVED BY:** DATE/TIME: 19/4/23 10:20
Email Reports and Invoice to: sam.vaughan@smec.com				

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS								Contamination analysis requested:											COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE			TOTAL NO. CONTAINERS	S-19	EA200 (asbestos P/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	TPH C6-C9						
1	TP26-0.0-0.1	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
2	TP26-0.4-0.5	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
3	TP27-0.0-0.1	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
4	TP27-0.4-0.5	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
5	TP28-0.0-0.1	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
6	TP28-0.3-0.4	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
7	TP29-0.0-0.1	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
8	TP29-0.2-0.3	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
9	TP29-0.6-0.7	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
10	TP30-0.0-0.1	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
11	TP30-0.2-0.3	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
12	TP30-0.4-0.5	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
13	TP31-0.0-0.1	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
14	TP31-0.2-0.3	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
15	TP31-0.4-0.5	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2												
16	HA05-0.2-0.3	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										
17	HA06-0.1-0.2	17/04/2023	⊟soil	⊟250ml jar	⊟100g ziplock	Ice	2	☑	☑										

Environmental Division
Sydney
Work Order Reference
ES2312519

Telephone : +61-2-8784 8555

SMEC
Member of the Surbana Jurong Group

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	**TURNAROUND REQUIREMENTS :** Standard Turnaround time		**LAB:** ALS Laboratory **ATTENTION:** Sample Receipt **DISPATCH TO (ADDRESS & PHONE NO.):** ALS Laboratory, 277-289 Woodpark Road, Smithfield NSW 2164 (02) 8784 8555
PROJECT: SINSW - LEPPINGTON PS			
PROJECT NUMBER: 30018043 200.1	**LAB QUOTE NO.:**	**COC SEQUENCE NUMBER (Circle)** COC: 1 2 3 4 5 OF: 1 2 3 4 5	
PROJECT MANAGER: Sam Vaughan	**CONTACT PH:** 0401010617		
SAMPLED BY: Harrison Wood			

DATE SAMPLED: 17 April 2023	RELINQUISHED BY: SMEC DATE/ TIME: 17/4/22	**RECEIVED BY:** ALS DATE/TIME:	**RELINQUISHED BY:** DATE/TIME:	**RECEIVED BY:** DATE/TIME: 19/4/23 10:20
Email Reports and Invoice to: sam.vaughan@smec.com				

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS								Contamination analysis requested:											COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX		CONTAINER TYPE & PRESERVATIVE			TOTAL NO. CONTAINERS	S-19	EA200 (asbestos P/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	TPH C6-C9						
18	HA06-0.4-0.5	17/04/2023	☐soil		☐250ml jar	☐100g ziplock	Ice	2												
19	HA07-0.1-0.2	17/04/2023	☐soil		☐250ml jar	☐100g ziplock	Ice	2	☑	☑										
20	HA07-0.4-0.5	17/04/2023	☐soil		☐250ml jar	☐100g ziplock	Ice	2												
21	HA08-0.1-0.2	17/04/2023	☐soil		☐250ml jar	☐100g ziplock	Ice	2	☑	☑										
22	HA08-0.3-0.4	17/04/2023	☐soil		☐250ml jar	☐100g ziplock	Ice	2												
23	EIL-TP26-0.1-0.2	17/04/2023	☐soil		☐250ml jar	2 x 500ml ziplock	Ice	2				☑								
24	Trip Spike - 16	17/04/2023	☐soil		☐250ml jar		Ice	1					☑	☑						
25	Trip Blank	17/04/2023	☐soil		☐250ml jar			1					☑							
26	Rinsate 1	17/04/2023	Water		Bottles			5	☑											

CHAIN OF CUSTODY FORM

SMEC
Member of the Surbana Jurong Group

SMEC OFFICE: North Sydney	TURNAROUND REQUIREMENTS : Standard Turnaround time		LAB: ALS Laboratory ATTENTION: Sample Receipt DISPATCH TO (ADDRESS & PHONE NO.): ALS Laboratory, 277-289 Woodpark Road, Smithfield NSW 2164 (02) 8784 8555
PROJECT: SINSW - LEPPINGTON PS		COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 OF: 1 2 3 4 5	
PROJECT NUMBER: 30018043 200.1	LAB QUOTE NO.:		
PROJECT MANAGER: Sam Vaughan	CONTACT PH: 0401010617		
SAMPLED BY: Harrison Wood			
DATE SAMPLED: 17 April 2023	RELINQUISHED BY: SMEC DATE/ TIME: 17/4/22	RECEIVED BY: ALS DATE/TIME:	RELINQUISHED BY: DATE/TIME:
Email Reports and Invoice to: sam.vaughan@smec.com			RECEIVED BY: TMT DATE/TIME: 19/4/23 10:20

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS								Contamination analysis requested:						COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE			TOTAL NO. CONTAINERS	S-19	EA200 (asbestos P/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	TPH C6-C9	Subcon / Forward Lab / Split WO: Newcastle Lab / Analysis: Asbestos (EA200) Organised By / Date: Relinquished By / Date: Connote / Courier: WO No: Attached By PO / Internal Sheet:
1	TP26-0.0-0.1	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
2	TP26-0.4-0.5	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
3	TP27-0.0-0.1	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
4	TP27-0.4-0.5	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
5	TP28-0.0-0.1	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
6	TP28-0.3-0.4	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
7	TP29-0.0-0.1	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
8	TP29-0.2-0.3	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
9	TP29-0.6-0.7	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
10	TP30-0.0-0.1	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
11	TP30-0.2-0.3	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
12	TP30-0.4-0.5	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
13	TP31-0.0-0.1	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
14	TP31-0.2-0.3	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2							
15	TP31-0.4-0.5	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
16	HA05-0.2-0.3	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					
17	~~HA06-0.1-0.2~~ HA06-0-0.1	17/04/2023	☐soil	☐250ml jar	☐100g ziplock	Ice	2	☑	☑					

Environmental Division
Sydney
Work Order Reference
ES2312519

Telephone : +61-2-8784 8555

SMEC Australia Pty Ltd
Level 6, 76 Berry Street
North Sydney
NSW 2060

Attention: **Sam Vaughan**

Report **982505-S**
Project name SINSW - LEPPINGTON PS
Project ID 30018043 200.1
Received Date Apr 20, 2023

Client Sample ID			**DUP01A**	**DUP02A**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0042664**	**S23-Ap0042665**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	109
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			DUP01A	DUP02A
Sample Matrix			Soil	Soil
Eurofins Sample No.			S23-Ap0042664	S23-Ap0042665
Date Sampled			Apr 13, 2023	Apr 13, 2023
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	91	116
p-Terphenyl-d14 (surr.)	1	%	99	122
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	108	136
Tetrachloro-m-xylene (surr.)	1	%	91	120
Organophosphorus Pesticides				
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2

Client Sample ID			DUP01A	DUP02A
Sample Matrix			Soil	Soil
Eurofins Sample No.			S23-Ap0042664	S23-Ap0042665
Date Sampled			Apr 13, 2023	Apr 13, 2023
Test/Reference	LOR	Unit		
Organophosphorus Pesticides				
Dimethoate	0.2	mg/kg	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2
EPN	0.2	mg/kg	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	104	127
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	108	136
Tetrachloro-m-xylene (surr.)	1	%	91	120
Heavy Metals				
Arsenic	2	mg/kg	16	13
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	21	26
Copper	5	mg/kg	17	25
Lead	5	mg/kg	18	20
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	8.1	10
Zinc	5	mg/kg	28	33
Sample Properties				
% Moisture	1	%	9.8	28

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Apr 21, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 21, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 21, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Apr 21, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Apr 21, 2023	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Apr 21, 2023	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Apr 21, 2023	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Metals M8	Sydney	Apr 21, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Polychlorinated Biphenyls	Sydney	Apr 21, 2023	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Sydney	Apr 20, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091
NATA# 1261 Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

Newcastle
1/2 Frost Drive
Mayfield West NSW 2304
Tel: +61 2 4968 8448
NATA# 1261
Site# 25079 & 25289

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
Tel: +64 9 526 45 51
IANZ# 1327

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: 0800 856 450
IANZ# 1290

Company Name: SMEC Australia Pty Ltd (SYD)
Address: Level 6, 76 Berry Street
North Sydney
NSW 2060

Project Name: SINSW - LEPPINGTON PS
Project ID: 30018043 200.1

Order No.:
Report #: 982505
Phone: 02 9925 5555
Fax: 02 9925 5566

Received: Apr 20, 2023 1:00 PM
Due: Apr 28, 2023
Priority: 5 Day
Contact Name: Sam Vaughan

Eurofins Analytical Services Manager : Hannah Mawbey

Sample Detail						Polychlorinated Biphenyls	Moisture Set	Eurofins Suite B10: BTEX/TRH/PAH/OCP/OPP
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	DUP01A	Apr 13, 2023		Soil	S23-Ap0042664	X	X	X
2	DUP02A	Apr 13, 2023		Soil	S23-Ap0042665	X	X	X
Test Counts						2	2	2

eurofins | Environment Testing

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	96			70-130	Pass	
TRH C10-C14	%	75			70-130	Pass	
TRH C6-C10	%	98			70-130	Pass	
TRH >C10-C16	%	75			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	74			70-130	Pass	
Toluene	%	83			70-130	Pass	
Ethylbenzene	%	82			70-130	Pass	
m&p-Xylenes	%	80			70-130	Pass	
o-Xylene	%	86			70-130	Pass	
Xylenes - Total*	%	82			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	113			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	118			70-130	Pass	
Acenaphthylene	%	122			70-130	Pass	
Anthracene	%	128			70-130	Pass	
Benz(a)anthracene	%	112			70-130	Pass	
Benzo(a)pyrene	%	114			70-130	Pass	
Benzo(b&j)fluoranthene	%	102			70-130	Pass	
Benzo(g.h.i)perylene	%	112			70-130	Pass	
Benzo(k)fluoranthene	%	117			70-130	Pass	
Chrysene	%	112			70-130	Pass	
Dibenz(a.h)anthracene	%	112			70-130	Pass	
Fluoranthene	%	120			70-130	Pass	
Fluorene	%	116			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	107			70-130	Pass	
Naphthalene	%	113			70-130	Pass	
Phenanthrene	%	115			70-130	Pass	
Pyrene	%	123			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	119			70-130	Pass	
4.4'-DDD	%	125			70-130	Pass	
4.4'-DDE	%	111			70-130	Pass	
4.4'-DDT	%	130			70-130	Pass	
a-HCH	%	101			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	%	126			70-130	Pass	
b-HCH	%	111			70-130	Pass	
d-HCH	%	106			70-130	Pass	
Dieldrin	%	121			70-130	Pass	
Endosulfan I	%	111			70-130	Pass	
Endosulfan II	%	110			70-130	Pass	
Endosulfan sulphate	%	121			70-130	Pass	
Endrin	%	98			70-130	Pass	
Endrin aldehyde	%	95			70-130	Pass	
Endrin ketone	%	121			70-130	Pass	
g-HCH (Lindane)	%	118			70-130	Pass	
Heptachlor	%	126			70-130	Pass	
Heptachlor epoxide	%	130			70-130	Pass	
Hexachlorobenzene	%	107			70-130	Pass	
Methoxychlor	%	96			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	117			70-130	Pass	
Dimethoate	%	127			70-130	Pass	
Ethion	%	127			70-130	Pass	
Mevinphos	%	121			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	104			70-130	Pass	
Aroclor-1260	%	108			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			80-120	Pass	
Cadmium	%	98			80-120	Pass	
Chromium	%	98			80-120	Pass	
Copper	%	100			80-120	Pass	
Lead	%	96			80-120	Pass	
Mercury	%	98			80-120	Pass	
Nickel	%	98			80-120	Pass	
Zinc	%	97			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S23-Ap0041158	NCP	%	88			70-130	Pass	
TRH C10-C14	S23-Ap0044558	NCP	%	76			70-130	Pass	
TRH C6-C10	S23-Ap0041158	NCP	%	88			70-130	Pass	
TRH >C10-C16	S23-Ap0044558	NCP	%	75			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S23-Ap0041158	NCP	%	98			70-130	Pass	
Toluene	S23-Ap0041158	NCP	%	84			70-130	Pass	
Ethylbenzene	S23-Ap0041158	NCP	%	98			70-130	Pass	
m&p-Xylenes	S23-Ap0041158	NCP	%	99			70-130	Pass	
o-Xylene	S23-Ap0041158	NCP	%	96			70-130	Pass	
Xylenes - Total*	S23-Ap0041158	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S23-Ap0041158	NCP	%	95			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	N23-Ap0034493	NCP	%	106			70-130	Pass	
Acenaphthylene	N23-Ap0034493	NCP	%	98			70-130	Pass	
Anthracene	N23-Ap0034493	NCP	%	116			70-130	Pass	
Benz(a)anthracene	N23-Ap0034493	NCP	%	79			70-130	Pass	
Benzo(a)pyrene	N23-Ap0034493	NCP	%	72			70-130	Pass	
Benzo(b&j)fluoranthene	N23-Ap0034493	NCP	%	82			70-130	Pass	
Benzo(g.h.i)perylene	N23-Ap0034493	NCP	%	81			70-130	Pass	
Benzo(k)fluoranthene	N23-Ap0034493	NCP	%	97			70-130	Pass	
Chrysene	N23-Ap0034493	NCP	%	96			70-130	Pass	
Dibenz(a.h)anthracene	N23-Ap0034493	NCP	%	84			70-130	Pass	
Fluoranthene	N23-Ap0034493	NCP	%	104			70-130	Pass	
Fluorene	N23-Ap0034493	NCP	%	105			70-130	Pass	
Indeno(1.2.3-cd)pyrene	N23-Ap0034493	NCP	%	83			70-130	Pass	
Naphthalene	N23-Ap0034493	NCP	%	109			70-130	Pass	
Phenanthrene	N23-Ap0034493	NCP	%	97			70-130	Pass	
Pyrene	N23-Ap0034493	NCP	%	107			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-Ap0036976	NCP	%	96			75-125	Pass	
Cadmium	S23-Ap0036976	NCP	%	94			75-125	Pass	
Chromium	S23-Ap0036976	NCP	%	89			75-125	Pass	
Copper	S23-Ap0036976	NCP	%	92			75-125	Pass	
Lead	S23-Ap0036976	NCP	%	85			75-125	Pass	
Mercury	S23-Ap0036976	NCP	%	96			75-125	Pass	
Nickel	S23-Ap0036976	NCP	%	93			75-125	Pass	
Zinc	S23-Ap0036976	NCP	%	81			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S23-Ap0036969	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S23-Ap0032686	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S23-Ap0032686	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S23-Ap0032686	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C6-C10	S23-Ap0036969	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S23-Ap0032686	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S23-Ap0032686	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S23-Ap0032686	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-Ap0036971	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-Ap0036971	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-Ap0036971	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-Ap0036971	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-Ap0036971	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-Ap0036971	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Ap0036971	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S23-Ap0028344	NCP	mg/kg	0.6	< 0.5	98	30%	Fail	Q15
Benz(a)anthracene	S23-Ap0028344	NCP	mg/kg	1.7	0.7	82	30%	Fail	Q15
Benzo(a)pyrene	S23-Ap0028344	NCP	mg/kg	1.6	0.7	77	30%	Fail	Q15
Benzo(b&j)fluoranthene	S23-Ap0028344	NCP	mg/kg	1.4	0.6	68	30%	Fail	Q15
Benzo(g.h.i)perylene	S23-Ap0028344	NCP	mg/kg	1.0	< 0.5	67	30%	Fail	Q15
Benzo(k)fluoranthene	S23-Ap0028344	NCP	mg/kg	1.9	0.9	69	30%	Fail	Q15
Chrysene	S23-Ap0028344	NCP	mg/kg	2.0	0.9	76	30%	Fail	Q15
Dibenz(a.h)anthracene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S23-Ap0028344	NCP	mg/kg	4.6	1.7	89	30%	Fail	Q15
Fluorene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S23-Ap0028344	NCP	mg/kg	1.0	< 0.5	82	30%	Fail	Q15
Naphthalene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S23-Ap0028344	NCP	mg/kg	2.7	0.7	110	30%	Fail	Q15
Pyrene	S23-Ap0028344	NCP	mg/kg	5.1	1.9	94	30%	Fail	Q15
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-Ap0042664	CP	mg/kg	16	18	9.5	30%	Pass	
Cadmium	S23-Ap0042664	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S23-Ap0042664	CP	mg/kg	21	29	32	30%	Fail	Q15
Copper	S23-Ap0042664	CP	mg/kg	17	16	10	30%	Pass	
Lead	S23-Ap0042664	CP	mg/kg	18	17	9.4	30%	Pass	
Mercury	S23-Ap0042664	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S23-Ap0042664	CP	mg/kg	8.1	6.6	20	30%	Pass	
Zinc	S23-Ap0042664	CP	mg/kg	28	28	1.3	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Ap0041962	NCP	%	6.1	6.1	1.1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Temperature of Chilled samples on receipt	3.8°C
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Hannah Mawbey	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091
NATA# 1261 Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

Newcastle
1/2 Frost Drive
Mayfield West NSW 2304
Tel: +61 2 4968 8448
NATA# 1261
Site# 25079 & 25289

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
Tel: +64 9 526 45 51
IANZ# 1327

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: 0800 856 450
IANZ# 1290

Company Name: SMEC Australia Pty Ltd (SYD)
Address: Level 6, 76 Berry Street
North Sydney
NSW 2060

Project Name: SINSW - LEPPINGTON PS
Project ID: 30018043 200.1

Order No.:
Report #: 982505
Phone: 02 9925 5555
Fax: 02 9925 5566

Received: Apr 20, 2023 1:00 PM
Due: Apr 28, 2023
Priority: 5 Day
Contact Name: Sam Vaughan

Eurofins Analytical Services Manager : Hannah Mawbey

Sample Detail						Polychlorinated Biphenyls	Moisture Set	Eurofins Suite B10: BTEX/TRH/PAH/OCP/OPP
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	DUP01A	Apr 13, 2023		Soil	S23-Ap0042664	X	X	X
2	DUP02A	Apr 13, 2023		Soil	S23-Ap0042665	X	X	X
Test Counts						2	2	2

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	Tel: +61 2 4968 8448
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	NATA# 1261
NATA# 1261 Site# 1254	NATA# 1261 Site# 25403	NATA# 1261 Site# 18217	NATA# 1261 Site# 25466	NATA# 1261 Site# 20794	Site# 25079 & 25289

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch
35 O'Rorke Road	43 Detroit Drive
Penrose,	Rolleston,
Auckland 1061	Christchurch 7675
Tel: +64 9 526 45 51	Tel: 0800 856 450
IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	SMEC Australia Pty Ltd (SYD)
Contact name:	Sam Vaughan
Project name:	SINSW - LEPPINGTON PS
Project ID:	30018043 200.1
Turnaround time:	5 Day
Date/Time received	Apr 20, 2023 1:00 PM
Eurofins reference	982505

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 3.8 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Hannah Mawbey on phone : or by email: HannahMawbey@eurofins.com

Results will be delivered electronically via email to Sam Vaughan - sam.vaughan@smec.com.

Note: A copy of these results will also be delivered to the general SMEC Australia Pty Ltd (SYD) email address.

SMEC

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	TURNAROUND REQUIREMENTS :	LAB: ALS Laboratory
PROJECT: SINSW - LEPPINGTON PS		ATTENTION: Sample Receipt
PROJECT NUMBER: 30018043 200.1	LAB QUOTE NO.:	DISPATCH TO (ADDRESS & PHONE NO.): ALS Laboratory, 277-289 Woodpark Road, Smithfield NSW 2164 (02) 8784 8555
PROJECT MANAGER: Sam Vaughan	CONTACT PH: +61 403 503 373	COC SEQUENCE NUMBER (Circle) COC: 1 / 2 3 4 5 OF: 1 2 3 4 5
SAMPLED BY: Harrison Wood		
DATE SAMPLED: 14 April 2023	RELINQUISHED BY: SMEC DATE/TIME:	RECEIVED BY: Eurofins DATE/TIME: 15/4/23 10:20
Email Reports and Invoice to: sam.vaughan@smec.com	RELINQUISHED BY: DATE/TIME	RECEIVED BY: DATE/TIME

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

Brendan 20/4
1100
3.8°C
Ch/h
Cw

SAMPLE DETAILS								Contamination analysis requested:												COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE		TOTAL NO. CONTAINERS		8-49	FA&IS (asbestos F/A)	Faecal Coliforms and nutrients	F22 (NEPM screen for soil classification)	BTEX	TPH C6-C9							
1			☐soil	☐250ml jar	☐100g ziplock			☑	☑											
2			☐soil	☐250ml jar	☐100g ziplock			☑												
3			☐soil	☐250ml jar	☐100g ziplock															
4	TP02-0.0-0.1	13/04/2023	☐soil	☐250ml jar	☐100g ziplock			☑	☑											
5	TP02-0.2-0.3		☐soil	☐250ml jar	☐100g ziplock															
6	TP02-0.5-0.6		☐soil	☐250ml jar	☐100g ziplock															
7	TP03-0.0-0.1		☐soil	☐250ml jar	☐100g ziplock			☑	☑											
8			☐soil	☐250ml jar	☐100g ziplock			☑												
9	TP03-0.4-0.5		☐soil	☐250ml jar	☐100g ziplock															
10			☐soil	☐250ml jar	☐100g ziplock			☑	☑											
11			☐soil	☐250ml jar	☐100g ziplock			☑												
12			☐soil	☐250ml jar	☐100g ziplock															
13	TP05-0.0-0.1	13/04/2023	☐soil	☐250ml jar	☐100g ziplock			☑	☑											
14	TP05-0.4-0.5		☐soil	☐250ml jar	☐100g ziplock															
15	TP05-0.5-0.6		☐soil	☐250ml jar	☐100g ziplock															
16	TP06-0.0-0.1		☐soil	☐250ml jar	☐100g ziplock		2	☑	☑											
17			☐soil	☐250ml jar	☐100g ziplock			☑												
18	TP06-0.4-0.5		☐soil	☐250ml jar	☐100g ziplock															
19			☐soil	☐250ml jar	☐100g ziplock			☑	☑											
20			☐soil	☐250ml jar	☐100g ziplock															
21	TP07-0.4-0.5		☐soil	☐250ml jar	☐100g ziplock															
22	TP08-0.0-0.1	13/04/2023	☐soil	☐250ml jar	☐100g ziplock			☑	☑											
23			☐soil	☐250ml jar	☐100g ziplock			☑												
24			☐soil	☐250ml jar	☐100g ziplock															
25	TP09-0.0-0.1		☐soil	☐250ml jar	☐100g ziplock			☑	☑											
26	TP10-0.2-0.3		☐soil	☐250ml jar	☐100g ziplock															
27	TP10-0.5-0.6		☐soil	☐250ml jar	☐100g ziplock															
28		13/04/2023	☐soil	☐250ml jar	☐100g ziplock		2	☑	☑											
29	TP10-0.2-0.3		☐soil	☐250ml jar	☐100g ziplock			☑												
30	TP10-0.4-0.5		☐soil	☐250ml jar	☐100g ziplock															
31	TP11-0.0-0.1		☐soil	☐250ml jar	☐100g ziplock			☑	☑											
32	TP11-0.2-0.3		☐soil	☐250ml jar	☐100g ziplock															
33			☐soil	☐250ml jar	☐100g ziplock															

Subcon / Forward Lab / Split WO

Lab / Analysis: Newcastle - Asbestos, Cly

Organised By / Date: Eurofins - Dup 14, Dup 24

Relinquished By / Date:

Connote / Courier:

WO No:

Attached By PO / Internal Sheet:

Environmental Division
Sydney
Work Order Reference
ES2312936

Telephone : +61-2-8784 8555

981505

SMEC

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	TURNAROUND REQUIREMENTS : Standard Turnaround time	LAB: [redacted]
PROJECT: SINSW - LEPPINGTON PS		ATTENTION: [redacted]
PROJECT NUMBER: 30018043 200.1	LAB QUOTE NO.	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 OF: 1 2 3 4 5
PROJECT MANAGER: Sam Vaughan	CONTACT PH: +61 403 601 373	DISPATCH TO (ADDRESS & PHONE NO.): [redacted]
SAMPLED BY: Harrison Wood		
DATE SAMPLED: 14 April 2023	[redacted]	RECEIVED BY: Eurofins DATE TIME
Email Reports and Invoice to: sam.vaughan@smec.com		RELINQUISHED BY: DATE TIME
		RECEIVED BY: DATE TIME 19/4/23 10:20

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS							Contamination analysis requested:										COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE		TOTAL NO. CONTAINERS	S-19	EA200 (asbestos P/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	TPH C6-C9					
34	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
35	TP12-0.2-0.3	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑										
36	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
37	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
38	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑										
39	[redacted]	12/04/2023	Soil	250ml jar	100g ziplock	[redacted]											
40	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
41	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
42	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
43	TP 15-0.2-0.3	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑										
44	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
45	[redacted]	14/04/2023	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
46	TP 16-0.2-0.3	14/04/2023	Soil	250ml jar	100g ziplock	[redacted]											
47	TP16-0.4-0.5	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
48	TP17-0.0-0.1	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
49	TP 17-0.2-0.3	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
50	TP17-0.4-0.5	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑										
51	TP 18-0.0-0.1	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
52	TP 18-0.2-0.3	14/04/2023	Soil	250ml jar	100g ziplock	[redacted]											
53	TP 18-0.4-0.5	14/04/2023	Soil	250ml jar	100g ziplock	[redacted]											
54	TP 19-0.0-0.1	14/04/2023	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
55	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑										
56	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
57	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
58	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
59	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
60	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑										
61	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
62	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
63	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]											
64	[redacted]	14/04/2023	Soil	250ml jar	100g ziplock	[redacted]											
65	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑	☑									
66	[redacted]	[redacted]	Soil	250ml jar	100g ziplock	[redacted]	☑										

982505

SMEC

CHAIN OF CUSTODY FORM

SMEC OFFICE: North Sydney	TURNAROUND REQUIREMENTS: Standard TAT (10 working days)		LAB: ALS Laboratory
PROJECT: SINSW - LEPPINGTON PS			ATTENTION: Sample Receipt
PROJECT NUMBER: 30018043 200.1	LAB QUOTE NO.:	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 OF: 1 2 3 4 5	DISPATCH TO (ADDRESS & PHONE NO.): ALS Laboratory: 277-289 Woodpark Road, Smithfield NSW 2164 (02) 8784 8555
PROJECT MANAGER: Sam Vaughan	CONTACT PH: +61 403 503 373		
SAMPLED BY: Harrison Wood			
DATE SAMPLED: 14 April 2023	RELEASED BY: DATE/TIME:	RECEIVED BY: Eurofins DATE/TIME	RELINQUISHED BY: DATE TIME	RECEIVED BY: DATE/TIME
Email Reports and Invoice to: sam.vaughan@smec.com			

Special Laboratory Instructions: This CoC represents batch 1 of 2, this batch was dropped at ALS Smithfield on the afternoon of Friday 14/04/23

SAMPLE DETAILS							Contamination analysis requested:							COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE		TOTAL NO. CONTAINERS	S-19	EA200 (asbestos P/A)	Faecal Coliforms and nutrients	P22 (NEPM screen for soil classification)	BTEX	PH C6-C9		
67	[illegible]	[illegible]	Esoil	⊟250ml jar	⊟100g ziplock	2								
68	[illegible]	[illegible]	Esoil	⊟250ml jar	⊟100g ziplock	1	☑	☑						
69	[illegible]	[illegible]	Esoil	⊟250ml jar	⊟100g ziplock	2								
70	[illegible]	[illegible]	Esoil	⊟250ml jar	⊟100g ziplock	1								
71	[illegible]	[illegible]	Esoil	⊟250ml jar	⊟100g ziplock	1	☑	☑						
72	[illegible]	[illegible]	Esoil	⊟250ml jar	⊟100g ziplock	2	☑							
73	[illegible]	[illegible]	Esoil	⊟250ml jar	⊟100g ziplock	1								
74	[illegible]	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑							
X	DUP01A	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	Please send to Eurofins and request B10 suite + PCBs							
75	[illegible]	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑							
X	[illegible]	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	Please send to Eurofins and request B10 suite + PCBs							
76	Trip Spike	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1					☑	☑		
77	Trip Spike - 15	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1					☑			
78	TP03/0.0-0.1 (EIL)	13/04/2023	Esoil	⊟250ml jar	2 x 500ml bag	1				☑				
79	HA01/0.01-0.1	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑	☑						
80	HA01/0.2-0.3	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑							
81	HA01/0.3-0.4	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1								
82	HA02/0.1-0.2	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑	☑						
83	HA02/0.4-0.5	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1								
84	HA03/0.1-0.2	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	2	☑	☑						
85	HA03/0.4-0.5	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	2	☑							
86	HA04/0.0-0.1	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑	☑						
87	HA04/0.4-0.5	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1								
88	HA09/0.0-0.1	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑	☑	☑					
89	HA09/0.5-0.6	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	1	☑		☑					
90	HA10/0.2-0.3	13/04/2023	Esoil	⊟250ml jar	⊟100g ziplock	2	☑	☑						

91 Trip Spike Control - 15

19/4/23 10:12am

98525

Appendix H

Analytical Summary Tables

			Inorganics																Metals									BTEX			
			Exchangeable Sodium Percent	Total Phosphorus as P (Organic Phosphate as P)	Exchangeable Calcium	Exchangeable Magnesium	Exchangeable Potassium	Exchangeable Sodium	Ammonia as N	Cation Exchange Capacity	Electrical Conductivity (Lab)	Kjeldahl Nitrogen Total	Moisture Content (dried @ 103°C)	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total Oxidised)	Nitrogen (Total)	pH (Lab)	Reactive Phosphorus as P (Orthophosphate as P)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury	Nickel	Zinc	Naphthalene (VOC)	Benzene	Toluene	Ethylbenzene
			%	mg/kg	meq/100g	meq/100g	meq/100g	meq/100g	mg/kg	meq/100g	µS/cm	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.1	2	0.1	0.1	0.1	0.1	20	0.1	1	20	1	0.1	0.1	0.1	20	0.1	0.1	2	0.4	2	5		5	0.1	2	5	0.5	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Res A Soil																				100	20		6,000		300	40	400	7,400				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand >=0m, <1m																													3	0.5	160	55
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																				100					1100				170			
NEPM 2013 Site Specific EILs - Urban Res & Public Open Space																						410	210				180	490				
CRC Care Tech report 39 - Table 11: Derived ecological guideline (95% confidence limits)																																
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																													50	85	70	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																
Field ID	Date	Lab Report Number																														
EIL-TP26-0.1-0.2	17 Apr 2023	ES2312519	2.9	-	6.1	4.7	0.3	0.3	-	11.5	35	-	-	-	-	-	-	6.2	-	-	-	-	-	5.05	-	-	-	-	-	-	-	-
HA01/0.01-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	<1	11	25	-	20	<0.1	6	87	<1	<0.2	<0.5	<0.5
HA01/0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	16	27	-	17	<0.1	7	63	<1	<0.2	<0.5	<0.5
HA02/0.1-0.2	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03/0.1-0.2	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	16	25	-	20	<0.1	10	90	<1	<0.2	<0.5	<0.5
HA03/0.4-0.5	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	24	36	-	20	<0.1	9	46	<1	<0.2	<0.5	<0.5
HA04/0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	12	23	-	16	<0.1	4	44	<1	<0.2	<0.5	<0.5
HA05-0.2-0.3	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	16	26	-	17	<0.1	9	47	<1	<0.2	<0.5	<0.5
HA06-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	19	22	-	57	<0.1	12	65	<1	<0.2	<0.5	<0.5
HA07-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	15	26	-	15	<0.1	6	32	<1	<0.2	<0.5	<0.5
HA08-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	16	24	-	15	<0.1	5	26	<1	<0.2	<0.5	<0.5
HA09/0.0-0.1	13 Apr 2023	ES2312936	-	1,040	-	-	-	-	120	-	-	6,250	-	<1.0[#16]	0.7	<1.0[#16]	6,250	-	5.9	<5	<1	12	23	-	13	<0.1	8	131	<1	<0.2	<0.5	<0.5
HA09/0.5-0.6	13 Apr 2023	ES2312936	-	148	-	-	-	-	<20	-	-	550	-	0.8	0.2	1	550	-	0.8	8	2	28	30	-	32	<0.1	16	69	<1	<0.2	<0.5	<0.5
HA10/0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	21	28	-	34	<0.1	12	164	<1	<0.2	<0.5	<0.5
TP01-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	<1	19	23	-	28	<0.1	13	80	<1	<0.2	<0.5	<0.5
TP01-0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	<1	21	20	-	25	<0.1	10	46	<1	<0.2	<0.5	<0.5
TP02-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	<1	16	20	-	18	<0.1	11	78	<1	<0.2	<0.5	<0.5
TP03-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	<1	25	18	-	17	<0.1	5	20	<1	<0.2	<0.5	<0.5
TP03/0.0-0.1 (EIL)	13 Apr 2023	ES2312936	7.3	-	2.2	5.9	0.3	0.7	-	9.1	25	-	-	-	-	-	-	6.0	-	-	-	-	-	5.88	-	-	-	-	-	-	-	-
TP04-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	<1	20	24	-	17	<0.1	10	29	<1	<0.2	<0.5	<0.5
TP04-0.3-0.4	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	<1	26	20	-	18	<0.1	9	34	<1	<0.2	<0.5	<0.5
TP05-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	11	17	-	20	<0.1	7	62	<1	<0.2	<0.5	<0.5
TP06-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	<1	26	35	-	22	<0.1	11	45	<1	<0.2	<0.5	<0.5
TP06-0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	22	28	-	20	<0.1	9	37	<1	<0.2	<0.5	<0.5
TP07-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	<1	29	26	-	32	<0.1	9	40	<1	<0.2	<0.5	<0.5
TP08-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	21	31	-	23	<0.1	9	74	<1	<0.2	<0.5	<0.5
TP08-0.3-0.4	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	<1	25	22	-	22	<0.1	9	44	<1	<0.2	<0.5	<0.5
TP09-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	10	12	-	10	<0.1	7	52	<1	<0.2	<0.5	<0.5
TP10-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	14	21	-	31	<0.1	7	57	<1	<0.2	<0.5	<0.5
TP10-0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	19	22	-	19	<0.1	9	37	<1	<0.2	<0.5	<0.5
TP11-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	12	14	-	15	<0.1	8	46	<1	<0.2	<0.5	<0.5
TP12-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	<1	30	26	-	27	<0.1	10	44	<1	<0.2	<0.5	<0.5
TP12-0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	21	26	-	18	<0.1	7	37	<1	<0.2	<0.5	<0.5
TP13-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	<1	34	26	-	33	<0.1	10	51	<1	<0.2	<0.5	<0.5
TP13-0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	<1	21	25	-	23	<0.1	9	35	<1	<0.2	<0.5	<0.5
TP14-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	<2	<5	-	<5	<0.1	<2	<5	<1	<0.2	<0.5	<0.5
TP15-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1	20	43	-	40	<0.1	9	122	<1	<0.2	<0.5	<0.5
TP15-0.2-0.3	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	<1	25	29	-	27	<0.1	8	70	<1	<0.2	<0.5	<0.5
TP16-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	26	24	-	22	<0.1	8	38	<1	<0.2	<0.5	<0.5
TP17-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	24	19	-	26	<0.1	8	67	<1	<0.2	<0.5	<0.5
TP17-0.5-0.6	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	15	22	-	14	<0.1	4	17	<1	<0.2	<0.5	<0.5
TP18-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	15	20	-	26	<0.1	9	86	<1	<0.2	<0.5	<0.5
TP19-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	9	10	-	16	<0.1	6	31	<1	<0.2	<0.5	<0.5
TP19-0.2-0.3	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	<1	21	41	-	15	<0.1	11	63	<1	<0.2	<0.5	<0.5
TP20-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	<1	24	32	-	22	<0.1	11	59	<1	<0.2	<0.5	<0.5
TP21-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	22	21	-	25	<0.1	12	48	<1	<0.2	<0.5	<0.5
TP21-0.1-0.2	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	<1	27	23	-	23	<0.1	13	49	<1	<0.2	<0.5	<0.5
TP22-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	17	27	-	14	<0.1	7	36	<1	<0.2	<0.5	<0.5
TP23-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<1	34	42	-	49	<0.1	25	281	<1	<0.2	<0.5	<0.5
TP23-0.2-0.3	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	16	29	-	20	<0.1	11	63	<1	<0.2	<0.5	<0.5
TP24-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	22	36	-	34	<0.1	19	240	<1	<0.2	<0.5	<0.5
TP25-0.0-0.1	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	10	13	-	20	<0.1	6	70	<1	<0.2	<0.5	<0.5
TP25-0.2-0.3	14 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	21	23	-	26	<0.1	11	57	<1	<0.2	<0.5	<0.5
TP26-0.0-0.1	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	18	25	-	39	<0.1	10	127	<1	<0.2	<0.5	<0.5
TP27-0.0-0.1	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	15	29	-	18	<0.1	13	73	<1	<0.2	<0.5	<0.5
TP28-0.0-0.1	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	13	25	-	15	<0.1	7	37	<1	<0.2	<0.5	<0.5
TP29-0.0-0.1	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<1	16	24	-	25	<0.1	9	68	<1	<0.2	<0.5	<0.5
TP30-0.0-0.1	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<1	16	16	-	32	<0.1	10	99	<1	<0.2	<0.5	<0.5
TP31-0.0-0.1	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<1	23	17	-	26	<0.1	11	47	<1	<0.2	<0.5	<0.5
Trip Blank	11 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.2	<0.5	<0.5
Trip Blank	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.2	<0.5	<0.5
TSC_01	11 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.2	145%	139%

						PAH																			Phe					
			Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthrene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	Phenol	2-Chlorophenol	3&4-Methylphenol (m&p-cresol)	2,4,5-Trichlorophenol	2,4-Dichlorophenol	2,4,6-Trichlorophenol
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.2	0.1	0.3	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil																							3	3	3	300	3,000					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand >=0m, <1m					40															3												
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																				170												
NEPM 2013 Site Specific EILs - Urban Res & Public Open Space																																
CRC Care Tech report 39 - Table 11: Derived ecological guideline (95% confidence limits)											33																					
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil					105																											
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																
Field ID	Date	Lab Report Number																														
EIL-TP26-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA01/0.01-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA01/0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA02/0.1-0.2	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03/0.1-0.2	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA03/0.4-0.5	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA04/0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA05-0.2-0.3	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA06-0.1-0.2	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA07-0.1-0.2	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA08-0.1-0.2	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA09/0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.8[#16]	<0.8[#16]	<0.8[#16]	<0.8[#16]	0.9	1.2	<0.8[#16]	<0.8[#16]	<0.8[#16]	<0.8[#16]	<0.8[#16]	1.6	<0.8[#16]	<0.8[#16]	<0.8[#16]	1.8	1.5	2.1	1.0	5.5	<0.8[#16]	<0.8[#16]	<2[#16]	<0.8[#16]	<0.8[#16]	<0.8[#16]
HA09/0.5-0.6	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
HA10/0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP01-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP01-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP02-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP03-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP03/0.0-0.1 (EIL)	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP04-0.3-0.4	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP05-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP06-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP06-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP07-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP08-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP08-0.3-0.4	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP09-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP10-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP10-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP11-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP12-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP12-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP13-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP13-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP14-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP15-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP15-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP16-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP17-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP17-0.5-0.6	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP18-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP19-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP19-0.2-0.3	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP20-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP21-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP21-0.1-0.2	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP22-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP23-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP23-0.2-0.3	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP24-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP25-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP25-0.2-0.3	14 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP26-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP27-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP28-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP29-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP30-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.6	0.6	1.2	<0.5	1.2	<0.5	<0.5	<1	<0.5	<0.5	<0.5
TP31-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
Trip Blank	11 Apr 2023	ES2312936	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trip Blank	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TSC_01	11 Apr 2023	ES2312519	135%	129%	133%	137%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			hols						PCBs								Acid Sulphate Soils	Organic	Particle Size													
			2,4-Dimethylphenol	2,6-Dichlorophenol	Pentachlorophenol	2-Methylphenol	2-Nitrophenol	4-chloro-3-methylphenol	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	pH (CaCl2)	Total Organic Carbon	Clay in soils <2um	Density	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	%	%	g/cm3	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.5	0.5	2	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.01	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
NEPM 2013 Table 1A(1) HILs Res A Soil					100											1[#6]										6		50				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand >=0m, <1m																																
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																																
NEPM 2013 Site Specific EILs - Urban Res & Public Open Space																																
CRC Care Tech report 39 - Table 11: Derived ecological guideline (95% confidence limits)																																
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																
Field ID	Date	Lab Report Number																														
EIL-TP26-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4	2.7	30	2.26	-	-	-	-	-	-	-	-	-	-	-	-
HA01/0.01-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA01/0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA02/0.1-0.2	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03/0.1-0.2	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA03/0.4-0.5	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA04/0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA05-0.2-0.3	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA06-0.1-0.2	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA07-0.1-0.2	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA08-0.1-0.2	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA09/0.0-0.1	13 Apr 2023	ES2312936	<0.8[#16]	<0.8[#16]	<2	<0.8[#16]	<0.8[#16]	<0.8[#16]	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA09/0.5-0.6	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HA10/0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP01-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP01-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP02-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP03-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP03/0.0-0.1 (EIL)	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	2.1	26	2.24	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP04-0.3-0.4	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP05-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP06-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP06-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP07-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP08-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP08-0.3-0.4	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP09-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP10-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP10-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP11-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP12-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP12-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP13-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP13-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP14-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP15-0.0-0.1	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP15-0.2-0.3	13 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP16-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP17-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP17-0.5-0.6	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP18-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP19-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP19-0.2-0.3	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP20-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP21-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP21-0.1-0.2	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP22-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP23-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP23-0.2-0.3	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP24-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP25-0.0-0.1	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP25-0.2-0.3	14 Apr 2023	ES2312936	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP26-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP27-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP28-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP29-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP30-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TP31-0.0-0.1	17 Apr 2023	ES2312519	<0.5	<0.5	<2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trip Blank	11 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trip Blank	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TSC_01	11 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			Organochlorine Pesticides																														
			DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Tokuthion	Azinophos methyl	Bolstar (Sulprofos)	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5	0.2	0.05	0.2	0.05	0.05	0.05	0.05	0.05	2	0.2	0.2	0.05	0.05	0.05
NEPM 2013 Table 1A(1) HILs Res A Soil				240		270				10				6		10	300	20							160								
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand >=0m, <1m																																	
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space			180																														
NEPM 2013 Site Specific EILs - Urban Res & Public Open Space																																	
CRC Care Tech report 39 - Table 11: Derived ecological guideline (95% confidence limits)																																	
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																	
Field ID	Date	Lab Report Number																															
EIL-TP26-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA01/0.01-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA01/0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA02/0.1-0.2	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03/0.1-0.2	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA03/0.4-0.5	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA04/0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA05-0.2-0.3	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA06-0.1-0.2	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA07-0.1-0.2	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA08-0.1-0.2	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA09/0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA09/0.5-0.6	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
HA10/0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP01-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP01-0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP02-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP03-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP03/0.0-0.1 (EIL)	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP04-0.3-0.4	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP05-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP06-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP06-0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP07-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP08-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP08-0.3-0.4	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP09-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP10-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP10-0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP11-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP12-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP12-0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP13-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP13-0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP14-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP15-0.0-0.1	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP15-0.2-0.3	13 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP16-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP17-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP17-0.5-0.6	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP18-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP19-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP19-0.2-0.3	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP20-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP21-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP21-0.1-0.2	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP22-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP23-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP23-0.2-0.3	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP24-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP25-0.0-0.1	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP25-0.2-0.3	14 Apr 2023	ES2312936	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP26-0.0-0.1	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP27-0.0-0.1	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP28-0.0-0.1	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP29-0.0-0.1	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP30-0.0-0.1	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
TP31-0.0-0.1	17 Apr 2023	ES2312519	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05
Trip Blank	11 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trip Blank	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TSC_01	11 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			Organophosphorous Pesticides																						Pesticides			TRH			
			Disulfoton	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	EPN	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Prothiofos	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos	Demeton-S-methyl	Fenamiphos	Pirimiphos-ethyl	C6-C10 Fraction (F1)	C6-C10 (F1 minus BTEX)	>C10-C16 Fraction (F2)	>C10-C16 Fraction (F2 minus Naphthalene)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.2	0.05	0.2	0.2	0.2	0.05	0.2	0.05	0.2	0.2	0.2	0.2	0.2	2	0.2	0.2	0.2	0.05	0.2	0.2	0.2	0.2	0.2	0.05	0.05	0.05	10	10	50	50
NEPM 2013 Table 1A(1) HILs Res A Soil																															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand >=0m, <1m																													45		110
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																															
NEPM 2013 Site Specific EILs - Urban Res & Public Open Space																															
CRC Care Tech report 39 - Table 11: Derived ecological guideline (95% confidence limits)																															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																													180		120
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																												700		1,000	
Field ID	Date	Lab Report Number																													
EIL-TP26-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA01/0.01-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA01/0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA02/0.1-0.2	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03/0.1-0.2	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA03/0.4-0.5	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA04/0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA05-0.2-0.3	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA06-0.1-0.2	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA07-0.1-0.2	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA08-0.1-0.2	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA09/0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	130	130
HA09/0.5-0.6	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
HA10/0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP01-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP01-0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP02-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP03-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP03/0.0-0.1 (EIL)	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP04-0.3-0.4	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP05-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP06-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP06-0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP07-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP08-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP08-0.3-0.4	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP09-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP10-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP10-0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP11-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP12-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP12-0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP13-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP13-0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP14-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP15-0.0-0.1	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP15-0.2-0.3	13 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP16-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP17-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP17-0.5-0.6	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP18-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP19-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP19-0.2-0.3	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP20-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP21-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP21-0.1-0.2	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP22-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP23-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP23-0.2-0.3	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP24-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP25-0.0-0.1	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP25-0.2-0.3	14 Apr 2023	ES2312936	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP26-0.0-0.1	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP27-0.0-0.1	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP28-0.0-0.1	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP29-0.0-0.1	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP30-0.0-0.1	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
TP31-0.0-0.1	17 Apr 2023	ES2312519	-	<0.05	-	-	-	<0.05	-	<0.05	-	<0.2	-	<0.2	-	-	<0.2	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<10	<10	<50	<50
Trip Blank	11 Apr 2023	ES2312936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10	-	-
Trip Blank	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10	-	-
TSC_01	11 Apr 2023	ES2312519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

							TPH				
			>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	>C10-C40 Fraction (Sum)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			100	100	50	10	20	50	50	50
NEPM 2013 Table 1A(1) HILs Res A Soil										
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand >=0m, <1m										
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space										
NEPM 2013 Site Specific EILs - Urban Res & Public Open Space										
CRC Care Tech report 39 - Table 11: Derived ecological guideline (95% confidence limits)										
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil			300	2,800						
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil			2,500	10,000						
Field ID	Date	Lab Report Number								
EIL-TP26-0.1-0.2	17 Apr 2023	ES2312519	-	-	-	-	-	-	-	-
HA01/0.01-0.1	13 Apr 2023	ES2312936	150	<100	150	<10	<50	<100	110	110
HA01/0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
HA02/0.1-0.2	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-
HA03/0.1-0.2	13 Apr 2023	ES2312936	390	110	500	<10	<50	260	210	470
HA03/0.4-0.5	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
HA04/0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
HA05-0.2-0.3	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
HA06-0.1-0.2	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
HA07-0.1-0.2	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
HA08-0.1-0.2	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
HA09/0.0-0.1	13 Apr 2023	ES2312936	770	500	1,400	<10	100	510	620	1,230
HA09/0.5-0.6	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
HA10/0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP01-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP01-0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP02-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP03-0.0-0.1	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-
TP03-0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP03/0.0-0.1 (EIL)	13 Apr 2023	ES2312936	-	-	-	-	-	-	-	-
TP04-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP04-0.3-0.4	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP05-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP06-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP06-0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP07-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP08-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP08-0.3-0.4	13 Apr 2023	ES2312936	130	<100	130	<10	<50	100	<100	100
TP09-0.0-0.1	13 Apr 2023	ES2312936	140	<100	140	<10	<50	<100	<100	<50
TP10-0.0-0.1	13 Apr 2023	ES2312936	120	<100	120	<10	<50	<100	<100	<50
TP10-0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP11-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP12-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP12-0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP13-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP13-0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP14-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP15-0.0-0.1	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP15-0.2-0.3	13 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP16-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP17-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP17-0.5-0.6	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP18-0.0-0.1	14 Apr 2023	ES2312936	100	<100	100	<10	<50	<100	<100	<50
TP19-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP19-0.2-0.3	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP20-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP21-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP21-0.1-0.2	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP22-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP23-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP23-0.2-0.3	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP24-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP25-0.0-0.1	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP25-0.2-0.3	14 Apr 2023	ES2312936	<100	<100	<50	<10	<50	<100	<100	<50
TP26-0.0-0.1	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
TP27-0.0-0.1	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
TP28-0.0-0.1	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
TP29-0.0-0.1	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
TP30-0.0-0.1	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
TP31-0.0-0.1	17 Apr 2023	ES2312519	<100	<100	<50	<10	<50	<100	<100	<50
Trip Blank	11 Apr 2023	ES2312936	-	-	-	<10	-	-	-	-
Trip Blank	17 Apr 2023	ES2312519	-	-	-	<10	-	-	-	-
TSC_01	11 Apr 2023	ES2312519	-	-	-	-	-	-	-	-

			Asbestos			
			Asbestos (Trace)	Synthetic Mineral Fibre	Asbestos Type	Asbestos fibres
			Fibres	--	Detect	g/kg
EQL			5			
Field ID	Date	Lab Report Number				
HA01/0.01-0.1	13 Apr 2023	ES2312936	No	No	-	No
HA02/0.1-0.2	13 Apr 2023	ES2312936	No	No	-	No
HA03/0.1-0.2	13 Apr 2023	ES2312936	No	No	-	No
HA04/0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
HA05-0.2-0.3	17 Apr 2023	ES2312519	No	No	-	No
HA06-0.1-0.2	17 Apr 2023	ES2312519	No	No	-	No
HA07-0.1-0.2	17 Apr 2023	ES2312519	No	No	-	No
HA08-0.1-0.2	17 Apr 2023	ES2312519	No	No	-	No
HA09/0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP01-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP02-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP03-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP04-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP05-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP06-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP07-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP08-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP09-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP10-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP11-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP12-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP13-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP14-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP15-0.0-0.1	13 Apr 2023	ES2312936	No	No	-	No
TP16-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP17-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP18-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP19-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP20-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP21-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP22-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP23-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP24-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP25-0.0-0.1	14 Apr 2023	ES2312936	No	No	-	No
TP26-0.0-0.1	17 Apr 2023	ES2312519	No	No	-	No
TP27-0.0-0.1	17 Apr 2023	ES2312519	No	No	-	No
TP28-0.0-0.1	17 Apr 2023	ES2312519	No	No	-	No
TP29-0.0-0.1	17 Apr 2023	ES2312519	No	No	-	No
TP30-0.0-0.1	17 Apr 2023	ES2312519	No	No	-	No
TP31-0.0-0.1	17 Apr 2023	ES2312519	No	No	-	No

			Metals								BTEX											
			Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Naphthalene (VOC)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	0.1	1	1	1	0.1	1	5	0.005	1	2	2	2	2	2	1	1	1	1	1
Field ID	Date	Lab Report Number																				
Rinsate 1	17 Apr 2023	ES2312519	<1	<0.1	<1	<1	<1	<0.1	<1	<5	<0.005	<1	<2	<2	<2	<2	<2	<1	<1.0	<1.0	<1.0	<1.0

			PAH													Phe					
			Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	Phenol	2-Chlorophenol	3&4-Methylphenol (m&p-cresol)	2,4,5-Trichlorophenol	2,4-Dichlorophenol	2,4,6-Trichlorophenol
			µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			0.5	0.001	1	1	1	1	1	1	1	1	1	1	0.0005	0.5	1	1	2	1	1	1
Field ID	Date	Lab Report Number																				
Rinsate 1	17 Apr 2023	ES2312519	<0.5	<0.0010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.0005	<0.5	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0

			hols						PCBs	Organochlorine Pesticides													
			2,4-Dimethylphenol	2,6-Dichlorophenol	Pentachlorophenol	2-Methylphenol	2-Nitrophenol	4-chloro-3-methylphenol	PCBs (Sum of total)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	1	2	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2	0.5	0.5
Field ID	Date	Lab Report Number																				
Rinsate 1	17 Apr 2023	ES2312519	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5

																		Organophosphorous Pesticid				
			Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2	0.5	0.5	0.5	0.5	0.5	0.0005	0.5	0.5	0.5
Field ID	Date	Lab Report Number																				
Rinsate 1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0005	<0.5	<0.5	<0.5

			es							Pesticides			TRH								TPH		
			Ethion	Fenthion	Malathion	Methyl parathion	Monocrotophos	Parathion	Prothiofos	Demeton-S-methyl	Fenamiphos	Pirimphos-ethyl	C6-C10 Fraction (F1)	C6-C10 (F1 minus BTEX)	>C10-C16 Fraction (F2)	>C10-C16 Fraction (F2 minus Naphthalene)	>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	>C10-C40 Fraction (Sum)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			0.5	0.5	0.5	2	2	2	0.5	0.5	0.5	0.5	20	20	100	100	100	100	100	20	50	100
Field ID	Date	Lab Report Number																				
Rinsate 1	17 Apr 2023	ES2312519	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<0.5	<0.5	<0.5	<0.5	<20	<20	<100	<100	<100	<100	<100	<20	<50	<100

			C29-C36 Fraction	C10-C36 Fraction (Sum)
			µg/L	µg/L
EQL			50	50
Field ID	Date	Lab Report Number		
Rinsate 1	17 Apr 2023	ES2312519	<50	<50

			Date	13 Apr 2023	13 Apr 2023		13 Apr 2023	13 Apr 2023		13 Apr 2023	13 Apr 2023
			Field ID	DUP01	DUP01A		TP04-0.0-0.1	DUP02		TP04-0.0-0.1	DUP02A
			Lab Report Number	ES2312936	982505		ES2312936	ES2312936		ES2312936	982505
			Matrix Type	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil
	Unit	EQL									
Metals											
Arsenic	mg/kg	2		14	16	13	10	13	26	10	13
Cadmium	mg/kg	0.4		1	<0.4	86	<1	<1	0	<1	<0.4
Chromium (III+VI)	mg/kg	2		26	21	21	20	33	49	20	26
Copper	mg/kg	5		24	17	34	24	28	15	24	25
Lead	mg/kg	5		16	18	12	17	25	38	17	20
Mercury	mg/kg	0.1		<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1
Nickel	mg/kg	2		6	8.1	30	10	12	18	10	10
Zinc	mg/kg	5		25	28	11	29	39	29	29	33
Inorganics											
Moisture Content (dried @ 103°C)	%	1		-	9.8	-	-	-	-	-	28
BTEXN											
Naphthalene (VOC)	mg/kg	0.5		<1	<0.5	0	<1	<1	0	<1	<0.5
Naphthalene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Benzene	mg/kg	0.1		<0.2	<0.1	0	<0.2	<0.2	0	<0.2	<0.1
Toluene	mg/kg	0.1		<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1
Ethylbenzene	mg/kg	0.1		<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1
Xylene (m & p)	mg/kg	0.2		<0.5	<0.2	0	<0.5	<0.5	0	<0.5	<0.2
Xylene (o)	mg/kg	0.1		<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1
Xylene Total	mg/kg	0.3		<0.5	<0.3	0	<0.5	<0.5	0	<0.5	<0.3
Total BTEX	mg/kg	0.2		<0.2	-	-	<0.2	<0.2	0	<0.2	-
TPH											
C6-C9 Fraction	mg/kg	10		<10	<20	0	<10	<10	0	<10	<20
C10-C14 Fraction	mg/kg	20		<50	<20	0	<50	<50	0	<50	<20
C15-C28 Fraction	mg/kg	50		<100	<50	0	<100	<100	0	<100	<50
C29-C36 Fraction	mg/kg	50		<100	<50	0	<100	<100	0	<100	<50
C10-C36 Fraction (Sum)	mg/kg	50		<50	<50	0	<50	<50	0	<50	<50
TRH											
C6-C10 Fraction (F1)	mg/kg	10		<10	<20	0	<10	<10	0	<10	<20
C6-C10 (F1 minus BTEX)	mg/kg	10		<10	<20	0	<10	<10	0	<10	<20
>C10-C16 Fraction (F2)	mg/kg	50		<50	<50	0	<50	<50	0	<50	<50
>C10-C16 Fraction (F2 minus Naphthalene)	mg/kg	50		<50	<50	0	<50	<50	0	<50	<50
>C16-C34 Fraction (F3)	mg/kg	100		<100	<100	0	<100	<100	0	<100	<100
>C34-C40 Fraction (F4)	mg/kg	100		<100	<100	0	<100	<100	0	<100	<100
>C10-C40 Fraction (Sum)	mg/kg	50		<50	<100	0	<50	<50	0	<50	<100
Organochlorine Pesticides											
Organochlorine pesticides EPAVic	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
Other organochlorine pesticides EPAVic	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
4,4-DDE	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
a-BHC	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Aldrin	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Aldrin + Dieldrin	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
b-BHC	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Chlordane	mg/kg	0.05		<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1
Chlordane (cis)	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Chlordane (trans)	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
d-BHC	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
DDD	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
DDT	mg/kg	0.05		<0.2	<0.05	0	<0.2	<0.2	0	<0.2	<0.05
DDT+DDE+DDD	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Dieldrin	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Endosulfan	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Endosulfan I	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Endosulfan II	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Endosulfan sulphate	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Endrin	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Endrin aldehyde	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Endrin ketone	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Heptachlor	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Heptachlor epoxide	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Hexachlorobenzene	mg/kg	0.05		<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
Methoxychlor	mg/kg	0.05		<0.2	<0.05	0	<0.2	<0.2	0	<0.2	<0.05
Toxaphene	mg/kg	0.5		-	<0.5	-	-	-	-	-	<0.5
Organophosphorous Pesticides											
Tokuthion	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Azinophos methyl	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Bolstar (Sulprofos)	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Bromophos-ethyl	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Carbophenothion	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Chlorfenvinphos	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Chlorpyrifos	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Chlorpyrifos-methyl	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Coumaphos	mg/kg	2		-	<2	-	-	-	-	-	<2
Demeton-O	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Demeton-S	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Diazinon	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Dichlorvos	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Dimethoate	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Disulfoton	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Ethion	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Ethoprop	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Fenitrothion	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Fensulfothion	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Fenthion	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
EPN	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Malathion	mg/kg	0.05		<0.05	<0.2	0	<0.05	<0.05	0	<0.05	<0.2
Merphos	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Methyl parathion	mg/kg	0.2		<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2
Mevinphos (Phosdrin)	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Monocrotophos	mg/kg	0.2		<0.2	<2	0	<0.2	<0.2	0	<0.2	<2
Naled (Dibrom)	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Omethoate	mg/kg	2		-	<2	-	-	-	-	-	<2
Parathion	mg/kg	0.2		<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2
Phorate	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Pirimiphos-methyl	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Prothiofos	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Pyrazophos	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Ronnel	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Terbufos	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Trichloronate	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2

			Date	13 Apr 2023	13 Apr 2023		13 Apr 2023	13 Apr 2023		13 Apr 2023	13 Apr 2023
			Field ID	DUP01	DUP01A		TP04-0.0-0.1	DUP02		TP04-0.0-0.1	DUP02A
			Lab Report Number	ES2312936	982505		ES2312936	ES2312936		ES2312936	982505
			Matrix Type	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil
	Unit	EQL									
Tetrachlorvinphos	mg/kg	0.2		-	<0.2	-	-	-	-	-	<0.2
Pesticides											
Demeton-S-methyl	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Fenamiphos	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Pirimphos-ethyl	mg/kg	0.05		<0.05	-	-	<0.05	<0.05	0	<0.05	-
Asbestos											
APPROVED IDENTIFIER:	-			-	-	-	1	-	-	1	-
Asbestos (Trace)	Fibres	5		-	-	-	0	-	-	0	-
Synthetic Mineral Fibre	--			-	-	-	0	-	-	0	-
Asbestos Type	Detect			-	-	-	1	-	-	1	-
Asbestos fibres	g/kg			-	-	-	0	-	-	0	-
Biota											
Biota Description	-			-	-	-	1	-	-	1	-
NA											
Moisture Content	%	1		22.9	-	-	24.6	18.2	30	24.6	-
PAH											
Acenaphthene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Acenaphthylene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Anthracene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Benzo(a) pyrene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Benzo(b+j)fluoranthene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Chrysene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Fluoranthene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Fluorene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Phenanthrene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Pyrene	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5		0.6	0.6	0	0.6	0.6	0	0.6	0.6
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5		1.2	1.2	0	1.2	1.2	0	1.2	1.2
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
PAHs (Sum of total)	mg/kg	0.5		<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5
PCBs											
Arochlor 1016	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
Arochlor 1221	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
Arochlor 1232	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
Arochlor 1242	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
Arochlor 1248	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
Arochlor 1254	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
Arochlor 1260	mg/kg	0.1		-	<0.1	-	-	-	-	-	<0.1
PCBs (Sum of total)	mg/kg	0.1		<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1
Phenols											
3&4-Methylphenol (m&p-cresol)	mg/kg	1		<1	-	-	<1	<1	0	<1	-
2,4,5-Trichlorophenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
2,4,6-Trichlorophenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
2,4-Dichlorophenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
2,4-Dimethylphenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
2,6-Dichlorophenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
2-Chlorophenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
2-Methylphenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
2-Nitrophenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
4-chloro-3-methylphenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-
Pentachlorophenol	mg/kg	2		<2	-	-	<2	<2	0	<2	-
Phenol	mg/kg	0.5		<0.5	-	-	<0.5	<0.5	0	<0.5	-

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 999 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

	Unit	RPD
Metals		
Arsenic	mg/kg	26
Cadmium	mg/kg	0
Chromium (III+VI)	mg/kg	26
Copper	mg/kg	4
Lead	mg/kg	16
Mercury	mg/kg	0
Nickel	mg/kg	0
Zinc	mg/kg	13
Inorganics		
Moisture Content (dried @ 103°C)	%	-
BTEXN		
Naphthalene (VOC)	mg/kg	0
Naphthalene	mg/kg	0
Benzene	mg/kg	0
Toluene	mg/kg	0
Ethylbenzene	mg/kg	0
Xylene (m & p)	mg/kg	0
Xylene (o)	mg/kg	0
Xylene Total	mg/kg	0
Total BTEX	mg/kg	-
TPH		
C6-C9 Fraction	mg/kg	0
C10-C14 Fraction	mg/kg	0
C15-C28 Fraction	mg/kg	0
C29-C36 Fraction	mg/kg	0
C10-C36 Fraction (Sum)	mg/kg	0
TRH		
C6-C10 Fraction (F1)	mg/kg	0
C6-C10 (F1 minus BTEX)	mg/kg	0
>C10-C16 Fraction (F2)	mg/kg	0
>C10-C16 Fraction (F2 minus Naphthalene)	mg/kg	0
>C16-C34 Fraction (F3)	mg/kg	0
>C34-C40 Fraction (F4)	mg/kg	0
>C10-C40 Fraction (Sum)	mg/kg	0
Organochlorine Pesticides		
Organochlorine pesticides EPAVic	mg/kg	-
Other organochlorine pesticides EPAVic	mg/kg	-
4,4-DDE	mg/kg	0
a-BHC	mg/kg	0
Aldrin	mg/kg	0
Aldrin + Dieldrin	mg/kg	0
b-BHC	mg/kg	0
Chlordane	mg/kg	0
Chlordane (cis)	mg/kg	-
Chlordane (trans)	mg/kg	-
d-BHC	mg/kg	0
DDD	mg/kg	0
DDT	mg/kg	0
DDT+DDE+DDD	mg/kg	0
Dieldrin	mg/kg	0
Endosulfan	mg/kg	-
Endosulfan I	mg/kg	0
Endosulfan II	mg/kg	0
Endosulfan sulphate	mg/kg	0
Endrin	mg/kg	0
Endrin aldehyde	mg/kg	0
Endrin ketone	mg/kg	0
g-BHC (Lindane)	mg/kg	0
Heptachlor	mg/kg	0
Heptachlor epoxide	mg/kg	0
Hexachlorobenzene	mg/kg	0
Methoxychlor	mg/kg	0
Toxaphene	mg/kg	-
Organophosphorous Pesticides		
Tokuthion	mg/kg	-
Azinophos methyl	mg/kg	0
Bolstar (Sulprofos)	mg/kg	-
Bromophos-ethyl	mg/kg	-
Carbophenothion	mg/kg	-
Chlorfenvinphos	mg/kg	0
Chlorpyrifos	mg/kg	0
Chlorpyrifos-methyl	mg/kg	0
Coumaphos	mg/kg	-
Demeton-O	mg/kg	-
Demeton-S	mg/kg	-
Diazinon	mg/kg	0
Dichlorvos	mg/kg	0
Dimethoate	mg/kg	0
Disulfoton	mg/kg	-
Ethion	mg/kg	0
Ethoprop	mg/kg	-
Fenitrothion	mg/kg	-
Fensulfothion	mg/kg	-
Fenthion	mg/kg	0
EPN	mg/kg	-
Malathion	mg/kg	0
Merphos	mg/kg	-
Methyl parathion	mg/kg	0
Mevinphos (Phosdrin)	mg/kg	-
Monocrotophos	mg/kg	0
Naled (Dibrom)	mg/kg	-
Omethoate	mg/kg	-
Parathion	mg/kg	0
Phorate	mg/kg	-
Pirimiphos-methyl	mg/kg	-
Prothiofos	mg/kg	-
Pyrazophos	mg/kg	-
Ronnel	mg/kg	-
Terbufos	mg/kg	-
Trichloronate	mg/kg	-

	Unit	RPD
Tetrachlorvinphos	mg/kg	-
Pesticides		
Demeton-S-methyl	mg/kg	-
Fenamiphos	mg/kg	-
Pirimphos-ethyl	mg/kg	-
Asbestos		
APPROVED IDENTIFIER:	-	-
Asbestos (Trace)	Fibres	-
Synthetic Mineral Fibre	--	-
Asbestos Type	Detect	-
Asbestos fibres	g/kg	-
Biota		
Biota Description	-	-
NA		
Moisture Content	%	-
PAH		
Acenaphthene	mg/kg	0
Acenaphthylene	mg/kg	0
Anthracene	mg/kg	0
Benz(a)anthracene	mg/kg	0
Benzo(a) pyrene	mg/kg	0
Benzo(b+j)fluoranthene	mg/kg	0
Benzo(g,h,i)perylene	mg/kg	0
Benzo(k)fluoranthene	mg/kg	0
Chrysene	mg/kg	0
Dibenz(a,h)anthracene	mg/kg	0
Fluoranthene	mg/kg	0
Fluorene	mg/kg	0
Indeno(1,2,3-c,d)pyrene	mg/kg	0
Phenanthrene	mg/kg	0
Pyrene	mg/kg	0
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0
Benzo(a)pyrene TEQ (LOR)	mg/kg	0
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0
PAHs (Sum of total)	mg/kg	0
PCBs		
Arochlor 1016	mg/kg	-
Arochlor 1221	mg/kg	-
Arochlor 1232	mg/kg	-
Arochlor 1242	mg/kg	-
Arochlor 1248	mg/kg	-
Arochlor 1254	mg/kg	-
Arochlor 1260	mg/kg	-
PCBs (Sum of total)	mg/kg	0
Phenols		
3&4-Methylphenol (m&p-cresol)	mg/kg	-
2,4,5-Trichlorophenol	mg/kg	-
2,4,6-Trichlorophenol	mg/kg	-
2,4-Dichlorophenol	mg/kg	-
2,4-Dimethylphenol	mg/kg	-
2,6-Dichlorophenol	mg/kg	-
2-Chlorophenol	mg/kg	-
2-Methylphenol	mg/kg	-
2-Nitrophenol	mg/kg	-
4-chloro-3-methylphenol	mg/kg	-
Pentachlorophenol	mg/kg	-
Phenol	mg/kg	-

*RPDs have only been considered where a concentratio
**Elevated RPDs are highlighted as per QAQC Profile se
***Interlab Duplicates are matched on a per compound

SMEC
Level 7, 40 Berry Street
North Sydney NSW 2060
PO Box 1052, North Sydney, NSW 2059
Phone: +612 9925 5555
Email: Sydney.Reception@smec.com

We're redefining exceptional

Through our specialist expertise, we're challenging boundaries to deliver advanced infrastructure solutions.

www.smec.com