Muscat Developments Pty Ltd

Further Detailed Site Investigation: Proposed Depots 285 Finns Road, Menangle, NSW

P1806774JR18V01
September 2021

martens consulting engineers

ENVIRONMENTAL

WATER

WASTEWATER

GEOTECHNICAL

CIVIL

PROJECT MANAGEMENT

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Head Office
Suite 201, 20 George Street
Hornsby, NSW 2077, Australia
ACN 070 240 890 ABN 85 070 240 890
Phone: +61-2-9476-9999
Fax: +61-2-9476-8767
Email: mail@martens.com.au
Web: www.martens.com.au

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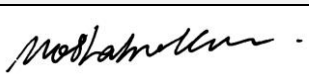
Author(s)	Reviewer(s)	Project Manager / Director	Signature
Robert Mehaffey	Andrew Norris Ben McGiffin	Mo Shahrokhian	

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All enquiries regarding this project are to be directed to the Project Manager.

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General Abbreviations

AASS	Actual acid sulfate soil
ABC	Ambient background concentrations
ACM	Asbestos containing material
AEC	Area of environmental concern
AF	Asbestos fines
AMP	Asbestos Management Plan
ANZECC	Australia and New Zealand Environment Conservation Council
ANZG	Australian and New Zealand Governments
ASC NEPM	National Environmental Protection (Assessment of Site Contamination) Measure (2013)
ASS	Acid sulfate soil
ASSMAC	Acid Sulfate Soils Management Advisory Committee
AST	Above ground storage tank
BGL	Below ground level
BH	Borehole
BTEXN	Benzene, toluene, ethylbenzene, xylene, naphthalene
CEMP	Construction Environmental Management Plan
COC	Chain of custody
COPC	Contaminants of potential concern
DA	Development application
DBT	Dibutyltin
DEC	Department of Environment and Conservation
DECC	Department of Environment and Climate Change
DNAPL	Dense non aqueous phase liquid
DP	Deposited Plan
DPI	NSW Department of Primary Industry
DPIW	NSW Department of Primary Industry – Water
DQI	Data quality indicators
DQO	Data quality objectives
DSI	Detailed Site Investigation
EAC	Ecological assessment criteria
EIL	Ecological investigation level
EMP	Environmental Management Plan
EPA	NSW Environmental Protection Authority
EQL	Estimated quantitation limit (interchangeable with PQL and LOR)
ESA	Environmental Site Assessment
ESL	Ecological screening level
FA	Fibrous asbestos
FDSI	Further Detailed Site Investigation
GIL	Groundwater investigation level
GG	Ground gas
HIL	Health investigation level
HM	Heavy metals
HSL	Health screening level
IA	Investigation area
ISQG	Interim Sediment Quality Guideline
ITP	Inspection Testing Plan
LGA	Local government area
LNAPL	Light non aqueous phase liquid
LOR	Limit of reporting (interchangeable with EQL and PQL)
MA	Martens & Associates Pty Ltd
mAHD	Metres, Australian Height Datum
mbgl	Metres below ground level
MBT	Monobutyltin
MNA	Monitored natural attenuation
MPE	Multi phase extraction
NAPL	Non aqueous phase liquid
NATA	National Association of Testing Authorities
ND	No data
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
OCP	Organochloride pesticides
OEH	NSW Office of Environment and Heritage
OPP	Organophosphorus pesticides
PACM	Potential asbestos containing material
PAH	Polycyclic aromatic hydrocarbons
PASS	Potential acid sulfate soil
PCB	Polychlorinated biphenyl
PCEMP	Post Construction Environmental Management Plan
PESA	Preliminary Environmental Site Assessment
PFAS	Per- and polyfluoroalkyl substances
PID	Photoionisation detector
ppb	Parts per billion
ppm	Parts per million
PQL	Practical quantitative limit (interchangeable with EQL and LOR)
PSI	Preliminary Site Investigation
QA/QC	Quality assurance / quality control
RAC	Remediation acceptance criteria
RAP	Remedial Action Plan
HHRA	Human Health Risk Assessment
RPD	Relative percentage difference
SAC	Site assessment criteria
SAQP	Sampling and Analysis Quality Plan
SEPP	State Environmental Planning Policy
SIL	Soil investigation level
SOP	Standard operating procedure
SWL	Standing water level
SWMS	Safe Work Method Statement
TB	Trip blank
TBT	Tributyl tin
TCLP	Toxicity characteristics leaching procedure
TEQ	Toxic equivalency factor
TP	Test pit
TPH	Total petroleum hydrocarbons
TRH	Total recoverable hydrocarbons
TS	Trip spike
UCL	Upper confidence limit
UPSS	Underground petroleum storage system
UST	Underground storage tank
VHC	Volatile halogenated compounds
VOC	Volatile organic compounds
WHS	Work health and safety
WHSP	Work Health and Safety Plan

1 Introduction

1.1 Overview and Background

This report prepared by Martens and Associates (MA), on behalf of Muscat Developments Pty Ltd (the Client), documents a Further Detailed Site Investigation (FDSI) undertaken to support a development application (DA) for a proposed depot and associated ancillary works at 285 Finns Road, Menangle, NSW (the site) (DA/2019/688/1).

The investigation areas (IA) of this assessment is limited to that portion of the site where development is proposed, as shown in Map 01, Attachment A. It specifically excludes those areas of the site presently used for residential purposes and on which no development is proposed under the application.

A Preliminary Site Investigation (PSI), Detailed Site Investigation (DSI) and Supplementary Detailed Site Investigation (SDSI) have previously been prepared by MA for the site, and documented in the following reports:

- Martens and Associates (2020) *Preliminary Site Investigation: Proposed Depot and Transport Depot with Associated Buildings: 285 Finns Road, Menangle, NSW*. Ref. P1806774JR07V01.
- Martens and Associates (2021a) *Detailed Site Investigation: Proposed Depots and Transport Depot, 285 Finns Road, Menangle*. Ref. P1806774JR13V01.
- Martens and Associates (2021b) Supplementary *Detailed Site Investigation: Proposed Depots and Transport Depot, 285 Finns Road, Menangle*. Ref. P1806774JR16V01.

The above reports were previously prepared to document different 'phases' of the site investigations. This FDSI documents all investigations previous reported in the DSI and SDSI, as well as additional data generated since the preparation of the SDSI.

NSW EPA accredited site auditor Mr Rod Harwood (the 'Auditor') from Harwood Environmental Consultants (HEC) has been engaged by the Client to prepare a non statutory site audit statement (SAS) and associated report (SAR) for the site.

This FDSI is provided to inform the preparation of the SAS and SAR for the site, and has been prepared in consultation with the Auditor.

1.2 Objectives and Scope of Works

The objective of this FDSI is to determine the suitability of the site for the proposed depot land use. The scope of work included:

- Review of previous site documentation.
- Subsurface soil investigation and sampling of areas of environmental concern (AEC) and collection of samples for analysis of contaminants of potential concern (COPC).
- Installation of monitoring wells and assessment of subsurface groundwater and ground gas (GG).
- Preparation of a report documenting fieldwork, observations and laboratory testing completed in general accordance with the relevant sections of ASC NEPM (2013), NSW EPA (2020) and NSW EPA (2017).

1.3 Reference Guidelines

This assessment is prepared in general accordance with the following guidelines:

- Australian Standard (AS) 4964 (2004) Method for the qualitative identification of asbestos in bulk samples.
- ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
- ASC NEPC (1999, amended 2013) National Environmental Protection Measure. Referred to as NEPM (2013).
- NSW EPA (1995) Sampling Design Guidelines.
- NSW EPA (2017) 3rd Ed. Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme.
- NSW EPA (2020a) Contaminated Land Guidelines: Consultants Reporting on Contaminated.
- NSW EPA (2020b) Contaminated Land Guidelines: Assessment and Management of Hazardous Ground Gases.
- WA DOH (2009) Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia.

2 Site Background Information

2.1 Site Details

Site information is summarised in Table 1. Site location and general surrounds are provided in Attachment A.

Table 1: Site background information.

Item	Description / Detail
Site address	285 Finns Road, Menangle, NSW
Legal Identifier	part Lot 1 DP718840 (investigation area (IA) excludes residential dwelling and associated 'residential use' areas of the site)
Surveyed / Approximate area	Entire site: 4.385 ha (ChadwickCheng, 2021). Investigation Area: 4.032 ha (QGIS).
Local Government Area	Wollondilly Shire Council
Current zoning and land use	Zoned RU2 – Rural Landscape (NSW Planning Portal). The site is currently approved for use as a poultry farm. The 'residential area' of the site has a single dwelling and associated residential uses (open space).
Proposed land use	Construction of an office building, two new sheds, and filling of two dams and use as a depot.
Site description	The site is currently approved for use as a poultry farm. There are four large sheds with associated access roads and other infrastructure. A residential dwelling is located in the north eastern corner, this is located in the residential area not considered in the FDSI. Three farm dams are located along the western boundary of the site.
Surrounding land uses	Site is bordered by Finns Road to the northeast and rural properties to the north, south and west.
Topography	Gently sloping lands with slopes of approximately 5% and a northerly aspect. Elevation ranges from approximately 117.9 mAHD in the site's southern corner to approximately 99.5 mAHD in the site's eastern corner.
Expected geology	The Wollongong – Port Hacking *1:100,000 Geological Sheet 9130* (1985) describes site geology as Bringelly Shale consisting of shale, carbonaceous claystone, laminate, coal in parts. The NSW Environment and Heritage eSPADE website identifies site soils characteristic of the Menangle soil landscape, Red/Brown Kurosols (Red/Brown Podzolic Soils) on upper foot slopes, Brown and Yellow Sodosols (Soloths, Solodic Soils, Yellow Podzolic Soils) on lower foot slopes and near drainage lines.
Surface hydrology	Site drainage is via overland flow discharging to the Finns Road road reserve and into an unnamed tributary of Navigation Creek, which flows into the Nepean River at Camden South.
Nearest surface water	Navigation Creek (located approximately 700 m to the northeast).

2.2 Proposed Development

The proposed development is described in the development plans and statement of environmental effects. When considering site land contamination the following is considered significant:

1. The proposal shall involve the relocation of significant volumes of fill material present on site. Comparison of the ChadwickCheng survey of May 17, 2021 (40091/D1-MGA94-3d) with the 'existing contours' shown on design earthworks plans (MA PS03-C100) demonstrate the change in levels resulting from recent site filling.

   Comparison of design levels on plans to the survey show that significant amounts (of the order of 19,000 m^3) of the recently placed fill is to be relocated to achieve the design site levels. Generally this shall require excavation from the south east and southern areas of the site and placement of fill in the two dams at the site's south western corner.

2. Should excess material result from the site earthworks that material would require waste classification and offsite disposal to a site / facility licensed to receive it. Preliminary analysis of civil earthworks volumes conclude that of the order of 9,500 m^3 of material shall require waste classification and offsite disposal.

3. Earthworks shall involve the excavation of placed fill from all areas of the site where the existing filled levels are higher than 500 mm below the design levels. This is required to permit the construction of hardstand and landscaping layers over any imported fill.

4. Earthworks Cut & Fill Plan (MA PS03-C500) shows the earthworks required for the development against the prefilling surface. Imported fill alters this analysis, although this plan may be read for areas outside of recent filling.

5. Proposed Sheds A and B are to be constructed on area which have been, or are to be filled using the recently imported fill material.

6. Much of the site is to be sealed with hardstand either as open air pavement (access driveways, circulation areas and parking, or by new shed foundation slabs. The remainder of the areas to be filled with recently imported material shall comprise batters required to form these hardstand and shed areas.

2.3 Hydrogeology

Review of the Australian Groundwater Explorer (BOM, 2020), indicated three groundwater bores within 500 m of the site, with groundwater bores summarised in Table 2.

Table 2: Available hydrogeological information.

Bore Identification	Record Date	Intended Use	Standing Water Level (mbgl)	First Water Bearing Zone (mbgl) and Substrate	Distance and Direction from IA (m)
GW1062945.1.1	1986	Stock / Domestic	15.0	29.6 – 30.8 Shale	Onsite; southern boundary
GW104766.1.1	2002	Stock / Domestic	82.0	121.5-123 Shale	390 m west
GW105325.1.1	2001	Stock / Domestic/Recreation	NA	NA	475 m north west

No springs were listed within 500 m of the site in the NSW Government Hydrography Spatial Data (SEED, 2019).

A total of 10 groundwater monitoring wells (MW01 to MW10) were installed at the site as part of FDSI investigations. Measured standing water level (SWL) at each well location is summarised in Table 3.

Table 3: Measured groundwater depths.

Monitoring Well	SWL (15/4/2021) (mTOC)	SWL (17/5/2021) (mTOC)	SWL (10/8/2021) (mTOC)	Well Elevation[1] (mAHD)
MW01	5.28	5.42	5.37	103.72
MW02	5.60	5.76	7.41	106.03
MW03	8.08	8.14	8.88	115.56
MW04	3.41	3.21	3.76	116.6
MW05	N/A[2]	Dry	Dry	116.99
MW06	N/A[2]	6.72	6.74	114.99
MW07	N/A[2]	Dry	Dry	115.28
MW08	N/A[2]	Dry	Dry	115.77
MW09	N/A[2]	N/A[2]	9.76	116.37
MW10	N/A[2]	N/A[2]	Dry	117.84

Notes

[1] Based on Chadwick Cheng survey (18/08/2021).

[2] N/A – Groundwater well not installed at time of measurement.

Review of groundwater levels indicate that MW01, MW02, WM03, MW06 and MW09 are likely representative of the main local groundwater system in a water bearing zone (WBZ) located in the underlying shale of the site. Groundwater levels in this system range from 98.38 mAHD (MW01) to 108.69 mAHD (MW06).

Results from MW04 indicate it is installed in to a perched groundwater system, located in a shallow WBZ of saturated material within identified former poultry farm waste burial trenches. The presence of groundwater at this location (MW04) is likely a result of the natural soils around the trenches having a lower permeability, causing accumulation of infiltrated stormwater within more permeable trench material. This water is at a considerably higher level than the SWL of the deeper WBZ observed in other wells and is separated from that deeper WBZ by clay and shale expect to have low permeability.

Well locations are shown on the contour map provided in Map 02 (Attachment A).

A preliminary review of the above groundwater data suggests that deeper groundwater (i.e. not including the isolated, perched WBZ identified at MW04) at the site typically flows in an approximate north north east direction. Approximate groundwater contours and estimated groundwater flow direction derived from the above data is shown in Map 09 (Attachment A).

3 Previous Site Investigations and Documentation

3.1 Preliminary Site Investigation

A PSI (MA, 2020) was completed for the site which included a review of available historical records and aerial photographs, a review of available NSW EPA contaminated land registers and a detailed walkover of the site and surrounding lands.

The PSI identified a number of site areas of environmental concern (AECs), including shed construction materials, stockpiled materials and soils, and contaminants introduced to the site as a result of the site's use as a poultry farm.

A risk based assessment was undertaken for each possible contamination source, which found the overall risk to potential future receptors to be minimal, and, following review, the following recommendations were made:

1. An asbestos management plan (AMP) should be prepared to identify and manage asbestos in structures and any fragments resulting from building deterioration or stockpiling of asbestos containing building materials.

2. Prepare and maintain an asbestos register of all asbestos containing materials to be retained on the site (i.e. building products etc in existing structures).

3. Undertake asbestos removal works of all asbestos not associated with structures. Removal works shall include any stockpiled asbestos building products, picking of potential asbestos containing material (PACM) fragments surrounding sheds and removal of any identified asbestos impacted soil / fill material on the site. The AMP is to include all asbestos related controls required for asbestos removal works.

4. Preparation of an unexpected finds protocol for the proposed site earthworks. This protocol shall provide guidance for the management of any encountered PACM in soil material, oils stains or other signs of contamination should they be exposed during the proposed site earthworks.

The PSI concluded that, through the implementation of the above measures, the identified land contamination risks shall be appropriately and adequately mitigated and managed to ensure an acceptable land contamination outcome for the proposed development. As a result of the PSI and additional recommended conditions of consent, Council

(the consent authority) were satisfied, as required by Clause 7(1) of SEPP 55, that site was suitable, from a land contamination perspective, for the proposed development. Confirmation of this was provided by Council's legal advisers on 5 November, 2020 (Attachment H) that the proposed conditions of consent and the submitted PSI satisfied their "contamination concerns".

3.2 Fill Importation Process

Following the completion of the PSI, additional fill material was imported to the site. The material was placed predominantly in the southern and western portions of the site and covers an approximate area of 1.5 ha.

Council advised on 3 March, 2021 (Attachment H), that the imported fill material meant there was, again, insufficient information for Council to be satisfied regarding the contamination status of the site.

3.3 Detailed Site Investigations

3.3.1 MA (2021a) Detailed Site Investigation

In response to Council contentions, an initial detailed site investigation (DSI, MA, 2021a) was undertaken by MA to assess the imported fill material's contamination implications. AECs identified in the PSI (including former site use as a poultry farm) were not assessed as part of that DSI as Council had advised they had been addressed adequately.

3.3.2 Data Gaps

During the DA assessment process, further information was sought regarding site areas not previously investigated but identified as AECs in the PSI. As part of the data gap review process, several new potential contamination sources / pathways associated with the sites past use as a poultry farm, including:

- Potential contamination as a result of possible past poultry farm use of disinfectants, such as formaldehyde, for shed disinfection and the possible use of per and polyfluoroalkyl (PFAS) substances [based on poultry farms inclusion in the PFAS National Environmental Management Plan Heads of EPAs' document of January 2020].

- Earthworks including trenches in the southern portion of the site, used between 2010 – 2017, potentially for burial of poultry farm waste.

- Possible groundwater impact due to leaching of contaminants through the soil profile.

- Possible GG generation as a result of buried materials and / or fill material imported to the site.

3.3.3 Supplementary Detailed Site Investigation

A SDSI (MA 2021b) was prepared to address data gaps identified as above, as well as including a groundwater and GG assessment at the site to determine if impact had leached to the groundwater at the site.

3.4 Site Audit

Following completion of initial and SDSI works (MA, 2021a and 2021b) and the preparation of a draft remedial action plan (RAP), reports were provided to the Auditor for review. Following review, an interim advice report (IAR01) was prepared by HEC, which provided comment on the DSI and SDSI, as well as identifying additional investigations required to inform the preparation of the SAS and SAR.

To address data gaps identified by the Auditor in IAR01, a sampling, analytical and quality plan (SAQP, MA 2021c) was prepared to guide additional investigations (documented in this report). HEC have reviewed and provided interim advice on the SAQP (IAR02), which was considered during planning and implementation of data gap closure investigations. Relevant works undertaken as part of this investigation have been completed in accordance with the SAQP (MA, 2021d).

Interim advice reports are provided in Attachment B.

4 Conceptual Site Model

4.1 Areas of Environmental Concern

AECs which have been investigated as part of this report are summarised in Table 4.

Table 4: Areas of environmental concern.

Contamination Source	Potential for Contamination	COPC
A – Fill material	Fill material has been imported and placed in the IA. Fill material not consistent with a VENM classification may contain contaminants such as heavy metals, pesticides, hydrocarbons and asbestos. Leaching of contaminants through the fill profile and into underlying natural material and / or impacting the groundwater may be possible.	HM, TRH, BTEXN, PAH, OCP / OPP and asbestos
B – Sheds	Pesticides and heavy metals may have been used underneath existing and past garage / sheds for pest control. Building construction may include PACM, zinc treated (galvanised) metals, and lead based paints. Oils and fuels may have been used in site sheds, which may have spilled or leaked into natural underlying soils.	HM, TRH, BTEXN, PAH, OCP / OPP and asbestos
C – Former Poultry Farm Use	Application of agricultural chemicals, cleaning agents, use of pesticides or heavy metals for pest control during site use as a poultry farm. Contaminants may have impacted both underlying soils and groundwater receivers.	Formaldehyde, PFAS and nutrients (nitrates, phosphorus and ammonia).
D – Above Ground Storage Tank	Diesel fuel in ASTs has the potential to impact the underlying sub surface environment with heavy metals, TRH, BTEXN, and PAHs.	HM, TRH, BTEXN and PAH
E - Former Burial Trenches	A number of trenches have been identified in the southern portion of the site which may have been used for burial of (likely) poultry farm waste from unknown sources, including potential disposal of organic material from former poultry farm land use. Assessment of impacts of the trenches to include local soil contamination, leaching of contaminants to groundwater and migration of GG.	HM, TRH, BTEXN, PAH, OCP / OPP, formaldehyde, PFAS, nutrients (nitrates, phosphorus and ammonia) and GG (methane and carbon dioxide).

Notes

[1] Phenols are not considered a COPC for given the AST was used to store diesel. Phenols are more typically associated with waste oils which were not observed onsite.

[2] PFAS assessed at the most sensitive receptor (groundwater) first to guide further assessment requirements.

4.2 Potential Exposure Pathways

Primary potential exposure pathways of concern for soil contaminants include:

- Direct contact and or ingestion of potentially contaminated soil or groundwater.
- Transport of contaminates to underlying groundwater systems.
- Inhalation of vapour (from soil and or groundwater) contaminated with volatile and semi volatile contaminates.
- Inhalation and explosive risks associated with GG generated from buried agricultural waste material in the site's south.
- Inhalation of dust and / or harmful fibres.

4.2.1 Ground Gas Exposure Pathways

Prior to recent filling works GG would have been expected to vent through the soil profile to the overlying open grassed areas. By impeding this pathway, the placement of fill material over the burial trenches is likely to have increased the lateral migration of the GG as observed in site data. The proposed site regrading and construction of hardstand over the burial trenches may further alter the pathways for GG to vent from the buried waste material.

Considering the proposed hardstand construction, pre and post filling profiles and the buoyant nature of GG of concern, the preferential pathways for GG are likely to have been altered by the completed fill placement and shall be further modified by the proposed works. While some GG may continue to locally vent though the placed fill and hardstand pavement, it is expected this pathway will be impeded. Following the placement of the proposed fill and construction of hardstand as shown in application plans, the principle pathways expected to be completed for GG are:

Primary – following previous site surface beneath placed fill and overlying hardstand south east towards the edge of the constructed hardstand.

Minor - through fill and hardstand to open atmosphere above.

Minor – to the north towards the proposed retaining wall adjacent to Shed 4.

Minor – towards proposed Shed B potentially through stormwater drainage line proposed along the south side of the retaining wall immediately south of existing shed 4. Importantly, this stormwater

drainage line is graded down to the west (towards Shed B) meaning that the pathway for buoyant gases would be preferentially to the east away from Shed B.

Very minor / negligible– towards existing Shed 4. The floor level of Shed 4 is approximately 113.5 mAHD (see PS03-A050) with areas between the shed and the burial trenches at the southwest of the shed as low as 112.5 mAHD. By comparison ground levels in the vicinity of historical waste burial was 112 to 116 mAHD (see PS03-C100). Assuming burial pits of 1 - 2 m depth (based on site investigations) trenches to the west of Shed 4 are likely to have been of the order of 112.5 – 115.7 mAHD. For GG from these pits to be a risk to Shed 4 the preferred vapour pathway would need to be near horizontal. This is considered highly unlikely given the alternate pathways would be to rise through placed fill to the underside of the hardstand which then rises to the south away from Shed 4.

Site GG management measures are required to address these exposure pathways.

4.3 Potential Receptors

In light of the proposed development, future receptors of interest include:

- Future site works involved in the construction of the proposed development.
- Future site users including site workers and visitors.
- Future workers undertaking intrusive maintenance works for repair or installation of subsurface utilities.
- Groundwater beneath the site and receiving environments for that groundwater.
- Ecological receptors include terrestrial organism and plants (noting much of the proposed development area will include hard stand pavement or imported landscaping materials at the surface).

5 Investigation Phases

5.1 Overview

Project investigation and data gathering at the site has occurred in six general 'phases'. These phases are outlined in the following sections and were undertaken in response to the findings of previous phases and the varying advice of the consent authority and their consultants and then the advice of the appointed site auditor.

5.2 Phase 1 – Initial Soil Investigations

Preliminary fill investigations were undertaken between 10 and 11 March, 2021, to assess the character of imported fill material. Works included test pitting in areas where fill material was placed following PSI investigations, and sampling and laboratory analysis of imported fill material to assess site suitability with the fill material present.

5.3 Phase 2 – Supplementary Soil Investigations

Additional soil investigations were completed between 14 and 17 April, 2021 to investigate site areas not previously investigated but identified as AECs in the PSI and additional areas identified during data gap review (listed in Table 4).

Works included additional test pits, boreholes and collection of near surface soil samples around sheds, an onsite AST, and within areas of former burial trenches.

5.4 Phase 3 – Additional Asbestos in Soil Investigations

To assess occupational health and safety risks posed by asbestos in fill material, in consultation with the appointed site auditor, additional asbestos in soil analysis for asbestos fines and fibrous asbestos (AF/FA) in fill was undertaken. AF/FA assessment was undertaken between 29 July and 2 August, 2021.

5.5 Phase 4 – Data Gap Closure Investigations

To address data gaps identified by the Auditor in IAR01, and consultation with the appointed site auditor, data gap closure investigations were undertaken between 29 July and 10 August, 2021.

Works included additional borehole investigations across the site which had not been tested previously, as well as collection of deeper fill samples and underlying natural material samples in areas of imported fill material where previous testing had been typically limited to shallow (i.e.

<2 m) fill material to be relocated through required site earthworks to achieve design levels.

5.6 Phase 5 – Groundwater Investigations

In conjunction with supplementary soil investigations, 10 groundwater monitoring wells (MW01 – MW10) were constructed and developed between 14 April and 29 July, 2021. Groundwater samples were collected on three groundwater monitoring events undertaken on 15 April, 17 May and 10 August, 2021.

5.7 Phase 6 – Ground Gas Investigations

In addition to groundwater monitoring wells, six dedicated GG monitoring wells (MW11 – MW16) were installed on 2 August, 2021. GG was screened during two GG monitoring events undertaken on 21 May and 10 August, 2021.

Surface GG emissions monitoring was also undertaken in conjunction with the second GG monitoring event on 10 August, 2021.

6 Sampling, Analytical and Quality Plan (SAQP)

A SAQP has been developed to ensure that data collected for this FDSI is representative and provides a robust basis for site assessment decisions. Preparation of the SAQP has been completed in general accordance with ASC NEPM (1999, amended 2013) methodology and includes:

- Data quality objectives.
- Sampling methodologies and procedures.
- Field screening methods.
- Sample handling, preservation and storage procedures.
- Analytical QA / QC.

A specific SAQP was prepared for the works undertaken as Phases 3, 4, 5 and 6 (MA, 2021c) as detailed in this report. This SAQP was prepared then reviewed by the appointed auditor prior to the completion of those works.

6.1 Data Quality Objectives (DQO)

Data quality objectives (DQO) have been prepared as statements specifying qualitative and quantitative data required to support project decisions. DQO have been prepared in general accordance with NSW DEC (2017) and US EPA (2006) guidelines and are presented in Table 5.

Table 5: Data quality objectives.

Step 1 **Stating the Problem**	Investigation was required to assess the composition and contamination status of imported fill material and determine the suitability of the site for the proposed future depot use. Additional investigations were also required to assess the contamination status of groundwater and GG at the site.
Step 2 **Identifying the Decision(s)**	To assess the suitability of the site for future land use, decisions are to be made based on the following questions: o What are the contaminant exposure pathways? o Does imported fill material pose a risk to humans or the environment for future land use? o Has past site use caused contamination at the site and does this pose a risk to humans or the environment? o Has any contamination leached into natural underlying soils or groundwater and does this pose a risk to humans or the environment? o Do GG pose a risk to humans or the environment? o Does the site require remediation or management prior to constructing the proposed development and / or commencing the proposed use?
Step 3 **Identification of Inputs to the Decision**	The inputs to the assessment of site soil quality will include: o Soil sampling at nominated locations across the site. o Groundwater sampling at nominated locations across the site. o GG screening at nominated locations across the site. o Laboratory analytical results for relevant COPC. o Assessment of analytical results against site suitable human health and ecological risk criteria.
Step 4 **Study Boundary Definitions**	Study boundaries are as follows: o Lateral – Lateral boundary of the assessment is defined by the investigation area boundaries as shown in Map 01, Attachment A. o Vertical – Vertical boundary is governed by the maximum depth reached during subsurface investigations. o Temporal – Dates of soil, groundwater and GG investigations and sampling.
Step 5 **Development of Decision Rules**	The decision rule for this investigation area is as follows: o If the concentration of contaminants exceeds the adopted assessment criteria, a risk assessment is required. o Should the risk be unacceptable, further investigations to remediate and / or manage the onsite impacts, in relation to the proposed development, will be undertaken.
Step 6 **Specification of Limits on Decision Errors**	Guidance found in ASC NEPM (2013) Schedule B2 regarding 95% upper confidence limit (UCL) states that the 95% UCL of the arithmetic mean provides a 95% confidence level that the true population mean will be less than or equal to this value. Therefore a decision can be made based on a probability that 95% of the data collected will satisfy the site acceptance criteria. A limit on decision error will be 5% that a conclusive statement may be incorrect.
Step 7 **Optimisation of Sampling Design**	Proposed sampling locations shall provide even coverage across the site and in the identified AEC. Sampling shall attempt to ensure that critical locations are assessed, sampled, and analysed for appropriate contaminants of concern. Soil sampling locations were set subject to site access and selected using a combined judgemental and grid pattern across the site.

6.2 Data Quality Indicators (DQI)

In accordance with NSW EPA (2017), the investigation data set has been compared with Data Quality Indicators (DQI) outlined in Table 6 to ensure that collected data meets the project needs and that DQO has been meet.

Table 6: Data Quality Indicators.

Assessment Measure (DQI)	Comment
Precision – A measure of the variability (or reproducibility) of data.	Precision is assessed by reviewing blind field duplicated sample set through the calculation of the relative percent difference (RPD). Data precision is deemed acceptable where results are 0 - 10 x EQL or where RPDs < 50% (10 - 30 x EQL) or < 30% (>30 x EQL). Exceedance of this range may still be considered acceptable where heterogeneous materials are sampled.
Accuracy – A measure of the closeness of reported data to the "true value".	Data accuracy is assessed by: o Field spikes and blanks. o Laboratory control samples.
Representativeness – The confidence that data are representative of each media present on the site.	To ensure data representativeness the following field and laboratory procedures are followed: o Ensure that the design and implementation of the sampling program have been completed in accordance with MA standard operating procedures (SOP). o Trip blank and trip spike samples shall be used for volatiles during field sampling to ensure no cross contamination or laboratory artefacts. o Ensure that all laboratory hold times are met and that sample handling and transport are completed in accordance with the MA SOP.
Completeness – A measure of the amount of usable data from a data collection activity.	To ensure data set completeness, the following is required: o Confirmation that all sampling methodology was completed in general accordance with the MA SOP. o COC and receipt forms. o Results from all laboratory QA / QC samples (lab blanks, trip black, trip spike, lab duplicates). o NATA accreditation stamp on all laboratory reports.

Assessment Measure (DQI)	Comment
Comparability - The confidence that data may be considered to be equivalent for each sampling and analytical event.	Data comparability is maintained by ensuring that: o All site sampling events are undertaken following methodologies outlined in MA SOP and published guidelines. o NATA accredited laboratory methodologies shall be followed on all laboratory analysis.

6.3 Investigation Programme

6.3.1 Phase 1 – Initial Soil Investigations

Initial soil investigations were undertaken between 10 and 11 March, 2021, and included assessment of recently imported fill material (AEC A). Works undertaken included:

1. Walkover and visual assessment of the filled surfaces.
2. Excavation of 29 test pits (TP101 – TP129) where fill material had recently been placed, using a 20 tonne excavator, to a maximum depth of 4.3 mbgl.
3. Visual inspection of excavated spoil and logging of boreholes and test pits.
4. Collection of representative soil samples from each testing location for future reference and laboratory testing.
5. Collection of potential asbestos containing material (PACM) fragments for laboratory analysis.
6. Collection of QA/QC samples for laboratory analysis.

Test pit and borehole locations for Phase 1 are shown in Map 02, Attachment A. Test pit and borehole logs are provided in Attachment C.

6.3.2 Phase 2 – Supplementary Soil Investigations

Supplementary soil investigations were completed between 14 and 29 April, 2021, to assess AEC (Table 4) identified in the PSI and not assessed as part of Phase 1. Sampling methods consisted of:

1. Excavation and logging of 12 boreholes (BH301 – BH312) within the site shed footprints (AEC B), using a hand operated pushtube to a maximum investigation depth of 0.6 mbgl.

2. Excavation and logging of 13 test pits (TP401 – TP413) within the former burial trench area (AEC E) using a 30 t excavator to a maximum investigation depth of 3.8 mbgl.

3. Collection of representative soil samples at each testing location for future reference and laboratory analysis.

4. Collection of 13 near surface soil samples across the former poultry farm area (AEC C) and adjacent to the onsite AST (AEC D) for future reference and laboratory analysis.

5. Collection of QA/QC samples for laboratory analysis.

Test pit and borehole locations for Phase 2 are shown in Map 03, Attachment A. Test pit and borehole logs are provided in Attachment C.

6.3.3 Phase 3 – Additional Asbestos in Soil Investigations

Additional asbestos in soil investigation works were undertaken between 29 July and 2 August, 2021. In consultation with the site Auditor, it was decided that gravimetric assessment of fill material via onsite screening of bulk 10 L soil samples was unnecessary as:

- Previous investigation phases had adequately established the presence of bonded ACM within imported fill material necessitating the remediation / management of this material to address the ACM impacts.

- Establishing a w/w% of bonded ACM would not change the likely remediation / management strategy.

It was however determined that appropriate testing for potential asbestos fines (AF) and friable asbestos (FA) had not yet been completed in previous investigation phases. As with bonded ACM, the potential presence of AF/FA would not be expected to change the adopted remediation / management strategy. However there may be worker health and safety (WHS) considerations and or additional legislative considerations should AF/FA be identified. Sampling methods adopted for AF/FA characterisation included:

1. Excavation of 49 test pits (TP601 – TP649) using a 30 tonne excavator to a maximum investigation depth of 5.3 mbgl.

2. Collection of 500 mL asbestos fines (AF) / fibrous asbestos (FA) samples from each testing location for laboratory analysis.

Test pit locations for Phase 3 are shown in Map 04, Attachment A. Test pit logs are provided in Attachment C.

6.3.4 Phase 4 – Data Gap Closure Investigations

In accordance with the SAQP prepared by MA (2021c), and in consultation with the site Auditor, additional data gap closure investigations were undertaken between 29 July and 10 August. Investigations were undertaken to address data gaps identified in previous investigations. Works included:

1. Excavation of 18 test pits (TP601 – TP618) in filled areas into the natural underlying material for collection of deeper soil samples and natural underlying material samples. Test pits were undertaken by a 30 tonne excavator, to a maximum depth of 5.1 mbgl.

2. Excavation of 28 boreholes (TP801 – TP828) in areas of historical filling along access roads, within and adjacent to site sheds, adjacent to the AST and in areas where limited testing had been completed. Boreholes were conducted by either truck mounted drill rig or hand operated pushtube, and were taken to a maximum investigation depth of 2.5 mbgl.

3. Collection of two dam silt samples from onsite dams. Samples were collected from as close to the centre of the dam as safely possible.

4. Visual inspection of excavated material and logging of test pits and boreholes.

5. Collection of representative soil samples from both fill and natural material for future reference and laboratory analysis.

6. Collection of QA/QC samples for laboratory analysis.

Test pit and borehole locations for Phase 4 are shown in Map 05, Attachment A. Test pit and borehole logs are provided in Attachment C.

6.3.5 Phase 5 – Groundwater Investigations

Installation of groundwater monitoring wells was undertaken over three events. Well installation works were completed as an iterative process, primarily in the southern part of the site, targeting the waste burial trenches. All monitoring wells were developed immediately following construction, and were installed with monuments. Well installation was conducted as follows:

April 14 and 15, 2021

1. Drilling and logging of four boreholes (BH201 – BH204) using a truck mounted drill rig to a maximum depth of 11.4 mbgl to facilitate the construction of monitoring wells.

2. Construction and development of four groundwater monitoring wells (MW01 – MW04) installed with monuments.

April 29, 2021

1. Drilling and logging of four boreholes (BH501 – BH504) using a truck mounted drill rig to a maximum depth of 7.2 mbgl to facilitate the construction of monitoring wells.

2. Construction and development of four groundwater monitoring wells (MW05 – MW08) installed with monuments.

July 29, 2021

1. Drilling and logging of two boreholes (BH701 – BH702) using a truck mounted drill rig to a maximum depth of 11.7 mbgl to facilitate the construction of monitoring wells.

2. Construction and development of two monitoring wells (MW09 – MW10) installed with monuments.

Groundwater samples were collected on three separate monitoring events, as summarised below:

1. Initial sampling of MW01 – MW04 on 15 April, 2021.

2. Sampling of MW01 – MW08 on 17 May, 2021.

3. Sampling of MW01 – MW10 on 10 August, 2021.

Borehole / monitoring well locations are shown in Map 06, Attachment A. Borehole logs are provided in Attachment C.

6.3.6 *Phase 6 – Ground Gas Investigations*

In conjunction with Phases 4 and 5, GG screening was undertaken for monitoring wells at the site. In addition to groundwater monitoring wells installed at the site, six dedicated GG monitoring wells were installed on July 29, 2021. Well installation was conducted as follows:

1. Drilling of six boreholes (BH703 – BH709) using a truck mounted drill rig to a maximum depth of 4.3 mbgl to facilitate the construction of monitoring wells.

2. Construction and development of two monitoring wells (MW11 – MW16) installed with monuments.

3. Prior to GG screening, all monitoring wells (including groundwater monitoring wells) were fitted with sealed GG caps. Wells were screened on two monitoring events, as follows:

    - Screening of MW01, MW02, MW04, MW05, MW07 and MW08 on 21 May, 2021.

    - Screening of MW01 – MW07, MW09 and MW11 – MW16 on 10 August, 2021.

Monitoring well locations are shown in Map 06, Attachment A. Borehole logs are provided in Attachment C.

6.4 Investigation and Quality Assurance / Quality Control

6.4.1 Soil Sampling Procedure

Soil sampling was completed by the MA environmental consultant using a clean pair of nitrile gloves for each sample.

Soil samples were collected from the centre of the excavator bucket where an excavator was used for test pitting, or from the lead auger where boreholes were undertaken by drill rig. Where near surface samples were collected, they were collected by nitrile glove covered hand, using decontaminated hand tools for collection.

Each sample was placed into laboratory supplied, 250 mL glass jar with no headspace to limit volatile loss and labelled with a unique identification number. Asbestos samples (fibre cement and AF/FA) were collected in zip locked bags and labelled with a unique identification number. All samples were dispatched to NATA accredited laboratories under chain of custody documentation within holding times.

A total of 11 soil duplicate samples were collected over the course of the FDSI investigations for intra laboratory analysis. A total of four soil duplicate samples were collected over the course of the FDSI investigations for inter laboratory analysis.

Soil trip spike and trip blank samples were used during all soil sampling events.

6.4.2 Additional Asbestos in Soil Assessment

Bulk (500 mL) soil samples were collected from each test pit for laboratory analysis for v/v % AF/FA in soil.

In accordance with the SAQP (MA, 2021c), samples were collected where anthropogenic materials were observed, at a rate of one per test pit (minimum) with an additional sample collected per metre (or part thereof) of fill beyond 1 m. A total of 112 bulk (500 mL) soil samples were collected during Phase 3 works, and sent to a NATA accredited laboratory for AF/FA assessment.

6.4.3 Monitoring Well Construction and Development

All monitoring wells (including dedicated GG monitoring wells) were constructed using 50 mm blank and machine slotted (5 mm) Class 18 PVC casing. Coarse grain sands were placed within the well anulus to a minimum of 0.5 m above the slotted pipe followed by an annular seal of bentonite. Spoil material was then placed to the surface.

Groundwater wells were developed on the day of installation which involved using a well development pump until the well was dry. Prior to GG screening, all tested wells were fitted with sealed GG caps at least 7 days prior to the monitoring event.

6.4.4 Groundwater Sampling

Prior to sampling, depth to water was measured in each monitoring well using an electronic dip metre probe. During the first two rounds of sampling (on 15 April and 17 May, 2021), groundwater samples were collected using a peristaltic pump at low flow rates to ensure appropriate sampling of formation water. The third round of sampling (10 August, 2021) was undertaken using a low flow micropurge kit.

During all sampling events, dedicated sample tubing was used at each monitoring well to prevent any cross contamination. For micropurge sampling, the pump head was decontaminated between sampling locations, and the pump bladder replaced for each well.

Field water quality parameters, including temperature, pH, electrical conductivity (EC) dissolved oxygen (DO) and oxidation reduction potential (ORP), were measured during sampling using a calibrated water quality meter. Generally, samples were collected when water quality parameters achieved stabilisation. Water quality field sheets and copies of the calibration certificates for the water quality meter and interface probe are included in Attachment D.

Samples were collected in laboratory supplied bottles with appropriate preservations with limited headspace to avoid volatile loss. Samples were labelled with a unique identification number, and immediately placed into an ice chilled cooler box. All samples were dispatched to NATA accredited laboratories under chain of custody documentation within holding times.

One groundwater duplicate sample was collected during each monitoring event for intra laboratory analysis. One water trip blank and one trip spike sample were used during each monitoring event.

6.4.5 Ground Gas Screening

GG screening of wells was completed using a calibrated infrared landfill gas analyser (GA5000) on 21 May and 10 August, 2021. The following sequential procedures were followed during LFG screening assessments:

- Monitoring wells were checked for signs of damage (loose cap seal, cracks) and their condition recorded on monitoring sheets.
- The GA5000 was zeroed and connected to the well via a dedicated brass coupling fixture.
- A measurement of the stable flow rate was recorded.
- LFG sample was collected. Wells were screened until measured parameters became stable or following ten minutes whichever came first.
- Gas readings were recorded on field sheets and peak and stabilised concentrations were noted. Field sheets are provided in D.

The screening process measured methane % (v/v), carbon dioxide % (v/v), oxygen % (v/v), carbon monoxide (ppm) and hydrogen sulphide (ppm).

In addition to GG screening of monitoring wells, surface monitoring was undertaken across the southern portion of the site at approximately 25 m, as shown in Map 10, Attachment A.. An intraspectra laser was used to monitor methane concentrations across the area approximately 100 mm from the ground surface. All testing was carried out in low wind conditions.

6.5 Laboratory Analytical Suite

6.5.1 Overview

Laboratory analysis of soil and groundwater was primarily carried out by Envirolab Pty Ltd. Additional laboratory analysis was undertaken by Australian Safer Environment and Technology (for the analysis of asbestos material and AF/FA samples) as well as Eurofins Pty Ltd (for the analysis of inter laboratory duplicate samples).

All laboratory chain of custody information is provided in Attachment F.

6.5.2 *Phase 1 – Initial Soil Investigations*

Phase 1 laboratory analyses is summarised in Table 7.

Table 7: Summary of Phase 1 Soil Laboratory Analyses.

COC	Primary Samples Analysed	QA / QC Samples Analysed
BTEXN	29	1 trip spike
TRH	29	1 trip blank
PAH	29	
8 Heavy metals [1]	29	3 duplicate, 1 triplicate
OCP / OPP	29	3 duplicate, 1 triplicate
Asbestos in soil	29	
Asbestos in material	7	

Notes:

[1.] 8 Heavy metals – arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc.

6.5.3 *Phase 2 – Supplementary Soil Investigations*

Phase 2 laboratory analyses is summarised in Table 8.

Table 8: Summary of Phase 2 Soil Laboratory Analyses.

	Primary Samples Analysed		
COC	14 April, 2021	29 April, 2021	QA / QC Samples Analysed
BTEXN	6	21	1 trip spike
TRH	6	21	1trip blank
PAH	6	21	
8 Heavy metals [1]	22	21	5 duplicate, 1 triplicate
OCP / OPP	22	21	5 duplicate, 1 triplicate
PCB	-	21	
Formaldehyde	22	21	
Asbestos in soil	16	21	

Notes:

[1.] 8 Heavy metals – arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc.

6.5.4 *Phase 3 – Additional Asbestos in Soil Assessment*

Phase 3 AF/FA laboratory analyses is summarised in Table 9.

Table 9: Summary of Phase 3 asbestos laboratory analyses.

COC	Primary Samples Analysed 29/7/2021 – 2/8/2021
AF/FA (WA DOH)	112

6.5.5 *Phase 4 – Data Gap Closure Investigations*

Phase 4 laboratory analysis is summarised in Table 10.

Table 10: Summary of Phase 4 soil laboratory analyses.

COC	Primary Samples Analysed	
	29/5/2021 – 1/6/2021	10/8/2021
BTEXN	48	19
TRH	48	19
PAH	48	19
8 Heavy metals [1]	48	29
OCP / OPP	46	27
PCB	46	17
Asbestos in soil[2]	46	27
Nutrient suite	16	-
E. Coli and total coliforms	16	-
pH[3]	-	3
CEC[3]	-	3

Notes:

1. 8 Heavy metals – arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc.
2. Asbestos analysed on a detect / non-detect basis for preliminary screening.
3. pH and CEC analysed for development of site specific EIL.

6.5.6 *Phase 5 – Groundwater Investigations*

Phase 5 laboratory analysis is summarised in Table 11.

Table 11: Summary of Phase 5 groundwater laboratory analyses.

	Primary Samples Analysed		
COC	**15/4/2021**	**17/5/2021**	**10/8/2021**
BTEX	4	5	6
TRH	4	5	6
PAH	4	5	6
17 Heavy metals [1]	4	5	6
OCP / OPP	4	5	6
PFAS suite	4	5	6
PCB	4	5	6
Formaldehyde	4	5	6
VOCs	4	5	6
Nutrient suite	-	-	6
E. Coli and total coliforms	-	-	6
Dissolved CH_4, CO_2 and H_2S	-	-	6

Notes:

[1.] 17 Heavy metals – antimony, arsenic, boron, barium, beryllium, cadmium, chromium, copper, cobalt, lead, manganese, mercury, molybdenum, nickel, selenium, tin and zinc.

7 Site Assessment Criteria

7.1 Overview

The site assessment criteria (SAC) adopted for this investigation have been derived from the following sources:

- ADWG (2018) Australian Drinking Water Guidelines.
- ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
- NEPC (1999, amended 2013) *National Environmental Protection (Assessment of Site Contamination) Measure* – Referred to as ASC NEPM (1999, amended 2013).
- NSW EPA (2016) Environmental Guidelines: Solid Waste Landfills.
- NSW EPA (2020) Assessment and Management of Hazardous Ground Gases.
- Safe Work Australia (2019) Workplace Exposure Standards for Airborne Contaminants.

Guideline values for individual contaminants analysed for this assessment are presented in laboratory tables in Attachment E.

Table 12 summarises the applicability of the SAC adopted for this investigation.

Table 12: Summary of SAC.

Media	Adopted Guidelines	Applicability
Soil	ASC NEPM (2013) Soil HILs, HSLs, and TPH Management Limits	**Human Health** Health Investigation Levels (HILs) HIL D – (Commercial / industrial land use). Health Screening Levels (HSL) for vapor risk HSL D – (Commercial / industrial) for fine grained soils based on the predominantly clay based nature of fill material currently onsite. Management Limits TPH management limits (fine grained soil) for commercial / industrial land use are to be adopted based on site lithology and proposed future land use. Asbestos HSLs HSL D – Commercial / industrial land use.

Media	Adopted Guidelines	Applicability
		Ecological Ecological Investigation Levels (EILs) EILs for assessment of risk to ecological receptors for commercial / industrial land use. Default EILs for arsenic, lead, DDT and naphthalene shall be applied. Site specific EILs shall be derived for nickel, chromium III, copper and zinc in accordance with NEPM (2013) methodology through the collection of site specific pH and CEC data. Ecological Screening Levels (ESLs) ESLs outlined in NEPM (2013) for BTEXN and TPH for commercial / industrial land use shall be applied.
Groundwater Ground Gas	ADWG (2018) ANZG (2018) ASC NEPM (2013) Groundwater HSLs, GILs	**ADWG (2018)** Drinking water guidelines. **ANZG (2018)** Freshwater - Guidelines for protection of 99% of species for all bioaccumulative analytes. Guidelines for protection of 95% of species for all other analytes. **NEPM (2013)** HSL D Commercial / industrial land use. GIL Fresh water, based on expected groundwater conditions and nearby receptors.
	NSW EPA (2016) Solid Waste Landfills Safe Work Australia (2018) Workplace Exposure Standards	Subsurface Monitoring Methane: 1% volume / volume. Carbon dioxide: 1.5% volume / volume. Surface Emissions Monitoring Methane: 0.05% volume / volume.

8 Results

8.1 Phase 1 – Initial Soil Investigations

8.1.1 Phase 1 Observations

A walkover inspection was completed in conjunction with all site works. All testing locations were examined for signs of contamination (i.e. odours, soil staining, anthropogenic inclusions etc.).

Fill material was observed across a large areas of the south and west of the site. All testing locations were examined for signs of contamination (odours, staining etc.). The following observations were made:

- Fill material was unvegetated and placed over large areas of the southern and western portions of the IA.
- Fill material was observed to consist predominantly of clay fill material to a maximum observed depth of 4.0 mbgl (at TP103). Anthropogenic inclusions observed during test pitting included: timber; steel, brick, concrete and tile fragments; PVC and other plastic pipe; geofabric material; and several fibre cement sheeting fragments (PACM). The depth of anthropogenic impacted fill material varied across the IA.
- Minor observations of anthropogenic inclusions at the surface were observed including: brick, concrete, tile, plastic pipe and several fibre cement sheeting fragments (PACM). A selection of PACM samples were collected for laboratory asbestos identification.
- No staining or odours were noted at the surface of the fill material or within test pits.
- Underlying, predominantly silty clay, natural soil was encountered beneath fill at all testing locations.

8.1.2 Phase 1 Analytical Results

Laboratory analytical results are summarised in Table 13. Detailed tabulated results showing individual sample concentrations compared to the adopted SAC are available in Attachment E. Laboratory analytical documentation is provided in Attachment F.

Table 13: Summary of Phase 1 Soil Analytical Results.

Analyte	Results Compared to SAC
Heavy metals	HIL All results below the SAC. EIL All results below the SAC.
TPH/BTEXN	HSL All results below SAC.
OCP/OPP	HIL All results below SAC.
PAH	HIL All results below SAC. ESL Benzo(a)pyrene concentrations in **TP112/2.0 (1.5 mg/kg) and TP117/0.1 (2.6 mg/kg)** exceeded the adopted SAC (1.4 mg/kg).
Asbestos in soil (ID)	No asbestos detected.

8.1.3 Phase 1 PACM Analytical Results

A positive identification of asbestos was made in all seven PACM samples sent for laboratory analysis.

8.2 Phase 2 – Detailed Fill Investigations and Sampling

8.2.1 Phase 2 Observations

Fill observed during Phase 2 investigations was generally consistent with fill observations in Phase 1 investigations. The following additional observations were made in Phase 2:

- Minor surface staining was observed at sampling location SS07, SS08 and SS09 surrounding the site AST.
- The footprints of sheds at the site were generally unsealed, with partial asphalt ground cover in some areas. No soil staining or odours were observed within site sheds or their immediate surroundings.
- Test pit investigations undertaken within the identified potential waste disposal trenches identified buried agricultural waste

consistent with the site's former use as a poultry farm, including eggshells and bones. This material was observed below depths of approximately 2 mbgl. No other major anthropogenic inclusions (such was buried drums) were identified during test pitting within the area. Strong organic odours were noted during test pitting.

8.2.2 Phase 2 Analytical Results

Phase 2 laboratory analytical results are summarised in Table 14. Detailed tabulated results showing individual sample concentrations compared to the adopted SAC are available in Attachment E. Laboratory analytical documentation is provided in Attachment F.

Table 14: Summary of Phase 2 soil analytical results.

Analyte	Results Compared to SAC
Heavy metals	HIL All results below the SAC. EIL Zinc concentrations in **SS12 (3,900 mg/kg)** exceeded the adopted SAC (670 mg/kg).
TPH/BTEXN	HSL All results below SAC.
OCP/OPP	HIL All results below SAC.
PAH	HIL All results below SAC. ESL All results below SAC.
Formaldehyde	All results below laboratory detection limits.
Asbestos in soil (ID)	No asbestos detected at a reporting limit of 0.1 mg/kg.

8.3 Phase 3 – Additional Asbestos in Soil Assessment

8.3.1 Phase 3 AF/FA Results

AF/FA was identified in two of the 112 samples sent for laboratory analysis, as outlined below:

1. Sample TP625/1.5 reported approximately 0.0021% (0.0198 g) of asbestos in soil, exceeding the adopted SAC of 0.001%.

2. Sample TP630/0.5 reported approximately 0.0004% (0.0041 g) of asbestos in soil, below adopted SAC.

All other AF/FA samples sent for laboratory analysis reported no detects of asbestos fibres.

Additionally, four of the 112 samples contained fragments of bonded ACM > 7mm, as outlined below:

1. Sample TP614/2.0 reported approximately 0.05% (0.52 g) of bonded ACM in soil, with dimensions 2.7 cm x 2.0 cm x 0.5 cm, exceeding the adopted SAC of 0.05%.

2. Sample TP628/0.5 reported approximately 0.0033% (0.031 g) of bonded ACM in soil, with dimensions 1.5 cm x 1.0 cm x 0.3 cm, below the adopted SAC of 0.05%.

3. Sample TP634/0.5 reported approximately 0.055% (0.55 g) of bonded ACM in soil, with dimensions 3.8 cm x 3.0 cm x 0.3 cm, exceeding the adopted SAC of 0.05%.

4. Sample TP642/0.5 reported approximately 0.04% (0.34 g) of bonded ACM in soil, with dimensions 3.9 cm x 2.0 cm x 0.5 cm, below the adopted SAC of 0.05%.

Laboratory analytical documentation is provided in Attachment F.

8.4 Phase 4 – Data Gap Closure Investigations

8.4.1 Phase 4 Observations

Additional observations made during Phase 4 works were as follows:

- Access roads around the site typically comprised crushed sandstone (sandstone gravels in a silty clay matrix) overlying natural underlying clay material. No visual or olfactory signs of contamination were noted in any of the boreholes conducted along the access roads.

- Soil in the northern grasses area of the site between the north west dam and Finns Road was found to be consistent with expected natural material found elsewhere on the site.

- Dam silts were found to be free of any visual or olfactory signs of contamination.

8.4.2 Phase 4 Analytical Results

Phase 4 laboratory analytical results are summarised in Table 15. Detailed tabulated results showing individual sample concentrations compared to the adopted SAC are available in Attachment E. Laboratory analytical documentation is provided in Attachment F.

Table 15: Summary of Phase 4 soil analytical results.

Analyte	Results Compared to SAC
Heavy metals	HIL All results below the SAC. EIL All results below the SAC.
TPH/BTEXN	HSL All results below SAC.
OCP/OPP	HIL All results below SAC.
PAH	HIL All results below SAC. ESL All results below SAC.
Formaldehyde	All results below laboratory detection limits.
Asbestos in soil (ID)	No asbestos detected at a reporting limit of 0.1 mg/kg.

8.5 Phase 5 – Groundwater Investigations

8.5.1 Phase 5 Observations

A summary of groundwater gauging and field water quality parameters is provided in Table 16. Field sheets prepared during groundwater monitoring events are provided in Attachment D.

Table 16: Groundwater gauging and field water quality parameters.

Measured Parameter	Result Range	
	17/5/2021	10/8/2021
Standing water level (SWL)	3.21 mbTOC[1] (MW04) to 8.14 mbTOC (MW03)	3.76 mbTOC (MW04) to 9.76 mbTOC (MW09)
Temperature (°C)	20.3 (MW01, MW02) to 22.1 (MW04)	19.4 (MW04) to 20.9 (MW03)
pH	6.64 (MW06) to 8.00 (MW04)	6.80 (MW06) to 7.57 (MW09)
Dissolved oxygen (mg/L)	0.05 (MW04) to 5.81 (MW01)	0.16 (MW04) to 5.26 (MW09)
EC (mS/cm)	11,297 (MW04) to 1030 (MW06)	1805 (MW06) to 13741 (MW04)

Notes

[1] Meters below top of casing.

Generally, encountered groundwater was found to be turbid with no odours or sheens observed during sampling. No NAPL was detected during well gauging.

Water recovered from MW04 was atypical in appearance ('yellowish' appearance) with discolouration differentiating it from groundwater recovered from other wells. Given the depth of encountered groundwater in MW04 (3.21 - 3.76 mbTOC) being significantly shallower than expected based on other monitoring well depths, it is anticipated that groundwater in this location is a perched system and not representative of the wider groundwater system in the area.

8.5.2 Groundwater Contamination Results

A summary of groundwater laboratory results, collected over two monitoring rounds is provided in Table 17.

Table 17: Summary of groundwater analytical results.

	Results Compared to SAC		
Analyte	**15/4/2021**	**17/5/2021**	**10/8/2021**
Heavy metals	ANZG 95% Copper concentrations in **MW03/210415 (2.0 µg/L)** exceeded the SAC (1.4 µg/L) Cadmium, copper, lead, nickel and zinc concentrations in **MW04/210415** exceeded their respective SAC.	ANZG 95% Copper and zinc concentrations in **MW01/210517** exceeded their respective SAC. Cadmium, copper, nickel and zinc concentrations in **MW04/210517** exceeded their respective SAC.	ANZG 95% Copper and zinc concentrations in **all samples except MW06/210810** exceeded the SAC. Nickel concentrations in **all samples except MW06/210810 and MW01/210810** exceeded the SAC. Cadmium concentrations in **MW04/210810** exceeded the adopted SAC.
TPH/BTEXN	ANZG 95% All results below SAC. NEPM (2013) HSLs All results below SAC. NEPM (2013) GILs Benzene in **MW04/210415 (5 µg/L)** exceeded the adopted SAC (1 µg/L).	ANZG 95% All results below SAC. NEPM (2013) HSLs All results below SAC.	ANZG 95% All results below SAC. NEPM (2013) HSLs All results below SAC.
OCP/OPP	ANZG 95% All results below SAC.	ANZG 95% All results below SAC.	ANZG 95% All results below SAC.
PAH	ANZG 95% All results below SAC.	ANZG 95% All results below SAC.	ANZG 95% All results below SAC.
VOC	ANZG 95%	ANZG 95%	ANZG 95%

Results Compared to SAC			
Analyte	**15/4/2021**	**17/5/2021**	**10/8/2021**
	All results below SAC. NEPM (2013) HSLs All results below SAC.	All results below SAC. NEPM (2013) HSLs All results below SAC.	All results below SAC. NEPM (2013) HSLs All results below SAC.
Formaldehyde	NEPM (2013) GILs Formaldehyde in **MW04/210416 (1.4 mg/L)** exceeded the adopted SAC (0.5 mg/L).	NEPM (2013) GILs Formaldehyde in **MW04/210517 (1.6 mg/L)**exceeded the adopted SAC (0.5 mg/L).	NEPM (2013) GILs Formaldehyde in **MW04/210810 (1.0 mg/L)**exceeded the adopted SAC (0.5 mg/L).
PFAS / PFOA	PFAS NEMP All results below SAC	PFAS NEMP All results below SAC	PFAS NEMP All results below SAC
Nutrients	ADWG Drinking Water Guidelines All results below SAC. ANZG 95% All results below SAC.	ADWG Drinking Water Guidelines All results below SAC. ANZG 95% All results below SAC.	ADWG Drinking Water Guidelines Nitrate in **MW01/210810 (140 mg/L) and MW02/210810 (260 mg/L)** exceeded the adopted SAC (50 mg/L). E. Coli in **MW03/210810 (cfu/mL)** exceeded the adopted SAC (0 cfu/mL) ANZG 95% Ammonia in **MW04/210810 (1,600 mg/L)** exceeded the adopted SAC (0.9 mg/L).

8.6 Phase 6 – Ground Gas Investigations

8.6.1 Phase 6 Observations

A summary of GG gauging and field water quality parameters is provided in Table 18. Field sheets prepared during GG screening are provided in Attachment D.

Table 18: Ground gas field parameters.

Measured Parameter	Result Range	
	21/5/2021	10/8/2021
Atmospheric Pressure (mb)	1017 - 1018	1013 – 1015
Measured flowrate (L/hr)	0.0 – 0.3 (MW01)	-8.6 (MW01) – 0.5 (MW09)
Oxygen (%v/v)	0.2 (MW08) – 21.0 (MW02)	0.0 (MW12, MW05) – 19.4 (MW01)
Methane (%v/v)	0.1 (MW01,MW02) – 40.8 (MW04)	0.1 – 62.1 (MW04)
Carbon dioxide (%v/v)	0.2 (MW02) – 24.2 (MW08)	0.6 (MW01, MW16) – 18.7 (MW05)
Hydrogen sulphide (%v/v)	0	0 – 1(MW05, MW13)

8.6.2 Surface GG Monitoring

Surface methane monitoring concentrations were observed to range between 0 and 3.8 ppm, well below the adopted SAC of 0.05 %v/v (500 ppm).

Surface emissions transects are shown on Map 10, Attachment A, with reading at each intersection shown.

8.6.3 Ground Gas Risk Classification

GG screening values (GSV) and characteristic situation (CS) have been calculated for each monitoring well in accordance with the NSW EPA (2020) *Assessment and Management of Hazardous Ground Gases* and are shown on Map 12 (Attachment A).

GSV and CS were calculated for actual measure flow rates, as well as a 'worst case' 0.5 L/hr flow rate, which was the highest recorded flow rate at any location over the two monitoring events. Results are summarised in Table 19.

Table 19: Summary of GG field results.

Monitoring Well	Maximum GG Concentration (%v/v)	GSV at actual flow rate	GSV at 'worst case' 0.5 L/hr flow rate	CS	Risk classification
MW01	0.6	N/A	0.003	1	Very low risk
MW02	0.8	N/A	0.004	1	Very low risk
MW03	4.3	N/A	0.022	1	Very low risk
MW04	62.1	0.021	0.311	3 (2)[1]	Moderate risk
MW05	33.2	0.0	0.167	3 (2)[1]	Moderate risk
MW06	2.3	N/A	0.012	1	Very low risk
MW07	11.1	0.0	0.055	1	Very low risk
MW08	39.4	0.034	0.197	3 (2)[1]	Moderate risk
MW09	3.6	0.018	0.018	1	Very low risk
MW11	10.5	0.021	0.053	1	Very low risk
MW12	10.4	0.021	0.052	1	Very low risk
MW13	9.7	0.029	0.049	1	Very low risk
MW14	17.3	N/A	0.086	2	Low risk
MW15	6.7	0.0	0.034	1	Very low risk
MW16	0.6	N/A	0.003	1	Very low risk

Notes

[1] In accordance with NSW EPA (2020) the calculated CS of 2 is increased to 3 as maximum GG concentration exceeds 20 %v/v.

8.7 Data QA / QC

Field QA / QC data was collected as part of all investigations outlined in this report. A review of QA / QC procedure has been completed and is presented in the data validation report in Attachment G.

The report concludes that data is suitable for the purposes of the assessment.

9 Discussion

9.1 Fill Material

9.1.1 Observations

Lateral extents of imported fill are shown on Map 07, Attachment A. Extent of fill has been determined through site inspections, review of aerial imagery and through test pitting in areas identified as filled and unfilled.

Bonded ACM at the site surface was observed across a large portion of the filled area. Locations where surficial ACM was observed during walkover investigations are shown on Map 07, Attachment A.

It is noted that observation of surficial ACM is an exceedance of the adopted HSL for asbestos, being that the top 100 mm of soil must be free of any bonded ACM.

Fill material was generally characterised as clay fill with minor anthropogenic inclusions such as: timber; steel, brick, concrete and tile fragments; PVC and other plastic pipe; geofabric material; and several fibre cement sheeting fragments (PACM).

9.1.2 Chemical Analysis

Fill chemical analysis was conducted during site investigation Phases 1 and 2. Analyses found all contaminant concentrations in the fill material were below the adopted SAC for commercial land use, with the exception of two benzo(a)pyrene exceedances at TP112/2.0 and TP117/0.1, which exceeded adopted ecological criteria.

Benzo(a)pyrene exceedances are not expected to pose a significant ecological risk due to development implementing a hardstand finish across most of the development area, including areas where detections were made.

Elevated zinc concentrations exceeding ecological criteria were made during phase 2 at the near surface sample location SS12, located adjacent to one of the existing site sheds. This is likely attributed to the degradation of galvanised metal used for shed construction. Given the mode of contamination, zinc impacts are not expected to be highly mobile. Ecological receptors in the area are expected to be minimal in consideration of the proposed development, and risk is expected to be low.

Minor detections of TRH and PAH were reported above laboratory detection limits for samples collected from the existing sheds, general poultry farm area (surface samples) and within the buried agricultural waste in trenches. However, all results were below the adopted SAC.

All soil samples collected during the investigation reported formaldehyde at concentrations less than the laboratory detection limit with the exception of two samples collected in the waste trenches which reported at the laboratory detection limit of 1 mg/kg. Based on these results, it is concluded that any past use of formaldehyde during poultry farm operation has not contributed to soil contamination to levels which present a risk to future site receptors.

9.1.3 ACM Impacts

Bonded ACM was observed at the site surface and within imported fill material at the site. During initial phases of investigations, seven PACM material samples were collected for laboratory analysis and confirmed to contain asbestos. During AF/FA analysis of 112 samples a further four ACM samples >7 mm in size were detected. Two of these exceeded the w/w criteria for bonded ACM. Further occasional ACM fragments are expected across the filled areas of the site as shown in Map 01, Attachment A.

Remediation of the site will be necessary to address asbestos HSL exceedances. Gravimetric analysis of ACM was not undertaken as part of this assessment as initial inspection and testing indicated likely SAC exceedances and client instruction as that a remediation strategy assuming ACM impact to fill was acceptable.. The proposed remedial strategy will likely involve the capping and containment of impacted soils with implementation of a long term Environmental Management Plan (EMP) over the affected area. The exact quantity of bonded ACM in the soil is not a necessary parameter for the design of the site remediation strategy as non detect is necessary for no remediation.

9.1.4 AF/FA Impacts

AF/FA testing was undertaken primarily to address WHS risks during future site earthworks. The proposed remedial strategy will be suitable to address long term AF/FA exposure risks as all asbestos impacted soil, including AF/FA impacted soil shall be placed beneath some form of capping layer. Collection of AF/FA samples targeted areas of fill which shall be disturbed during future site earthworks.

112 primary soil samples were sent for laboratory analysis of AF/FA. Of the 112 soil samples analysed, AF/FA was detected in two samples (TP625/1.5 and TP630/0.5). Of these two detections, only one sample

(TP625/1.5) was found to exceed the adopted HSL for AF/FA (0.001 w/w%).

AF/FA is likely a result of the fragmentation of bonded ACM (fibre cement sheeting material) by compaction and earthworks equipment during material placement on site.

9.2 Former Burial Trenches

The extents of former burial trenches are shown on Map 01, Attachment A. The extents have been derived from review of historical aerial imagery between 2002 and 2017.

Burial trenches were investigated via test pitting as part of Phase 2 works, these works confirm lateral extents as assessed from historical aerial photograph review. Intrusive investigation found waste burial trenches contained waste consistent with the site's former use as a poultry farm including eggshells and bones. This material was observed below depths of approximately 2 mbgl, the majority of the 'cover material' was recently imported fill. No other major anthropogenic inclusions (such was buried drums) were identified during test pitting within the area.

Concentrations of PAHs, TRH and formaldehyde were reported above laboratory detection limits within the burial trenches during Phase 2. All concentrations were below SAC and not considered to pose a risk to the proposed future site uses.

9.3 Natural Soil

Natural material at the site was assessed as part of Phase 4 works. Analyses found all chemical concentrations in the natural material to be below the adopted SAC, with contaminants reported as non detect or indicative of expected natural background levels. Results of asbestos in soil identification (accordance with AS4964) found no detection of asbestos above the method reporting limit of 0.1 mg/kg.

No elevated contaminant concentrations, which would have indicated possible leaching of contaminants through the fill profile, were observed in any natural soil samples analysed from beneath fill material.

In consideration of the natural material analytical results, contaminants encountered in the fill material (i.e. minor hydrocarbons and asbestos) are considered to have low mobility and are unlikely to have long term impacts on the underlying environment.

9.4 Groundwater

9.4.1 Laboratory Results

Groundwater investigation identified a WBZ between approximately 5 and 7 mbgl. Groundwater encountered in MW04 (between 3.76 and 3.77 mTOC) is considered to be a perched WBZ located in former burial trench material and not indicative of the wider groundwater system located in a deeper WBZ in the underlying shale. Groundwater flow is expected to be in a north north east direction towards Navigation Creek, however permeability of the shale WBZ is expected to be very low. Anticipated groundwater contours and flow directions are shown on Plan 02, Attachment A.

Groundwater at the site was assessed as part of Phase 5 works and included the installation of ten groundwater monitoring wells and sampling of groundwater from six wells (MW01, MW02, MW03, MW04, MW06 and MW09), noting that MW05, MW07, MW08 and MW10 were dry during all monitoring events.

Elevated heavy metals (cadmium, copper, lead, nickel and zinc) were noted in one or more sample from all monitoring well samples with the exception of MW06. Elevated heavy metals are likely attributed to the site and the surrounding rural land use.

Elevated nutrient and concentrations were reported in most monitoring well with MW01 and MW02 reporting nitrate concentrations which exceed drinking water guidelines. Elevated coliform levels were noted at a number of testing locations and E. coli detections were made in MW03, exceeding SAC. Nutrient and coliform impacts at the site are likely a results of former poultry farm use.

Elevated methane in groundwater was detected in MW03, MW06 and MW09. Given the proximity of these wells to the former burial trenches, and absence of methane in other monitoring wells, it is anticipated that methane in groundwater is a result of decomposition of putrescible burial trench materials. Carbon dioxide was also detected in MW04, which as noted above, is likely a result of the waste decomposition. There were however elevated detection of carbon dioxide in MW01 and MW02. Both wells monitor the deeper WBZ in underlying shale, carbon dioxide results are likely indicative of natural water quality (as occurs in shale WBZ) rather than as a result of current or former site use or activities.

While no permeability testing has been undertaken at this stage, the shale bedrock in which this WBZ is located is expected to be of very low hydraulic conductivity (of the order of 10^{-7} - 10^{-5} m/day). Combined with assessed hydraulic gradients of the order of 5 % the risk of significant migration of contaminants are considered minimal.

Elevated concentrations of benzene and formaldehyde in MW04 were observed during all monitoring events, exceeding SAC. These contaminants are likely attributed to waste material which has been placed in former burial trenches surrounding the well. It is anticipated that permeability of the surrounding natural soils is significantly lower than that of the waste resulting in the retention of infiltrated water in the trenches. Contaminants from buried trench material have leached into this retained water in the shallow perched WBZ. Comparison of the results from MW04 with other groundwater data indicate that local perched water contamination has not impacted the deeper groundwater system in the shale WBZ. Risk posed by the perched groundwater system as observed in MW04 is therefore considered very low.

Minor elevated PFAS concentrations were observed in groundwater at MW01 and MW04. While detections were above laboratory reporting limits, concentrations were below adopted SAC, and do not pose a risk to future receptors at the site.

The licensed groundwater well at the southern site boundary (GW062945) is installed to a depth of 145.9 m, into the first available aquifer in sandstone beneath the shale, which begins at a depth of 78 m. The WBZs assessed as part of this investigation are excluded from the bore, as it is cased to a depth of 86.9 m.

The proposed land use will not include use of bore water for potable supply, onsite rainwater tanks will supply site drinking water. Therefore, elevated metal, E. coli and nutrient concentrations identified in the deeper regional WBZ are unlikely to pose a significant risk to future receptors during site use as a depot. Site earth works (localised cut and fill) are also not expected to encounter either the deeper regional WBZ or the shallow perched WBZ localised around MW04. In this regard, there is unlikely to be any significant risk to future construction workers in relation to identified groundwater contaminants.

9.5 Ground Gas

The GG screening assessment identified the presence of elevated (above background) levels of methane and carbon dioxide as well as depleted levels of oxygen in monitoring wells adjacent to former waste burial trenches. Additional GG wells installed further north from the former burial trench areas also identified elevated, although lower, concentrations of GG.

MW01 and MW02, located in the site's north, did not report elevated methane or carbon dioxide. Based on the CSM, it appears likely that GG generation is originating from the anaerobic decay of waste in burial trenches in the southern portion of the site. This assumption is further

supported by physical observation of poultry waste and odours encountered during test pitting in this area.

In accordance with NSW EPA (2020) GG CS at the site ranges from 1 (very low risk) to 2 (low risk), noting that three wells (MW04, MW05 and MW08) contained GG concentrations >20 %v/v (albeit with very low flow rates), and are therefore reclassified as CS3 (moderate risk) in accordance with the guidelines.

No GG data was developed prior to the recent placement of fill material on the site. Therefore, it is not possible to assess the impact of that fill nor the site GG conditions prior to that filling. It is concluded that the buried waste material would have historically been generating GG and it is likely those were previously venting through the site soils in the general area of the burial trenches (previously an open grassed area). The placement of fill over these trenches may have led to some degassing of the trench material (due to overburden pressures) and to changes in the preferential pathways for the GG. It cannot be known if the GG observations to the north of the trenches predated the filling or if they are a result of the filling.

As part of the proposed site earthworks to achieve the design grades considerable reductions in fill heights over the trenches shall occur. It is anticipated that this will reverse any acceleration to degassing caused by current fill surcharge loading. The construction of hardstand over these areas will likely maintain the effect of preventing (or greatly reducing) opportunity for venting of GG in the immediate vicinity of the burial trenches other than along the southern edge of the proposed filling.

The placement of fill and / or hardstand shall maintain a similar or reduced oxygen availability to the buried waste material, it is therefore likely that anaerobic (as opposed to aerobic) decomposition of the material shall continue and that GG generation shall not be significantly changed other than as occurs through the progressive decomposition of organic inclusions.

Two GG monitoring events have been undertaken at the time of this report. NSW EPA (2020b) recommends that sufficient monitoring events be undertaken to assess GG risks in varying atmospheric conditions. Investigations to date are considered unlikely to have captured a 'worst case' meteorological scenario with 'significant drop is atmospheric pressure'.

While it is considered unlikely that the CS value will increase as a result of further investigations, we recommend additional monitoring be undertaken to capture data over periods of change in atmospheric

conditions, and confirm any future mitigation measures proposed as part of the development provide appropriate levels of protection.

10 Conclusions and Recommendations

10.1 Fill Material

Positive identification of asbestos in the form of bonded ACM and AF/FA at the site is considered a potential risk to future human receptors. Asbestos requires management or remediation in order to make the site suitable for the proposed depot land use purpose.

A Remedial Action Plan (RAP) is required to guide the remediation and management of site asbestos contamination to make the site suitable for the intended site land use purpose. The RAP is to provide context and a scope of works for the remediation of identified asbestos in fill material.

The RAP should include specifications for the construction of a capping layer (comprising of either proposed hardstand / building slabs and / or clean material in landscape areas) over asbestos impacted material areas to isolate contaminated soil and remove exposure pathways to future human receptors. Site civil works shall remove all fill from areas outside of the proposed fill extents and shall lower the level of stockpiled fill to the design levels. Works required for the capping remedial solution shall require further excavation of ACM impacted fill to allow placement of capping layer to achieve design levels.

Once prepared, the RAP is to be implemented and validated to confirm the site has been made suitable for the proposed development prior to the commencement of the site use as a depot development.

10.2 Groundwater

Elevated heavy metal and nutrient concentrations were encountered during groundwater investigations, these are likely the result of the site's historical poultry farm use. Regardless of the source, heavy metal and nutrient concentrations are not considered sufficiently high to warrant remediation or further management as the risk of migration of a significant mass of pollutant from the site, through the low permeability shale in which the WBZ is located, is considered very low. The shale WBZ in which the metals and nutrients are encountered is unlikely to be an economically valuable water source due to low anticipated permeability and likely saline condition (typical of shale water sources). Other than the site well there are no local down gradient groundwater users which are expected to be impacted by the contaminants identified.

The depth to local groundwater tables indicate that the ultimate surface water receiving environment is likely to be a considerable distance from

the site meaning that wider catchment conditions shall control receiving environment conditions not site processes or conditions.

Elevated benzene and formaldehyde, while noted in MW04, are not considered to be representative of wider groundwater systems and are anticipated to be limited to a perched groundwater system which has been impacted by surrounding burial trenches in the area. While concentrations exceed SAC, evidence is that the perched system is not impacting on the regional deeper WBZ.

The site groundwater bore is proposed to be used only for irrigation purposes and not for potable water supply. Potable water is supplied by site roof water collection. In consideration of the above development elements, no remediation and / or management of groundwater is considered necessary at this stage.

10.3 Ground Gas

GG characteristic situations (CS) at the site were found to range from 1 to 3 in the proposed development area. It is recommended that the RAP be prepared with a remedial strategy to address potential GG risks with regards to the proposed construction at the site. This will involve the construction of GG mitigation measures in accordance with the minimum gas protection guidance values noted in Section 5.3 of NSW EPA (2020).

The source of GG on the site is well understood being the historical burial of agricultural waste from the previous poultry farm operations. The GG identified on the site does not pose a significant risk to the open air hardstand areas. It is concluded that GG management measures are required to manage the likely preferential migration of GG to the south and possible collection of GG in site service trenches and potentially in Shed B.

10.4 Conclusion

This assessment confirms that areas of the proposed development IA are impacted with asbestos contaminated fill material, and GG risks associated with former poultry farm agricultural waste burial trenches.

We consider that the site can be made suitable for the proposed depot development through the development of an appropriate remedial action plan (RAP), and its implementation and validation. The RAP is to provide context and a scope of works for the remediation of identified asbestos and GG risks at the site.

The nature of the proposed works, including proposed remedial works, under the development application (including any necessary import of hardstand construction materials, fill or landscaping materials to achieve design levels) provides Council with certainty that the site shall be made suitable for the intended depot use. As such, Clause 7(1) of SEPP55 is satisfied as:

- The contamination status of the site is known.
- The site may be made suitable through the works proposed in the application by way of the proposed RAP.
- By imposing condition of consent, certainty that the site shall be remediated is achieved.

11 Limitations

This FDSI was undertaken in accordance with current industry standards.

It is important to note that no land contamination study can be considered to be a complete and exhaustive characterisation of a site nor can it be guaranteed that any assessment shall identify and characterise all areas of potential contamination or all past potentially contaminating landuses. Therefore, this report should not be read as a guarantee that only contamination identified shall be found on the site. Should material be exposed in future which appears to be contaminated, additional testing may be required to determine the implications for the site.

Martens & Associates Pty Ltd has undertaken this assessment for the purposes of assessing potential site contamination. No reliance on this report should be made for any other investigation or proposal. Martens & Associates accepts no responsibility, and provides no guarantee regarding the characteristics of areas of the site not specifically studied in this investigation.

12 References

Australian Standard (AS) 4964 (2004) *Method for the qualitative identification of asbestos in bulk samples*

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NSW EPA (1995) *Sampling Design Guidelines.*

NSW EPA (2017) 3rd Ed. Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme.

NSW EPA (2020) *Contaminated Site Guidelines: Consultants Reporting on Contaminated Land.*

State Environmental Planning Policy 55 *Remediation of Land (SEPP 55).*

13 Attachment A – Mapset

Legend

Investigation Area

0 20 40 60 80 100 m

1:2500 @ A3

Source: Nearmap (2021).

N

Map Title / Figure:

Site Overview

Map 01	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

Map Title / Figure:

Phase 1 Testing Plan

Map 02	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

Legend

- Investigation Area
- Near Surface Samples
- Test pits (29/07/2021 - 2/8/2021)
- Boreholes (15/4/2021)

SS02, TP303, SS10, SS01, TP302, TP301, SS03, TP304, TP305, SS04, TP306, TP309, SS05, SS11, SS12, SS06, TP308, TP307, SS07, SS08, SS09, SS13, TP312, TP311, TP310, TP409, TP410, TP411, TP401, TP402, TP403, TP404, TP405, TP407, TP406, TP408, TP412, TP413

N

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

Map Title / Figure:

Phase 2 Testing Plan

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Map 03	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

Legend

- Investigation Area
- Test pits (29/07/2021)

TP615 TP646 TP614 TP647 TP648 TP645 TP613 TP644 TP629 TP612 TP628 TP642 TP627 TP617 TP623 TP626 TP643 TP608 TP624 TP611 TP610 TP616 TP630 TP625 TP609 TP649 TP641 TP620 TP640 TP606 TP639 TP637 TP605 TP638 TP634 TP607 TP621 TP601 TP633 TP622 TP604 TP636 TP635 TP631 TP632 TP618 TP602 TP619 TP603

N

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

Map Title / Figure:

Phase 3 Testing Plan

Map 04	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

Map Title / Figure:

Phase 4 Testing Plan

Map 05	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Legend

- Investigation Area
- Monitoring Wells

BH201/MW01
BH202/MW02
BH502/MW06
BH707/MW15
BH701/MW09
BH706/MW14
BH705/MW13
BH503/MW07
BH203/MW03
BH504/MW08
BH704/MW12
BH709/MW16
BH501/MW05
BH204/MW04
BH702/MW10
BH703/MW11

N

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

Map Title / Figure:

Phase 5-6 Testing Plan and Monitoring Well Locations

Map 06	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

Legend

- Estimated Imported Fill Extent
- Observed ACM
- Investigation Area

N

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

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Map Title / Figure:

Imported Fill Extent and Observed ACM

Map 07	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

Map Title / Figure:

Approximate Burial Trench Locations

Map 08	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)
Note: Groundwater Contours and flow direction assessment was based on limited data and is indicative only.

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Map Title / Figure:

Groundwater Contours and Flow Plan

Map 09	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Legend

- Surface Emissions Transects
- Investigation Area

0.0 ppm
0.1 ppm
0.2 ppm
0.3 ppm
0.0 ppm
0.0 ppm
0.3 ppm
0.1 ppm
0.2 ppm
0.5 ppm
2.8 ppm
3.8 ppm
2.2 ppm
2.4 ppm
1.0 ppm
0.1 ppm

N

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

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Map Title / Figure:

Surface Emissions Transects and Readings

Map 10	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

Legend
Investigation Area
Monitoring Wells

0.6
BH201/MW01
BH202/MW02
0.8
2.3
6.7
17.3
3.6
BH707/MW15
BH701/MW09
4.3
BH502/MW06
BH706/MW14
9.7
BH705/MW13
11.1
BH503/MW07
BH203/MW03
10.4
BH704/MW12
BH504/MW08
BH709/MW16
BH501/MW05
0.6
BH204/MW04
BH702/MW10
BH703/MW11
39.4
33.3
62.1
10.5
N

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)
Note: Maximum concentration (%v/v) for methane or carbon dioxide shown.

Map Title / Figure:
Maximum Ground Gas Concentrations (%v/v)

Map 11	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

Legend

- Investigation Area
- Monitoring Wells

Gas CS

- CS1 (<0.07 L/hr)
- CS2 (<0.7 L/hr)
- CS3 (<3.5 L/hr, or where max concentration exceeds 20% v/v)

0.003 BH201/MW01

BH202/MW02 0.004

0.0115 0.0335 0.086 0.018

0.0215 BH707/MW15 BH701/MW09 0.0485

BH502/MW06 BH706/MW14 BH705/MW13

0.0555 BH503/MW07 BH203/MW03 0.052

BH504/MW08 BH704/MW12

BH709/MW16 BH501/MW05

BH204/MW04 BH702/MW10

0.003 0.197 BH703/MW11

0.2035 0.1665 0.0525

N

0 10 20 30 40 50 m

1:1250 @ A3

Source: Nearmap (2021)

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Project No: P1806774 Map Set: MS12-R01 EPSG: 28356

Map Title / Figure:

GSV (L/hr) and Adopted CS

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Map 12	Map
285 Finns Road, Menangle	Site
Proposed Depot	Project
FDSI	Sub-Project
Muscat Developments	Client
3/9/2021	Date

14 Attachment B – HEC Interim Advice Reports

Harwood Environmental Consultants
Gunners Barracks
Suite F, 38 Suakin Drive
George Heights, Mosman 2088

rod@harwoodenviro.com.au

16 July 2021

Mr James Muscat
Muscat Developments Pty Ltd
by email

INTERIM ADVICE 01: REVIEW OF DETAILED SITE INVESTIGATION REPORT, SUPPLEMENTARY DETAILED SITE INVESTIGATION AND REMEDAIL ACTION PLAN PREPARED BY MARTENS (2021)

Dear James,

1. INTRODUCTION

1.1. Background

James Muscat of Muscat Developments Pty Ltd engaged Rod Harwood, a NSW EPA accredited Contaminated Land Auditor (accreditation no. 03-04) who is employed by Harwood Environmental Consultants (HEC), to provide Contaminated Site Audit Services for the Site located at 285 Finns Road, Menangle NSW.

The final outcome of this engagement is to prepare a Site Audit Statement (SAS) and associated Site Audit Report (SAR), indicating the suitability of the Site for the proposed depot and transport depot. It is noted that the site is currently approved for use as a poultry farm. The proposed development includes construction of an office building and two new sheds; cut and fill in various locations; filling of two dams at the ground surface near the south, southwest, northwest, west and central portions of the site; and construction of hardstand and other site infrastructure in accordance with the Guidelines for the NSW Site Auditor Scheme (3rd Edition), 2017.

It is understood that the proposed development is currently the subject of a Class 1 appeal in the NSW Land and Environment Court (LEC proceedings number 2020/00178157). It is understood that Martens prepared correspondence dated 19 October 2020 to address several of Council's concerns regarding the proposed development which include site contamination. Based on the findings of a Preliminary Site Investigation (PSI) completed by Martens in August 2020, Martens proposed that the following items be included as conditions of consent for the development:

> *Prior to issue of a Construction Certificate, an Asbestos Management Plan ("AMP") shall be prepared to:*
>
> *1. Identify and manage asbestos in structures and any fragments resulting from building deterioration or stockpiling of asbestos containing building materials.*
>
> *2. Prepare and maintain an asbestos register of all asbestos containing materials to be retained on the site (i.e. building products etc in existing structures).*
>
> *3. Undertake asbestos removal works of all asbestos not associated with structures. Removal works shall include any stockpiled asbestos building products, picking of PACM fragments*

surrounding sheds and removal of any identified asbestos impacted soil/fill material on the site. The AMP is to include all asbestos related controls required for asbestos removal works.

Prior to issue of a Construction Certificate, an Unexpected Finds Protocol ("UFP") shall be prepared for the proposed site earthworks. UFP shall provide guidance for the management of any encountered PACM in soil material, oil stains or other signs of contamination should they be exposed during the proposed site earthworks.

In addition to the above conditions, Martens recommended that the following condition be imposed in relation to the importation of any fill material required for the development:

Fill material to be brought onto site for the development to be only fill characterised as VENM, ENM or otherwise waste exempt material under the NSW Waste Regulation (2014). Copies of certifications or validation reports for all fill used shall be retained and presented to Council on request".

Following submission of both the PSI and letter, Martens received a written response from Council's contaminated lands officer via advice from Bradley Allen Love Lawyers (email dated 5 November 2020), acting on behalf of Council. The response stated that:

Further to our letter dated 30 October 2020 and the s.34 conference for this matter, we have now obtained advice from the Council's contaminated lands officer.

We advise that the imposition of the consent conditions proposed at items 4 & 5 of Mr Shahrokhian's letter to you dated 19 October 2020 will satisfactorily address the Council's outstanding contamination concerns.

Martens note that the above is confirmation that, as of November 5, the consent authority (Council) had considered if the land was contaminated; and was satisfied that the land was suitable for the proposed purpose for which the development is proposed to be carried out. Martens note that the SEPP 55 clause 7 had been satisfied.

However, Martens note that subsequent to Council's assessment and conclusion that the site was suitable with regards to land contamination, fill material not present during the PSI assessment, nor at the time of Council's assessment, was imported to the site. Council has therefore indicated that they required further information to be satisfied that the site is suitable for the proposed use as required by Clause 7(1) of SEPP 55.

This Audit has not been completed in support of development consent, or to satisfy NSW EPA, but for additional technical review. The Audit is therefore considered to be a non-statutory site audit.

The Site Audit Statement will be issued to the client. Rod Harwood is an Auditor accredited by the NSW EPA (accreditation number 03-04) who has worked with a wide range of consultants to provide practical and competent outcomes and resolutions on contaminated site issues.

Whereas Interim Audit Advice is provided to assist in the assessment and management of contamination issues at the site, the Interim Audit Advice should not be regarded as 'approval' of any proposed investigations or remedial activities, as any such approval is beyond the scope of an independent review.

1.2. Site Audit Process

EPA (2017) Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition), describes the site assessment and Audit process:

The **'first tier' is the work of a contaminated site consultant,** generally engaged by the site owner or developer. The contaminated site consultant designs and conducts a site assessment and any necessary remediation and validation and documents the processes and information in reports.

The **'second tier' is the site audit**, which involves a site auditor independently and at arm's length reviewing, for one of the audit purposes stated in the CLM Act, the consultant's assessment, remediation,

validation and management plans or reports. The material outcomes of a site audit are a site audit report and a site audit statement.

It is important to note that with respect to waste management on contaminated sites, the EPA Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition) state:

- When reviewing information relating to the management of waste, site auditors must have regard to the provisions of the NSW Government's framework for managing wastes. In New South Wales, it is an offence to transport waste to a place that cannot lawfully receive it or use a site to receive waste that cannot lawfully be used as a waste facility. To ensure that waste generators (or their representatives) do not trigger such offences:
- in relation to disposal, they must ensure their waste is carefully classified in accordance with the Waste Classification Guidelines – Part 1: Classifying Waste (EPA 2014) as in force from time to time (the 'Waste Guidelines', available from Waste classification guidelines: www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines), and the waste is taken to a facility that is lawfully able to receive that waste; and
- in relation to re-use for land application purposes, they must ensure their waste meets the requirements of the resource recovery order and resource recovery exemption framework.

For consultants who have been engaged to classify waste, or to assist their client in complying with the order and exemption framework, they must ensure their work complies with all of the requirements of the Waste Guidelines, and the relevant order and exemption. It is an offence to supply information about waste that is false or misleading.

Part 4 Section 53B of the CLM Act describes that Site Audits conducted by EPA Accredited Site Auditors must take the following matters into account:

- the provisions of the CLM Act and the CLM Regulations;
- the provisions of any environmental planning instruments applying to the site; and
- the guidelines made or approved by the EPA.

Therefore, the contaminated land consultant and other relevant parties should be satisfied that the work to be conducted conforms to all appropriate regulations, standards and guidelines and is suitable based on the site history and the proposed land use.

At the completion of the Site Audit process, the Site Auditor must complete a Site Audit Statement (form provided by EPA which only accredited site Auditors may sign under the Contaminated Land Management Act 1997) supported by a Site Audit Report (comprehensive critical review of all contamination assessment and remediation conducted at the site). However, the Auditor may provide written interim advice on the work plans or reports in the lead-up to issuing the final Site Audit Statement at the end of the entire Audit.

When this Interim Advice is provided, the Site Auditor must:

- specify that the Interim Advice does not constitute a Site Audit Report or Statement;
- ensure the Interim Advice is consistent with NSW EPA guidelines and policy;
- not pre-empt the conclusion to be drawn at the end of the Site Audit process;
- clarify that a Site Audit Statement will be issued at the end of the Audit process; and
- document in the Site Audit Report all Interim Advice that was given.

Section 3.1 of the Auditor Guidelines states that the site auditor must meet the following particular requirements regardless of whether the audit is statutory or non-statutory:

a. comply with applicable provisions of the CLM Act, regulations, environmental planning instruments, and any guidelines made or approved by the EPA under the CLM Act
b. not have a conflict of interest in relation to the audit as defined by the CLM Act
c. where these guidelines allow an auditor to adopt or endorse an approach that differs from policies made or approved by the EPA, exercise independent professional judgement in doing so and provide in the site audit report adequate and explicit justification for taking this course
d. finalise the site audit report before signing the site audit statement

e. provide in the site audit report a clear, logical discussion of issues covered in the site audit and clearly substantiate the rationale for the auditor's conclusions Therefore, the contaminated land consultant and other relevant parties should be satisfied that the work to be conducted conforms to all appropriate regulations, standards and guidelines and is suitable based on the site history and the proposed land use.

f. discuss in the site audit report all issues pertinent to the actual or potential contamination of the site and all issues required by these guidelines to be raised during a site audit

g. state clearly why any human health and environmental issues that would normally be of concern are not of concern in the case of this audit

h. make every reasonable effort to identify and review all relevant data, reports and other information held by the person who commissioned the site audit, or which is readily available from other sources, that provides evidence about conditions at the site which is relevant to the audit

i. obtain advice from the appropriate expert support team members on issues that are outside the auditor's professional education, training or experience, and document in the site audit report where and from whom advice has been obtained

j. exercise independent and professional judgement in deciding whether or not they have sufficient information to make a decision about the suitability of a site or a plan or to draw any other conclusion in relation to actual or potential contamination of a site in the course of a site audit, with justification for conclusions to be given in the site audit report

k. make reasonable endeavours to find out whether any other audits have been commissioned in relation to the site and, if so, whether any of them were prematurely ceased and why

l. state in the audit report the scope and findings of any previous audits

m. in cases where the audit involves a review of site assessment, remediation or management work, visit the site to observe and verify, as far as is practicable, the completion of this work.

2. INTERIM ADVICE

The current interim advice provides comments on the following documents:

- Martens Detailed Site Investigation: Proposed Depots and Transport Depot, 285 Finns Road, Menangle NSW. Ref: P1806774JR13V01, dated March 2021.
- Martens Remedial Action Plan: Proposed Depots and Transport Depot, 285 Finns Road, Menangle NSW. Ref: P1806774JR14V03, dated June 2021.
- Martens Supplementary Detailed Site Investigation: Proposed Depots and Transport Depot, 285 Finns Road, Menangle NSW. Ref: P1806774JR16V01, dated May 2021.

Report	Auditor Summary
Detailed Site Investigation Martens (March 2021)	**This report documents a DSI for potentially contaminating activities, to support a Development Application to the Wollondilly Shire Council for construction of a depot and transport depot. The site is currently approved for use as a poultry farm.** • The proposed depot and transport depot development is understood to involve the construction of an office building and two new sheds; cut and fill in various locations; filling of two dams and at the ground surface near the south, southwest, northwest, west and central portions of the site; and construction of hardstand and other site infrastructure. • The PSI concluded that subject to the preparation and implementation of an Asbestos Management Plan (AMP) and an unexpected finds protocol, that identified land contamination risks shall be appropriately mitigated and managed during construction and operation of the development. – The PSI indicated the site was cleared land/paddock until 1969 and the poultry farm and residence were constructed between 1969 and 1990. The site had remained a poultry farm and residential property until May 2018.

Report	Auditor Summary
	– Between 2017 and 2018, material was imported to the site and placed in the two dams located in the south western portion of the site. Records indicate approximately 3480-4380 tonnes of material was imported. Documentation indicated material was VENM or ENM. – No evidence during the site walkover by Martens indicated the imported material was not VENM or ENM. – Martens note that other potential contamination sources include past shed construction, storage and maintenance (asbestos), pesticides and heavy metals (paints, galvanised metals, pest control). Portions of the poultry shed walls are clad with potential ACM. Lower exterior walls along the perimeter of two southern sheds contained PACM, which was observed to be broken or fractured into the ground surface. – Two former diesel ASTs may have introduced PAHs, Heavy Metals, BTEXN and TRH. No staining was observed. – A stockpile of burned rubbish, paint cans, aerosol cans and glass bottles was observed on the south east site of the dam located near the south west corner of the site. – 2m x 2m x 0.3m stockpile of broken “super six” PACM was observed in the field near the south west boundary. – A soil stockpile located approximately 25m north west of the southernmost large shed (3m x 2m x 1.5m) contained soil, brick, plastic, ceramics and PACM. – A previously demolished large shed located between the two current southernmost sheds may have contained PACM – Former poultry farm use may have introduced heavy metals or OCP/OPP into the soil. – Fill material previously and currently present along the southern site boundary, on the north site of the southernmost shed and near the north west corner of the second southernmost large shed has the potential to add contamination including hydrocarbons, metals, pesticides and asbestos. – Dwelling construction and maintenance have the potential to have introduced contaminants such as asbestos, pesticides and heavy metals. • The objective of the DSI is to determine if the importation of fill material to site has altered the conclusions of the PSI and ultimately to reassess the suitability (from a contamination perspective) of the site following recent filling works. It is understood filling has predominantly occurred in the southern portion of the site. • Intrusive investigations were completed within the site areas subject to recent filling works. • The investigation area is 1.494 ha (larger site area 4.385 ha). • The site is currently occupied by 4 large sheds with associated access roads, a residential dwelling in the north eastern corner and three farm dams along the western site boundary. **CSM:** • Fill: fill from unknown sources has the potential to add contaminants including heavy metals, TRH, BTEXN, PAH, OCP/OPP and asbestos. • Exposure: ingestion, dermal contact and inhalation. • Receptors: current and future site users including staff and visitors and construction/maintenance workers. • The likelihood of completion is medium in areas of exposed soil and high where excavation is to be undertaken. **Sampling:** • Excavation of 29 test pits (TP101-TP129) to a maximum depth of 4.3m BGL. This exceeds the recommended sampling density for a 1.5 ha site. • Collection of representative samples from each location. A total of 28 soil samples were laboratory analysed, noting that no fill material was identified at TP115. Selected samples were chosen from a range of depths throughout the fill profile. • Collection of 5 PACM samples.

Report	Auditor Summary
	• Collection of 4 QA/QC samples, including three duplicates, one triplicate and one trip blank and one trip spike. • A total of 28 samples were analysed for BTEXN, TRH, PAH, asbestos in soil (ID), a total of 32 samples were analysed for heavy metals and OCP/OPPs. A total of 6 samples were analysed for PACM. **Results:** • Minor observations of anthropogenic inclusions at the site surface were noted by Martens, including brick, concrete, tile, plastic pipe and several PACM fragments. • Fill was observed to consist predominantly of clay fill material to a maximum depth of 4.0m BGL (TP103). Underlying natural material was observed to be silty clay. • Anthropogenic inclusions observed during test pitting included steel fragments, timber, brick and concrete fragments, PVC and other plastic pipe, tile fragments, geofabric textile and several PACM fragments. • All soil results for heavy metals, TPH/BTEXN, OCP/OPP, PAH and asbestos in soil were below the adopted criteria. • All PACM samples were confirmed to contain asbestos: – MS101a – ground surface – MS101b – ground surface – MS102 – ground surface – MS103 – ground surface – MS104 – collected from TP112 at 2.0m BGL – MS105 – collected from TP121 at 1.5m BGL – MS106 – collected from TP129 at 0.5m BGL **Discussion:** • As the consent authority has concluded the site in the condition prior to the importation of the recent fill was suitable for the proposed development, Martens considered no further assessment outside of the investigation area was required. • The results of laboratory testing of samples found concentrations of hydrocarbons, heavy metals and pesticides to be less than the adopted SAC for commercial/industrial land use. • Martens consider the risk to human health from chemical contamination to be low, similarly, ecological risks are considered to be low. • Asbestos was identified in the collected material samples from both the surface and at depth within the fill material. Soil sampling in accordance with AS4964 did not identity the presence of loose asbestos fibres in soil samples at the reporting limit of 0.1mg/kg. • The presence of ACM a the surface of the IA exceeds the asbestos HSL outlined in NEPM (2013) and the potential risk to future site users is considered unacceptable in its current condition. Some management or remediation will be required to render the investigation area and the wider site suitable. • Martens recommend a RAP be prepared for remediation of bonded ACM within the investigation area. • This RAP would likely involve implementation of a capping layer across in the investigation area to remove exposure pathways. Proposed structures and extensive hardstand shall likely provide the necessary capping layer over much of the site. • Where landscaping is proposed, an appropriate depth of clean landscaping material shall be required over any contaminated fill. • In addition to the conditions outlined in Section 1.1 above and preparation of a RAP, Martens recommend a validation report be submitted including a survey of any buried asbestos, a survey of the upper layer of any capping material, calculation and analysis to confirm the capping layer meets specifications of the RAP and a statement that remediation works were completed and validated, indicating the site has been made suitable for the intended purpose.
	Auditor Comment: • It is noted that Martens prepared a PSI for the site to support the proposed development – can the Auditor please have a copy of this?

Report	Auditor Summary
	• Minor change for Section 1.4 – reference to NSW EPA contaminated sites guidelines should read Guidelines for Consultants Reporting on Contaminated *Land.* • Comments should be made on nearby sensitive receptors – distance and direction from the IA • Comments should be made on groundwater flow direction and nearest water bodies • Acid Sulfate Soils are unlikely to be mapped in that area, however Martens should note in Table 1 that they have checked this mapping. • Martens state that two dams are proposed to be infilled. Later in Table 1, Martens note there are three dams – is one dam going to remain onsite? • Martens note that if any of the above potential contamination sources were to have introduced site contamination, it would be likely to be limited to near surface soils. Additionally, based on the proposed development design which will establish widespread hardstand across much of the site area, there will be no direct pathway between future long term site receptors and underlying soils – the Auditor agrees contamination may be likely to be limited to the subsurface, however, analysis of deeper materials should be completed to confirm this. In addition, for areas where filling has occurred, potential contamination can vary throughout the fill profile and may not be found in the shallow subsurface only due to the heterogenous nature of fill and the fact that imported contamination in fill is not attributed to 'top down' contamination. • In table 8 Martens state that 5 PACM pieces were collected, however in table 9 Martens state that 6 PACM fragments were analysed. In addition, lab reports indicate 7 samples were analysed – Martens to clarify. • Why was the high reliability criteria (CRC Care) used for B(a)P in soil? The NEPM standard should be used as the CRC Care value is for fresh B(a)P <2 years old. The NEPM value for commercial/industrial land use of 1.4mg/kg should be applied. • Was any PACM observed outside of the investigation area and why weren't the observed PACM fragments in Map05 sampled? • Site specific EILs/ESLs – as noted in Attachment D, did Martens also analyse the iron content and organic carbon content? It is understood pH and CEC were laboratory analysed. • QA/QC – Martens state they collected 3 duplicate samples and one triplicate – the triplicate and trip blank/trip spike results should be included in the tables. • Martens have primarily analysed the shallow subsurface, with limited locations analysed in the deeper fill at 1.0m or 2.0m, however, only one sample was collected at each location – the Auditor does not think the fill material has been sufficiently characterised and no natural materials have been sampled. • Are Martens confident that fill extends to the area outlined as the 'investigation area'? It is understood no fill was identified at TP115, however, fill was detected at all other locations around the perimeter of the investigation area. Locations could also be sampled/analysed around the perimeter of the IA to ensure that is the extent of fill. • What is the rationale for not using the NEPM standard for asbestos analysis with sieving 10L buckets, and collection of a 500mL sample for AF/FA analysis? This method should have been used, particularly since ACM was observed in multiple locations. Based on the ACM identified at the site, the NEPM sampling procedure should be implemented. • As the consent authority has concluded the site in the condition prior to the importation of the recent fill was suitable for the proposed development, Martens considered no further assessment outside of the investigation area was required – it is understood that Council approved the site condition prior to importation of fill, however, do Martens consider other areas of the site requiring assessment such as the former ASTs, stockpiles, former building/shed and current site footprints, use of the site for poultry farming? • The Auditor recommends groundwater be analysed and potential landfill gas due to the former poultry farm use. • Can the Asbestos results please be included in the tables so the Auditor can understand which locations have been sampled? • As the site was formerly used as a poultry farm, nutrients, E.coli, coliforms and ammonia should be considered to be sampled in soil and groundwater.

Report	Auditor Summary
Supplementary Detailed Site Investigation Martens (May 2021)	**This report was prepared to document recent additional soil, groundwater and soil gas investigations undertaken to address data gaps identified at the site.** • Subsurface investigations of soil, groundwater and ground gases were undertaken across the site (4.385ha) **Data Gaps:** During the DA assessment process, further information was sought regarding site areas previously investigated, but identified as AECs in the PSI: • Potential contamination as a result of possible past poultry farm use of disinfectants, such as formaldehyde for shed disinfection and possible use of PFAS. • Earthworks including trenches in the southern portion of the site, used between 2010-2017, potentially for burial of waste. • Possible groundwater impact due to leaching of contaminants. • Possible ground gas generation as a result of buried materials and/or fill material imported to the site. **Updated CSM:** • AEC B – sheds and 2-5m curtilage: pesticides and heavy metals may have been used underneath existing and past garage/sheds for pest control. Building construction may include PACM, zinc treated (galvanised) metals and lead based paints. – Heavy metals, TRH, BTEXN, PAH, OCP/OPP, asbestos. • AEC C – poultry farm use: application of agricultural chemicals, use of pesticides or heavy metals for pest control during site use as a poultry farm. – Heavy metals, OCP/OPPP, formaldehyde and PFAS. • AEC D – ASTs: diesel fuel ASTs have the potential to impact the underlying subsurface environment with heavy metals, TRH, BTEXN and PAHs. – Heavy metals, TRH, BTEXN and PAH. • AEC E – Burial Trenches: a number of trenches have been identified in the southern portion of the site which may have been used for burial of waste from unknown sources. – Heavy metals, TRH, BTEXN, PAH, OCP/OPP, formaldehyde, PFAS, asbestos, landfill gas (methane and carbon dioxide). • Pathways: direct contact, ingestion, inhalation, ingress of potential ground gas to future development structures and transport of contaminants to underlying groundwater aquifers. • Receptors: future construction workers, future site users (workers and visitors), future workers undertaking maintenance or subsurface works, groundwater beneath the site and receiving environments and ecological receptors (terrestrial) and freshwater ecology of the nearest surface water body being Navigation Creek, located approximately 650m north east. **Field Works:** • Excavation and logging of 12 boreholes (BH301-BH312) within site shed footprints to a maximum investigation depth of 0.6m BGL. • Collection of representative soil samples from boreholes and collection of an additional 13 near surface soil samples from across the former poultry farm area (outside of the existing site sheds) and adjacent to the onsite AST. – A total of 4 primary samples were analysed for BTEXN, TRH, PAH, heavy metals, OCP/OPP, PCB, formaldehyde and asbestos in soil. • Excavation and logging of 13 test pits (TP401-TP413) within the burial trench area in the southern portion of the site to a maximum depth of 3.8m BGL and collection of soil samples. – A total of 5 soil duplicate samples and 1 soil triplicate sample was collected during the two sampling events. One soil trip blank and trip spike were used during each sampling event. – A total of 21 primary samples were analysed for BTEXN, PAH, TRH, heavy metals, OCP/OPP, PCB, formaldehyde and asbestos in soil. • Drilling and logging of four boreholes (BH201-BH204) to a maximum investigation depth of 11.4m BGL to facilitate the construction of wells (MW01-MW04).

Report	Auditor Summary
	• Collection of groundwater samples from each monitoring well for laboratory analysis. – A total of 4 primary samples were analysed for BTEXN, TRH, PAH, heavy metals, OCP/OPP, PCB, formaldehyde, PFOS/PFOA and VOCs. • An additional four monitoring wells were installed – BH501 to BH504 were drilled to a maximum depth of 7.2m BGL (MW05-MW08) and representative groundwater samples were collected from each well. – One groundwater duplicate was collected during each monitoring event. One trip blank and one trip spike was used during each event. – A total of 8 primary samples were analysed for BTEXN, TRH, PAH, heavy metals, OCP/OPP, PCB, formaldehyde, PFOS/PFOA and VOCs. • During well construction MW01, MW02, MW04, MW05, MW07 and MW08 were fitted with sealed landfill gas caps. A single soil gas screening assessment was undertaken on 21 May 2021. – Sampling was completed using a LGA to measure flow rate, methane %v/v, carbon dioxide %v/v, oxygen %v/v, carbon monoxide (ppm) and hydrogen sulphide (ppm). **Results:** • Encountered groundwater depth was variable, but ranged between 3.21-8.14 mBGL. It is noted that MW05 – MW08 were installed at a shallower depth at approximately 6m BGL to target potential groundwater impacts from recent and historical filling works – three of these wells were dry during sampling. • Site fill material was observed across the majority of the southern and western portions of the investigation area. • Minor anthropogenic inclusions were observed at the surface of the site and within the fill material excavated including brick, concrete and tile fragments, plastic pipe and several presumed ACM fragments. • No staining or odours were noted, with the exception of boreholes in deeper poultry farm waste trenches. Minor surface staining was observed at SS07, SS08 and SS09 surrounding the AST. Test pits undertaken in the trenches identified eggshells and bones. This material was observed to be below depths of 2mBGL. Strong organic odours were noted. • The footprints of sheds at the site were generally unsealed, with partial asphalt ground cover in some areas. • Soil: analytical results for heavy metals, TRH/BTEXN, OCP/OPP, PAH, formaldehyde and asbestos in soil were below the LOR or SAC. • Groundwater: all results for TPH/BTEXN, OCP/OPP, PAH, VOC, formaldehyde and PFAS/PFOA were below the LOR or 95% protection criteria. Heavy metals were below the adopted criteria, with the exception of: – Copper in MW03 – Cadmium, copper, lead, nickel and zinc in MW04 – Copper and zinc in MW01 – Cadmium, copper, nickel and zinc in MW04. • Landfill Gas: significant concentrations of methane and carbon dioxide were detected in monitoring wells adjacent to waste burial trenches (MW04, MW05, MW07 and MW08). – MW01 and MW02 located in the northern portion of the site reported no elevated methane or carbon dioxide. – No discernible flow rates were detected, however, only a single round of screening has been completed, which may not have captured the worst case meteorological scenario. – The highest concentration of methane detected was 40.8 %w/w at MW04, the highest concentration of carbon dioxide was 24.2 %w/w at MW08, the highest concentration of oxygen was recorded at 21.5 %w/w at MW02 and the highest concentration of carbon monoxide was 1ppm. Hydrogen sulphide was not detected. **Discussion:** • Minor detections of TRH/PAH were detected in soil above the LOR for samples collected from existing sheds, general poultry farm area (surface samples) and within waste trenches, however, all results were below the adopted SAC.

Report	Auditor Summary
	• Formaldehyde was detected above the LOR in two samples collected form the waste trenches, where concentrations were reported equal to the LOR of 1mg/kg. It is concluded that any past use of formaldehyde during poultry farm operation has not contributed to soil contamination at levels which present a risk to future site receptors. • Outside of poultry waste (chicken bones and eggshells), no other anthropogenic inclusions were observed within waste trenches. • Elevated concentrations of TRH were reported in SS07, SS08 and SS09, which were collected from near surface soils adjacent to the AST. No exceedance of SAC were reported. • Additional presumed ACM was observed on the site surface, however, Martens consider the RAP addresses asbestos contamination. Further refinement of the remedial strategy is recommended to ensure that details are provided to address potential future physical works in the asbestos contaminated material. • Groundwater is excepted to flow north-northeast towards Navigation Creek. • It is unlikely that groundwater will be encountered during site development works, nor will groundwater be used as part of the proposed development. • Elevated concentrations of TRH, Benzene and Toluene were detected at MW04 during both monitoring events. PFAS was detected slightly above the LOR at MW04 during both monitoring events. The proximity of MW04 to the burial trenches would suggested that reported contaminant concentrations are likely attributed to past waste burial practices. No monitoring well further downgradient (MW06 and MW08) reported significant concentrations of contaminants, which indicates limited mobility of these contaminants in groundwater. • The nearest potentially ecological receptor is 350m downgradient of MW04. The absence of these COPCs in wells <20m downslope indicates migration is limited with natural soil attenuation processes sufficient to prevent impacts on downslope receptors. • Heavy metals were detected during both monitoring events exceeding ecological criteria at MW03 (located in recently placed fill) and MW04 (near burial trenches). The latest monitoring round reported concentrations of copper and zinc in MW01 (downslope of the northernmost poultry shed in an area of no recent site filling) which exceeded ecological criteria. Some elevations in heavy metal concentration may be attributed to former waste burial and past agricultural practices. Given the regional agricultural land use, elevated concentrations of heavy metals would not be unexpected. • The landfill gas screening assessment identified the presence of elevated levels of methane and carbon dioxide, as well as very depleted levels of oxygen in monitoring wells adjacent to former waste burial trenches. It appears likely that ground gas generation is originating from anaerobic decay of waste in burial trenches in the southern portion of the site. **Conclusions:** • Martens note that the elevated LFG in the southern portion of the site requires some form of management or remediation. • Asbestos requires remediation to make the site suitable. • Amendments to the RAP (Martens 2021) should be made to manage LFG and mitigate the risk posed to potential receptors.
	Auditor Comment: • As above, reference Guidelines for Consultants Reporting on Contaminated Land. • Martens should survey the groundwater wells and provide groundwater flow contours. • Did Martens let the wells stabilise for one week after development prior to sampling? • What is the rationale for only collecting water quality parameters during the second round of sampling? How did Martens know the groundwater being sampled in the first round was representative of natural conditions? • What is the rationale for not collecting groundwater triplicates or rinsates? • It is noted that for bioaccumulative analytes, the 99% protection criteria should be applied for groundwater. • It is understood groundwater monitoring wells were installed and 3 were dry during sampling – why does table 7 say that 8 primary samples were analysed?

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	• Table 10 – Martens should include a discussion on what the groundwater parameters indicate e.g. pH indicates a slightly acidic to slightly alkaline environment etc. In addition, was redox parameters collected? Why do Martens think the EC changes significantly between wells? • What is the rationale for sampling PFAS in groundwater, but not soil? • What about COPC such as E.coli and coliform presence, nutrients (nitrogen/nitrate and phosphorus/phosphate etc) and ammonia for the buried waste area? Why weren't these COPCs sampled for in soil and groundwater? • A visual CSM may best describe the site situation. • The AECs described in the DSI such as multiple stockpiles do not appear to have been assessed – Martens to comment. • If heavy metals in groundwater were attributed to site fill or burial trenches, wouldn't we expect to see elevated concentrations in soil? • Martens note that groundwater concentrations are not of concern as it will not be encountered during the excavations and is not part of the proposed development - it is noted there is a stock/domestic bore on the southern site boundary – is this bore in use? There are other stock/domestic and recreational bores west and north west of the site. In addition, what about the impact on the receiving water bodies such as neighbouring dams and the creek? • Has the soil that was used to infill the former site dams been analysed? • What is the rationale for placing MW03-MW08 so close together? What about the remainder of the site? It is understood there is MW01 and MW02 in the central/northern portion of the site. • Martens could consider test pitting to delineate the boundary of the buried waste and characterise potential lateral and vertical migration of contamination from the waste? • What is the rationale for only collecting limited surface samples for the areas where poultry farming occurred surrounding the sheds and surrounding the AST? The Auditor considers that boreholes or test pits should have been drilled. • MW01, MW02 MW03, MW04 and MW08 were screened in the shale only, whereas MW05, MW06, MW07 were screened in silty clay overlying shale – do Martens think this has an impact on the results? • BH302, BH311 and BH312, were terminated in fill – we do not know the extent of fill in this area. • Were BH301, 303, 304, 305, 306, 307, 308, 309 and 310, terminated in fill or natural material? • The sampling density and number of locations does not provide adequate coverage for the Auditor to sign off the entire site as being suitable. As noted above, surface samples have only been collected surrounding sheds and the AST. Samples from BH301-BH312 (shed footprints) were only collected in the shallow subsurface to a maximum depth of 0.3m BGL. And samples from TP401 – TP413 (waste burial trenches) were collected from depths between 1.0 and 3.6m BGL, with one or two samples collected from each location – what is the rationale for only sampling at these depths? • Attachment F – the full water and landfill gas sampling record forms should be included, showing stabilised parameters within 10% for three consecutive readings. • Soil table: site specific EILs were not included in the laboratory summary table for metals. • Groundwater table: the NEPM HSL values were not included in the summary table. • Martens should show calculations and provide discussions on characteristic gas situation and gas screening values. • Martens could consider surface monitoring of methane emission across the inferred waste footprint to determine if surface emission is a major gas migration pathway. • The Auditor agrees the worst-case meteorological scenario in the Australian climate is likely to not have been captured – this is generally represented by a pressure drop of 3.3 hPa over a 3 hour period. Did Martens record atmospheric pressure and water levels? The Auditor recommends additional sampling rounds occur.

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	• Was any leachate observed? If so, this could be sampled, with results compared to groundwater results in a piper plot to determine if the leachate perched in the waste has influenced the quality of the groundwater system. • What was the condition of surface water in the remaining dam? • Rain percolating through fill materials potentially could have liberated soluble contaminants and introduced oxygen into the shallow subsurface which thereby increased carbon dioxide by aerobic bacteria. • Table 12: Martens should include the monitoring date, atmospheric pressure, min, max and steady flow, standing water level, measured well depth, adjusted peak flow, gas screening value for each location, and if the screen was flooded by groundwater • It is noted that benzene, toluene and elevated levels of hydrocarbons, particularly F3 were detected in groundwater, primarily at MW04 – Do Martens consider the groundwater contamination is centred around MW04? It is understood that groundwater is expected to flow north/northeast – Do Martens think we have enough wells downgradient of MW04 to determine if offsite migration is an issue? It is noted MW01 and MW02 are slightly north/north east of MW04, however they are quite a distance away – The level of toluene is almost at the criteria of 180ug/L in MW04 (170ug/L) – Are Martens sure that the source has been identified and this is not the edge of a potential plume? • Martens should comment on the EPA ground gas guidelines which state that 1% v/v of methane (screening value) (NSW EPA Environmental Guidelines Solid Waste Landfills) and 5% LEL – Ground Gas indicate corrective action or further investigation is required. • In addition, Martens could refer to the guideline values of 45mg/m^3 (30ppm) for CO and 14mg/m^3 (10ppm) for H_2S (SafeWork Australia 2019)
Remedial Action Plan Martens (June 2021)	**This RAP was prepared to detail the necessary remediation to make the site suitable for the intended land use (DA 2019.688.1). This version of the RAP (V2) has been updated in light of supplementary DSI investigations which were undertaken between April and May 2021.** **Updated CSM:** • Fill: Fill material, observed to contain ACM has been identified at the site – asbestos • Burial trenches: former burial trenches containing agricultural waste is generating elevated concentrations of methane and carbon dioxide, which presents an unacceptable risk to the proposed development and future receptors – methane and carbon dioxide. • Exposure Pathways: direct contact, ingestion, inhalation of landfill gas and ingress of landfill gas to future development structures. • Receptors: future site construction workers, future site users and future maintenance or subsurface workers. • The DSI has confirmed the presence of asbestos (bonded in fragments of fibrous cement sheeting) contamination in fil material (surface and at depth) located in the southern half of the site. Access to exposed soil in this area is presently readily available and a potential pathway is considered complete. Future earthworks may also create a complete pathway to subsurface ACM. • Landfill gases (methane and carbon dioxide) have been detected in screening assessment works in wells located in the southern portion of the site. It is anticipated that ingress of landfill gases into enclosed structures, as well as build up of landfill gases beneath impermeable pavement and/or slabs may cause a health risk to future site workers, as well as a potential explosive risk. **Extent of Remediation:** **1.** Fill: • Preliminary estimates indicate the fill impacted area covers 16,500m^2. The approximate extent of filling has been mapped based on aerial photographs. Some areas where ACM impacted fill was identified are outside of site areas to be filled as part of the development. • The proposed cap extent indicates that in these areas of the site, ACM impacted fill shall be placed and capped as part of remediation works. **2.** Burial Trenches:

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	• Elevated methane and carbon dioxide have been observed in monitoring wells in the southern portion of the site. based on aerial photograph review and site investigations, burial trenches are believed to be limited to an area of 1000m^2 in the south of the site. • Trenches are believed to have been excavated and filled between 2010 and 2017 by a previous site owner, prior to importation of fill. Trenches containing agricultural waste are expected to be approximately 0.5-0.8m deep and beneath 2.0-2.5m of overlying fill material. **Preferred Remedial Option:** Fill Material: cap the material onsite • As some ACM impacted fill has been placed outside of the proposed development footprint, or at levels in excess of those required, the relocation for burial of some previously imported fill material shall be required. • Suitable options for capping layer to separate ACM impacted fill from end users have been developed to respond to each of the final surface uses/treatments proposed: – Structural concrete ground slabs for sheds. – Hardstand – rigid (concrete) or flexible sealed or unsealed 'pavement'. The hardstand is to comprise, as a minimum (1) a marker layer (geotextile layer) over ACM impacted fill and (2) pavement layers. Where flexible pavement is proposed, it shall comprise a minimum 300mm total thickness of pavement materials (sandstone, road base, wearing course materials) – Landscape layer – this is to comprise a minimum (1) marker layer (geotextile layer) over ACM impacted fill and (2) minimum of 500mm of clean material for the establishment of site vegetation. Burial Trenches: onsite management of landfill gas • Elevated methane concentrations (>20%v/v) indicate gas protection measures for a site with a characteristic situation of 3 will be required. • The final gas protection measure may be refined subject to further assessment works and detailed structural design of proposed buildings, but are expected to include: – Construction of a passive, under slab landfill gas collection and venting system beneath new buildings located in the vicinity of the burial trenches – Construction of a passive gas drainage collection and venting system from the cut off trench to a line 10m north of the northern most trench. Collection system is to be graded to venting locations to allow discharge of 'lighter than air' LFG. – Installation of a methane proof membrane above the passive venting system and below the new building slabs, hardstand pavement material or landscape capping layers and across the fill pad in the southern portion of the site (including batters). For gas drainage blanket areas outside of ACM capping areas, a minimum cover over the methane proof membrane equivalent to the ACM capping layer requirement will be provided. – Installation of a gas cut off trench along the southern boundary to manage potential offsite migration risk. • Martens recommend an additional landfill gas characterisation. The findings may present alternative options such as: – A level 3 risk assessment to refine site risk and potentially mitigate measures. – Excavation and offsite disposal of putrescible material within burial trenches to remove the gas generation source and remove the risk of LFG generation. If natural attenuation of existing LFG occurs, management measures may not be required. • A long term environmental management plan (EMP) will be required for the site to detail the presence and location of capped ACM and mapped burial trenches, monitoring requirements for LFG trends, maintenance requirements for capping material and landfill gas management infrastructure and procedures for any further required works beneath the capping layer or landfill gas protection measures. **Remediation Plan:** **1.** Stage 1: Notifications and Preliminaries • It is anticipated remedial works will be approved by development consent conditions imposed on the DA.

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	• Notification to SafeWork NSW will be required to advise of the presence of asbestos contamination. **2.** Appointment of a Remediation Contractor/Environmental Consultant/Surveyor • All remediation works are to be completed by a licensed asbestos removal contractor who will prepare an asbestos removal control plan for submission to SafeWork NSW. • The environmental consultant will supervise remediation and validation, confirm suitability of capping material, monitor placement of capping material, document remedial stages, perform validation inspections and prepare a validation report. • The surveyor will undertake a survey of the upper surface of buried ACM impacted fill after the placement of a geotextile marker layer and survey the upper surface of the capping layer. **3.** Site Establishment • Establishment of site offices, work sheds and amenities, decontamination facilities, physical barriers and signage. • Installation of air monitoring and quality control measures. • Establishment of site holding areas for contaminated material. **4.** ACM Remediation • Where recently imported fill has been placed outside of the proposed cap areas, it is to be excavated and placed in the areas to be capped. • The surface of the remediation area is to undergo an emu pick by the remediation contractor to remove surface ACM. A surface clearance certificate will be produced to confirm the surface of the remediation area is free of ACM. • A marker layer (geotextile fabric) is to be placed over fill material prior to the establishment of the capping layer. • A survey is to be completed of the top of the marker layer and then post placement of capping material (in mAHD) **5.** Landfill Gas Management • Construction of a passive, under slab LFG collection and venting system beneath new buildings. • Construction of gas collection and venting system over trenches. • Installation of a methane proof membrane above the passive venting system (and below new building slabs) and across the fill pad in the southern portion of the site (including batters) • Installation of a cut off trench along the southern boundary to manage potential offsite migration risk • Survey of the extent of all constructed gas management infrastructure. **6.** Site Validation • A validation report documenting the completed remediation works must be prepared by the consultant. – Remediation areas where hardstand or structural slab is proposed – capping layer verification is to be provided – Soil capping layer – the capping layer is to consist of VENM/ENM or waste exempt material for landscaping purposes and be a minimum of 0.5m thick – this is to be visually confirmed by the environmental consultant along with the thickness confirmed through survey data – Where capping thickness is less than the specified minimum thickness, additional capping material is to be placed and the surface resurveyed. – LFG – inspections at relevant hold points (1) excavation of cut off trench (2) placement of gas collection infrastructure (3) placement of gas membrane and (4) completion of venting system. Data is to be reviewed during installation and surface methane monitoring is to be completed following passive sub slab ventilation system. The methane concentration over 100% of the ventilation layer at <1% v/v at a wind speed of 0.3m/s is considered a 'very good performance' (NSW EPA 2020). – Where fill is imported to the site it should be documented as VENM/ENM or waste exempt material suitable for the intended purpose. Waste classification documentation is to be provided.

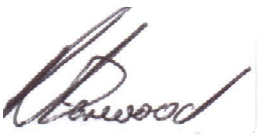
Report	Auditor Summary
	• The validation report shall detail remedial works, results of the assessment, tracking data for material taken offsite, imported material, preferred LFG remedial strategy as well as remediation and validation. All survey data will need to be included. **Further LFG Characterisation:** • A LFG SAQP is to be prepared to detail further investigation works, which may include installation of additional gas monitoring wells (north of existing wells, at varying distances to assess migration), additional monitoring events to determine changes in soil gas conditions over time and long term continuous gas monitoring to monitor gas trends over time over varying atmospheric conditions. • After the above is completed, further risk assessment of LFG will be undertaken. Martens consider that the RAP provides remediation and validation methodology to manage risks posed by contamination and render the site suitable for the proposed development.
	Auditor Comment: • As above reference contaminated *land* guidelines. • Table 1 – Martens should reference nearby receptors and direction of groundwater flow. • Has the northern portion of the site been sampled for asbestos at an appropriate density? • Section 4.2.2 – Are Martens confident that they know the extent of burial trenches and therefore the extent of landfill gas? Martens could refer to historical aerial photographs to determine expected locations of where chicken carcasses were buried. Martens have not provided enough detail on potential surface emission and subsurface movement of LFG. • The Auditor is not yet satisfied that the rest of the site been sampled at an appropriate density to state it does not require capping. • Is the entire site proposed to be commercial/industrial land use? It is noted a dwelling exists in the north eastern portion of the site. • Martens note that detailed design of the gas management measure will be required and shall be included as an addendum to the RAP, prior to site installation. The Auditor agrees not enough detail of the gas mitigation system has been provided and the Auditor cannot yet state that it is satisfactory to mitigate LFG. • Any areas used as 'site holding areas for contaminated material' should be lined with HDPE to ensure cross contamination onto the site surface does not occur. • The Auditor requires that in addition to visual clearance certificates, validation samples also be collected from asbestos impacted fill which is proposed to be moved to the capped area to confirm no residual contamination remains. • Section 6.6.3 – Martens have listed placement of gas collection infrastructure twice – is there a missing hold point? • Map 02 – why is the extent of fill larger than what is being capped? Is the pink area beyond the proposed capping area going to be excavated and placed within the blue capped area? – In addition, it appears some of the area which is proposed to be part of the earthworks falls within the waste burial area and outside of the asbestos capped area – will some buried waste from historical poultry farming be excavated as part of the development? • The visual capping designs for ACM impacted material and visual designs for gas mitigation systems should be included. • The concentrations of methane and carbon dioxide are typical of a putrescible waste landfill • Martens should refer to the level 1 risk analysis (table 4, 5 and 6 of the EPA Ground Gas Guidelines) to determine the risk assessment and likelihoods. Martens should then refer to the level 2 risk analysis of the guidelines where the gas screening value and characteristic gas situation is determined (section 4.3.4). Martens then need to refer to the guidance value for gas protection (table 8) and discuss protection measures (table 9 of guidelines). Martens should discuss further what remedial strategy they are adopting and what gas protection score that gives the site. • Martens should comment on the cap integrity and specifications.

Report	Auditor Summary
	• Have Martens considered leachate management? • Passive venting to the atmosphere of untreated gas should be avoided. • How will Martens demonstrate there is no offsite migration? Should wells be installed along the perimeter of the waste area? • If methane is detected above the 1% v/v, additional investigation or corrective action is required. • Will there be any footings or services penetrating the material? • Periodic monitoring which takes into account varied meteorological conditions and contingencies will be required – Martens to detail the number of events. • Laboratory analysis for gas sampling should be considered, at a minimum, the wells with elevated concentrations should also be sampled with summa canisters to validate LFG results. Summa canisters will provide quality control checks that the sampling equipment (LGA) used is reliable. • The building design needs to be understood prior to the Auditor confirming the remedial strategy is suitable and is an effective mitigation system. • Indoor air monitoring post construction with the LGA may provide more accurate data and could form part of the validation process. • How often will surface monitoring of methane be completed and at what level will it be tested? At what density will it be tested (e.g. on a grid?), what atmospheric conditions will monitoring be completed on to validate that the system is working? What are contingencies if the system isn't working? In addition, for surface monitoring of methane, the wind speed, peak and ambient readings for each transect should be detailed. • The marker layer under the cap should consist of a high visibility geofabric layer. • Martens need to make it clear that the EMP is legally enforceable under a positive covenant and is to be retained by the site owners and appended to the site's Section 10.7 Planning Certificate.

3. CONCLUSIONS

The Auditor concludes the above comments should be addressed. Auditor will then address the suitability of the Detailed Site Investigations and Remedial Action Plan for the site. The Auditor is not yet satisfied that sufficient soil sampling density has been achieved. In addition, only one groundwater and ground gas monitoring round has been completed for the site, and additional sampling rounds are likely to be required. A meeting with Martens is recommended to discuss the above issues.

Yours Sincerely



Rod Harwood

NSW EPA Accredited Contaminated Sites Auditor (Accreditation No. 03-04.)

0438 200 055

Harwood Environmental Consultants
Gunners Barracks
Suite F, 38 Suakin Drive
George Heights, Mosman 2088

rod@harwoodenviro.com.au

28 July 2021

Mr James Muscat
Muscat Developments Pty Ltd
by email

INTERIM ADVICE 02: REVIEW OF SAMPLING AND ANALYSIS QUALITY PLAN: SUPPLEMENTARY INVESTIGATION AT 285 FINNS ROAD, MENANGLE NSW.

Dear James,

1. INTRODUCTION

1.1. Background

James Muscat of Muscat Developments Pty Ltd engaged Rod Harwood, a NSW EPA accredited Contaminated Land Auditor (accreditation no. 03-04) who is employed by Harwood Environmental Consultants (HEC), to provide Contaminated Site Audit Services for the Site located at 285 Finns Road, Menangle NSW.

The final outcome of this engagement is to prepare a Site Audit Statement (SAS) and associated Site Audit Report (SAR), indicating the suitability of the Site for the proposed depot and transport depot. It is noted that the site is currently approved for use as a poultry farm. The proposed development includes construction of an office building and two new sheds; cut and fill in various locations; filling of two dams at the ground surface near the south, southwest, northwest, west and central portions of the site; and construction of hardstand and other site infrastructure in accordance with the Guidelines for the NSW Site Auditor Scheme (3rd Edition), 2017.

It is understood that the proposed development is currently the subject of a Class 1 appeal in the NSW Land and Environment Court (LEC proceedings number 2020/00178157). It is understood that Martens prepared correspondence dated 19 October 2020 to address several of Council's concerns regarding the proposed development which include site contamination. Based on the findings of a Preliminary Site Investigation (PSI) completed by Martens in August 2020, Martens proposed that the following items be included as conditions of consent for the development:

> *Prior to issue of a Construction Certificate, an Asbestos Management Plan ("AMP") shall be prepared to:*
>
> *1. Identify and manage asbestos in structures and any fragments resulting from building deterioration or stockpiling of asbestos containing building materials.*
>
> *2. Prepare and maintain an asbestos register of all asbestos containing materials to be retained on the site (i.e. building products etc in existing structures).*
>
> *3. Undertake asbestos removal works of all asbestos not associated with structures. Removal works shall include any stockpiled asbestos building products, picking of PACM fragments*

surrounding sheds and removal of any identified asbestos impacted soil/fill material on the site. The AMP is to include all asbestos related controls required for asbestos removal works.

Prior to issue of a Construction Certificate, an Unexpected Finds Protocol ("UFP") shall be prepared for the proposed site earthworks. UFP shall provide guidance for the management of any encountered PACM in soil material, oil stains or other signs of contamination should they be exposed during the proposed site earthworks.

In addition to the above conditions, Martens recommended that the following condition be imposed in relation to the importation of any fill material required for the development:

Fill material to be brought onto site for the development to be only fill characterised as VENM, ENM or otherwise waste exempt material under the NSW Waste Regulation (2014). Copies of certifications or validation reports for all fill used shall be retained and presented to Council on request".

Following submission of both the PSI and letter, Martens received a written response from Council's contaminated lands officer via advice from Bradley Allen Love Lawyers (email dated 5 November 2020), acting on behalf of Council. The response stated that:

Further to our letter dated 30 October 2020 and the s.34 conference for this matter, we have now obtained advice from the Council's contaminated lands officer.

We advise that the imposition of the consent conditions proposed at items 4 & 5 of Mr Shahrokhian's letter to you dated 19 October 2020 will satisfactorily address the Council's outstanding contamination concerns.

Martens note that the above is confirmation that, as of November 5, the consent authority (Council) had considered if the land was contaminated; and was satisfied that the land was suitable for the proposed purpose for which the development is proposed to be carried out. Martens note that the SEPP 55 clause 7 had been satisfied.

However, Martens note that subsequent to Council's assessment and conclusion that the site was suitable with regards to land contamination, fill material not present during the PSI assessment, nor at the time of Council's assessment, was imported to the site. Council has therefore indicated that they required further information to be satisfied that the site is suitable for the proposed use as required by Clause 7(1) of SEPP 55.

This Audit has not been completed in support of development consent, or to satisfy NSW EPA, but for additional technical review. The Audit is therefore considered to be a non-statutory site audit.

The Site Audit Statement will be issued to the client. Rod Harwood is an Auditor accredited by the NSW EPA (accreditation number 03-04) who has worked with a wide range of consultants to provide practical and competent outcomes and resolutions on contaminated site issues.

Whereas Interim Audit Advice is provided to assist in the assessment and management of contamination issues at the site, the Interim Audit Advice should not be regarded as 'approval' of any proposed investigations or remedial activities, as any such approval is beyond the scope of an independent review.

1.2. Site Audit Process

EPA (2017) Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition), describes the site assessment and Audit process:

The **'first tier' is the work of a contaminated site consultant,** generally engaged by the site owner or developer. The contaminated site consultant designs and conducts a site assessment and any necessary remediation and validation and documents the processes and information in reports.

The **'second tier' is the site audit**, which involves a site auditor independently and at arm's length reviewing, for one of the audit purposes stated in the CLM Act, the consultant's assessment, remediation,

validation and management plans or reports. The material outcomes of a site audit are a site audit report and a site audit statement.

It is important to note that with respect to waste management on contaminated sites, the EPA Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition) state:

- When reviewing information relating to the management of waste, site auditors must have regard to the provisions of the NSW Government's framework for managing wastes. In New South Wales, it is an offence to transport waste to a place that cannot lawfully receive it or use a site to receive waste that cannot lawfully be used as a waste facility. To ensure that waste generators (or their representatives) do not trigger such offences:
- in relation to disposal, they must ensure their waste is carefully classified in accordance with the Waste Classification Guidelines – Part 1: Classifying Waste (EPA 2014) as in force from time to time (the 'Waste Guidelines', available from Waste classification guidelines: www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines), and the waste is taken to a facility that is lawfully able to receive that waste; and
- in relation to re-use for land application purposes, they must ensure their waste meets the requirements of the resource recovery order and resource recovery exemption framework.

For consultants who have been engaged to classify waste, or to assist their client in complying with the order and exemption framework, they must ensure their work complies with all of the requirements of the Waste Guidelines, and the relevant order and exemption. It is an offence to supply information about waste that is false or misleading.

Part 4 Section 53B of the CLM Act describes that Site Audits conducted by EPA Accredited Site Auditors must take the following matters into account:

- the provisions of the CLM Act and the CLM Regulations;
- the provisions of any environmental planning instruments applying to the site; and
- the guidelines made or approved by the EPA.

Therefore, the contaminated land consultant and other relevant parties should be satisfied that the work to be conducted conforms to all appropriate regulations, standards and guidelines and is suitable based on the site history and the proposed land use.

At the completion of the Site Audit process, the Site Auditor must complete a Site Audit Statement (form provided by EPA which only accredited site Auditors may sign under the Contaminated Land Management Act 1997) supported by a Site Audit Report (comprehensive critical review of all contamination assessment and remediation conducted at the site). However, the Auditor may provide written interim advice on the work plans or reports in the lead-up to issuing the final Site Audit Statement at the end of the entire Audit.

When this Interim Advice is provided, the Site Auditor must:

- specify that the Interim Advice does not constitute a Site Audit Report or Statement;
- ensure the Interim Advice is consistent with NSW EPA guidelines and policy;
- not pre-empt the conclusion to be drawn at the end of the Site Audit process;
- clarify that a Site Audit Statement will be issued at the end of the Audit process; and
- document in the Site Audit Report all Interim Advice that was given.

Section 3.1 of the Auditor Guidelines states that the site auditor must meet the following particular requirements regardless of whether the audit is statutory or non-statutory:

a. comply with applicable provisions of the CLM Act, regulations, environmental planning instruments, and any guidelines made or approved by the EPA under the CLM Act
b. not have a conflict of interest in relation to the audit as defined by the CLM Act
c. where these guidelines allow an auditor to adopt or endorse an approach that differs from policies made or approved by the EPA, exercise independent professional judgement in doing so and provide in the site audit report adequate and explicit justification for taking this course
d. finalise the site audit report before signing the site audit statement

e. provide in the site audit report a clear, logical discussion of issues covered in the site audit and clearly substantiate the rationale for the auditor's conclusions Therefore, the contaminated land consultant and other relevant parties should be satisfied that the work to be conducted conforms to all appropriate regulations, standards and guidelines and is suitable based on the site history and the proposed land use.

f. discuss in the site audit report all issues pertinent to the actual or potential contamination of the site and all issues required by these guidelines to be raised during a site audit

g. state clearly why any human health and environmental issues that would normally be of concern are not of concern in the case of this audit

h. make every reasonable effort to identify and review all relevant data, reports and other information held by the person who commissioned the site audit, or which is readily available from other sources, that provides evidence about conditions at the site which is relevant to the audit

i. obtain advice from the appropriate expert support team members on issues that are outside the auditor's professional education, training or experience, and document in the site audit report where and from whom advice has been obtained

j. exercise independent and professional judgement in deciding whether or not they have sufficient information to make a decision about the suitability of a site or a plan or to draw any other conclusion in relation to actual or potential contamination of a site in the course of a site audit, with justification for conclusions to be given in the site audit report

k. make reasonable endeavours to find out whether any other audits have been commissioned in relation to the site and, if so, whether any of them were prematurely ceased and why

l. state in the audit report the scope and findings of any previous audits

m. in cases where the audit involves a review of site assessment, remediation or management work, visit the site to observe and verify, as far as is practicable, the completion of this work.

2. INTERIM ADVICE

The current interim advice provides comments on the following documents:

- Martens Sampling and Analysis Quality Plan: Supplementary Investigation at 285 Finns Road, Menangle NSW, dated July 2021. Ref: P1806774JR17V01.

Report	Auditor Summary
SAQP Martens (July 2021)	**This SAQP has been prepared to inform further testing requirements at 285 Finns Road, Menangle NSW.** • Additional investigations are required to allow preparation of a data gap closure report and amendments to the existing RAP to detail measures required to make the site suitable for the intended depot and transport depot land use. • The proposed ground gas assessment has been prepared to better characterise the site ground gas conditions understanding that the remedial approach for the management of the identified ground gases shall involve: **1.** Excavation of the presumed source material for GG being buried waste. **2.** Remediation of the waste material on site through either land farming to achieve degradation of the organic putrescible material from which the GG are being generated or through waste classification and removal of the material from the site. **3.** Validation of the remediated waste material prior to reburial onsite. This shall involve assessment of chemicals and the potential for material to continue to generate potentially hazardous GG. **4.** Validation that the site GG conditions are acceptable prior to development works. Where GG conditions are unacceptable, remediation through excavation and replacement of GG impacted fill (and natural material, where required) shall be undertaken. **5.** The above source of remediation shall result in a modification to the RAP as previously submitted. Rather than managing the potential GG impacts on the development, the

Report	Auditor Summary
	remedial strategy is to be adjusted to allow for the removal of the GG hazard from the site. **Proposed Development:** Construction of an office building and two new sheds; cut and fill in various locations; filling of two dams and at the ground surface near the south, southwest, northwest, west and central portions of the site; and construction of hardstand and other site infrastructure. This is subject of a Class 1 appeal in the NSW L&E Court – LEC proceedings (2020/00178157). **Former Burial Trenches:** • Historical aerial photographs taken between 1969 and 2021 were reviewed as part of a desktop contamination review. Evidence of former burial trenches in the south of the site can be seen in aerial photographs taken between 2010 and 2015 and disturbance of the area in 2002, during the site's operation as a poultry farm. • While it is noted that operation began circa 1975, no evidence of burial trenches can be seen prior to 2002. • Intrusive test pit investigations in the former burial trenches were undertaken. Impacts to groundwater and the presence of land fill gas (methane and carbon dioxide) were attributed to burial trenches. Further investigation is required to characterise groundwater impacts and GG extent. The lateral extent of both groundwater and GG impacts is of primary concern. Additional groundwater and GG investigations will be undertaken in the vicinity of identified trench areas. **Further Assessment:** • Asbestos in Soil: – Further analysis of asbestos is required to address WHS risks during proposed site earthworks required for the development. Analysis of AF/ FA in fill is proposed to eb undertaken. – Investigations and analysis is to be undertaken in all areas with recently placed fill material which are required to be disturbed during the construction phase of the development. These areas include locations where fill has been temporarily placed outside of the proposed extent of filling and where current fill levels are above that required to allow for capping of fill and achieving of design ground levels. – Investigations are to be undertaken at twice the rate specified in the NSW EPA (1995) sampling design guidelines, as previous investigations indicate that asbestos is likely in the area. At each investigation location samples are to be collected at a rate of 1 per testing location where fill depth is less than 1.0m , with an additional sample collected for each metre (or part thereof) of encountered fill material: • <1m – 1 sample • 1-<2m – 2 samples • 2-<3m – 3 samples • 3-<4m – 4 samples – In accordance with the guidelines outlined in section 11.3 of the NEPM (2013), and as discussed and agreed with the Auditor, further investigation of fill material which is not to be disturbed is not proposed. • Deep Fill and Natural Soils – To assess deeper fill material >1m BGL and natural underlying soils, additional investigations are required in areas where fill has been recently placed. – The minimum sampling density as noted in the NSW EPA guidelines has been exceeded in the IA from previous investigations, so a reduced rate of 50% of the NSW EPA guidelines ahs been adopted. • Above Ground Storage Tank – To determine if deep soil contamination is present in the vicinity of the AST, an additional 2 samples are to be collected from depths >0.3m BGL around the AST. • Proposed Testing Locations: **1.** Asbestos in soil (1.2 ha): 46 additional sample locations are proposed – double density **2.** Deep fill and natural soils (2.0 ha): an additional 15 locations are proposed, as 41 locations have already been sampled to date

Report	Auditor Summary
	3. Additional AST (<0.1 ha): 3 locations have been sampled to date and an additional 2 sampling locations are proposed. **Additional Groundwater Investigations:** • Further groundwater monitoring is recommended. The proposed monitoring event will include the same analytical suite as sampled in the SDSI as well as additional analytes associated with the buried poultry farm waste and possible decomposition products of that waste including E. Coli and thermo tolerant coliforms, nutrients (dissolved phosphorus, ammonia, total nitrogen, nitrogen oxides) as well as dissolved GGs (methane, Carbon dioxide and hydrogen sulfide). • Two deeper groundwater monitoring wells are proposed to be installed downgradient of MW03-MW08 to assist in the delineation of contamination extents and will be included in the sampling event. **Additional Ground Gas Investigations:** • Six additional soil vapour monitoring wells are to be installed around the perimeter of the expected extent of former burial trenches. These are located to further delineate the extent of current GG impacts. • An additional round of GG monitoring is proposed to further define the GG risks and extents of contamination. The additional round of monitoring shall include all previously tested wells as well as the additional wells. • To assist in defining the vertical extent of GG impacts, surface monitoring for hazardous gases will also be undertaken in transects across the surface to assess if any vertical gas migration is present. **Sampling Procedures:** • Test pits will be excavated to a maximum depth of the design finished surface less 700mm for assessment of asbestos for earthworks areas and underlying natural material where sampling of deeper fill and natural materials are required. • Two boreholes are to be excavated in the vicinity of the AST. • Soil samples will be collected at a rate of 1 sample per 1m of fill or at notable changes in the soil profile. A minimum of one or two samples will be collected at each location (1 fill and 1 natural). • Additional deep fill and natural soil samples will be selected for analysis based on visual and olfactory indicators of contamination and to allow for a good vertical and horizontal spread across the site. • For samples collected from fill, underlying natural material and areas adjacent to the AST, COPC to be included are TRH, BTEXN, heavy metals, OCP/OPP, PCB and formaldehyde. • Groundwater monitoring wells are proposed to be installed to a depth of 9-10m BGL or a minimum of 1m beneath the SWL. The wells will be developed dry on the day of installation and left to stabilise for one week prior to sampling. • Ground gas wells will be installed in a general perimeter around the former burial trench area and driveway on the southern side of the nearest existing shed. Wells are to be installed at a depth matching the depth of putrescible waste in burial trenches. This material was identified at a maximum depth of 3.0m BGL. • Static monitoring of GG wells is to be undertaken using a landfill gas analyser for methane, carbon dioxide, carbon monoxide and hydrogen sulphide and are to be screened for 10 minutes or until parameters are stable, whichever comes first. • Surface emissions monitoring is to be undertaken in a grid transect at 25m spacing. Readings are to be recorded every 25m as well as any location where the adopted SAC (methane >500ppm) is exceeded. An intraspectra laser will be used for monitoring.
	Auditor Comment: • As previous gas levels were taken from the headspace of groundwater monitoring wells, we are likely to only have data on dissolved ground gas. If the screen is above and below the water table, dissolved gases have been measured. If the screen is above the water table, GG has been measured. We should have an indicator of both dissolved methane and methane gas. Martens could consider installing an additional soil vapour well inside the buried waste area to get an accurate ground gas reading – this could be installed in the worst case scenario location. • GG assessment criteria – carbon dioxide should be 1.5% v/v, not 15% v/v.

Report	Auditor Summary
	• In addition, Martens could refer to the guideline values of 45mg/m^3 (30ppm) for CO and 14mg/m^3 (10ppm) for H_2S (SafeWork Australia 2019) • Test pits will be excavated to a maximum depth of the design finished surface less 700mm for assessment of asbestos for earthworks areas and underlying natural material where sampling of deeper fill and natural materials are required – the Auditor notes that the depth of fill should be delineated and test pits should extend into natural material. • The coverage of deep soil sampling and AF/FA testing appears to be appropriate (see comment below regarding the western portion). Martens should ensure that for the AST and deep soil sampling, at least one deep fill and one natural material location is analysed. • Martens state that for samples collected from fill, underlying natural material and areas adjacent to the AST, COPC to be included are TRH, BTEXN, heavy metals, OCP/OPP, PCB and formaldehyde – the Auditor recommends that PAHs should be included in this analytical suite and limited natural material locations should also be sampled for presence/absence of asbestos to provide characterisation. • It is understood groundwater is to be analysed for the same contaminants as the last round, which was BTEXN, TRH, PAH, Heavy metals, OCP/OPP, PCB, formaldehyde, PFOS/PFOA and VOC, with the addition of E. coli and thermo tolerant coliforms, nutrients (dissolved phosphorus, ammonia, total nitrogen, nitrogen oxides) as well as dissolved GGs (methane, Carbon dioxide and hydrogen sulfide) – the Auditor agrees with this approach. • An extra SV point should be considered to the west of MW07 as it is noted that MW06 was never assessed. • In the text martens say 6 soil vapour wells are to be installed – map 18 only shows 5. • Groundwater is expected to flow north east – the two additional proposed wells appear to be sufficient to capture downgradient migration of potential contaminants from the buried waste. • If former dams were infilled, sampling of that material should also be completed. • Are Martens confident that fill extends to the area outlined as the 'investigation area'? It is understood Map 20 shows fill to be disturbed which is where AF/FA sampling is proposed, but previous reports indicate filled material extends further west. Two-three deeper fill/natural material locations for characterisation of material could be considered in the former TP113-TP115 vicinity to cover the western portion. • The Auditor is satisfied that Martens are completing surface monitoring of methane emission across the inferred waste footprint to determine if surface emission is a major gas migration pathway. If results indicate unacceptable levels beyond the grid outlined in map 19, additional monitoring should occur until acceptable readings are recorded. • Martens should ensure flow rate is measured during sampling and atmospheric and barometric pressure is recorded. It is assumed concentration and flow will be measured. A characteristic gas situation can then be calculated. • The Auditor agrees the proposed remedial strategy is more appropriate to address buried waste and agrees an updated RAP will be required following additional investigations. • As noted by the Auditor as discussed with Martens, additional sampling surrounding the sheds is only required if fill material was observed in this area. If previous sampling events identified natural material at the surface, no additional sampling is required. However, if COPC other than pesticides were identified (such as volatile contaminants), the Auditor recommends deeper sampling occur in this area. • The Auditor recommends soil in the proposed 6 ground gas well locations, the additional ground gas well location the Auditor has recommended within the burial area and the two additional groundwater monitoring wells should be sampled for nutrients including nitrate, nitrite, phosphorus, ammonia, E.coli and total coliforms.

0 10 20 30 40 50 m

1:1500 @ A3

Source: Nearmap (2021)

martens
Environment | Water | Geotechnics | Civil | Projects

Map Title / Figure:
Proposed Monitoring Well Locations

Map	Map 18
Site	285 Finns Road, Menangle, NSW
Project	Data Gap Closure Investigations
Sub-Project	SAQP
Client	Muscat Developments
Date	27/07/2021

Project No: P1806074 Map Set: MS11-R01 EPSG: 28356

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0 10 20 30 40 50 m

1:1500 @ A3

Source: Nearmap (2021)

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Map Title / Figure:
Surface Emission Transects

Map	Map 19
Site	285 Finns Road, Menangle, NSW
Project	Data Gap Closure Investigations
Sub-Project	SAQP
Client	Muscat Developments
Date	27/07/2021

Project No: P1806074 Map Set: MS11-R01 EPSG: 28356

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3. CONCLUSIONS

The Auditor concludes that if the above comments are addressed, the SAQP will be suitable to address further site characterisation works.

Yours Sincerely

Rod Harwood

NSW EPA Accredited Contaminated Sites Auditor (Accreditation No. 03-04.)

0438 200 055

15 Attachment C – Borehole and Test Pit Logs

CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP101**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7016	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.20 m depth	NORTHING	-34.1302	ASPECT	Northeast	SLOPE <5%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: Gravelly CLAY; low plasticity; grey - brown; with shale gravels. No anthropogenics observed.			
				0.70								
			1.0					CI	Silty CLAY; medium plasticity; orange - brown - red; trace fine grained sand.			
				1.20								
									Hole Terminated at 1.20 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

EXCAVATION LOG TO BE READ IN CONJUCTION WITH ACCOMPANYING REPORT NOTES AND ABBREVIATIONS

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MARTENS & ASSOCIATES PTY LTD
Suite 201, 20 George St. Hornsby, NSW 2077 Australia
Phone: (02) 9476 9999 Fax: (02) 9476 8767
mail@martens.com.au WEB: http://www.martens.com.au

Engineering Log - TEST PIT

MARTENS 2.00 LIB.GLB Log MARTENS BOREHOLE P1806774TP101-TP129V01.GPJ <<DrawingFile>> 25/03/2021 14:46 10.02.0004 Datgel Lab and In Situ Tool - DGD | Lib: Martens 2.00 2016-11-13 Prj: Martens 2.00 2016-11-13

CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP102**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7014	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.70 m depth	NORTHING	-34.1301	ASPECT	Northeast	SLOPE <5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E				0.05	0.1/S/1 D 0.10 m 0.1/S/Dup01 D 0.10 m			CL	FILL: Gravelly CLAY; low plasticity; grey - brown; with shale gravels. 4 x tile fragments.			
			0.5									
			1.0		1.0/S/1 D 1.00 m							
				1.20				CI	Silty CLAY; medium plasticity; orange - brown - red; trace fine grained sand.			
			1.5									
				1.70					Hole Terminated at 1.70 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

EXCAVATION LOG TO BE READ IN CONJUCTION WITH ACCOMPANYING REPORT NOTES AND ABBREVIATIONS

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MARTENS & ASSOCIATES PTY LTD
Suite 201, 20 George St. Hornsby, NSW 2077 Australia
Phone: (02) 9476 9999 Fax: (02) 9476 8767
mail@martens.com.au WEB: http://www.martens.com.au

Engineering Log - TEST PIT

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP103**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7012	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.50 m depth	NORTHING	-34.1299	ASPECT	East	SLOPE <5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	0.40	0.1/S/1 D 0.10 m			CL	FILL: Gravelly CLAY; low plasticity; grey - brown; with shale gravels. 2 x tile fragments.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0									
			2.5	2.50				CL	FILL: Sandy CLAY; low plasticity; light brown; with sandstone and shale gravels/boulders. No anthropogenics observed.			
			3.0		3.0/S/1 D 3.00 m							
			3.5									
			4.0	4.00				CL	Sandy CLAY; low plasticity; light brown.			
			4.5	4.50					Hole Terminated at 4.50 m (Target depth reached)			

EXCAVATION LOG TO BE READ IN CONJUCTION WITH ACCOMPANYING REPORT NOTES AND ABBREVIATIONS

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MARTENS & ASSOCIATES PTY LTD
Suite 201, 20 George St. Hornsby, NSW 2077 Australia
Phone: (02) 9476 9999 Fax: (02) 9476 8767
mail@martens.com.au WEB: http://www.martens.com.au

Engineering Log - TEST PIT

MARTENS 2.00 LIB.GLB Log MARTENS BOREHOLE P1806774TP101-TP129V01.GPJ <<DrawingFile>> 25/03/2021 14:46 10.02.0004 Datgel Lab and In Situ Tool - DGD | Lib: Martens 2.00 2016-11-13 Prj: Martens 2.00 2016-11-13

CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP104**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7008	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.65 m depth	NORTHING	-34.1301	ASPECT	East	SLOPE <5%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	0.20	0.1/S/1 D 0.10 m			CL	FILL: Gravelly CLAY; low plasticity; grey - brown; with shale gravels.			
				0.50					Piece of timber and brick fragments.			
			1.0		1.0/S/1 D 1.00 m				2 x pieces of steel.			
				1.20				ML	FILL: Clayey SILT; medium plasticity; brown; trace fine grained sand. No anthropogenics observed.			
			1.5		1.5/S/1 D 1.50 m							
				1.80				CI-CH	CLAY; medium to high plasticity; orange brown.			
			2.0									
			2.5	2.65					Hole Terminated at 2.65 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP105**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7003	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.20 m depth	NORTHING	-34.13	ASPECT	West	SLOPE <5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	*0.20*	0.1/S/1 D 0.10 m			CL	FILL: Gravelly CLAY; low plasticity; grey - brown; with shale gravels.			
				0.30					1 x brick fragments.			
									2 x tile fragments.			
			1.0	*1.00*	1.0/S/1 D 1.00 m			CI	CLAY; medium plasticity; red; trace silt.			
			1.5									
			2.0	*2.20*								
			2.5						Hole Terminated at 2.20 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP106**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.20 m depth	NORTHING	-34.13	ASPECT	West	SLOPE 15%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	*0.20*	0.1/S/1 D 0.10 m			CL	FILL: Gravelly CLAY; low plasticity; grey - brown; with shale gravels.			
				0.50					Geofabric.			
				0.70					2 x brick fragments.			
			1.0		1.0/S/1 D 1.00 m			CI	FILL: Silty CLAY; medium plasticity; light brown; trace fine grained sand. No anthropogenics observed.			
			1.5									
			2.0									
			2.5	*2.50*				CI	Silty CLAY; medium plasticity; brown - orange; trace fine grained sand.			
			3.0	*3.20*								
									Hole Terminated at 3.20 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP107**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7005	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.30 m depth	NORTHING	-34.1302	ASPECT	North	SLOPE <5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	0.20	0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown; trace sandstone and shale gravels.			
				0.50					1 x brick fragment.			
			1.0		1.0/S/1 D 1.00 m				Concrete fragments.			
			1.5	1.50					Concrete fragments.			
			2.0									
			2.5									
			3.0		3.0/S/1 D 3.00 m							
			3.5									
				3.80				CI	CLAY; medium plasticity; red - brown; trace silt.			
			4.0									
				4.30					Hole Terminated at 4.30 m (Target depth reached)			
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP108**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7007	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.30 m depth	NORTHING	-34.1295	ASPECT	Northeast	SLOPE 15%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	*0.20*	0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; grey; with shale gravels. Brick fragment and steel bar.			
			1.0	*0.75*				CI	CLAY; medium plasticity; red - brown; trace silt.			
				1.30					Hole Terminated at 1.30 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP109**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7008	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.90 m depth	NORTHING	-34.1293	ASPECT	Northeast	SLOPE 10%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0	0.20	0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; grey; with shale gravels.			
			0.5						2 x tile fragments.			
			1.0	1.00	1.0/S/1 D 1.00 m				PVC pipe fragment.			
			1.5									
			2.0		2.0/S/1 D 2.00 m							
			2.5	2.50				CL	Sandy CLAY; low plasticity; red.			
				2.90								
			3.0						Hole Terminated at 2.90 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP110**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7005	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.30 m depth	NORTHING	-34.1293	ASPECT	East	SLOPE 10%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; grey; with shale gravels. No anthropogenics observed.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0		2.0/S/1 D 2.00 m							
				2.30				ML	Clayey SILT; medium plasticity; light brown; trace fine grained sand.			
			2.5									
			3.0									
				3.30					Hole Terminated at 3.30 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP111**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7012	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.30 m depth	NORTHING	-34.1285	ASPECT	Northeast	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	0.10	0.1/S/1 D 0.10 m			CI	FILL: CLAY; medium plasticity; brown; with sandstone and shale gravels. 1 x brick fragment.			
				0.50					Concrete block.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
				1.70				ML	CLayey SILT; medium plasticity; brown.			
			2.0									
				2.30					Hole Terminated at 2.30 m (Target depth reached)			
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP112**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7009	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.10 m depth	NORTHING	-34.1288	ASPECT	Northeast	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0	0.10	0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown - grey; with sandstone and shale gravels. Tile, brick and concrete fragments.			
			0.5									
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0	2.00	2.0/S/1 D 2.00 m				Fibre cement sheeting fragment(MSI04).			
			2.5									
			3.0		3.0/s/1 D 3.00 m							
			3.5	3.40				CI	Silty CLAY; medium plasticity; red - brown.			
			4.0	4.10								
									Hole Terminated at 4.10 m (Target depth reached)			
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP113**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7004	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.80 m depth	NORTHING	-34.1291	ASPECT	Southwest	SLOPE 10%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: Sandy CLAY; low plasticity; brown - grey; with sandstone and shale gravels and boulders. No anthropogenics observed.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
				1.90				SC	FILL: Clayey SAND; fine grained; pink; with sandstone gravels and boulders. No anthropogenics observed.			
			2.0	*2.30*				CI	Sandy CLAY; medium plasticity; brown; trace silt.			
			2.5	*2.80*								
									Hole Terminated at 2.80 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP114**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7003	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.40 m depth	NORTHING	-34.1293	ASPECT	Southwest	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			SC	FILL: Clayey SAND; fine grained; pale brown; with sandstone gravels and boulders. No anthropogenics observed.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0		2.0/S/1 D 2.00 m							
				2.40				SC	FILL: Clayey SAND; fine grained; pink. No anthropogenics observed.			
			2.5	*2.80*								
			3.0					CI	Sandy CLAY; medium plasticity; brown; trace silt.			
				3.40								
			3.5						Hole Terminated at 3.40 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP115**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7002	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		0.90 m depth	NORTHING	-34.1295	ASPECT	North	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	*0.90*				CI	Silty CLAY; medium plasticity; red - brown.			
			1.0						Hole Terminated at 0.90 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP116**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7002	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.50 m depth	NORTHING	-34.1297	ASPECT	Northwest	SLOPE 10%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m				FILL: CLAY; pale brown; with sandstone gravels and boulders. No anthropogenics observed.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0									
			2.5									
				2.90								
			3.0					CI	Sandy CLAY; medium plasticity; brown; trace silt.			
				3.50								
			3.5						Hole Terminated at 3.50 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/03/2021	COMPLETED	10/03/2021	**REF TP117**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7011	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.10 m depth	NORTHING	-34.1291	ASPECT	Southwest	SLOPE 5%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown; with shale gravels. Agricultural, drainage pipe and concrete blocks.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
				1.90				CL	FILL: Sandy CLAY; low plasticity; grey - brown. Asphalt pieces.			
			2.0		2.0/S/1 D 2.00 m							
			2.5	*2.60*				CI	Sandy CLAY; medium plasticity; red - brown.			
			3.0	*3.10*								
									Hole Terminated at 3.10 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP118**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7016	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.60 m depth	NORTHING	-34.1293	ASPECT	Southwest	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: Sandy CLAY; low plasticity; brown; with sandstone and shale gravels. Brick fragments observed throughout layer.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0		2.0/S/1 D 2.00 m							
			2.5									
				2.80				CI	Silty CLAY; medium plasticity; orange - brown.			
			3.0									
			3.5	*3.60*								
									Hole Terminated at 3.60 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP119**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7013	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.30 m depth	NORTHING	-34.1292	ASPECT	Southwest	SLOPE 5%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m 0.1/S/Dup01 D 0.10 m			CL	FILL: Sandy CLAY; low plasticity; brown; with sandstone and shale gravels. Brick, concrete and tile fragments.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0		2.0/S/1 D 2.00 m							
			2.5									
				2.70				CI	Silty CLAY; medium plasticity; red - brown.			
			3.0									
				3.30					Hole Terminated at 3.30 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP120**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7015	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.50 m depth	NORTHING	-34.1294	ASPECT	East	SLOPE 15%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: Sandy CLAY; low plasticity; brown; with sandstone and shale gravels. No anthropogenics observed.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
				1.90				CI	Silty CLAY; medium plasticity; orange - brown.			
			2.0									
				2.50								
			2.5						Hole Terminated at 2.50 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP121**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7012	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.60 m depth	NORTHING	-34.1293	ASPECT	West	SLOPE 5%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: Sandy CLAY; low plasticity; brown; with sandstone and shale gravels. Brick and tile fragments throughout the layer.			
			1.0		1.0/S/1 D 1.00 m							
			1.5	*1.50*					Fibre cement sheeting fragment (MS105).			
			2.0		2.0/S/1 D 2.00 m							
			2.5									
			3.0	*3.00*				CI	CLAY; medium plasticity; brown; trace silt.			
			3.5	*3.60*								
									Hole Terminated at 3.60 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP122**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7011	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.60 m depth	NORTHING	-34.1295	ASPECT	West	SLOPE 5%

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	0.80	0.1/S/1 D 0.10 m 0.1/S/Dup04 D 0.10 m			CL	FILL: CLAY; low plasticity; brown - grey; with shale gravels. No anthropogenics observed.			
			1.0	1.00					Grading to orange - brown.			
			1.5	1.60				CI	CLAY; medium plasticity; orange - brown.			
			2.0						Hole Terminated at 1.60 m (Target depth reached)			
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP123**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7013	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.90 m depth	NORTHING	-34.1296	ASPECT	West	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	*0.25*	0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; grey - brown; with shale gravels. 2 x tile fragments.			
			1.0	*1.10*				CI-CH	CLAY; medium to high plasticity; red.			
			1.5	*1.90*								
			2.0						Hole Terminated at 1.90 m (Target depth reached)			
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP124**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7011	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.80 m depth	NORTHING	-34.1301	ASPECT	Northeast	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m 0.1/S/Dup05 D 0.10 m			CL	FILL: CLAY; low plasticity; grey - brown; with sandstone and shale gravels.			
			1.0	*1.00*	1.0/S/1 D 1.00 m				1 x PVC pipe fragments.			
			1.5	*1.50*				CI-CH	CLAY; medium to high plasticity; red.			
				1.80					Hole Terminated at 1.80 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP125**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7008	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.50 m depth	NORTHING	-34.1299	ASPECT	Northeast	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0	0.20	0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; grey - brown; with sandstone and shale gravels. 1 x concrete block.			
			0.5	0.50					2 x tile fragments.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0	1.90				CI-CH	CLAY; medium to high plasticity; red.			
			2.5	2.50					Hole Terminated at 2.50 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP126**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7006	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.40 m depth	NORTHING	-34.13	ASPECT	Northeast	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: Sandy CLAY; low plasticity; brown; with shale gravels. Tile and brick fragments.			
			1.0									
				1.40				CI-CH	CLAY; medium to high plasticity; red - brown.			
			1.5									
			2.0									
				2.40					Hole Terminated at 2.40 m (Target depth reached)			
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP127**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7005	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.50 m depth	NORTHING	-34.1299	ASPECT	Northeast	SLOPE 5%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; red - brown - grey; with shale gravels. Bricks observed throughout the layer.			
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0		2.0/S/1 D 2.00 m							
			2.5									
				2.80				CI	Silty CLAY; medium plasticity; brown.			
			3.0									
				3.50								
			3.5						Hole Terminated at 3.50 m (Target depth reached)			
			4.0									
			4.5									

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Engineering Log - TEST PIT

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP128**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7009	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.60 m depth	NORTHING	-34.1299	ASPECT	Northwest	SLOPE 10%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0	*0.20*	0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown - grey; with sandstone and shale gravels. Bricks, concrete, tile and steel observed throughout layer.			
			0.5									
			1.0		1.0/S/1 D 1.00 m							
			1.5									
			2.0	*2.00*				CI	Silty CLAY; medium plasticity; orange - brown.			
			2.5	*2.60*								
									Hole Terminated at 2.60 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	11/03/2021	COMPLETED	11/03/2021	**REF TP129**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED	BM	Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	EASTING	150.7007	RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.90 m depth	NORTHING	-34.129	ASPECT	Northeast	SLOPE 10%

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E			0.5	*0.50*	0.1/S/1 D 0.10 m 0.1/S/Dup01 D 0.10 m			CL	FILL: CLAY; low plasticity; brown - grey; with sandstone and shale gravels. Tile, brick and concrete observed throughout layer. Fibre cement sheeting fragment (MS106).			
			1.0		1.0/S/1 D 1.00 m							
				1.30				CI	Silty CLAY; medium plasticity; orange - brown.			
			1.5									
				1.90								
			2.0						Hole Terminated at 1.90 m (Target depth reached)			
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF BH201**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.10 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	2	0.50				CL-ML	FILL: Gravelly SILT; low plasticity; grey brown; with shale gravels.			FILL
								CL	Silty CLAY; low plasticity; orange red.			RESIDUAL SOIL
				3.00					Grading to yellow brown.			
NMLC			4									
			6	6.00					SHALE; inferred extremely low strength.			WEATHERED ROCK
			8									
				9.60					SHALE; inferred low strength; grey brown.			
			10									
				11.10					Hole Terminated at 11.10 m			

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Engineering Log - BOREHOLE

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF BH202**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.30 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T				0.60					SILT; low plasticity; brown with rootlets.			RESIDUAL SOIL
NMLC		Not Encountered	2					CL	Silty CLAY; low plasticity; orange red.			
			4									
			6									
				7.00					SHALE; inferred extremely low strength.			WEATHERED ROCK
			8									
			10	10.20					SHALE; inferred low strength; grey brown.			
				11.30					Hole Terminated at 11.30 m			

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF BH203**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.40 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T			2					CL	FILL: CLAY; low plasticity; red brown grey; with shale gravels.			FILL
				3.00								
NMLC		Not Encountered	4					CI	Silty CLAY: medium plasticity; brown grey.			RESIDUAL SOIL
			6									
				8.00								
			8						SHALE; inferred low strength; grey.			WEATHERED ROCK
			10									
				11.40					Hole Terminated at 11.40 m			

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF BH204**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 5.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered		*1.00*				CL	FILL: CLAY; low plasticity; red brown grey; with shale gravels.			FILL
NMLC				*1.80*				CI	CLAY; medium plasticity; grey.			RESIDUAL SOIL
			2						SHALE; inferred low strength; grey.			WEATHERED ROCK
			4	*5.00*								
									Hole Terminated at 5.00 m			
			6									
			8									
			10									

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF MW01**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.10 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW01 Static Water Level
AD/T		Not Encountered	0	0.50				CL-ML	FILL: Gravelly SILT; low plasticity; grey brown; with shale gravels.			Concrete
								CL	Silty CLAY; low plasticity; orange red.			
			2									Cuttings
				3.00					Grading to yellow brown.			
NMLC			4									Casing
				6.00								Bentonite
			6						SHALE; inferred extremely low strength.			
			8									Screen
												Sand
				9.60					SHALE; inferred low strength; grey brown.			
			10									
				11.10					Hole Terminated at 11.10 m			

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF MW02**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 10.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling | **Sampling** | **Field Material Description**

METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS (ID / Static Water Level)
AD/T									SILT; low plasticity; brown with rootlets.			MW02 — Concrete
				0.60				CL	Silty CLAY; low plasticity; orange red.			
			2									Casing; Cuttings
			4									
NMLC		Not Encountered										Bentonite
			6									
				7.00					SHALE; inferred extremely low strength.			
			8									Sand Screen
			10	10.20					SHALE; inferred low strength; grey brown.			
				11.30					Hole Terminated at 10.00 m			

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF MW03**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.40 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW03 Static Water Level
AD/T			0					CL	FILL: CLAY; low plasticity; red brown grey; with shale gravels.			Concrete
			2									Cuttings
				3.00								Casing
NMLC		Not Encountered	4					CI	Silty CLAY: medium plasticity; brown grey.			
			6									Bentonite
			8	8.00					SHALE; inferred low strength; grey.			Screen
												Sand
			10									
				11.40					Hole Terminated at 11.40 m			

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CLIENT	Muscat Developments		COMMENCED	14/04/2021	COMPLETED	14/04/2021	**REF MW04**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 5.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS
AD/T		Not Encountered						CL	FILL: CLAY; low plasticity; red brown grey; with shale gravels.			ID MW04 Static Water Level
				1.00								Concrete
												Cuttings
NMLC								CI	CLAY; medium plasticity; grey.			
				1.80								Bentonite
			2						SHALE; inferred low strength; grey.			Casing
			4									Sand Screen
				5.00								
									Hole Terminated at 5.00 m			
			6									
			8									
			10									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH301**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.10*	0.0-0.2/S/1 D 0.00-0.20 m			ML	FILL: Gravelly clayey SILT; pale grey brown; no odour or staining.			FILL
								ML	Clayey SILT; brown; no odour or staining.			
				0.20				CL-ML	Silty CLAY; orange brown; no odour or staining.	D		
			0.4		0.3-0.5/S/1 D 0.30-0.50 m							
				0.50					Hole Terminated at 0.50 m (Target depth reached)			
			0.6									
			0.8									

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Engineering Log - BOREHOLE

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH302**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.40 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2		0.00-0.2/S/1 D 0.00-0.20 m 0.2-0.4/S/1 D 0.20-0.40 m			ML	FILL: Gravelly clayey SILT; pale grey brown; no odour or staining.	D		FILL
			0.4	*0.40*					Hole Terminated at 0.40 m (Target depth reached)			
			0.6									
			0.8									

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Engineering Log - BOREHOLE

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH303**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.25*	0.0-0.2/S/1 0.00-0.20 m			ML	FILL: Gravelly clayey SILT; pale grey brown; no odour or staining.			FILL
								CL-ML	Gravelly silty CLAY; grey; no odour or staining.	D		
			0.4		0.3-0.5/S/1 0.30-0.50 m							
				0.50					Hole Terminated at 0.50 m (Target depth reached)			
			0.6									
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH304**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 0.60 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2		0.00-0.3/Dup01 D 0.00-0.30 m			ML	FILL: Gravelly clayey SILT; pale grey brown.			FILL
				0.30				CL-ML	Silty CLAY; orange red brown; trace gravels; no staining or odour.	D		
			0.4		0.4-0.6/S/1 D 0.40-0.60 m							
			0.6	*0.60*					Hole Terminated at 0.60 m (Target depth reached)			
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH305**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.20*	0.00-0.2/S/1 D 0.00-0.20 m			ML	FILL: Gravelly clayey SILT; pale grey brown; no odour or staining.			FILL
								CL-ML	Silty CLAY; orange red brown; trace gravels; no odour or staining.	D		
			0.4	*0.50*	0.3-0.5/S/1 0.30-0.50 m							
			0.6						Hole Terminated at 0.50 m (Target depth reached)			
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH306**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø0.5 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	0.20	0.00-0.2/S/1 D 0.00-0.20 m			CI-OL	FILL: Gravelly silty CLAY; dark orange brown; no odour or staining.			FILL
								CL-ML	Silty CLAY; pale grey; no odour or staining.	D		
			0.4	0.30	0.3-0.5/S/1 D 0.30-0.50 m				Pale red brown.			
				0.50					Hole Terminated at 0.50 m (Target depth reached)			
			0.6									
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH307**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.40 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.20*	0.00-0.2/S/1 D 0.00-0.20 m			ML	FILL: Gravelly clayey SILT; pale grey; no odour or staining.			FILL
					0.2-0.4/S/1 D 0.20-0.40 m			CL-ML	Silty CLAY; orange brown; trace gravels; no odour or staining.	D		
			0.4	*0.40*					Hole Terminated at 0.40 m (Target depth reached)			
			0.6									
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH308**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.05*	0.00-0.2/S/1 D 0.00-0.20 m			GP	GRAVELS.			FILL
				0.20				CL-ML	Silty CLAY; pale yellow grey; trace gravels; no odour or staining.			
			0.4		0.3-0.5/S/1 D 0.30-0.50 m			CL-ML	Silty CLAY; orange brown; no odour or staining.	D		
				0.50					Hole Terminated at 0.50 m (Target depth reached)			
			0.6									
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH309**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.20*	0.00-0.2 0.00 m			ML	FILL: Gravelly clayey SILT; pale grey brown; no odour or staining.			FILL
			0.4	*0.50*				CL-ML	Silty CLAY; orange red brown; trace gravels; no odour or staining.	D		
			0.6						Hole Terminated at 0.50 m (Target depth reached)			
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH310**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.20*	0.00-0.2/S/1 D 0.00-0.20 m			ML	FILL: Gravelly clayey SILT; pale grey; no odour or staining.			FILL
					0.2-0.4/S/1 D 0.20-0.40 m			CL-ML	Silty CLAY; orange red brown; trace gravels; no odour or staining.	D		
			0.4	*0.40*				ML	Clayey SILT; pale grey brown; no odour or staining.			
				0.50					Hole Terminated at 0.50 m (Target depth reached)			
			0.6									
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH311**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.50 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2		0.00-0.2/S/1 D 0.00-0.20 m			CL-ML	Silty CLAY; red brown; trace gravels; no odour or staining.	D		FILL
			0.4		0.3-0.5/S/1 D 0.30-0.50 m							
				0.50					Hole Terminated at 0.50 m (Target depth reached)			
			0.6									
			0.8									

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CLIENT	Muscat Developments		COMMENCED	15/04/2021	COMPLETED	15/04/2021	**REF BH312**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		Hand push tube	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.30 m depth	NORTHING		ASPECT		SLOPE <2%

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.2	*0.30*	0.00-0.2S/1 D 0.00-0.20 m			ML	Clayey SILT; pale brown; with gravels; no odour or staining.	D		FILL
			0.4						Hole Terminated at 0.30 m			0.30: Hand push tube refusal.
			0.6									
			0.8									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP401**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 3.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	0		0.1/S/1 D 0.10 m			CI	FILL: CLAY; brown; trace sandstone gravels.			FILL
			1		1.0/S/1 D 1.00 m							
				1.70				ML-OL	Sandy SILT; low plasticity; brown, grey; with timber; geofabric metal and brick fragments.			
			2		2.00/Dup01 D 2.00 m 2.00/S/1 D 2.00 m							
					2.5/S/1 D 2.50 m							
				2.70				CL-ML	Clayey SILT; medium plasticity; brown; with rootlets.			RESIDUAL SOIL
			3	*3.00*	3.0/S/1 D 3.00 m				Hole Terminated at 3.00 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP402**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 3.80 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown; trace sandstone gravels; timber; metal; brick fragments.			FILL
					1.0/S/1 D 1.00 m							
			2									
				2.70				OL	SILT; low plasticity; dark grey; trace eggshells, bones.			
			3		3.0/S/1 D 3.00 m							
				3.50								
				3.80	3.6/S/1 D 3.60 m			CI-ML	Clayey SILT; medium plasticity; orange-brown.			RESIDUAL SOIL
			4						Hole Terminated at 3.80 m (Target depth reached)			
			5									
			6									
			7									
			8									
			9									

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Suite 201, 20 George St. Hornsby, NSW 2077 Australia
Phone: (02) 9476 9999 Fax: (02) 9476 8767
mail@martens.com.au WEB: http://www.martens.com.au

Engineering Log - TEST PIT

MARTENS 2.00 LIB.GLB Log MARTENS BOREHOLE P1806774TP401-TP413V01.GPJ <<DrawingFile>> 27/08/2021 12:20 10.02.0004 Datgel Lab and In Situ Tool - DGD | Lib: Martens 2.00 2016-11-13 Prj: Martens 2.00 2016-11-13

CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP403**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 3.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	0		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown, grey, trace sandstone gravels; timber.			FILL
			1		1.0/S/1 D 1.00 m							
				1.80				ML	SILT; low plasticity; dark grey; trace rootlets; bone observed.			
			2		2.0/S/1 D 2.00 m							
				2.50								RESIDUAL SOIL
					2.6/S/1 D 2.60 m			CI-ML	Clayey SILT; medium plasticity; yellow, brown.			
			3	*3.10*								
				3.20					SHALE; yellow, grey; inferred low strength.			ROCK
									Hole Terminated at 3.20 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP404**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 3.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown; trace sandstone gravels; timber; metal; brick fragments.			FILL
					1.0/S/1 D 1.00 m							
			2	*2.60*				OL	SILT; low plasticity; dark grey; trace eggshells, bones.			
			3		3.0/Dup/02 D 3.00 m							
				3.20	3.00/S/1 D 3.00 m							
					3.3/S/1 D 3.30 m			CI-ML	Clayey SILT; medium plasticity; orange-brown.			RESIDUAL SOIL
				3.50					Hole Terminated at 3.50 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP405**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown; trace sandstone gravels; timber; metal; brick fragments.			FILL
					1.0/S/1 D 1.00 m							
			2	*2.10*								
					2.2/S/1 D 2.20 m			OL	SILT; low plasticity; dark grey; trace eggshells, bones.			
				2.40								
					2.5/S/1 D 2.50 m			CI-ML	Clayey SILT; medium plasticity; orange-brown.			RESIDUAL SOIL
			3	*3.00*					Hole Terminated at 3.00 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP406**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 2.90 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	0		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown; trace sandstone gravels; timber; metal; brick fragments.			FILL
			1		1.0/S/1 D 1.00 m							
			2									
				2.30				OL	SILT; low plasticity; dark grey; trace eggshells, bones.			
				2.70	2.5/S/1 D 2.50 m							RESIDUAL SOIL
				2.90	2.8/S/1 D 2.80 m			CI-ML	Clayey SILT; medium plasticity; orange-brown.			
			3						Hole Terminated at 2.90 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP407**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 2.70 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1					CL	FILL: CLAY; low plasticity; brown; trace sandstone gravels; timber; metal; brick fragments.			FILL
			2	*2.00*				OL	SILT; low plasticity; dark grey; trace eggshells, bones.			
				2.50								
				2.70				CI-ML	Clayey SILT; medium plasticity; orange-brown.			RESIDUAL SOIL
			3						Hole Terminated at 2.70 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP408**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 2.40 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown; trace shale and sandstone gravels; brick fragments.			FILL
					1.0/S/1 D 1.00 m							
			2	*2.00*								
					2.2/S/1 D 2.20 m			CI-ML	Clayey SILT; medium plasticity; brown, yellow.			RESIDUAL SOIL
				2.40					Hole Terminated at 2.40 m (Target depth reached)			
			3									
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP409**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 3.30 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	0					CL	FILL: CLAY; low plasticity; brown; trace shale gravels; bricks, timber.			FILL
			1		1.0/S/1 D 1.00 m							
				1.50				CL-ML	Gravelly CLAY; low plasticity; dark grey with shale gravels.			
			2		2.0/S/1 D 2.00 m							
				2.90								
			3		3.0/S/1 D 3.00 m			CI	Silty CLAY; medium plasticity; brown, orange.			RESIDUAL SOIL
				3.30					Hole Terminated at 3.30 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 3.40 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1		1.0/S/1 D 1.00 m			CL	FILL: CLAY; low plasticity; brown, grey; trace shale gravels.			FILL
			2		2.0/S/1 D 2.00 m							
				2.80								
			3		3.0/S/1 D 3.00 m			CI	Silty CLAY; medium plasticity; pale brown.			RESIDUAL SOIL
				3.40					Hole Terminated at 3.40 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP411**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	1		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown, grey; trace shale gravels.			FILL
					1.0/S/1 D 1.00 m							
			2	*1.90*	2.0/S/1 D 2.00 m			CI	Silty CLAY; medium plasticity; pale brown.			RESIDUAL SOIL
				2.50					Hole Terminated at 2.50 m (Target depth reached)			
			3									
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments Pty Ltd		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF TP412**
PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 3.40 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown, grey; trace shale gravels.			FILL
					1.0/S/1 D 1.00 m							
			2	*2.40*								
					2.5/Dup03 D 2.50 m 2.5/S/1 D 2.50 m			CL	CLAY; low plasticity; brown, grey; with plastic, PVC, timber, metal.			
				2.90								
			3		3.0/S/1 D 3.00 m			CI	Silty CLAY; medium plasticity; pale brown.			RESIDUAL SOIL
				3.40								
									Hole Terminated at 3.40 m (Target depth reached)			
			4									
			5									
			6									
			7									
			8									
			9									

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PROJECT	Supplementary Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		30t Excavator	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø1000 mm x 2.35 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
E		Not Encountered	1		0.1/S/1 D 0.10 m			CL	FILL: CLAY; low plasticity; brown, grey; trace shale gravels.			FILL
					1.0/S/1 D 1.00 m							
				1.80								
			2		2.0/S/1 D 2.00 m			CI	CLAY; medium plasticity; red, brown; trace silt.			RESIDUAL SOIL
				2.35					Hole Terminated at 2.35 m (Target depth reached)			
			3									
			4									
			5									
			6									
			7									
			8									
			9									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH501**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 6.00 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0	0.60				CI	FILL: Gravelly CLAY; dark brown; no odour, staining or anthropogenics.			FILL
			1	1.50				OL	Silty CLAY; dark grey, brown; no odour, staining or anthropogenics.			
	M		2	2.00					Dark brown; trace gravels.	D		
			3	3.00				OL	Brown; with gravels.			RESIDUAL SOIL
			4	4.00					Silty CLAY; red, brown; no odour, staining or anthropogenics.			WEATHERED ROCK
	H		5						SHALE; brown; no odour, staining or anthropogenics.			
			6	6.00					Hole Terminated at 6.00 m (Target depth reached)			
			7									

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Engineering Log - BOREHOLE

MARTENS 2.00 LIB.GLB Log MARTENS BOREHOLE P1806774BH501-BH504,MW05,MW02,MW07,MW08V01.GPJ <<DrawingFile>> 03/05/2021 12:52 10.02.00.04 Datgel Lab and In Situ Tool - DGD | Lib: Martens 2.00 2016-11-13 Prj: Martens 2.00 2016-11-13

CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH501/MW05**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 6.00 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID Static Water Level MW05
AD/T		Not Encountered	0					CI	FILL: Gravelly CLAY; dark brown; no odour, staining or anthropogenics.			Concrete
				0.60				OL	Silty CLAY; dark grey, brown; no odour, staining or anthropogenics.			Cuttings
			1									Casing
				1.50					Dark brown; trace gravels.			Bentonite
			2	2.00					Brown; with gravels.	D		
				3.00				OL	Silty CLAY; red, brown; no odour, staining or anthropogenics.			
			4	4.00					SHALE; brown; no odour, staining or anthropogenics.			Sand
			5									Screen
			6	6.00					Hole Terminated at 6.00 m (Target depth reached)			
			7									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH502**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 7.20 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0					OL	FILL: Silty CLAY; brown; with gravels; no odour, staining or anthropogenics.			FILL
				0.70					Dark grey; trace gravels.			
			1									
			2									
			3							D		
			4	*4.00*				OL	Silty CLAY; red, brown; no odour, staining or anthropogenics.			RESIDUAL SOIL
			5									
			6	*6.00*					SHALE; grey; no odour, staining or anthropogenics.			WEATHERED ROCK
			7	*7.20*					Hole Terminated at 7.20 m (Target depth reached)			

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH502/MW06**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 7.20 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW02 Static Water Level
AD/T		Not Encountered	0					OL	FILL: Silty CLAY; brown; with gravels; no odour, staining or anthropogenics.			Concrete
				0.70					Dark grey; trace gravels.			
			1									Casing
												Cuttings
			2									
			3							D		Bentonite
				4.00				OL	Silty CLAY; red, brown; no odour, staining or anthropogenics.			
			5									Sand
				6.00					SHALE; grey; no odour, staining or anthropogenics.			Screen
			7	7.20					Hole Terminated at 7.20 m (Target depth reached)			

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH503**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 6.00 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0					CI	FILL: Gravelly CLAY; grey; no odour, staining or anthropogenics.			FILL
				0.80								
			1					OL	Silty CLAY; dark brown; trace gravels; no odour, staining or anthropogenics.			
				2.00					Dark grey.	D		
			3									
				3.20				OL	Silty CLAY; orange, brown; no odour, staining or anthropogenics.			RESIDUAL SOIL
			4									
				4.40					Grey, brown; with shale.			
				4.60					SHALE: grey, brown; no odour, staining or anthropogenics.			WEATHERED ROCK
			5									
			6	6.00					Hole Terminated at 6.00 m (Target depth reached)			
			7									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH503/MW07**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 6.00 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID Static Water Level MW07
AD/T		Not Encountered	0					CI	FILL: Gravelly CLAY; grey; no odour, staining or anthropogenics.			Concrete
				0.80								Cuttings
			1					OL	Silty CLAY; dark brown; trace gravels; no odour, staining or anthropogenics.			Casing
												Bentonite
			2	2.00					Dark grey.	D		
			3	3.20				OL	Silty CLAY; orange, brown; no odour, staining or anthropogenics.			
			4	4.40					Grey, brown; with shale.			Sand
				4.60					SHALE: grey, brown; no odour, staining or anthropogenics.			Screen
			5									
			6	6.00					Hole Terminated at 6.00 m (Target depth reached)			
			7									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH504**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 5.70 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	1					OL	Silty CLAY; dark grey; with gravels; no odour, staining or anthropogenics.	D		FILL
			2	2.00				CI	CLAY; orange, brown; no odour, staining or anthropogenics.			RESIDUAL SOIL
			3	3.00					SHALE; orange, brown; no odour, staining or anthropogenics.			WEATHERED ROCK
			4	4.00					Brown, grey-brown.			
			5	5.70								
			6						Hole Terminated at 5.70 m (Target depth reached)			
			7									

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Engineering Log - BOREHOLE

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH504/MW08**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	EASTING		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 5.70 m depth	NORTHING		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID Static Water Level MW08
AD/T		Not Encountered	0					OL	Silty CLAY; dark grey; with gravels; no odour, staining or anthropogenics.	D		Concrete, Cuttings, Casing, Bentonite
			2	2.00				CI	CLAY; orange, brown; no odour, staining or anthropogenics.			
			3	3.00					SHALE; orange, brown; no odour, staining or anthropogenics.			Sand
			4	4.00					Brown, grey-brown.			Screen
			5	5.70					Hole Terminated at 5.70 m (Target depth reached)			
			6									
			7									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP601**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 3.10 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; trace sandstone / shale gravels; no orthopogenics.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.80					Silty CLAY; medium plasticity; orange / brown.			RESIDUAL SOIL
			3.0		3/S/1 D 3.00 m							
				3.10					Hole Terminated at 3.10 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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Engineering Log - TEST PIT

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP602**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5	*0.50*	0.5/S/1 D 0.50 m				FILL: CLAY; trace sandstone / shale gravels; no orthopogenics.			FILL
			1.0	*1.20*					Silty CLAY; medium plasticity; orange / brown.			RESIDUAL SOIL
			1.5						Hole Terminated at 1.20 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP603**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.30 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; trace sandstone / shale gravels; no orthopogenics.			FILL
			1.0	*1.05*	1/S/1 D 1.00 m				Silty CLAY; medium plasticity; orange / brown.			RESIDUAL SOIL
				1.30	1.2/S/1 D 1.20 m				Hole Terminated at 1.30 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP604**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; trace sandstone / shale gravels; no orthopogenics.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0		2.2/S/1 D 2.20 m							
				2.30					Silty CLAY; medium plasticity; orange / brown.			RESIDUAL SOIL
			2.5		2.4/S/1 D 2.40 m				Hole Terminated at 2.50 m (Target depth reached)			
				2.50								
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP605**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 3.90 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; trace sandstone / shale gravels; no orthopogenics.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0									
			3.5	*3.50*	3.4/S/1 D 3.40 m				Silty CLAY; medium plasticity; orange / brown.			RESIDUAL SOIL
				3.90	3.8/S/1 D 3.80 m				Hole Terminated at 3.90 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP606**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 3.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; low plasticity; brown; with shale gravels; trace brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0	*3.00*					Silty CLAY; medium plasticity; red / brown.			RESIDUAL SOIL
					3.2/S/1 D 3.20 m							
			3.5	*3.50*					Hole Terminated at 3.50 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP607**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 3.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; low plasticity; brown; with shale gravels; trace brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.80					Silty CLAY; medium plasticity; red / brown.			RESIDUAL SOIL
			3.0		3/S/1 D 3.00 m							
				3.20					Hole Terminated at 3.20 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP608**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 3.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; low plasticity; brown; with shale gravels; trace brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0	*3.00*					Silty CLAY; medium plasticity; red / brown.			RESIDUAL SOIL
					3.2/S/1 D 3.20 m							
			3.5	*3.50*					Hole Terminated at 3.50 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP609**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; low plasticity; brown; with shale gravels; trace brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.70					Silty CLAY; medium plasticity; red / brown.			RESIDUAL SOIL
			2.0	*2.00*	2.0/S/1 D 2.00 m				Hole Terminated at 2.00 m (Target depth reached)			
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP610**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 3.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; low plasticity; brown; with shale gravels; trace brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0	*3.00*					Silty CLAY; medium plasticity; red / brown.			RESIDUAL SOIL
				3.20	3.1/S/1 D 3.10 m							
			3.5						Hole Terminated at 3.20 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP611**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.90 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; low plasticity; brown; with shale gravels; trace brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.70	2.7/S/1 D 2.70 m				Silty CLAY; medium plasticity; red / brown.			RESIDUAL SOIL
				2.90					Hole Terminated at 2.90 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP612**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 2
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 5.10 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.5		0.5/S/1 D 0.50 m				Sandy CLAY; low plasticity; brown; trace sanstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0	2.00	2.0/S/1 D 2.00 m				CLAY; medium plasticity; brown; no orthopgenic.			RESIDUAL SOIL
		Not Encountered	2.5									
			3.0									
			3.5		3.5/S/1 D 3.50 m							
			4.0									
			4.5		4.5/S/1 D 4.50 m							
				4.90					Silty CLAY; medium plasticity; orange, brown, red.			

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP612**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 2 OF 2
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 5.10 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
				5.10	5.0/S/1 D 5.00 m				Silty CLAY; medium plasticity; orange, brown, red.			
									Hole Terminated at 5.10 m (Target depth reached)			

5.5
6.0
6.5
7.0
7.5
8.0
8.5
9.0
9.5

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP613**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 4.40 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL; Clayey SILT; red, brown.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.70					FILL; CLAY; low plasticity; brown; trace sandstone gravels.			
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0									
			3.5		3.5/S/1 D 3.50 m							
				3.60					Silty CLAY; medium plasticity; orange, brown.			RESIDUAL SOIL
					3.8/S/1 D 3.80 m							
			4.0									
				4.40								
			4.5						Hole Terminated at 4.40 m (Target depth reached)			

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP614**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL; Clayey SILT; red, brown.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.90					FILL; CLAY; low plasticity; brown; trace sandstone gravels.			
			2.0		2.0/S/1 D 2.00 m							
				2.10					Silty CLAY; medium plasticity; orange, brown.			RESIDUAL SOIL
					2.2/S/1 D 2.20 m							
				2.50								
			2.5						Hole Terminated at 2.50 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP615**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.10 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5	*0.60*	0.5/S/1 D 0.50 m				FILL; Clayey SILT; red, brown.			FILL
				0.80					FILL; CLAY; low plasticity; brown; trace sandstone gravels.			
			1.0	*1.10*	1.0/S/1 D 1.00 m				Silty CLAY; medium plasticity; orange, brown.			RESIDUAL SOIL
									Hole Terminated at 1.10 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP616**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 1.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5						CLAY; medium plasticity; red; no orthopogenic.			RESIDUAL SOIL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP617**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 3.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: Clayey SAND; low plasticity; brown; trace plastic, glass, shale gravels.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.70					Sandy CLAY; medium plasticity; orange, red; no anthropogenics.			RESIDUAL SOIL
			3.0		3.0/S/1 D 3.00 m							
				3.20					Hole Terminated at 3.20 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP618**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 1.60 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; brown; trace sandstone gravels; trace brick.			FILL
			1.0	*1.30*	1.3/S/1 D 1.30 m				Clayey SILT; medium plasticity; brown, red.			RESIDUAL SOIL
			1.5	*1.60*					Hole Terminated at 1.60 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP619**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 1.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; brown; trace sandstone gravels; trace brick.			FILL
			1.0		1.1/S/1 D 1.10 m							
				1.20					Clayey SILT; medium plasticity; brown, red.			RESIDUAL SOIL
			1.5	*1.50*					Hole Terminated at 1.50 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP620**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 2.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; brown; trace sandstone gravels; trace brick.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0		2.0/S/1 D 2.00 m							
				2.30					Clayey SILT; medium plasticity; brown, red.			RESIDUAL SOIL
			2.5	*2.50*					Hole Terminated at 2.50 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP621**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 3.30 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; brown; trace sandstone gravels; trace brick.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0	*3.00*					Clayey SILT; medium plasticity; brown, red.			RESIDUAL SOIL
				3.30								
			3.5						Hole Terminated at 3.30 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP622**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 3.80 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				CLAY; brown; trace sandstone gravels; trace brick.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0	*3.00*					SILT; dark brown; trace egg shells; feathers.			
				3.30	3.2/S/1 D 3.20 m				Clayey SILT; medium plasticity; brown, red.			RESIDUAL SOIL
			3.5	*3.80*								
			4.0						Hole Terminated at 3.80 m (Target depth reached)			
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP623**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 3.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels			FILL
			1.0									
				1.30					CLAY; low plasticity; brown; trace sandstone gravels.			
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.80					Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
			3.0	*3.20*								
									Hole Terminated at 3.20 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP624**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 3.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.80					CLAY; low plasticity; brown; trace sandstone gravels.			
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.60					Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
			3.0	*3.00*					Hole Terminated at 3.00 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP625**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø75 mm x 2.50 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.90					Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
			2.0									
				2.50								
			2.5						Hole Terminated at 2.50 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP626**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 3.90 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5		0.5/S/1 D 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels			FILL
			1.0	*1.20*					CLAY; low plasticity; brown; trace sandstone gravels.			
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0									
			3.5	*3.60*	3.5/S/1 D 3.50 m				Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
				3.90					Hole Terminated at 3.90 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP627**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.80 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.70					CLAY; low plasticity; brown; trace sandstone gravels.			
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0									
			3.5		3.5/S/1 D 3.50 m							
				3.60					Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
				3.80					Hole Terminated at 3.80 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP628**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.40 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels			FILL
			1.0									
			1.5		1.5/S/1 1.50 m							
			2.0	*2.20*					CLAY; low plasticity; brown; trace sandstone gravels.			
			2.5		2.5/S/1 2.50 m							
			3.0	*2.90*					Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
				3.40								
			3.5						Hole Terminated at 3.40 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP629**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.10 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5	*0.70*	0.5/S/1 D 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels; trace brick fragments.			FILL
			1.0						CLAY; low plasticity; brown; trace sandstone gravels; trace brick fragments.			
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5	*2.60*	2.5/S/1 D 2.50 m				Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
			3.0	*3.10*					Hole Terminated at 3.10 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP630**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.70 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 0.50 m				Sandy CLAY; low plasticity; trace sandstone gravels; trace brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 1.50 m							
				1.80					CLAY; low plasticity; brown; trace sandstone gravels; trace brick fragments.			
			2.0	*2.20*	2.2/S/1 2.20 m				Silty CLAY; medium plasticity; red, brown;			RESIDUAL SOIL
			2.5	*2.70*					Hole Terminated at 2.70 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP631**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.80 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5	*1.55*	1.5/S/1 D 1.50 m				Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
				1.80					Hole Terminated at 1.80 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP632**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.60 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0		1.2/S/1 D 1.20 m							
				1.30					Silty CLAY; medium plasticity; red brown.			RESIDUAL SOIL
			1.5	*1.60*					Hole Terminated at 1.60 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP633**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.60 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0		2.0/S/1 D 2.00 m							
				2.20					Silty CLAY; medium plasticity; red brown.			RESIDUAL SOIL
			2.5	*2.60*					Hole Terminated at 2.60 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP634**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.90 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 1.50 m							
			2.0		2.3/S/1 2.30 m							
				2.40								
			2.5						Silty CLAY; medium plasticity; red brown.			RESIDUAL SOIL
				2.90								
			3.0						Hole Terminated at 2.90 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP635**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.60					Silty CLAY; medium plasticity; red brown.			RESIDUAL SOIL
			2.0	*2.00*					Hole Terminated at 2.00 m (Target depth reached)			
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP636**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.80 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0	*2.00*					Silty CLAY; medium plasticity; red brown.			RESIDUAL SOIL
			2.5	*2.80*								
			3.0						Hole Terminated at 2.80 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP637**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.10 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 1.50 m							
			2.0									
			2.5		2.5/S/1 2.50 m							
				2.80								
			3.0						Silty CLAY; medium plasticity; red brown.			RESIDUAL SOIL
				3.10								
									Hole Terminated at 3.10 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP638**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.10 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description				
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.70					Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
			3.0	*3.10*					Hole Terminated at 3.10 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP639**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; brick fragments.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.80					Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
			3.0	*3.20*					Hole Terminated at 3.20 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP640**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		5.30 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: Sandy CLAY; low plasticity; with sandstone gravels; trace brick.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0									
				3.40								
			3.5		3.5/S/1 D 3.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; concrete / brick fragments.			
			4.0									
			4.5		4.5/S/1 D 4.50 m							
				5.00								
			5.0					CI	Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
				5.30								
									Hole Terminated at 5.30 m (Target depth reached)			

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP641**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.40 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: Sandy CLAY; low plasticity; with sandstone gravels; trace brick.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
				2.40								
			2.5		2.5/S/1 D 2.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels; concrete / brick fragments.			
				2.90				CI	Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
			3.0	*3.40*								
			3.5						Hole Terminated at 3.40 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP642**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: Sandy CLAY; low plasticity; with sandstone gravels; trace brick.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0	*2.20*					FILL: CLAY; low plasticity; brown; trace sandstone gravels; concrete / brick fragments.			
			2.5		2.5/S/1 D 2.50 m							
				2.80				CI	Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
			3.0	*3.20*					Hole Terminated at 3.20 m (Target depth reached)			
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP643**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.60 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: Sandy CLAY; low plasticity; with sandstone gravels; trace brick.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
				1.80					FILL: CLAY; low plasticity; brown; trace sandstone gravels; concrete / brick fragments.			
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0	*3.10*				CI	Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
			3.5	*3.60*								
									Hole Terminated at 3.60 m (Target depth reached)			
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP644**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		5.20 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5	*0.60*	0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels.			FILL
			1.0						FILL: SILT; low plasticity; dark brown.			
			1.5	*1.60*	1.5/S/1 D 1.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels.			
			2.0									
			2.5		2.5/S/1 D 2.50 m							
			3.0									
			3.5		3.5/S/1 D 3.50 m							
			4.0									
			4.5		4.5/S/1 D 4.50 m							
			5.0	*5.10*								
				5.20				CI	Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
									Hole Terminated at 5.20 m (Target depth reached)			

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP645**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0	2.20								
			2.5		2.5/S/1 D 2.50 m				FILL: SILT; low plasticity; dark brown.			
			3.0	3.00					FILL: CLAY; low plasticity; brown; trace sandstone gravels.			
				3.30	3.2/S/1 D 3.20 m			CI	Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
			3.5									
			4.0	4.00					Hole Terminated at 4.00 m (Target depth reached)			
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP646**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		2.40 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0	*2.00*				CI	Silty CLAY; medium plasticity; red, brown.			RESIDUAL SOIL
				2.40								
			2.5						Hole Terminated at 2.40 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP647**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels.			FILL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP648**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.00 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: CLAY; low plasticity; brown; trace sandstone gravels.			FILL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			1.00: Pipe below.
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF TP649**
PROJECT	Detailed Site Investigation		LOGGED	RM	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	None	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		3.30 m depth	LATITUDE		ASPECT		SLOPE

Excavation					Sampling		Field Material Description					
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0.5/S/1 D 0.50 m				FILL: Clayey SAND; low plasticity; brown; trace plastic, glass, shale gravels.			FILL
			1.0									
			1.5		1.5/S/1 D 1.50 m							
			2.0									
			2.5		2.5/S/1 D 2.50 m							
				2.70					Sandy CLAY; medium plasticity; orange, red; no anthropogenics.			RESIDUAL SOIL
			3.0		3.0/S/1 D 3.00 m							
				3.30					Hole Terminated at 3.30 m (Target depth reached)			3.30: Terminated at 3.3 m (IL).
			3.5									
			4.0									
			4.5									

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Engineering Log - TEST PIT

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CLIENT	Muscat Developments		COMMENCED	29/07/2021	COMPLETED	29/07/2021	**REF BH701**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.70 m depth	LATITUDE		ASPECT	South	SLOPE < 2 %

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
					0-0.2/S/1 D 0.20 m			OL	Gravelly CLAY; dark brown, white.			FILL
				0.70								
					1.0-1.2/S/1 D 1.00 m			CI	CLAY; brown; trace gravels	D		
			2		2.0-2.2/S/1 D 2.00 m							
				3.00	2.8-3.0/S/1 D 2.80 m				SHALE??			WEATHERED ROCK 3.00: Tc bit refusal @ 3.0 m
			4									
		Not Encountered										
			6									
			8									
			10									
				11.70					Hole Terminated at 11.70 m (Target depth reached)			

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Engineering Log - BOREHOLE

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH701/MW09**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.70 m depth	LATITUDE		ASPECT	South	SLOPE < 2 %

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW09 Static Water Level
		Not Encountered	2	0.70	0-0.2/S/1 D 0.20 m			OL	Gravelly CLAY; dark brown, white.			Concrete
					1.0-1.2/S/1 D 1.00 m			CI	CLAY; brown; trace gravels	D		MW09
					2.0-2.2/S/1 D 2.00 m							Casing
				3.00	2.8-3.0/S/1 D 2.80 m				SHALE??			Sand
			4									
			6									Bentonite
			8									Screen
			10									Sand
				11.70					Hole Terminated at 11.70 m (Target depth reached)			

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Engineering Log - TEST

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH702**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
					0-0.2/S/1 0.20 m				FILL: Gravelly CLAY; dark brown; dark grey, brown			FILL
				0.80								
					1-1.2/S/1 1.00 m				CLAY; dark brown; with gravels	D		
			2	2.00	2-2.2/S/1 2.00 m DUP701 2.00 m				CLAY; orange, brown			RESIDUAL SOIL
				2.50					SHALE; brown; no odour, staining or anthropogenics.			WEATHERED ROCK
		Not Encountered	4									
			6									
			8									
			10									
				11.70					Hole Terminated at 11.70 m			

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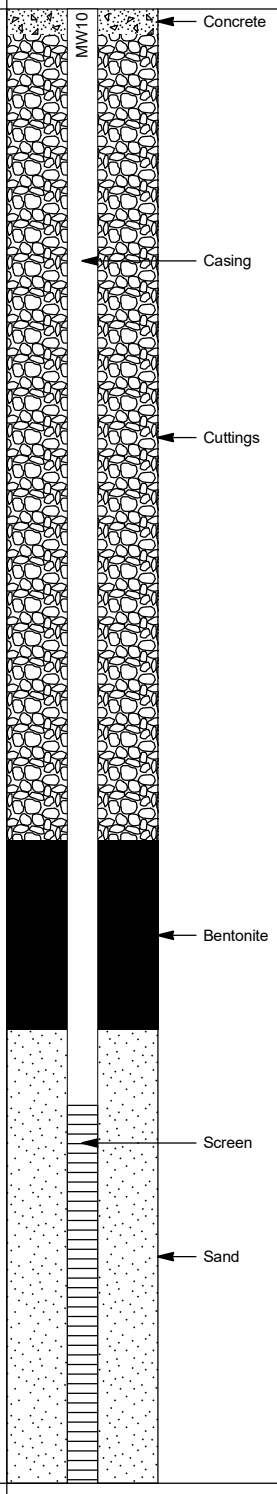
CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH702/MW10**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 11.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY
		Not Encountered	2	0.80	0-0.2/S/1 0.20 m				FILL: Gravelly CLAY; dark brown; dark grey, brown		
					1-1.2/S/1 1.00 m				CLAY; dark brown; with gravels	D	
				2.00	2-2.2/S/1 2.00 m DUP701 2.00 m				CLAY; orange, brown		
			4	2.50					SHALE; brown; no odour, staining or anthropogenics.		
			6								
			8								
			10								
				11.70					Hole Terminated at 11.70 m		

PIEZOMETER DETAILS

ID Static Water Level

MW10



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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH703**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	0.70	0-0.2/S/1 D 0.00 m				FILL: CLAY; dark brown, orange brown			FILL
			1.0		1.0-1.2/S/1 D 1.00 m				FILL: CLAY; dark brown; trace gravels.			
			1.5	1.80					CLAY; brown; with gravels			RESIDUAL SOIL
			2.0		2.0-2.2/S/1 D 2.00 m							
			2.5	2.50					pale brown			
				2.80					Hole Terminated at 2.80 m			2.80: Tc bit refusal @ 2.8 mbgl.
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH703/MW11**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW11 Static Water Level
AD/T		Not Encountered	0.5	0.70	0-0.2/S/1 D 0.00 m				FILL: CLAY; dark brown, orange brown			MW11 Concrete Bentonite Casing
			1.0		1.0-1.2/S/1 D 1.00 m				FILL: CLAY; dark brown; trace gravels.			
			1.5	1.80					CLAY; brown; with gravels			Sand
			2.0		2.0-2.2/S/1 D 2.00 m							Screen
			2.5	2.50					pale brown			
				2.80					Hole Terminated at 2.80 m			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH704**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 4.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5		0-0.2/S/1 D 0.00 m				FILL: Gravelly CLAY; dark brown.			FILL
			1.0	1.20								
					1.2-1.4/S/1 D 1.20 m				CLAY; brown	D		RESIDUAL SOIL
			1.5									
			2.0									
			2.5		2.5-2.7/S/1 D 2.50 m							
			3.0									
			3.5		3.5-3.7/S/1 D 3.50 m							
			4.0	4.00					Hole Terminated at 4.00 m			4.00: Tc bit refusal at 4.0 mbgl.
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH704/MW12**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 4.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW12 Static Water Level
AD/T		Not Encountered	0.5		0-0.2/S/1 D 0.00 m				FILL: Gravelly CLAY; dark brown.			MW12 Concrete Casing Bentonite
			1.0	1.20	1.2-1.4/S/1 D 1.20 m				CLAY; brown	D		Screen Sand
			1.5									
			2.0									
			2.5		2.5-2.7/S/1 D 2.50 m							
			3.0									
			3.5		3.5-3.7/S/1 D 3.50 m							
			4.0	4.00					Hole Terminated at 4.00 m			
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH705**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.60 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0-0.2/S/1 D 0.00 m				FILL; Gravelly CLAY; dark brown and grey, brown.	D		FILL
			1.0		1-1.2/S/1 D 1.00 m							
			1.5	*1.50*					CLAY; brown.			RESIDUAL SOIL
			2.0		2.0-2.2/S/1 D 2.00 m							
			2.5	*2.60*					Hole Terminated at 2.60 m			2.60: Tc bit refusal at 2.6 mbgl.
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH705/MW13**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.60 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW13 Static Water Level
		Not Encountered	0.5		0-0.2/S/1 D 0.00 m				FILL; Gravelly CLAY; dark brown and grey, brown.			MW13 Concrete Casing Bentonite
			1.0		1-1.2/S/1 D 1.00 m					D		
			1.5	*1.50*					CLAY; brown.			Sand
			2.0		2.0-2.2/S/1 D 2.00 m							Screen
			2.5	*2.60*					Hole Terminated at 2.60 m			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH706**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0		0-0.2/S/1 D 0.00 m				FILL: Gravelly CLAY			FILL
			0.5									
				0.80					FILL: Silty CLAY; pale red, grey			
			1.0		1.0-1.2/S/1 D 1.00 m							
			1.5									
				1.60					FILL; CLAY; brown			
		Not Encountered	2.0		2.0-2.2/S/1 D 2.00 m					D		
			2.5									
			3.0									
				3.50					SHALE; brown; extremely weathred			WEATHERED ROCK
			4.0	4.00					Hole Terminated at 4.00 m			4.00: Tc bit refusal @ 4.0 mbgl.
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH706/MW15**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW15 Static Water Level
		Not Encountered	0.5		0-0.2/S/1 D 0.00 m				FILL: Gravelly CLAY			MW15 Concrete Cuttings
				0.80					FILL: Silty CLAY; pale red, grey			Casing Bentonite
			1.0		1.0-1.2/S/1 D 1.00 m							
			1.5	1.60					FILL; CLAY; brown	D		
			2.0		2.0-2.2/S/1 D 2.00 m							Sand Screen
			2.5									
			3.0									
			3.5	3.50					SHALE; brown; extremely weathred			
			4.0	4.00					Hole Terminated at 4.00 m			
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH707**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.30 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5	0.80	0-0.2/S/1 D 0.00 m				FILL: Silty CLAY; dark brown; trace gravels			FILL
			1.0		1-1.2/S/1 D 1.00 m				FILL: Gravelly CLAY; dark brown			
			1.5	1.80					CLAY; red brown; trace gravels.	D		RESIDUAL SOIL
			2.0		2-2.2/S/1 D 2.00 m							
			2.5	2.80	DUP702 2.50 m				dark brown; trace gravels at 2.8 m			
			3.0		3-3.2/S/1 D 3.00 m							
			3.5	4.00								
			4.0						Hole Terminated at 4.30 m			4.30: Tc bit refusal at 4.3 mbgl.
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH707/MW14**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.30 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW14 Static Water Level
		Not Encountered	0.5	0.80	0-0.2/S/1 D 0.00 m				FILL: Silty CLAY; dark brown; trace gravels			MW14 Concrete Casing Cuttings
			1.0		1-1.2/S/1 D 1.00 m				FILL: Gravelly CLAY; dark brown			Bentonite
			1.5	1.80					CLAY; red brown; trace gravels.			
			2.0		2-2.2/S/1 D 2.00 m					D		Screen
			2.5		DUP702 2.50 m							
				2.80					dark brown; trace gravels at 2.8 m			Sand
			3.0		3-3.2/S/1 D 3.00 m							
			3.5									
			4.0	4.00								
			4.5						Hole Terminated at 4.30 m			

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH708**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		4.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0		0-0.2/S/1 0.00 m				FILL; Gravelly CLAY; dark brown; no smell; organic colour.			FILL
			0.5									
			1.0	1.00	1-1.2/S/1 1.00 m				dark grey @ 1.0 m.			
			1.5									
			2.0		2.0-2.2/S/1 2.00 m					D		
			2.5									
			3.0	3.00					Silty CLAY; dark grey			ALLUVIUM
			3.5									
			4.0	4.00					Hole Terminated at 4.00 m			
			4.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH709**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
		Not Encountered	0.5		0-0.2/S/1 0.00 m				TOPSOIL: Silty CLAY; dark brown; trace rootlets.	D		TOPSOIL
				0.20					Silty CLAY; brown			RESIDUAL SOIL
			1.0		1.0-1.2/S/1 1.00 m							
			1.5	1.70					Hole Terminated at 1.70 m (Target depth reached)			
			2.0									
			2.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH709/MW16**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		1.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID MW16 Static Water Level
		Not Encountered	0.5		0-0.2/S/1 0.00 m				TOPSOIL: Silty CLAY; dark brown; trace rootlets.	D		MW16 Concrete Bentonite Casing
				0.20					Silty CLAY; brown			
			1.0		1.0-1.2/S/1 1.00 m							Sand
			1.5	1.70								Screen
			2.0						Hole Terminated at 1.70 m (Target depth reached)			
			2.5									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH710**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 0.55 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA		Not Encountered	0.2	*0.05*					Gravelly Silty CLAY; brown; trace shale gravels.			FILL
			0.4						Silty CLAY; medium plasticity; orange/brown.			RESIDUAL SOIL
					0.5/S/1 D 0.50 m							
				0.55								
			0.6						Hole Terminated at 0.55 m (Target depth reached)			
			0.8									
			1.0									
			1.2									
			1.4									

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CLIENT	Muscat Developments		COMMENCED	29/04/2021	COMPLETED	29/04/2021	**REF BH711**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Road, Menangle, NSW		GEOLOGY	Bringelly Shale	VEGETATION	Nil	PROJECT NO. P1806774
EQUIPMENT		4WD ute-mounted hydraulic dril rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 0.55 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA		Not Encountered	0.2	*0.05*					Gravelly Silty CLAY; brown; trace shale gravels.			FILL
			0.4		0.5/S/1 D 0.50 m				Silty CLAY; medium plasticity; orange/brown.			RESIDUAL SOIL
			0.6	*0.55*					Hole Terminated at 0.55 m (Target depth reached)			
			0.8									
			1.0									
			1.2									
			1.4									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH801**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.30 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.40*	0.5-0.7/S/1 D 0.50-0.70 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
			1.0	*1.30*					Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.5						Hole Terminated at 1.30 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH802**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 0.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.40*	0.5-0.7/S/1 D 0.50-0.70 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
				0.80					Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0						Hole Terminated at 0.80 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH803**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 0.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.20* *0.80*	0.4-0.6/S/1 D 0.40-0.60 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour. Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			FILL RESIDUAL SOIL
			1.0						Hole Terminated at 0.80 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH804**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 0.90 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.40*	0.5-0.7/S/1 D 0.50-0.70 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
				0.90					Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0						Hole Terminated at 0.90 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH805**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 0.90 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.50*	0.6-0.8/S/1 D 0.60-0.80 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
				0.90					Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0						Hole Terminated at 0.90 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH806**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 0.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.40*	0.5-0.7/S/1 D 0.50-0.70 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
				0.80					Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0						Hole Terminated at 0.80 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH807**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 0.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.40*	0.5-0.7/S/1 D 0.50-0.70 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
				0.80					Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0						Hole Terminated at 0.80 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH808**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.50*	0.6-0.8/S/1 D 0.60-0.80 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
									Silty CLAY; yellow brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH809**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.10 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.60*					FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
					0.7-0.9/S/1 D 0.70-0.90 m				Silty CLAY; yellow brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*1.10*								
									Hole Terminated at 1.10 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH810**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.20 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.70*					FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
			1.0	*1.20*	0.8-1.0/S/1 D 0.80-1.00 m				Silty CLAY; yellow brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.5						Hole Terminated at 1.20 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH811**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.30*	0.5-0.7/S/1 D 0.50-0.70 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
									Silty CLAY; dark brown and red brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH812**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.20 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.50*	0.7-0.9/S/1 D 0.70-0.90 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
			1.0	*1.20*					Silty CLAY; red brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.5						Hole Terminated at 1.20 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH813**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.30 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.70*					FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
			1.0	*1.30*	0.8-1.0/S/1 D 0.80-1.00 m				Silty CLAY; red brown and brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.5						Hole Terminated at 1.30 m (Target depth reached)			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH814**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 1.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5	*0.40*	0.5-0.7/S/1 D 0.50-0.70 m				FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
									Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH815**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		4WD truck-mounted hydraulic drill rig	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		Ø100 mm x 2.50 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		Not Encountered	0.5						FILL: Gravelly Silty CLAY; pale grey and grey; no staining or odour.			FILL
			1.0									
				1.40								
			1.5		1.5-1.7/Dup01 D 1.50-1.70 m 1.5-1.7/S/1 D 1.50-1.70 m				Silty CLAY; orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			2.0									
				2.50								
			2.5						Hole Terminated at 2.50 m (Target depth reached)			
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH816**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 0.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.20*	0.0-0.2/Dup02 D 0.00-0.20 m 0.0-0.2/S/1 D 0.00-0.20 m				TOPSOIL: Silty CLAY; dark orange brown; trace gravels; no staining, odour or anthropogenic inclusions.			TOPSOIL
									Silty CLAY; dark orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
					0.5-0.7/S/1 D 0.50-0.70 m							
				0.80								
			1.0						Hole Terminated at 0.80 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH817**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 1.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.20*	0.0-0.2/S/1 D 0.00-0.20 m				TOPSOIL: Silty CLAY; dark grey brown; trace gravels; no staining, odour or anthropogenic inclusions.			TOPSOIL
					0.5-0.7/S/1 D 0.50-0.70 m				Silty CLAY; dark grey brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH818**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 1.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.20*	0.0-0.2/S/1 D 0.00-0.20 m				TOPSOIL: Silty CLAY; dark grey brown to orange brown; trace gravels; no staining, odour or anthropogenic inclusions.			TOPSOIL
									Silty CLAY; dark grey brown to orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
					0.4-0.6/S/1 D 0.40-0.60 m							
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH819**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.80 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.20*	0.0-0.2/S/1 D 0.00-0.20 m				TOPSOIL: Silty CLAY; grey brown to red brown; trace gravels; no staining, odour or anthropogenic inclusions.			TOPSOIL
					0.5-0.7/S/1 D 0.50-0.70 m				Silty CLAY; grey brown to red brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
				0.80					Hole Terminated at 0.80 m (Target depth reached)			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH820**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 0.90 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.20*	0.0-0.2/S/1 D 0.00-0.20 m				TOPSOIL: Silty CLAY; dark brown to red brown; trace gravels; no staining, odour or anthropogenic inclusions.			TOPSOIL
					0.5-0.7/S/1 D 0.50-0.70 m				Silty CLAY; dark brown to red brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*0.90*					Hole Terminated at 0.90 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH821**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.90 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.20*	0.0-0.2/S/1 D 0.00-0.20 m				TOPSOIL: Silty CLAY; dark brown to red brown; trace gravels; no staining, odour or anthropogenic inclusions.			TOPSOIL
					0.5-0.7/S/1 D 0.50-0.70 m				Silty CLAY; dark brown to red brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*0.90*					Hole Terminated at 0.90 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH822**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 1.00 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.50*	0.0-0.1/S/1 D 0.00-0.10 m				TOPSOIL: Silty CLAY; dark grey brown to orange brown; trace gravels; no staining, odour or anthropogenic inclusions.			TOPSOIL
					0.5-0.9/S/1 D 0.50-0.90 m				Silty CLAY; dark grey brown to orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
			1.0	*1.00*					Hole Terminated at 1.00 m (Target depth reached)			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH823**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.30*	0.4-0.6/S/1 D 0.40-0.60 m				FILL: Gravelly CLAY; dark brown; no staining, odour or anthropogenic inclusions.			FILL
									Silty CLAY; dark orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
				0.70					Hole Terminated at 0.70 m (Target depth reached)			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH824**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.30*	0.4-0.6/S/1 D 0.40-0.60 m				FILL: Gravelly CLAY; dark brown; no staining, odour or anthropogenic inclusions.			FILL
									Silty CLAY; dark orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
				0.70					Hole Terminated at 0.70 m (Target depth reached)			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH825**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.30*	0.4-0.6/S/1 D 0.40-0.60 m				FILL: Gravelly CLAY; dark brown; no staining, odour or anthropogenic inclusions.			FILL
									Silty CLAY; dark orange brown; no staining, odour or anthropogenic inclusions.			RESIDUAL SOIL
				0.70					Hole Terminated at 0.70 m (Target depth reached)			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH826**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Push tube	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.70 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
PT		Not Encountered	0.5	*0.30* *0.70*	0.4-0.6/S/1 D 0.40-0.60 m				FILL: Gravelly CLAY; dark brown; no staining, odour or anthropogenic inclusions. Silty CLAY; dark orange brown; no staining, odour or anthropogenic inclusions.			FILL RESIDUAL SOIL
			1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5						Hole Terminated at 0.70 m (Target depth reached)			

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CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH827**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Hand Auger	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		ø75 mm x 0.40 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA		Not Encountered		*0.15*	0.1/S/1 D 0.10 m				FILL: Gravelly Silty CLAY; low plasticity; grey/brown; trace shale gravels.			FILL
					0.3/S/1 D 0.30 m				Silty CLAY; medium plasticity; orange/brown.			RESIDUAL SOIL
				0.40					Hole Terminated at 0.40 m (Target depth reached)			
			0.5									
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

EXCAVATION LOG TO BE READ IN CONJUCTION WITH ACCOMPANYING REPORT NOTES AND ABBREVIATIONS

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MARTENS & ASSOCIATES PTY LTD
Suite 201, 20 George St. Hornsby, NSW 2077 Australia
Phone: (02) 9476 9999 Fax: (02) 9476 8767
mail@martens.com.au WEB: http://www.martens.com.au

Engineering Log - BOREHOLE

MARTENS 2.00 LIB.GLB Log MARTENS BOREHOLE P1806774BH801-BH826V01.GPJ <<DrawingFile>> 03/09/2021 10:03 10.02.00.04 Datgel Lab and In Situ Tool - DGD | Lib: Martens 2.00 2016-11-13 Prj: Martens 2.00 2016-11-13

CLIENT	Muscat Developments		COMMENCED	10/08/2021	COMPLETED	10/08/2021	**REF BH828**
PROJECT	Detailed Site Investigation		LOGGED	WX	CHECKED		Sheet 1 OF 1
SITE	285 Finns Rd, Menangle, NSW		GEOLOGY		VEGETATION		PROJECT NO. P1806774
EQUIPMENT		Hand Auger	LONGITUDE		RL SURFACE	m	DATUM AHD
EXCAVATION DIMENSIONS		⌀75 mm x 0.40 m depth	LATITUDE		ASPECT		SLOPE

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS / ASCS CLASSIFICATION	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA		Not Encountered		*0.15*	0.1/S/1 D 0.10 m				FILL: Gravelly Silty CLAY; low plasticity; grey/brown; trace shale gravels.			FILL
					0.3/S/1 D 0.30 m				Silty CLAY; medium plasticity; orange/brown.			RESIDUAL SOIL
				0.40					Hole Terminated at 0.40 m (Target depth reached)			
			0.5									
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									

EXCAVATION LOG TO BE READ IN CONJUCTION WITH ACCOMPANYING REPORT NOTES AND ABBREVIATIONS

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Suite 201, 20 George St. Hornsby, NSW 2077 Australia
Phone: (02) 9476 9999 Fax: (02) 9476 8767
mail@martens.com.au WEB: http://www.martens.com.au

Engineering Log - BOREHOLE

MARTENS 2.00 LIB.GLB Log MARTENS BOREHOLE P1806774BH801-BH826V01.GPJ <<DrawingFile>> 03/09/2021 10:03 10.02.00.04 Datgel Lab and In Situ Tool - DGD | Lib: Martens 2.00 2016-11-13 Prj: Martens 2.00 2016-11-13

16 Attachment D – Field Data Sheets

WATER SAMPLING RECORD FORM

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PROJECT INFORMATION

PROJECT NUMBER: P6774

CLIENT: Muscat Development

SITE LOCATION: 285 Finns Rd, Menangle

DATE: 15/4/21

SAMPLED BY: RM

WATER SAMPLING FIELD PARAMETERS

Bore / Location ID	Time	Depth to Water (TOC)	Temp (°C)	pH	Redox Potential (mV)	Dissolved Oxygen (mg/L - % Sat)	EC uS/CM - mS/cm	Turbidity (ntu)	Appearance (colour, turbidity, odour, etc)	Samples Collected
MW01	7:40	5.28							Mostly Clear	MW01/210415
MW02	8:15	5.60							"	MW02/ "
MW03	8:50	8.08							"	MW03/ "
MW04	9:30	3.41							Murky/Grey	MW04/ "

Sample bottle codes: P-plastic, G - glass, V - vial

Preservation Codes - U - unpreserved, S -sulfuric acid, N - nitric acid, H - hydrochloric acid

OBSERVATIONS

Weather conditions:

Temperature: ~22°C

Precipitation: none

WATER SAMPLING RECORD FORM

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consulting engineers since 1989

PROJECT INFORMATION

PROJECT NUMBER: 6774

CLIENT: Muscat Developments

SITE LOCATION: Finns Rd, Menangle

DATE: 7/5/21

SAMPLED BY: RM

WATER SAMPLING FIELD PARAMETERS

Bore / Location ID	Time	Depth to Water (TOC)	Temp (°C)	pH	Redox Potential (mV)	Dissolved Oxygen (mg/L - % Sat)	EC uS/CM - mS/cm	Turbidity (ntu)	Appearance (colour, turbidity, odour, etc)	Samples Collected
MW01	8:00	5.42	20.3	7.02	-	5.81	2750	-	Clear	All
MW02	8:45	5.76	20.3	6.92	-	0.91	4022	-	Clear	All
MW03	9:45	8.14	21.1	6.74	-	0.22	3418	-	Clear	All
MW04	12:30	3.21	22.1	8.00	-	0.05	11297	-	Yellow	All
MW05	1:00	DRY	-	-	-	-	-	-	-	-
MW06	1:20	6.72	21.9	6.64	-	0.14	1030	-	Slightly turbid	All
MW07	1:10	DRY	-	-	-	-	-	-	-	-
MW08	10:30	DRY	-	-	-	-	-	-	-	

Sample bottle codes: P-plastic, G - glass, V - vial

Preservation Codes - U - unpreserved, S -sulfuric acid, N - nitric acid, H - hydrochloric acid

OBSERVATIONS

Weather conditions:

Temperature:.....

Precipitation:.....

Static Landfill Gas Bore Monitoring Record

Project No:	6774 - Finns Road	Project:	S DSI
Date:	21 May - 2021	Client:	
Site Address:	285 Finns Road, Menangle	Field Personnel:	BM
Instuments Used:	GA5000	Weather/Wind:	Fine, no wind. 6°C

Suite 201. 20 George Street. Hornsby. NSW 2077. Ph: (02) 9476 9999 Fax: (02) 9476 8767. mail@martens.com.au. www.martens.com.au

Bore ID	Start Time	Atmospheric Pressure (mb)	Relative Press. (mb)	Relative Press. Manometer	Methane (%v/v)		Carbon Dioxide (%v/v)		Oxygen (%v/v)		Pump Time Steady	Flow (L/min)	Other		Water level (MbTOC/ dry)	Comments
					Max.	Steady	Max.	Steady	Min.	Steady			H2S	CO		
MW01					0.1	0.1	0.0	0.0	20.1	20.1	2min	0.0	0	0		
MW02	8:05	1018	0.00		0.1	0.1	0.2	0.2	21.0	21.0	3min	0.0	0	0		
MW04	7:15	1017	0.05		40.7	40.8	6.0	6.0	0.6	0.6	3min	0.0	0	0		well in good condition
MW05	7:50	1018	-0.02		33.3	33.2	23.2	23.2	0.2	0.2	4min	0.0	0	0		" "
MW07	7:00	1017	0.0		8.7	8.6	9.3	9.3	7.4	7.4	4min	0.1	0	1ppm		well in good condition
MW08	7:35	1018	0.05		39.4	34.8	24.2	24.0	0.2	0.2	3min	0.1	0	0		" "

WATER SAMPLING RECORD FORM

martens consulting engineers since 1989

PROJECT INFORMATION

PROJECT NUMBER: 6774

CLIENT: Muscat Developments

SITE LOCATION: 285 Finns Rd, Marangle

DATE: 10/8/21

SAMPLED BY: RM

WATER SAMPLING FIELD PARAMETERS

Bore / Location ID	Time	Depth to Water (TOC)	Temp (°C)	pH	Redox Potential (mV)	Dissolved Oxygen (mg/L - % Sat)	EC uS/CM - mS/cm	Turbidity (ntu)	Appearance (colour, turbidity, odour, etc)	Samples Collected
MW01	10:00	5.37	19.8	7.17	42.5	5.41	3728	-		
	10:02	"	19.9	7.27	84.6	4.90	3558	-		
	10:04	"	20.0	7.28	84.7	4.77	3225	-		
	10:06	"	19.9	2.31	85.0	4.65	3571	-		
MW02	11:00	7.41	20.1	7.34	124.0	6.6	4576	-	clear	all
	11:02	[illegible]	20.2	7.32	115.2	5.25	4370	-		
	11:04	"	20.1	7.26	117.9	5.14	4245	-		
	11:06	"	20.0	7.27	112.4	4.09	4320	-		
MW03	11:47	8.88	30.4	7.46	86.7	5.66	220	-	dk brown, sh	all, no red/orange
	11:49	"	21.0	7.16	117.3	0.43	3444	-		
	11:51	"	20.8	7.13	115.6	0.33	3648	-		
	11:53	"	20.9	7.10	114.4	0.30	3640	-		
	11:55	"	20.9	7.09	113.9	0.28	3627	-		
MW09	12:39	9.76	20.6	7.48	122.8	6.24	3193	-	clear	all
	12:41	"	20.7	7.53	122.2	5.72	3179	-		
	12:43	"	20.6	7.54	119.9	5.54	3108	-		
	12:45	"	20.5	7.57	118.1	5.26	3093	-		
MW04	1:40	3.76	19.9	8.21	-69.1	3.7	13381	-	clear	all + all dup
	1:42	"	19.7	8.22	-99.6	3.53	13413	-		
	1:44	"	19.6	8.21	-156.5	2.21	13457	-		
	1:46	"	19.5	8.17	-170.9	1.88	13434	-		
	1:48	"	19.4	7.57	-146.7	0.9	13631	-		

Sample bottle codes: P-plastic, G - glass, V - vial

Preservation Codes - U - unpreserved, S -sulfuric acid, N - nitric acid, H - hydrochloric acid

OBSERVATIONS

Weather conditions:

Temperature: 20°C

Precipitation: nil

WATER SAMPLING RECORD FORM

martens consulting engineers since 1989

PROJECT INFORMATION

PROJECT NUMBER: 6774

CLIENT: Muscat Developments

SITE LOCATION: 285 Finns Rd, Menangle

DATE: 10/8/24

SAMPLED BY:

WATER SAMPLING FIELD PARAMETERS

Bore / Location ID	Time	Depth to Water (TOC)	Temp (°C)	pH	Redox Potential (mV)	Dissolved Oxygen (mg/L - % Sat)	EC uS/CM - mS/cm	Turbidity (ntu)	Appearance (colour, turbidity, odour, etc)	Samples Collected
~~MW04~~	~~1:50~~									
MW04	1:50	2.76	19.4	7.09	-116.3	0.16	13741	-		
MW06	2:30	-	19.5	7.01	~~-116.3~~	-35.1	4261	-	silt + no real extra green	
	2:32	-	19.6	6.98	042	24.7	3208	-		
	2:34	-	19.7	6.85	0.31	48.6	2016	-		
MW06	2:36	-	19.8	6.83	0.24	55.7	1874	-		
	2:38	-	19.7	6.80	0.22	62.8	1805	-	all, 1 less red	

MW06 5.74

Sample bottle codes: P-plastic, G - glass, V - vial

Preservation Codes - U - unpreserved, S -sulfuric acid, N - nitric acid, H - hydrochloric acid

OBSERVATIONS

Weather conditions:

Temperature:.....

Precipitation:.....

Static Landfill Gas Bore Monitoring Record

martens

Project No:	6774 - Finns Road	Project:	DSI
Date:	10.8.2021	Client:	Mugcutter
Site Address:	285 Finns Road, Monarylle	Field Personnel:	BM / DS
Instuments Used:	GA5000	Weather/Wind:	Sunny - No wind.

L/h

Suite 201, 20 George Street, Hornsby, NSW 2077. Ph: (02) 9476 9999 Fax: (02) 9476 8767. mail@martens.com.au. www.martens.com.au

Bore ID	Start Time	Atmospheric Pressure (mb)	Relative Press. (mb)	Relative Press. Manometer	Methane (%v/v) Max.	Methane (%v/v) Steady	Carbon Dioxide (%v/v) Max.	Carbon Dioxide (%v/v) Steady	Oxygen (%v/v) Min.	Oxygen (%v/v) Steady	Pump Time Steady	Flow (L/hr)	Other H2S	Other CO	Water level (MbTOC/ dry)	Comments
MW01	8:10	1015	-0.63		6.1	0.1	0.6	0.6	19.4	19.4	120sec	-8.6	0	2ppm		Well in good condition
MW02	8:18	1015	-0.89		0.1	0.0	0.8	0.8	19.1	19.1	110sec	-8.7	0	0ppm	9.76	Well in good condition.
MW09	9:30	1014	-0.19		2.4	2.4	3.6	3.6	13.6	13.6	160sec	0.5	0	2ppm		
MW13	9:50	1014	-0.03		0.4	0.3	9.7	9.7	4.9	4.9	160sec	0.3 L/h	1	0	Dry	Well in good cond.
MW12	10:00	1013	0.03		10.4	10.4	5.3	5.3	0	0	160	0.2	0	0	Dry	Well in good cond.
MW11	10:15	1014	0.03		1.2	1.2	10.5	10.5	7.9	7.9	100	0.2	0	0	Dry	Well in good cond.
MW05	10:20	1014	0.01		30.6	[illegible]	18.7	18.7	0	0	60	0.1	1	0	Dry	
MW04	10:30	1014	0.05		~~62.1~~	21.3	15.4	5.7	[illegible]	13.6	530	0.1	0	0	5.76	Methane not fully stabilised ~5m.c
MW03	10:45	1014	1.85		3.4	3.4	4.3	4.3	13.2	13.2	110	-8.4	0	0		Well in good cond.
MW07	10:50	1014	0.05		7.6	2.5	11.1	11.1	3.2	3.2	120	-0.1	0	1	Dry	Well in good cond.
MW15	11:00	1015	-0.01		4.6	4.6	6.7	6.7	2.9	2.9	100	0	0	1	Dry	Well cap slightly loose
MW14	11:10	1014	0.05		17.3	17.1	7.7	7.7	0.3	0.3	100	-0.1	0	1	dry	Well in good cond.
MW16	11:30	1014	0.01		0.1	0.1	0.6	0.4	19.3	19.2	60	-0.1	0	0	Dry	Well cap lose
MW06	11:35	1014	0.05		0.1	0.1	2.3	2.3	14.8	14.8	80	-0.1	0	0	5.86	Well cap lose

MW07

Page__of__

No gas cap: MW10 - dry
MW08 - dry.

Oil / Water Interface Meter

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument **Interface Meter (30M)**
Serial No. **312525**

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: **Jay Marosa**

Calibration date: **10/05/2021**

Next calibration due: **9/07/2021**

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
Serial No. **18J104319**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 10.00		pH 10.00		355386	pH 9.60
2. pH 7.00		pH 7.00		364212	pH 6.80
3. pH 4.00		pH 4.00		366070	pH 3.98
4. mV		231.8mV		365755/364219	231.2mV
5. EC		2.76mS		350510	2.74mS
6. D.O		0.00ppm		10959	0.02pm
7. Temp		20.7°C		MultiTherm	21°C

Calibrated by: **Sarah Lian**

Calibration date: **13/05/2021**

Next calibration due: **12/06/2021**

Gas Calibration Certificate

Instrument **GA5000**
Serial No. **G506041**
Sensors **CH4, CO2, O2, CO, H2S**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
Pump	Operation	✓	
	Filter	✓	
	Flow	✓	
	Valves, Diaphragm	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	O2	✓	
	CH4	✓	
	CO2	✓	
	CO	✓	
	H2S	✓	
Alarms	Beeper	✓	
	Settings	✓	
Software	Version		
Datalogger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
O2		20.9% Vol O2	NATA	Fresh Air	20.9% O2
CH4		60% CH4	NATA	SY372	59.9%CH4
CO2		40% CO2	NATA	SY372	39.9% CO2
CO		103ppm CO	NATA	SY396	103ppm CO
H2S		24ppm H2S	NATA	SY396	24ppm H2S

Calibrated by: **Lauren Tompkins**

Calibration date: **20/05/2021**

Next calibration due: **16/11/2021**

Gas Calibration Certificate

Instrument **GA5000**
Serial No. **G505732**
Sensors **CH4, CO2, O2, CO, H2S**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
Pump	Operation	✓	
	Filter	✓	
	Flow	✓	
	Valves, Diaphragm	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	O2	✓	
	CH4	✓	
	CO2	✓	
	CO	✓	
	H2S	✓	
Alarms	Beeper	✓	
	Settings	✓	
Software	Version		
Datalogger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
O2		20.9% Vol O2		Fresh Air	20.9% O2
CH4		60% CH4	NATA	SY400	59.9% CH4
CO2		40% CO2	NATA	SY400	40.0% CO2
CO		103ppm CO	NATA	SY396	103ppm CO
H2S		24ppm H2S	NATA	SY396	24ppm H2S

Calibrated by: **Eloise Carroll**

Calibration date: **30/07/2021**

Next calibration due: **26/01/2022**

CERTIFICATION OF CALIBRATION

Issued by: QED Environmental Systems Ltd.

Calibration certificate number **16233 H-03950**

Instrument **Laser One** **Serial number** **16233**

Description of the calibration procedure:

The calibration is verified with certified gas bottle. The maximum error of the instrument as specified in the datasheet.

Gas verification from **0-1000ppm CH4**

Full scale (ppm)	Gas concentration (ppm)	Response 1 (ppm)	Response 2 (ppm)	Response 3 (ppm)	Average response (ppm)	Maximum error (ppm)	Maximum error (% F.s.)	Maximum error %
1000	0	0	0	0	0.00	0.00	0.00	0.00
1000	3.2	3.2	3.2	3.2	3.20	0.00	0.00	0.00
1000	10.3	10.1	10.1	10.1	10.10	0.20	0.02	0.02
1000	107	101	101	101	101.00	6.00	0.60	0.60
1000	1000	1005	1005	1005	1005.00	5.00	0.50	0.50

Uncertainty	0.60		%
Max % error	0.60		% FS

Gas verification from **0-100% vol CH4**

Full scale (%vol)	Gas concentration (%vol)	Response 1 (%vol)	Response 2 (%vol)	Response 3 (%vol)	Average response (%vol)	Maximum error (%vol)	Maximum error (% F.s.)	Maximum error %
10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	2.20	2.20	2.20	2.20	2.20	0.00	0.00	0.00
10.00	5.00	5.00	5.00	5.00	5.00	0.00	0.00	0.00
100.00	15.00	15.10	15.10	15.10	15.10	0.10	0.10	0.10
100.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00	0.00
100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00

Uncertainty		0.10		%
Max % error		0.10		% FS

Gas verification from **0-100% CH4 LEL (0-4.4% VOL**

Full scale (%vol)	Gas concentration (LEL%)	Response 1 (LEL%)	Response 2 (LEL%)	Response 3 (LEL%)	Average response (%vol)	Maximum error (LEL%)	Maximum error (% F.s.)	Maximum error %
10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	2.00	2.01	2.01	2.01	2.01	0.01	0.10	0.10
100.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00	0.00

Uncertainty	0.10		%
Max % error	0.10		% FS

PID Calibration Certificate

Instrument **PhoCheck Tiger**
Serial No. **T-115209**

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	Low	High	TWA	STEL
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to ~~certify that~~ the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		93ppm Isobutylene	NATA	SY361		92.3ppm

Calibrated by: **Kylie Rawlings**

Calibration date: **9/08/2021**

Next calibration due: **5/02/2022**

Gas Calibration Certificate

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument **GA5000**
Serial No. **G505732**
Sensors **CH4, CO2, O2, CO, H2S**

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
Pump	Operation	✓	
	Filter	✓	
	Flow	✓	
	Valves, Diaphragm	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	O2	✓	
	CH4	✓	
	CO2	✓	
	CO	✓	
	H2S	✓	
Alarms	Beeper	✓	
	Settings	✓	
Software	Version		
Datalogger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
O2		20.9% Vol O2		Fresh Air	20.9% O2
CH4		60% CH4	NATA	SY400	60.0% CH4
CO2		40% CO2	NATA	SY400	40.0% CO2
CO		103ppm CO	NATA	SY396	103ppm CO
H2S		24ppm H2S	NATA	SY396	24ppm H2S

Calibrated by: **Kylie Rawlings**

Calibration date: **9/08/2021**

Next calibration due: **5/02/2022**

17 Attachment E – Laboratory Summary Tables

	Asbestos	Metals							
	Asbestos fibres	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
	Detect	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		4	0.4	1	1	1	0.1	1	1
Site Specific EIL		160		670	290	1,800		320	670
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay									
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil									
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil		3,000	900		240,000	1,500	730	6,000	400,000

Field ID	Date									
TP101/0.1	**10/03/2021**	0	7	<0.4	9	24	16	<0.1	10	42
TP102/0.1	**10/03/2021**	0	6	<0.4	11	30	72	<0.1	14	58
TP103/1.0	**10/03/2021**	0	6	<0.4	13	22	21	<0.1	12	46
TP104/0.1	**10/03/2021**	0	8	<0.4	13	27	37	<0.1	10	82
TP105/0.1	**10/03/2021**	0	6	<0.4	13	70	56	<0.1	10	83
TP106/0.1	**10/03/2021**	0	8	<0.4	26	55	44	<0.1	5	67
TP107/1.0	**10/03/2021**	0	6	<0.4	20	27	31	<0.1	10	59
TP108/0.1	**10/03/2021**	0	5	<0.4	14	17	18	<0.1	8	24
TP109/1.0	**10/03/2021**	0	8	<0.4	13	17	18	<0.1	5	21
TP110/0.1	**10/03/2021**	0	5	<0.4	17	26	36	<0.1	7	120
TP111/0.1	**10/03/2021**	0	<4	<0.4	12	15	31	<0.1	5	33
TP112/2.0	**10/03/2021**	0	5	<0.4	43	20	19	<0.1	9	33
TP113/0.1	**10/03/2021**	0	5	<0.4	13	7	14	<0.1	1	22
TP114/0.1	**10/03/2021**	0	6	<0.4	12	25	17	<0.1	9	46
TP116/1.0	**10/03/2021**	0	6	<0.4	21	21	30	<0.1	8	43
TP117/0.1	**10/03/2021**	0	7	<0.4	30	21	50	<0.1	7	34
TP118/1.0	**10/03/2021**	0	4	<0.4	28	18	36	<0.1	8	33
TP119/0.1	**10/03/2021**	0	9	<0.4	16	20	18	<0.1	3	9
TP120/1.0	**10/03/2021**	0	5	<0.4	13	21	15	<0.1	11	36
TP121/1.0	**10/03/2021**	0	4	<0.4	9	16	81	0.1	2	34
TP122/0.1	**10/03/2021**	0	7	<0.4	16	22	24	<0.1	12	36
TP123/0.1	**10/03/2021**	0	7	<0.4	15	25	71	<0.1	10	70
TP124/0.1	**10/03/2021**	0	7	<0.4	16	16	23	<0.1	6	28
TP125/1.0	**10/03/2021**	0	5	<0.4	8	16	20	<0.1	4	16
TP126/0.1	**10/03/2021**	0	<4	<0.4	16	17	24	<0.1	5	27
TP127/2.0	**10/03/2021**	0	6	0.6	21	19	26	<0.1	9	31
TP128/1.0	**10/03/2021**	0	7	<0.4	9	40	18	<0.1	13	54
TP129/0.1	**10/03/2021**	0	5	<0.4	31	26	18	<0.1	13	55

Statistics

Number of Results	**28**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**
Number of Detects	**28**	**28**	**1**	**31**	**31**	**31**	**1**	**31**	**31**
Minimum Concentration	**0**	**4**	**<0.4**	**8**	**7**	**14**	**0.1**	**1**	**9**
Minimum Detect	**0**	**4**	**0.6**	**8**	**7**	**14**	**0.1**	**1**	**9**
Maximum Concentration	**0**	**66**	**0.6**	**43**	**70**	**160**	**0.1**	**21**	**120**
Maximum Detect	**0**	**66**	**0.6**	**43**	**70**	**160**	**0.1**	**21**	**120**
Average Concentration *	**0**	**7.6**	**0.21**	**17**	**25**	**36**	**0.052**	**8.5**	**45**
Median Concentration *	**0**	**6**	**0.2**	**14**	**22**	**24**	**0.05**	**9**	**36**
Standard Deviation *	**0**	**11**	**0.072**	**7.7**	**12**	**29**	**0.009**	**4**	**24**
95% UCL (Student's-t) *	**0**	**10.99**	**0.235**	**19.07**	**28.56**	**44.53**	**0.0544**	**9.678**	**52.79**
% of Detects	**100**	**90**	**3**	**100**	**100**	**100**	**3**	**100**	**100**
% of Non-Detects	**0**	**10**	**97**	**0**	**0**	**0**	**97**	**0**	**0**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

		Halogenated Benzenes	PAH																		PCBs								
		Hexachlorobenzene	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indenol(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 positives)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Sum of total)
		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		0.1	0.2	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																													
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																													
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil								1.4																					
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil		80																40	40	40	4000								7
Field ID	**Date**																												
TP101/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.3	0.2	<0.1	0.2	<0.1	0.4	<0.1	<0.1	<0.1	0.2	0.4	<0.5	<0.5	<0.5	1.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP102/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP103/1.0	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.06	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.5	<0.5	<0.5	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP104/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.2	0.2	<0.1	0.2	<0.1	0.4	<0.1	<0.1	<0.1	0.4	0.4	<0.5	<0.5	<0.5	1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP105/0.1	**10/03/2021**	<0.1	0.8	<0.1	<0.1	0.2	1.1	0.88	0.7	0.8	<0.1	1.5	<0.1	0.5	<0.1	0.7	1.6	1.2	1.2	1.1	8.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP106/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.2	<0.05	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.2	0.2	<0.5	<0.5	<0.5	0.92	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP107/1.0	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.1	<0.05	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	0.62	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP108/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	0.90	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP109/1.0	**10/03/2021**	<0.1	0.8	<0.1	<0.1	0.3	1.2	0.89	0.6	0.9	<0.1	2.1	<0.1	0.5	<0.1	0.8	1.9	1.2	1.3	1.2	10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP110/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP111/0.1	**10/03/2021**	<0.1	0.6	<0.1	<0.1	0.3	0.9	0.61	0.4	0.6	<0.1	1.4	<0.1	0.3	<0.1	1	1.2	0.8	0.9	0.8	7.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP112/2.0	**10/03/2021**	<0.1	2.4	0.2	<0.1	0.7	2.3	1.5	0.6	1.6	0.2	4.1	<0.1	0.6	<0.1	0.5	3.7	2.3	2.3	2.3	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP113/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.07	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.5	<0.5	<0.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP114/0.1	**10/03/2021**	<0.1	0.2	<0.1	<0.1	<0.1	0.3	0.2	0.1	0.2	<0.1	0.3	<0.1	0.1	<0.1	0.1	0.3	<0.5	<0.5	<0.5	1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP116/1.0	**10/03/2021**	<0.1	0.3	<0.1	<0.1	<0.1	0.3	0.4	0.4	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	0.4	<0.5	0.5	<0.5	2.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP117/0.1	**10/03/2021**	<0.1	3.7	<0.1	<0.1	0.6	3.0	2.6	1.2	2.1	0.3	4.5	<0.1	1.2	0.2	2.0	4.8	3.7	3.7	3.7	26	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP118/1.0	**10/03/2021**	<0.1	0.3	<0.1	<0.1	<0.1	0.4	0.3	0.2	0.2	<0.1	0.5	<0.1	0.2	<0.1	0.2	0.5	<0.5	<0.5	<0.5	2.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP119/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP120/1.0	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP121/1.0	**10/03/2021**	<0.1	0.6	<0.1	<0.1	0.1	0.8	0.73	<0.1	0.6	<0.1	0.9	<0.1	0.4	<0.1	0.4	1.1	1	1.0	0.9	5.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP122/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP123/0.1	**10/03/2021**	<0.1	0.2	<0.1	<0.1	<0.1	0.4	0.3	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	0.4	<0.5	<0.5	<0.5	2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP124/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.2	0.1	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	0.81	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP125/1.0	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.5	<0.5	<0.5	0.54	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP126/0.1	**10/03/2021**	<0.1	0.3	<0.1	<0.1	<0.1	0.4	0.1	0.3	0.3	<0.1	0.5	<0.1	0.2	<0.1	0.3	0.5	<0.5	<0.5	<0.5	2.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP127/2.0	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.2	0.1	0.2	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP128/1.0	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.06	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.5	<0.5	<0.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP129/0.1	**10/03/2021**	<0.1	<0.2	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Statistics																													
Number of Results		**31**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**30**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**
Number of Detects		**0**	**11**	**1**	**0**	**6**	**19**	**22**	**12**	**18**	**2**	**22**	**0**	**11**	**1**	**15**	**24**	**6**	**7**	**6**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration		**<0.1**	**0.2**	**<0.1**	**<0.1**	**0.1**	**0.1**	**<0.05**	**0.1**	**0.1**	**<0.1**	**0.1**	**<0.1**	**0.1**	**<0.1**	**0.1**	**0.1**	**<0.5**	**0.5**	**<0.5**	**<0.05**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Minimum Detect		**ND**	**0.2**	**0.2**	**ND**	**0.1**	**0.1**	**0.06**	**0.1**	**0.1**	**0.2**	**0.1**	**ND**	**0.1**	**0.2**	**0.1**	**0.1**	**0.8**	**0.5**	**0.8**	**0.2**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration		**<0.1**	**3.7**	**0.2**	**<0.1**	**0.7**	**3**	**2.6**	**1.2**	**2.1**	**0.3**	**4.5**	**<0.1**	**1.2**	**<1**	**2**	**4.8**	**3.7**	**3.7**	**3.7**	**26**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Detect		**ND**	**3.7**	**0.2**	**ND**	**0.7**	**3**	**2.6**	**1.2**	**2.1**	**0.3**	**4.5**	**ND**	**1.2**	**0.2**	**2**	**4.8**	**3.7**	**3.7**	**3.7**	**26**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *		**0.05**	**0.42**	**0.055**	**0.05**	**0.12**	**0.46**	**0.36**	**0.21**	**0.33**	**0.064**	**0.69**	**0.05**	**0.19**	**0.085**	**0.28**	**0.69**	**0.56**	**0.58**	**0.55**	**3.5**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Median Concentration *		**0.05**	**0.1**	**0.05**	**0.05**	**0.05**	**0.2**	**0.1**	**0.05**	**0.1**	**0.05**	**0.2**	**0.05**	**0.05**	**0.05**	**0.1**	**0.2**	**0.25**	**0.25**	**0.25**	**1.11**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Standard Deviation *		**0**	**0.79**	**0.028**	**0**	**0.17**	**0.7**	**0.56**	**0.27**	**0.49**	**0.054**	**1.1**	**0**	**0.26**	**0.12**	**0.42**	**1.1**	**0.77**	**0.77**	**0.77**	**5.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *		**0.05**	**0.68**	**0.0645**	**0.05**	**0.171**	**0.689**	**0.54**	**0.296**	**0.484**	**0.0817**	**1.054**	**0.05**	**0.27**	**0.121**	**0.419**	**1.047**	**0.809**	**0.826**	**0.8**	**5.449**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
% of Detects		**0**	**39**	**4**	**0**	**21**	**68**	**79**	**43**	**64**	**7**	**79**	**0**	**39**	**3**	**54**	**86**	**21**	**25**	**21**	**86**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects		**100**	**61**	**96**	**100**	**79**	**32**	**21**	**57**	**36**	**93**	**21**	**100**	**61**	**97**	**46**	**14**	**79**	**75**	**79**	**14**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

		Organochlorine Pesticides																			
		4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor
		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		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																					
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil											3,600					100			50		2,500
Field ID	**Date**																				
TP101/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP102/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP103/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP104/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP105/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP106/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP107/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP108/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP109/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP110/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP111/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP112/2.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP113/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP114/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP116/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP117/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP117/0.1	**10/03/2021**																				
TP118/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP119/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP120/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP121/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP122/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP123/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP124/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP125/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP126/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP127/2.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP128/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP129/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

	Organophosphorous Pesticides											Pesticides
	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Ronnel	Parathion
	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil												
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay												
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil												
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil			2,000									
Field ID	**Date**												
TP101/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP102/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP103/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP104/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP105/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP106/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP107/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP108/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP109/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP110/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP111/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP112/2.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP113/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP114/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP116/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP117/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP117/0.1	**10/03/2021**												
TP118/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP119/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP120/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP121/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP122/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP123/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP124/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP125/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP126/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP127/2.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP128/1.0	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP129/0.1	**10/03/2021**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Median Concentration *	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

		BTEX						TRH							TPH			
		Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	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	C29-C36 Fraction
		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	0.5	1	2	1	3	25	25	50	50	100	100	50	25	50	100	100
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil								800		1,000		5,000	10,000					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay		4 | 6 | 9 | 20							310 | 480									
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil		95	135	185			95		215	170	170	2,500	6,600					
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																		
Field ID	**Date**																	
TP101/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP102/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP103/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP104/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP105/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	250	300	540	<25	<50	<100	240
TP106/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP107/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP108/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP109/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP110/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP111/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP112/2.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP113/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP114/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP116/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	160	210	370	<25	<50	<100	170
TP117/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	200	190	380	<25	<50	<100	160
TP117/0.1	**10/03/2021**																	
TP118/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP119/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP120/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP121/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP122/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP123/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP124/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP125/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP126/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP127/2.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	120	120	<25	<50	<100	<100
TP128/1.0	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP129/0.1	**10/03/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
Statistics																		
Number of Results		28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Number of Detects		0	0	0	0	0	0	0	0	0	0	3	4	4	0	0	0	3
Minimum Concentration		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	160	120	120	ND	ND	ND	160
Maximum Concentration		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	250	300	540	<25	<50	<100	240
Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250	300	540	ND	ND	ND	240
Average Concentration *		0.1	0.25	0.5	1	0.5	1.5	12	12	25	25	66	72	72	12	25	50	65
Median Concentration *		0.1	0.25	0.5	1	0.5	1.5	12.5	12.5	25	25	50	50	25	12.5	25	50	50
Standard Deviation *		0	0	0	0	0	0	0	0	0	0	50	61	130	0	0	0	46
95% UCL (Student's-t) *		0.1	0.25	0.5	1	0.5	1.5	12.5	12.5	25	25	82.47	91.62	113.7	12.5	25	50	79.7
% of Detects		0	0	0	0	0	0	0	0	0	0	11	14	14	0	0	0	11
% of Non-Detects		100	100	100	100	100	100	100	100	100	100	89	86	86	100	100	100	89

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

		Asbestos	Metals							
		Asbestos fibres	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
		Detect	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			4	0.4	1	1	1	0.1	1	1
Site Specific EILs			160		670	290	1,800		320	670
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil			3,000	900		240,000	1,500	730	6,000	400,000
Field ID	**Date**									
6774/BH301/0-0.2		0	6	<0.4	14	14	15	<0.1	8	44
6774/BH302/0-0.2		0	<4	<0.4	7	7	11	<0.1	5	30
6774/BH303/0-0.2		0	<4	<0.4	5	14	14	<0.1	9	69
6774/BH304/0-0.3		0	8	<0.4	21	20	15	<0.1	9	28
6774/BH305/0-0.2		0	6	<0.4	12	12	14	<0.1	6	37
6774/BH306/0-0.2		0	6	<0.4	19	22	12	<0.1	10	24
6774/BH307/0-0.2		0	<4	<0.4	5	71	5	<0.1	4	39
6774/BH308/0-0.2		0	<4	<0.4	5	57	6	<0.1	3	25
6774/BH309/0-0.2		0	5	<0.4	18	26	18	<0.1	18	61
6774/BH310/0-0.2		0	6	<0.4	17	22	16	<0.1	19	54
6774/BH311/0-0.2		0	10	<0.4	15	28	13	<0.1	14	48
6774/BH312/0-0.2		0	9	<0.4	12	33	25	<0.1	17	180
6774/SS01			<4	<0.4	9	29	18	<0.1	14	360
6774/SS02			5	<0.4	9	27	19	<0.1	12	310
6774/SS03			6	<0.4	14	20	17	<0.1	9	240
6774/SS04			6	<0.4	12	17	12	<0.1	6	150
6774/SS05			8	<0.4	12	28	15	<0.1	11	160
6774/SS06			<4	<0.4	21	48	11	<0.1	28	100
6774/SS07			<4	<0.4	7	5	14	<0.1	6	40
6774/SS08			<4	<0.4	36	16	17	<0.1	40	110
6774/SS09			<4	<0.4	19	41	14	<0.1	23	180
6774/SS10		0	5	<0.4	15	30	14	<0.1	19	410
6774/SS11		0	4	<0.4	22	48	13	<0.1	32	250
6774/SS12		0	8	0.6	14	51	19	<0.1	15	3,900
6774/SS13		0	5	<0.4	11	28	13	<0.1	34	170
TP401/2.0	**29/04/2021**	0	<4	<0.4	11	27	49	<0.1	34	34
TP401/3.0	**29/04/2021**	0	6	<0.4	8	20	10	<0.1	7	38
TP402/3.0	**29/04/2021**	0	5	<0.4	11	20	11	<0.1	8	71
TP402/3.6	**29/04/2021**	0	6	<0.4	9	23	8	<0.1	5	20
TP403/2.0	**29/04/2021**	0	5	<0.4	13	37	120	<0.1	19	99
TP403/2.6	**29/04/2021**	0	7	<0.4	6	19	10	<0.1	43	89
TP404/3.0	**29/04/2021**	0	5	<0.4	10	15	12	<0.1	7	33
TP404/3.3	**29/04/2021**	0	4	<0.4	10	12	10	<0.1	4	16
TP405/2.2	**29/04/2021**	0	9	<0.4	9	11	20	<0.1	1	21
TP405/2.5	**29/04/2021**	0	5	<0.4	11	21	13	<0.1	9	24
TP406/2.5	**29/04/2021**	0	4	<0.4	11	22	8	<0.1	32	71
TP406/2.8	**29/04/2021**	0	8	<0.4	15	17	18	<0.1	8	26
TP407/2.2	**29/04/2021**	0	5	<0.4	12	26	13	<0.1	29	53
TP407/2.6	**29/04/2021**	0	6	<0.4	9	26	11	<0.1	10	40
TP408/1.0	**29/04/2021**	0	<4	<0.4	6	12	39	<0.1	5	46
TP409/2.0	**29/04/2021**	0	<4	<0.4	17	36	47	<0.1	6	55
TP410/2.0	**29/04/2021**	0	5	<0.4	40	26	36	<0.1	6	42
TP411/1.0	**29/04/2021**	0	<4	<0.4	190	11	15	<0.1	7	30
TP412/2.5	**29/04/2021**	0	5	<0.4	10	21	18	<0.1	11	40
TP412/3.0	**29/04/2021**	0	6	<0.4	14	14	12	<0.1	6	15
TP413/2.0	**29/04/2021**	0	6	<0.4	9	15	7	<0.1	5	16
Statistics										
Number of Results		**37**	**46**	**46**	**46**	**46**	**46**	**46**	**46**	**46**
Number of Detects		**37**	**33**	**1**	**46**	**46**	**46**	**0**	**46**	**46**
Minimum Concentration		**0**	**4**	**<0.4**	**5**	**5**	**5**	**<0.1**	**1**	**15**
Minimum Detect		**0**	**4**	**0.6**	**5**	**5**	**5**	**ND**	**1**	**15**
Maximum Concentration		**0**	**10**	**0.6**	**190**	**71**	**120**	**<0.1**	**43**	**3,900**
Maximum Detect		**0**	**10**	**0.6**	**190**	**71**	**120**	**ND**	**43**	**3,900**
Average Concentration *		**0**	**4.9**	**0.21**	**17**	**25**	**18**	**0.05**	**14**	**172**
Median Concentration *		**0**	**5**	**0.2**	**12**	**22**	**14**	**0.05**	**9**	**47**
Standard Deviation *		**0**	**2.2**	**0.059**	**27**	**13**	**18**	**0**	**11**	**570**
95% UCL (Student's-t) *		**0**	**5.47**	**0.223**	**23.68**	**28.22**	**22.85**	**0.05**	**16.42**	**312.8**
% of Detects		**100**	**72**	**2**	**100**	**100**	**100**	**0**	**100**	**100**
% of Non-Detects		**0**	**28**	**98**	**0**	**0**	**0**	**100**	**0**	**0**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

				PAH																			PCBs								
		Formaldehyde	Halogenated Benzenes: Hexachlorobenzene	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	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 positives)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
		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		1	0.1	0.2	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																															
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil									1.4																						
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil			80																40	40	40	4000									7
Field ID	**Date**																														
6774/BH301/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH302/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH303/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH304/0-0.3		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH305/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH306/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH307/0-0.2		<1	<0.1	0.9	<0.1	<0.1	<0.1	0.1	0.2	0.5	0.2	<0.1	0.3	<0.1	0.3	<0.1	<0.1	0.4	<0.5	<0.5	<0.5	2.9								
6774/BH308/0-0.2		<1	<0.1	0.6	<0.1	<0.1	<0.1	0.1	0.2	0.4	0.2	<0.1	0.2	<0.1	0.2	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	2.2								
6774/BH309/0-0.2		<1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2	<0.1	0.3	<0.1	0.2	<0.1	<0.1	0.3	<0.5	<0.5	<0.5	1.6								
6774/BH310/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH311/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/BH312/0-0.2		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/SS07		<1		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/SS08		<1		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/SS09		<1		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/SS10		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/SS11		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/SS12		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
6774/SS13		<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05								
TP401/2.0	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP401/3.0	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP402/3.0	**29/04/2021**	1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP402/3.6	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP403/2.0	**29/04/2021**	<1	<0.1	0.5	<0.1	<0.1	<0.1	0.3	0.3	0.2	0.4	<0.1	0.5	<0.1	0.1	<0.1	0.2	0.6	<0.5	0.5	<0.5	3.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP403/2.6	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP404/3.0	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP404/3.3	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP405/2.2	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.07	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP405/2.5	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP406/2.5	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP406/2.8	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407/2.2	**29/04/2021**	1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407/2.6	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP408/1.0	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP409/2.0	**29/04/2021**	<1	<0.1	0.4	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.3	<0.1	0.3	<0.1	0.1	<0.1	0.1	0.4	<0.5	<0.5	<0.5	2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP410/2.0	**29/04/2021**	<1	<0.1	0.5	<0.1	<0.1	<0.1	0.2	0.05	<0.1	0.2	<0.1	0.3	<0.1	<0.1	<0.1	0.1	0.2	<0.5	<0.5	<0.5	1.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP411/1.0	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP412/2.5	**29/04/2021**	<1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP412/3.0	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP413/2.0	**29/04/2021**	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Statistics																															
Number of Results		**21**	**43**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**
Number of Detects		**2**	**0**	**7**	**0**	**0**	**0**	**5**	**7**	**5**	**6**	**0**	**7**	**0**	**5**	**0**	**3**	**6**	**0**	**1**	**0**	**8**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**
Minimum Concentration		**1**	**<0.1**	**0.2**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**0.05**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**	**0.1**	**<0.1**	**0.1**	**<0.1**	**<0.5**	**0.5**	**<0.5**	**<0.05**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Minimum Detect		**1**	**ND**	**0.2**	**ND**	**ND**	**ND**	**0.1**	**0.05**	**0.2**	**0.2**	**ND**	**0.1**	**ND**	**0.1**	**ND**	**0.1**	**0.2**	**ND**	**0.5**	**ND**	**0.2**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration		**1**	**<0.1**	**0.9**	**<0.1**	**<0.1**	**<0.1**	**0.3**	**0.3**	**0.5**	**0.4**	**<0.1**	**0.5**	**<0.1**	**0.3**	**<0.1**	**0.2**	**0.6**	**<0.5**	**0.5**	**<0.5**	**3.3**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Detect		**1**	**ND**	**0.9**	**ND**	**ND**	**ND**	**0.3**	**0.3**	**0.5**	**0.4**	**ND**	**0.5**	**ND**	**0.3**	**ND**	**0.2**	**0.6**	**ND**	**0.5**	**ND**	**3.3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *		**0.55**	**0.05**	**0.17**	**0.05**	**0.05**	**0.05**	**0.066**	**0.051**	**0.081**	**0.08**	**0.05**	**0.091**	**0.05**	**0.066**	**0.05**	**0.056**	**0.095**	**0.25**	**0.26**	**0.25**	**0.37**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Median Concentration *		**0.5**	**0.05**	**0.1**	**0.05**	**0.05**	**0.05**	**0.05**	**0.025**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.25**	**0.25**	**0.25**	**0.025**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Standard Deviation *		**0.15**	**0**	**0.17**	**0**	**0**	**0**	**0.051**	**0.067**	**0.095**	**0.078**	**0**	**0.1**	**0**	**0.051**	**0**	**0.026**	**0.12**	**0**	**0.04**	**0**	**0.85**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *		**0.604**	**0.05**	**0.214**	**0.05**	**0.05**	**0.05**	**0.0799**	**0.0689**	**0.107**	**0.101**	**0.05**	**0.119**	**0.05**	**0.0799**	**0.05**	**0.0631**	**0.127**	**0.25**	**0.267**	**0.25**	**0.6**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
% of Detects		**10**	**0**	**18**	**0**	**0**	**0**	**12**	**18**	**12**	**15**	**0**	**18**	**0**	**12**	**0**	**8**	**15**	**0**	**2**	**0**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects		**90**	**100**	**82**	**100**	**100**	**100**	**88**	**82**	**88**	**85**	**100**	**82**	**100**	**88**	**100**	**92**	**85**	**100**	**98**	**100**	**80**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

	Organochlorine Pesticides																				Organophosphorous Pesticides											Pesticides
	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Ronnel	Parathion
	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	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil										3,600					100			50		2,500			2,000									
Field ID	**Date**																																
6774/BH301/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH302/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH303/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH304/0-0.3		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH305/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH306/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH307/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH308/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH309/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH310/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH311/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/BH312/0-0.2		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS01		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS02		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS03		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS04		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS06		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS11		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS12		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6774/SS13		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP401/2.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP401/3.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP402/3.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP402/3.6	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP403/2.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP403/2.6	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP404/3.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP404/3.3	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP405/2.2	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP405/2.5	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP406/2.5	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP406/2.8	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407/2.2	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP407/2.6	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP408/1.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP409/2.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP410/2.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP411/1.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP412/2.5	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP412/3.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP413/2.0	29/04/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

		BTEX						TRH							TPH			
		Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	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	C29-C36 Fraction
		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	0.5	1	2	1	3	25	25	50	50	100	100	50	25	50	100	100
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil								800		1,000		5,000	10,000					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay		4 | 6 | 9 | 20							310 | 480								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil		95	135	185			95		215	170	170	2,500	6,600					
Field ID	**Date**																	
6774/BH301/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH302/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH303/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH304/0-0.3		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH305/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH306/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH307/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	350	420	770	<25	<50	120	350
6774/BH308/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	290	350	640	<25	<50	<100	300
6774/BH309/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	240	310	560	<25	<50	<100	250
6774/BH310/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH311/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/BH312/0-0.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/SS07		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/SS08		<0.2	<0.5	<1	<2	<1	<3	<25	<25	160	160	870	140	1,200	<25	<50	890	150
6774/SS09		<0.2	<0.5	<1	<2	<1	<3	<25	<25	74	74	530	<100	600	<25	<50	580	<100
6774/SS10		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	230	130	360	<25	<50	<100	270
6774/SS11		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/SS12		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
6774/SS13		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP401/2.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP401/3.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP402/3.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	1,300	<100	1,300	<25	<50	1,100	290
TP402/3.6	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP403/2.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP403/2.6	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP404/3.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	690	<100	690	<25	<50	<100	650
TP404/3.3	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP405/2.2	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP405/2.5	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP406/2.5	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	920	<100	920	<25	<50	120	850
TP406/2.8	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP407/2.2	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	160	<100	160	<25	<50	<100	170
TP407/2.6	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP408/1.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP409/2.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP410/2.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP411/1.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP412/2.5	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP412/3.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
TP413/2.0	**29/04/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100

Statistics

Number of Results	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**10**	**5**	**10**	**0**	**0**	**5**	**9**	
Minimum Concentration	**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<3**	**<25**	**<25**	**<50**	**<50**	**<100**	**<100**	**<50**	**<25**	**<50**	**<100**	**<100**	
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**74**	**74**	**160**	**130**	**160**	**ND**	**ND**	**120**	**150**	
Maximum Concentration	**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<3**	**<25**	**<25**	**160**	**160**	**1,300**	**420**	**1,300**	**<25**	**<50**	**1,100**	**850**	
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**160**	**160**	**1,300**	**420**	**1,300**	**ND**	**ND**	**1,100**	**850**	
Average Concentration *	**0.1**	**0.25**	**0.5**	**1**	**0.5**	**1.5**	**12**	**12**	**30**	**30**	**177**	**78**	**199**	**12**	**25**	**114**	**121**	
Median Concentration *	**0.1**	**0.25**	**0.5**	**1**	**0.5**	**1.5**	**12.5**	**12.5**	**25**	**25**	**50**	**50**	**25**	**12.5**	**25**	**50**	**50**	
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**23**	**287**	**85**	**348**	**0**	**0**	**223**	**170**	
95% UCL (Student's-t) *	**0.1**	**0.25**	**0.5**	**1**	**0.5**	**1.5**	**12.5**	**12.5**	**35.6**	**35.6**	**253.5**	**100**	**291.5**	**12.5**	**25**	**173.3**	**165.9**	
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**25**	**12**	**25**	**0**	**0**	**12**	**22**	
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**95**	**95**	**75**	**88**	**75**	**100**	**100**	**88**	**78**	

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

		Asbestos	Metals							
		Asbestos fibres	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
		Detect	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			4	0.4	1	1	1	0.1	1	1
Site Specific EILs			160		670	290	1,800		320	670
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil			3,000	900		240,000	1,500	730	6,000	400,000
Field ID	**Date**									
BH701/2-2.2										
BH701/2.8-3		0	5	<0.4	12	19	13	<0.1	8	32
BH702/1-1.2										
BH702/2-2.2		0	7	<0.4	16	22	16	<0.1	10	44
BH703/1-1.2										
BH703/2-2.2		0	6	<0.4	14	20	13	<0.1	10	37
BH704/2.5-2.7										
BH704/3.5-3.7		0	8	<0.4	17	29	21	<0.1	12	64
BH705/1-1.2										
BH705/2-2.2		0	8	<0.4	20	24	21	<0.1	9	66
BH706/1-1.2										
BH706/2-2.2		0	6	<0.4	15	16	13	<0.1	9	31
BH707/2-2.2										
BH707/3-3.2		0	8	<0.4	20	26	25	<0.1	8	38
BH709/0-0.2										
BH709/1-1.2		0	8	<0.4	13	30	18	<0.1	15	72
BH710/0.5			8	<0.4	15	19	15	<0.1	11	26
BH711/0.5			8	<0.4	17	20	17	<0.1	9	27
BH801/0.5-0.7	**10/08/2021**	0	9	<0.4	8	20	9	<0.1	5	26
BH803/0.4-0.6	**10/08/2021**	0	5	<0.4	12	12	11	<0.1	10	30
BH805/0.6-0.8	**10/08/2021**	0	10	<0.4	8	24	10	<0.1	6	24
BH806/0.5-0.7	**10/08/2021**	0	7	<0.4	15	25	16	<0.1	11	26
BH807/0.5-0.7	**10/08/2021**	0	6	<0.4	10	20	12	<0.1	6	27
BH808/0.6-0.8	**10/08/2021**	0	7	<0.4	13	19	11	<0.1	7	17
BH809/0.7-0.9	**10/08/2021**	0	6	<0.4	12	15	14	<0.1	8	22
BH810/0.8-1.0	**10/08/2021**	0	7	<0.4	7	22	9	<0.1	10	34
BH811/0.5-0.7	**10/08/2021**	0	5	<0.4	11	21	13	<0.1	8	20
BH813/0.8-1.0	**10/08/2021**	0	9	<0.4	12	17	18	<0.1	11	28
BH815/1.5-1.9	**10/08/2021**	0	8	<0.4	15	20	13	<0.1	8	21
BH816/0-0.2	**10/08/2021**	0	7	<0.4	15	12	18	<0.1	5	12
BH816/0.5-0.7	**10/08/2021**	0	5	<0.4	13	21	11	<0.1	7	13
BH817/0-0.2	**10/08/2021**	0	7	<0.4	9	21	15	<0.1	8	140
BH818/0-0.2	**10/08/2021**	0	8	<0.4	11	24	16	<0.1	12	110
BH818/0.4-0.6	**10/08/2021**									
BH819/0-0.2	**10/08/2021**	0	7	<0.4	13	12	14	<0.1	7	18
BH820/0-0.2	**10/08/2021**	0	<4	<0.4	8	11	9	<0.1	6	50
BH821/0-0.2	**10/08/2021**	0	5	<0.4	9	14	15	<0.1	6	41
BH822/0-0.2	**10/08/2021**	0	5	<0.4	9	12	10	<0.1	6	38
BH823/0.4-0.6	**10/08/2021**	0	5	<0.4	13	10	9	<0.1	4	12
BH824/0.4-0.6	**10/08/2021**	0	5	<0.4	11	10	9	<0.1	4	14
BH825/0.4-0.6	**10/08/2021**	0	7	<0.4	7	23	10	<0.1	7	35
BH826/0.4-0.6	**10/08/2021**	0	9	<0.4	14	28	18	<0.1	20	60
BH827/0.1	**10/08/2021**	0	5	<0.4	30	58	14	<0.1	29	150
BH827/0.3	**10/08/2021**	0	7	<0.4	16	25	16	<0.1	11	37
BH828/0.1	**10/08/2021**	0	7	<0.4	32	39	17	<0.1	35	630
BH828/0.3	**10/08/2021**	0	9	<0.4	17	20	15	<0.1	9	100
DS801	**10/08/2021**		10	<0.4	13	33	22	<0.1	15	66
DS802	**10/08/2021**		7	<0.4	21	38	22	<0.1	16	75
TP601/2.5		0	<4	<0.4	21	33	22	<0.1	22	79
TP601/3.0		0	5	<0.4	20	24	12	<0.1	10	19
TP602/0.5		0	5	<0.4	6	32	13	<0.1	12	55
TP602/1.0		0	9	<0.4	17	21	17	<0.1	19	43
TP603/1.2		0	<4	<0.4	6	14	7	<0.1	2	10
TP604/2.2		0	4	<0.4	15	26	48	<0.1	9	60
TP604/2.5		0	8	<0.4	15	28	21	<0.1	16	54
TP605/2.5		0	7	<0.4	29	20	20	<0.1	12	20
TP605/3.4		0	8	<0.4	13	25	27	<0.1	8	36
TP605/3.8		0	7	<0.4	19	25	16	<0.1	15	70
TP606/2.5		0	6	<0.4	19	16	17	<0.1	8	37
TP606/3.2		0	9	<0.4	15	24	22	<0.1	18	57
TP607/2.5		0	9	<0.4	25	48	27	<0.1	18	82
TP607/3.0		0	8	<0.4	16	33	15	<0.1	10	38
TP608/2.5		0	8	<0.4	13	29	17	<0.1	15	66
TP608/3.2		0	9	<0.4	13	29	17	<0.1	15	61
TP609/1.5		0	5	<0.4	20	22	22	<0.1	18	28
TP609/2.0		0	12	<0.4	21	35	18	<0.1	24	83
TP610/2.5		0	5	<0.4	23	15	15	<0.1	18	25
TP610/3.1		0	7	<0.4	35	14	20	<0.1	11	26
TP611/2.5		0	5	<0.4	26	11	16	<0.1	8	28
TP611/2.8		0	8	<0.4	16	21	16	<0.1	9	29
TP612/2.5		0	5	<0.4	23	21	22	<0.1	9	43
TP612/3.5		0	<4	<0.4	10	6	9	<0.1	4	15
TP612/4.5		0	<4	<0.4	9	4	7	<0.1	3	9
TP612/5.0		0	6	<0.4	23	26	25	<0.1	16	94
TP613/2.5		0	<4	<0.4	9	7	7	<0.1	4	13
TP613/3.5		0	10	<0.4	14	31	20	<0.1	19	65
TP613/3.8		0	7	<0.4	14	27	15	<0.1	13	43
TP614/2.0		0	5	<0.4	91	24	44	0.1	14	81
TP614/2.2		0	7	<0.4	31	22	78	<0.1	7	87
TP615/0.5		0	4	<0.4	240	14	19	<0.1	10	30
TP615/1.0		0	9	<0.4	17	23	15	<0.1	9	25
TP617/2.5		0	<4	<0.4	84	12	21	<0.1	7	37
TP617/3.0		0	11	<0.4	9	32	12	<0.1	13	57
TP649/2.5		0	11	<0.4	13	18	21	<0.1	4	17
TP649/3.0		0	7	<0.4	16	20	13	<0.1	8	30
Statistics										
Number of Results		**72**	**82**	**82**	**82**	**82**	**82**	**82**	**82**	**82**
Number of Detects		**72**	**75**	**0**	**82**	**82**	**82**	**1**	**82**	**82**
Minimum Concentration		**0**	**4**	**<0.4**	**6**	**4**	**7**	**0.1**	**2**	**9**
Minimum Detect		**0**	**4**	**ND**	**6**	**4**	**7**	**0.1**	**2**	**9**
Maximum Concentration		**0**	**12**	**<0.4**	**240**	**58**	**78**	**0.1**	**35**	**630**
Maximum Detect		**0**	**12**	**ND**	**240**	**58**	**78**	**0.1**	**35**	**630**
Average Concentration *		**0**	**6.7**	**0.2**	**20**	**22**	**18**	**0.051**	**11**	**51**
Median Concentration *		**0**	**7**	**0.2**	**15**	**21**	**16**	**0.05**	**10**	**37**
Standard Deviation *		**0**	**2.2**	**0**	**28**	**8.9**	**9.5**	**0.0055**	**5.7**	**71**
95% UCL (Student's-t) *		**0**	**7.103**	**0.2**	**25.08**	**23.75**	**19.31**	**0.0516**	**11.95**	**64.26**
% of Detects		**100**	**91**	**0**	**100**	**100**	**100**	**1**	**100**	**100**
% of Non-Detects		**0**	**9**	**100**	**0**	**0**	**0**	**99**	**0**	**0**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay

2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

		Halogenated Benzenes	PAH																PCBs							
		Hexachlorobenzene	Benzo(b+j)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(g, h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of positives)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Sum of total)
		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		0.1	0.2	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil								1.4																		
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil		80																4000								7
Field ID	**Date**																									
BH701/2-2.2																										
BH701/2.8-3		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH702/1-1.2																										
BH702/2-2.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH703/1-1.2																										
BH703/2-2.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH704/2.5-2.7																										
BH704/3.5-3.7		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.09	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH705/1-1.2																										
BH705/2-2.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.07	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH706/1-1.2																										
BH706/2-2.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.09	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH707/2-2.2																										
BH707/3-3.2		<0.1	<0.2	<0.1	<0.1	<0.1	0.1	0.1	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	0.74	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH709/0-0.2																										
BH709/1-1.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH710/0.5			<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05								
BH711/0.5			<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05								
BH801/0.5-0.7	10/08/2021	<0.1																								
BH803/0.4-0.6	10/08/2021	<0.1																								
BH805/0.6-0.8	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH806/0.5-0.7	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH807/0.5-0.7	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH808/0.6-0.8	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH809/0.7-0.9	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH810/0.8-1.0	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH811/0.5-0.7	10/08/2021	<0.1																								
BH813/0.8-1.0	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH815/1.5-1.9	10/08/2021	<0.1																								
BH816/0-0.2	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH816/0.5-0.7	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH817/0-0.2	10/08/2021	<0.1																								
BH818/0-0.2	10/08/2021	<0.1																								
BH818/0.4-0.6	10/08/2021																									
BH819/0-0.2	10/08/2021	<0.1																								
BH820/0-0.2	10/08/2021	<0.1																								
BH821/0-0.2	10/08/2021	<0.1																								
BH822/0-0.2	10/08/2021	<0.1																								
BH823/0.4-0.6	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH824/0.4-0.6	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH825/0.4-0.6	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH826/0.4-0.6	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH827/0.1	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH827/0.3	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH828/0.1	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH828/0.3	10/08/2021	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DS801	10/08/2021		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05								
DS802	10/08/2021		0.2	<0.1	<0.1	<0.1	<0.1	0.07	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.51								
TP601/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP601/3.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP602/0.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP602/1.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP603/1.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP604/2.2		<0.1	0.3	<0.1	<0.1	<0.1	0.2	0.2	0.1	0.2	<0.1	0.4	<0.1	<0.1	<0.1	0.2	0.3	1.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP604/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP605/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP605/3.4		<0.1	0.4	<0.1	<0.1	<0.1	0.2	0.3	0.2	0.2	<0.1	0.4	<0.1	0.1	<0.1	0.2	0.4	2.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP605/3.8		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP606/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP606/3.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP607/2.5		<0.1	0.5	<0.1	<0.1	<0.1	0.4	0.4	0.2	0.3	<0.1	0.6	<0.1	0.2	<0.1	0.3	0.5	3.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP607/3.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP608/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP608/3.2		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP609/1.5		<0.1	0.4	<0.1	<0.1	<0.1	0.3	0.3	0.1	0.2	<0.1	0.4	<0.1	0.1	<0.1	0.2	0.4	2.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP609/2.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP610/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP610/3.1		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP611/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP611/2.8		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/2.5		<0.1	0.7	<0.1	<0.1	<0.1	0.6	0.53	0.2	0.5	<0.1	1	<0.1	0.2	<0.1	0.2	0.8	4.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/3.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/4.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/5.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP613/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP613/3.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP613/3.8		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP614/2.0		<0.1	0.4	<0.1	<0.1	<0.1	0.3	0.3	0.2	0.2	<0.1	0.4	<0.1	0.1	<0.1	0.2	0.4	2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP614/2.2		<0.1	0.5	<0.1	<0.1	<0.1	0.3	0.4	0.2	0.3	<0.1	0.4	<0.1	0.2	<0.1	0.2	0.5	2.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP615/0.5		<0.1	0.3	<0.1	<0.1	<0.1	0.2	0.2	<0.1	0.2	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	0.2	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP615/1.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP617/2.5		<0.1	0.5	<0.1	<0.1	<0.1	0.4	0.4	0.2	0.3	<0.1	0.6	<0.1	0.2	<0.1	0.2	0.6	3.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP617/3.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP649/2.5		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP649/3.0		<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	**76**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**67**	**66**	**66**	**66**	**62**	**62**	**62**	**62**	**62**	**62**	**62**	**62**
Number of Detects	**0**	**10**	**0**	**0**	**0**	**10**	**15**	**8**	**10**	**0**	**14**	**0**	**7**	**0**	**8**	**14**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<0.1**	**0.2**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**0.05**	**0.1**	**0.1**	**<0.1**	**0.1**	**<0.1**	**0.1**	**<0.1**	**<0.1**	**0.1**	**0.05**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Minimum Detect	**ND**	**0.2**	**ND**	**ND**	**ND**	**0.1**	**0.05**	**0.1**	**0.1**	**ND**	**0.1**	**ND**	**0.1**	**ND**	**0.2**	**0.1**	**0.05**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<0.1**	**0.7**	**<0.1**	**<0.1**	**<0.1**	**0.6**	**0.53**	**0.2**	**0.5**	**<0.1**	**1**	**<0.1**	**0.2**	**<1**	**0.3**	**0.8**	**4.8**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Detect	**ND**	**0.7**	**ND**	**ND**	**ND**	**0.6**	**0.53**	**0.2**	**0.5**	**ND**	**1**	**ND**	**0.2**	**ND**	**0.3**	**0.8**	**4.8**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**0.05**	**0.15**	**0.05**	**0.05**	**0.05**	**0.088**	**0.072**	**0.065**	**0.08**	**0.05**	**0.12**	**0.05**	**0.061**	**0.057**	**0.07**	**0.11**	**0.43**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Median Concentration *	**0.05**	**0.1**	**0.05**	**0.05**	**0.05**	**0.05**	**0.025**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.025**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Standard Deviation *	**0**	**0.13**	**0**	**0**	**0**	**0.1**	**0.11**	**0.044**	**0.083**	**0**	**0.17**	**0**	**0.037**	**0.055**	**0.055**	**0.15**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.05**	**0.175**	**0.05**	**0.05**	**0.05**	**0.109**	**0.0956**	**0.0742**	**0.0973**	**0.05**	**0.154**	**0.05**	**0.069**	**0.0679**	**0.0809**	**0.142**	**0.637**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
% of Detects	**0**	**15**	**0**	**0**	**0**	**15**	**23**	**12**	**15**	**0**	**21**	**0**	**11**	**0**	**12**	**21**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**85**	**100**	**100**	**100**	**85**	**77**	**88**	**85**	**100**	**79**	**100**	**89**	**100**	**88**	**79**	**77**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

																					Organophosphorous Pesticides											
	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Ronnel	Parathion
	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	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil										3,600					100			50		2,500			2,000									
Field ID																																
BH701/2-2.2																																
BH701/2.8-3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH702/1-1.2																																
BH702/2-2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH703/1-1.2																																
BH703/2-2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH704/2.5-2.7																																
BH704/3.5-3.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH705/1-1.2																																
BH705/2-2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH706/1-1.2																																
BH706/2-2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH707/2-2.2																																
BH707/3-3.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH709/0-0.2																																
BH709/1-1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH710/0.5																																
BH711/0.5																																
BH801/0.5-0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH803/0.4-0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH805/0.6-0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH806/0.5-0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH807/0.5-0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH808/0.6-0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH809/0.7-0.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH810/0.8-1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH811/0.5-0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH813/0.8-1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH815/1.5-1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH816/0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH816/0.5-0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH817/0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH818/0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH818/0.4-0.6																																
BH819/0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH820/0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH821/0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH822/0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH823/0.4-0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH824/0.4-0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH825/0.4-0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH826/0.4-0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH827/0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH827/0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH828/0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH828/0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DS801																																
DS802																																
TP601/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP601/3.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP602/0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP602/1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP603/1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP604/2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP604/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP605/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP605/3.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP605/3.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP606/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP606/3.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP607/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP607/3.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP608/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP608/3.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP609/1.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP609/2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP610/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP610/3.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP611/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP611/2.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/3.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/4.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP612/5.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP613/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP613/3.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP613/3.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP614/2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP614/2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP615/0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP615/1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP617/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP617/3.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP649/2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

		BTEX						TRH							TPH				
		Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	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	C29-C36 Fraction	C10-C36 Fraction (Sum)
		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	0.5	1	2	1	3	25	25	50	50	100	100	50	25	50	100	100	50
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil								800		1,000		5,000	10,000						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay		4 | 6 | 9 | 20							310 | 480									
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil		95	135	185			95		215	170	170	2,500	6,600						
Field ID	**Date**																		
BH701/2-2.2																			
BH701/2.8-3		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH702/1-1.2																			
BH702/2-2.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH703/1-1.2																			
BH703/2-2.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH704/2.5-2.7																			
BH704/3.5-3.7		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH705/1-1.2																			
BH705/2-2.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH706/1-1.2																			
BH706/2-2.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH707/2-2.2																			
BH707/3-3.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH709/0-0.2																			
BH709/1-1.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH710/0.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH711/0.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
BH801/0.5-0.7	**10/08/2021**																		
BH803/0.4-0.6	**10/08/2021**																		
BH805/0.6-0.8	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH806/0.5-0.7	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH807/0.5-0.7	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH808/0.6-0.8	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH809/0.7-0.9	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH810/0.8-1.0	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH811/0.5-0.7	**10/08/2021**																		
BH813/0.8-1.0	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH815/1.5-1.9	**10/08/2021**																		
BH816/0-0.2	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH816/0.5-0.7	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH817/0-0.2	**10/08/2021**																		
BH818/0-0.2	**10/08/2021**																		
BH818/0.4-0.6	**10/08/2021**																		
BH819/0-0.2	**10/08/2021**																		
BH820/0-0.2	**10/08/2021**																		
BH821/0-0.2	**10/08/2021**																		
BH822/0-0.2	**10/08/2021**																		
BH823/0.4-0.6	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH824/0.4-0.6	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH825/0.4-0.6	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH826/0.4-0.6	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH827/0.1	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH827/0.3	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH828/0.1	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH828/0.3	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
DS801	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
DS802	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH828/0.1	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
BH828/0.3	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
DS801	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
DS802	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
DUP601																			
DUP602																			
DUP604																			
DUP701																			
DUP801	**10/08/2021**																		
DUP802	**10/08/2021**																		
TP601/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP601/3.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP602/0.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP602/1.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP603/1.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP604/2.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP604/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP605/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP605/3.4		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	200	<100	200	<25	<50	170	<100	
TP605/3.8		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP606/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP606/3.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP607/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	110	<100	110	<25	<50	<100	100	
TP607/3.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP608/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP608/3.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP609/1.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP609/2.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP610/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP610/3.1		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP611/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP611/2.8		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP612/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP612/3.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP612/4.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP612/5.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	150	<100	150	<25	<50	110	<100	
TP613/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP613/3.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP613/3.8		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP614/2.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP614/2.2		<0.2	<0.5	<1	<2	<1	<3	<25	<25	57	57	180	140	370	<25	<50	110	140	
TP615/0.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP615/1.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP617/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP617/3.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP649/2.5		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
TP649/3.0		<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	
Trip Blank								<25	<25						<25				
Trip Blank (soil)	**10/08/2021**	<0.2	<0.5	<1	<2	<1	<3	<25	<25						<25				
Statistics																			
Number of Results		**67**	**67**	**67**	**67**	**67**	**67**	**68**	**68**	**66**	**66**	**66**	**66**	**66**	**68**	**66**	**66**	**66**	**19**
Number of Detects		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**4**	**1**	**4**	**0**	**0**	**3**	**2**	**0**
Minimum Concentration		**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<3**	**<25**	**<25**	**<50**	**<50**	**<100**	**<100**	**<50**	**<25**	**<50**	**<100**	**100**	**<50**
Minimum Detect		**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**57**	**57**	**110**	**140**	**110**	**ND**	**ND**	**110**	**100**	**ND**
Maximum Concentration		**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<3**	**<25**	**<25**	**57**	**57**	**200**	**140**	**370**	**<25**	**<50**	**170**	**140**	**<50**
Maximum Detect		**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**57**	**57**	**200**	**140**	**370**	**ND**	**ND**	**170**	**140**	**ND**
Average Concentration *		**0.1**	**0.25**	**0.5**	**1**	**0.5**	**1.5**	**12**	**12**	**25**	**25**	**57**	**51**	**36**	**12**	**25**	**54**	**52**	**25**
Median Concentration *		**0.1**	**0.25**	**0.5**	**1**	**0.5**	**1.5**	**12.5**	**12.5**	**25**	**25**	**50**	**50**	**25**	**12.5**	**25**	**50**	**50**	**25**
Standard Deviation *		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3.9**	**3.9**	**28**	**11**	**50**	**0**	**0**	**18**	**13**	**0**
95% UCL (Student's-t) *		**0.1**	**0.25**	**0.5**	**1**	**0.5**	**1.5**	**12.5**	**12.5**	**26.29**	**26.29**	**62.37**	**53.64**	**46.39**	**12.5**	**25**	**57.3**	**54.71**	**25**
% of Detects		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**6**	**2**	**6**	**0**	**0**	**5**	**3**	**0**
% of Non-Detects		**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**98**	**98**	**94**	**98**	**94**	**100**	**100**	**95**	**97**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil

	BTEX					TRH							TPH				
	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	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	C29-C36 Fraction	C10-C36 Fraction (Sum)
	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	1	2	1	10	10	50	50	100	100	50	10	50	100	100	50
ADWG 2018 Health	1	800	300														
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs	950	180	80		350												
PFAS NEMP 2020 Freshwater 95%																	
NEPM 2013 Table 1C GILs, Fresh Waters	950				350												
Field ID	**Date**																
6774/MW01	**17/05/2021**	<1	1	<1	<2	<1	<10	<10	<50	<50	<100	<100		<10	<50	<100	<100	
6774/MW01/210415	**16/04/2021**	<1	4	<1	<2	<1	<10	<10	<50	<50	<100	<100		<10	<50	<100	<100	
6774/MW02	**17/05/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100		<10	<50	<100	<100	
6774/MW02/210415	**16/04/2021**	<1	2	<1	<2	<1	<10	<10	<50	<50	<100	<100		<10	<50	<100	<100	
6774/MW03	**17/05/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100		<10	<50	<100	<100	
6774/MW03/210415	**16/04/2021**	<1	1	<1	<2	<1	<10	<10	<50	<50	<100	<100		<10	<50	<100	<100	
6774/MW04	**17/05/2021**	1	110	<1	<2	<1	230	120	550	550	2,700	140		220	260	2,000	1,000	
6774/MW04/210415	**16/04/2021**	5	170	<1	<2	<1	770	590	680	680	6,800	250		300	330	1,900	5,400	
6774/MW06	**17/05/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100		<10	<50	<100	<100	
MW01/210810	**10/08/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
MW02/210810	**10/08/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
MW03/210810	**10/08/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
MW04/210810	**10/08/2021**	1	10	<1	<2	<1	24	13	680	680	2,900	100	3,700	22	340	1,900	1,400	3,600
MW06/210810	**10/08/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
MW09/210810	**10/08/2021**	<1	<1	<1	<2	<1	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
Statistics																	
Number of Results		**24**	**28**	**21**	**21**	**21**	**22**	**21**	**19**	**19**	**19**	**19**	**8**	**22**	**19**	**19**	**19**	**8**
Number of Detects		**6**	**15**	**0**	**0**	**0**	**3**	**3**	**3**	**3**	**4**	**3**	**2**	**3**	**3**	**4**	**3**	**2**
Minimum Concentration		**1**	**1**	**<1**	**<2**	**<1**	**<10**	**<10**	**<50**	**<50**	**<100**	**100**	**<50**	**<10**	**<50**	**<100**	**<100**	**<50**
Minimum Detect		**1**	**1**	**ND**	**ND**	**ND**	**24**	**13**	**550**	**550**	**140**	**100**	**140**	**22**	**260**	**150**	**1,000**	**150**
Maximum Concentration		**5**	**170**	**<1**	**<2**	**<1**	**770**	**590**	**680**	**680**	**6,800**	**250**	**3,700**	**300**	**340**	**2,000**	**5,400**	**3,600**
Maximum Detect		**5**	**170**	**ND**	**ND**	**ND**	**770**	**590**	**680**	**680**	**6,800**	**250**	**3,700**	**300**	**340**	**2,000**	**5,400**	**3,600**
Average Concentration *		**0.96**	**22**	**0.5**	**1**	**0.5**	**51**	**39**	**122**	**122**	**699**	**68**	**499**	**29**	**70**	**353**	**453**	**488**
Median Concentration *		**0.5**	**1**	**0.5**	**1**	**0.5**	**5**	**5**	**25**	**25**	**50**	**50**	**25**	**5**	**25**	**50**	**50**	**25**
Standard Deviation *		**0.98**	**43**	**0**	**0**	**0**	**168**	**129**	**231**	**231**	**1,711**	**50**	**1,294**	**76**	**108**	**704**	**1,253**	**1,258**
95% UCL (Student's-t) *		**1.399**	**37.95**	**0.5**	**1**	**0.5**	**112.4**	**87.18**	**213.3**	**213.3**	**1,380**	**87.68**	**1,366**	**56.79**	**112.9**	**632.6**	**951.2**	**1,330**
% of Detects		**25**	**54**	**0**	**0**	**0**	**14**	**14**	**16**	**16**	**21**	**16**	**25**	**14**	**16**	**21**	**16**	**25**
% of Non-Detects		**75**	**46**	**100**	**100**	**100**	**86**	**86**	**84**	**84**	**79**	**84**	**75**	**86**	**84**	**79**	**84**	**75**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

	NA	Halogenated Benzenes										Halogenated Hydrocarbons				Solvents
	Formaldehyde	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	Cyclohexane
	mg/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
EQL	0.1	1	1	1	1	1	1	1	1	1	0.2	1	10	10	10	0.001
ADWG 2018 Health	0.5			1,500		40				300		1	1			
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs		10	170	160	260	60				55	0.1					
PFAS NEMP 2020 Freshwater 95%																
NEPM 2013 Table 1C GILs, Fresh Waters		3	85	160	260	60										
Field ID	**Date**															
6774/MW01	**17/05/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW01/210415	**16/04/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW02	**17/05/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW02/210415	**16/04/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW03	**17/05/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW03/210415	**16/04/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW04	**17/05/2021**	1.6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW04/210415	**16/04/2021**	1.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
6774/MW06	**17/05/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
MW01/210810	**10/08/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
MW02/210810	**10/08/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
MW03/210810	**10/08/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
MW04/210810	**10/08/2021**	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
MW06/210810	**10/08/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	<0.001
MW09/210810	**10/08/2021**	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.2	<1	<10	<10	<10	0.001
Statistics																
Number of Results		**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
Number of Detects		**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
Minimum Concentration		**<0.1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.2**	**<1**	**<10**	**<10**	**<10**	**0.001**
Minimum Detect		**1**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0.001**
Maximum Concentration		**1.6**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.2**	**<1**	**<10**	**<10**	**<10**	**0.001**
Maximum Detect		**1.6**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0.001**
Average Concentration *		**0.29**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.1**	**0.5**	**5**	**5**	**5**	**0.00056**
Median Concentration *		**0.05**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.1**	**0.5**	**5**	**5**	**5**	**0.0005**
Standard Deviation *		**0.53**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00017**
95% UCL (Student's-t) *		**0.523**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.1**	**0.5**	**5**	**5**	**5**	**0.00063735**
% of Detects		**19**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**
% of Non-Detects		**81**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**88**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

	Biological		Inorganics								Organic
	Total Coliforms by MF	E. Coli	Free Carbon Dioxide as CO2	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Total Phosphorus (Organic Phosphate)	Reactive Phosphorus as P (Orthophosphate as P)	Sulphide	Methane
	CFU/100mL	cfu/100 ml	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL		1	0	0.005	0.005	0.005	0.1	0.05	0.005	0.5	0.005
ADWG 2018 Health		0			50						
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs				0.9							
PFAS NEMP 2020 Freshwater 95%											
NEPM 2013 Table 1C GILs, Fresh Waters											
Field ID	**Date**										
MW01/210810	**10/08/2021**	5,400.0	<20	490	0.035	140	0.018	140	0.5	0.01	<0.5	<0.005
MW02/210810	**10/08/2021**	20	<20	667	0.085	260	0.047	280	<0.05	0.006	<0.5	<0.005
MW03/210810	**10/08/2021**	64	100	276	0.31	16	0.044	21	0.06	<0.005	<0.5	0.011
MW04/210810	**10/08/2021**	3,500.0	<20	896	1,600	<0.005	<0.005	1,900	13	10	<0.5	0.42
MW06/210810	**10/08/2021**	50	<20	26	0.18	0.10	0.009	5.7	3.1	<0.005	<0.5	0.005
MW09/210810	**10/08/2021**	70	<10	38	0.11	7.7	0.01	11	<0.05	0.02	<0.5	<0.005

Statistics

Number of Results	**4**	**5**	**7**	**7**	**7**	**7**	**7**	**7**	**7**	**7**	**7**
Number of Detects	**4**	**0**	**7**	**7**	**6**	**6**	**7**	**4**	**5**	**0**	**3**
Minimum Concentration	**20**	**<20**	**26**	**0.035**	**<0.005**	**<0.005**	**5.7**	**<0.05**	**<0.005**	**<0.5**	**0.005**
Minimum Detect	**20**	**ND**	**26**	**0.035**	**0.1**	**0.009**	**5.7**	**0.06**	**0.006**	**ND**	**0.005**
Maximum Concentration	**5,400**	**<1,000**	**896**	**1,600**	**260**	**0.047**	**1,900**	**13**	**10**	**<0.5**	**0.42**
Maximum Detect	**5,400**	**ND**	**896**	**1,600**	**260**	**0.047**	**1,900**	**13**	**10**	**ND**	**0.42**
Average Concentration *	**2,242**	**108**	**347**	**229**	**62**	**0.022**	**338**	**2.4**	**1.4**	**0.25**	**0.064**
Median Concentration *	**1,775**	**10**	**276**	**0.11**	**7.8**	**0.018**	**21**	**0.06**	**0.01**	**0.25**	**0.0025**
Standard Deviation *	**2,664**	**219**	**347**	**605**	**101**	**0.017**	**696**	**4.8**	**3.8**	**0**	**0.16**
95% UCL (Student's-t) *	**5,378**	**316.9**	**602.3**	**672.8**	**135.7**	**0.035**	**849.5**	**5.924**	**4.21**	**0.25**	**0.179**
% of Detects	**100**	**0**	**100**	**100**	**86**	**86**	**100**	**57**	**71**	**0**	**43**
% of Non-Detects	**0**	**100**	**0**	**0**	**14**	**14**	**0**	**43**	**29**	**100**	**57**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

	Organochlorine Pesticides																		
	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor
	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ADWG 2018 Health									9							10	0.3		
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs									0.01					0.02		0.2	0.09		
PFAS NEMP 2020 Freshwater 95%																			
NEPM 2013 Table 1C GILs, Fresh Waters									0.006					0.01		0.2	0.01		

Field ID	Date																		
6774/MW01	**17/05/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW01/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW02	**17/05/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW02/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW03	**17/05/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW03/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW04	**17/05/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW04/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW06	**17/05/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW01/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW02/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW03/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW04/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW06/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW09/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Statistics

Number of Results	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
Median Concentration *	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

	Organophosphorous Pesticides											Pesticides
	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Ronnel	Parathion
	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.2	0.2	0.2	0.0002	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ADWG 2018 Health	30	10	10		4	5	7	4	7	70		20
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs	0.02		0.01		0.01		0.15		0.2	0.05		0.004
PFAS NEMP 2020 Freshwater 95%												
NEPM 2013 Table 1C GILs, Fresh Waters			0.01		0.01		0.15		0.2	0.05		0.004
Field ID	**Date**											
6774/MW01	**17/05/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW01/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW02	**17/05/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW02/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW03	**17/05/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW03/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW04	**17/05/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW04/210415	**16/04/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
6774/MW06	**17/05/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW01/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW02/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW03/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW04/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW06/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW09/210810	**10/08/2021**	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Statistics												
Number of Results		16	16	16	16	16	16	16	16	16	16	16	16
Number of Detects		0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration		<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *		0.1	0.1	0.1	0.0001	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Median Concentration *		0.1	0.1	0.1	0.0001	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Standard Deviation *		0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *		0.1	0.1	0.1	0.0001	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
% of Detects		0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects		100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP T

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

	MAH								
	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	1	1	1	1	1	1	1	1	1
ADWG 2018 Health								30	
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs			30						
PFAS NEMP 2020 Freshwater 95%									
NEPM 2013 Table 1C GILs, Fresh Waters									
Field ID	**Date**								
6774/MW01	**17/05/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW01/210415	**16/04/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW02	**17/05/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW02/210415	**16/04/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW03	**17/05/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW03/210415	**16/04/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW04	**17/05/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW04/210415	**16/04/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
6774/MW06	**17/05/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW01/210810	**10/08/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW02/210810	**10/08/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW03/210810	**10/08/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW04/210810	**10/08/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW06/210810	**10/08/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW09/210810	**10/08/2021**	<1	<1	<1	<1	<1	<1	<1	<1	<1

Statistics

Number of Results	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Median Concentration *	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

	PAH																
	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ	PAHs (Sum of positives)
	mg/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	mg/L
EQL	0.002	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.005	0.001
ADWG 2018 Health						0.01											
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs				0.4		0.2				1.4			16	2			
PFAS NEMP 2020 Freshwater 95%																	
NEPM 2013 Table 1C GILs, Fresh Waters													16				
Field ID	**Date**																
6774/MW01	**17/05/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW01/210415	**16/04/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW02	**17/05/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW02/210415	**16/04/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW03	**17/05/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW03/210415	**16/04/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW04	**17/05/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW04/210415	**16/04/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
6774/MW06	**17/05/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
MW01/210810	**10/08/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
MW02/210810	**10/08/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
MW03/210810	**10/08/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
MW04/210810	**10/08/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
MW06/210810	**10/08/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0
MW09/210810	**10/08/2021**	<0.002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	0

Statistics

Number of Results	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**21**	**19**	**19**	**19**	**19**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19**
Minimum Concentration	**<0.002**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.005**	**0**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0**
Maximum Concentration	**<0.002**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.005**	**0**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0**
Average Concentration *	**0.001**	**0.5**	**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**	**0.0025**	**0**
Median Concentration *	**0.001**	**0.5**	**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**	**0.0025**	**0**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.001**	**0.5**	**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**	**0.0025**	**0**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**0**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP T

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

		Perfluoroalkane Carboxylic Acids	(n:2) Fluorotelomer Sulfonic Acids		Perfluoroalkane Sulfonic Acids		PFAS			Metals							
		Perfluorooctanoic acid (PFOA)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Sum of PFHxS and PFOS	Sum of PFAS	Sum of PFAS (PFOS + PFOA)	Arsenic (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Lead (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL		0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.001	0.0001	0.001	0.001	0.001	0.00005	0.001	0.001
ADWG 2018 Health		0.56					0.07			0.01	0.002		2	0.01	0.001	0.02	
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs										0.094	0.0002		0.0014	0.0034	0.0006	0.011	0.008
PFAS NEMP 2020 Freshwater 95%		220				0.13											
NEPM 2013 Table 1C GILs, Fresh Waters											0.0002		0.0014	0.0034	0.00006	0.011	0.008
Field ID	**Date**																
6774/DUP01/210415	16/04/2021									<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.003	0.004
6774/DUP02	17/05/2021									<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	0.002
6774/MW01	17/05/2021	<0.01	0.07	<0.02	<0.01	<0.01	<0.01	0.07	<0.01	<0.001	<0.0001	<0.001	0.002	<0.001	<0.00005	0.002	0.027
6774/MW01/210415	16/04/2021	<0.01	0.01	<0.02	<0.01	<0.01	<0.01	0.01	<0.01	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.003	0.003
6774/MW02	17/05/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	0.002
6774/MW02/210415	16/04/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.002	0.004
6774/MW03	17/05/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	0.001	0.001	<0.00005	<0.001	0.002
6774/MW03/210415	16/04/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.001	<0.0001	<0.001	0.002	<0.001	<0.00005	0.008	0.005
6774/MW04	17/05/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	0.0004	0.008	0.002	0.001	<0.00005	0.051	0.013
6774/MW04/210415	16/04/2021	0.01	<0.01	<0.02	<0.01	0.03	0.03	0.04	0.04	0.32	0.0006	0.018	0.021	0.006	<0.00005	0.11	0.044
6774/MW06	17/05/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.001	0.003
DUP01/210810	10/08/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.026	<0.0001	<0.001	0.003	<0.001	<0.00005	0.051	0.011
MW01/210810	10/08/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	0.012	<0.001	<0.00005	0.006	0.13
MW02/210810	10/08/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	0.002	<0.001	<0.00005	0.016	0.015
MW03/210810	10/08/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	0.005	<0.001	<0.00005	0.022	0.053
MW04/210810	10/08/2021	<0.01	0.01	<0.02	<0.01	<0.01	<0.01	0.01	<0.01	0.11	0.0004	0.008	0.071	<0.001	<0.00005	0.097	0.038
MW06/210810	10/08/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.002	<0.001
MW09/210810	10/08/2021	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.0001	<0.001	0.004	<0.001	<0.00005	0.038	0.016
RINS01/210810	10/08/2021									<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	0.001
Trip Blank	16/04/2021																
Trip Blank	17/05/2021																
Trip Blank (water)	10/08/2021																
Statistics																	
Number of Results		16	16	16	16	16	16	16	16	19	19	19	19	19	19	19	19
Number of Detects		1	3	0	0	1	1	4	1	6	3	3	11	3	0	15	18
Minimum Concentration		0.01	0.01	<0.02	<0.01	<0.01	<0.01	0.01	<0.01	0.001	<0.0001	<0.001	0.001	0.001	<0.00005	0.001	0.001
Minimum Detect		0.01	0.01	ND	ND	0.03	0.03	0.01	0.04	0.001	0.0004	0.008	0.001	0.001	ND	0.001	0.001
Maximum Concentration		0.01	0.07	<0.02	<0.01	0.03	0.03	0.07	0.04	0.32	0.0006	0.018	0.071	0.006	<0.00005	0.11	0.13
Maximum Detect		0.01	0.07	ND	ND	0.03	0.03	0.07	0.04	0.32	0.0006	0.018	0.071	0.006	ND	0.11	0.13
Average Concentration *		0.0053	0.0097	0.01	0.005	0.0066	0.0066	0.012	0.0072	0.031	0.00012	0.0022	0.0068	0.00084	0.000025	0.022	0.02
Median Concentration *		0.005	0.005	0.01	0.005	0.005	0.005	0.005	0.005	0.0005	0.00005	0.0005	0.002	0.0005	0.000025	0.003	0.005
Standard Deviation *		0.0012	0.016	0	0	0.0062	0.0062	0.018	0.0088	0.078	0.00016	0.0045	0.016	0.0013	0	0.033	0.031
95% UCL (Student's-t) *		0.00586	0.0168	0.01	0.005	0.0093	0.0093	0.0197	0.011	0.0622	0.00017975	0.004	0.0133	0.00134	0.000025	0.0351	0.032
% of Detects		6	19	0	0	6	6	25	6	32	16	16	58	16	0	79	95
% of Non-Detects		94	81	100	100	94	94	75	94	68	84	84	42	84	100	21	5

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs

HEPA, January 2020, PFAS NEMP 2020 Freshwater 95%

2013, NEPM 2013 Table 1C GILs, Fresh Waters

18 Attachment F – Laboratory Analytical Documentation

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 275730

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774 - Menangle**
Number of Samples	44 Soil
Date samples received	11/08/2021
Date completed instructions received	12/08/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/08/2021
Date of Issue	19/08/2021

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Panika Wongchanda
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Hannah Nguyen, Metals Supervisor
Lucy Zhu, Asbestos Supervisor
Steven Luong, Organics Supervisor
Thomas Beenie, Lab Technician

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275730-5	275730-6	275730-7	275730-8	275730-9
Your Reference	UNITS	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7	BH808/0.6-0.8	BH809/0.7-0.9
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	91	100	90	106	111

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275730-10	275730-13	275730-16	275730-17	275730-30
Your Reference	UNITS	BH810/0.8-1.0	BH813/0.8-1.0	BH816/0-0.2	BH816/0.5-0.7	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	99	103	103	107	106

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	106	92	99	108	108

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275730-36	275730-37	275730-38	275730-39	275730-42
Your Reference	UNITS	BH828/0.1	BH828/0.3	DS801	DS802	Trip Spike (soil)
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	[NA]
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	[NA]
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	[NA]
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	120%
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	116%
Ethylbenzene	mg/kg	<1	<1	<1	<1	114%
m+p-xylene	mg/kg	<2	<2	<2	<2	114%
o-Xylene	mg/kg	<1	<1	<1	<1	113%
naphthalene	mg/kg	<1	<1	<1	<1	[NA]
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	[NA]
Surrogate aaa-Trifluorotoluene	%	97	104	101	86	94

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		275730-43
Your Reference	UNITS	Trip Blank (soil)
Date Sampled		10/08/2021
Type of sample		Soil
Date extracted	-	13/08/2021
Date analysed	-	13/08/2021
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<3
Surrogate aaa-Trifluorotoluene	%	116

svTRH (C10-C40) in Soil						
Our Reference		275730-5	275730-6	275730-7	275730-8	275730-9
Your Reference	UNITS	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7	BH808/0.6-0.8	BH809/0.7-0.9
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	14/08/2021	14/08/2021	14/08/2021	14/08/2021	14/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	86	94	90	91	92

svTRH (C10-C40) in Soil						
Our Reference		275730-10	275730-13	275730-16	275730-17	275730-30
Your Reference	UNITS	BH810/0.8-1.0	BH813/0.8-1.0	BH816/0-0.2	BH816/0.5-0.7	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	14/08/2021	14/08/2021	14/08/2021	14/08/2021	14/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	92	84	95	87	86

svTRH (C10-C40) in Soil						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	14/08/2021	14/08/2021	14/08/2021	14/08/2021	14/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	102	110	113	117	114

svTRH (C10-C40) in Soil					
Our Reference		275730-36	275730-37	275730-38	275730-39
Your Reference	UNITS	BH828/0.1	BH828/0.3	DS801	DS802
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	14/08/2021	14/08/2021	14/08/2021	14/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50
Surrogate o-Terphenyl	%	121	112	107	122

PAHs in Soil						
Our Reference		275730-5	275730-6	275730-7	275730-8	275730-9
Your Reference	UNITS	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7	BH808/0.6-0.8	BH809/0.7-0.9
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	96	97	94	91

PAHs in Soil						
Our Reference		275730-10	275730-13	275730-16	275730-17	275730-30
Your Reference	UNITS	BH810/0.8-1.0	BH813/0.8-1.0	BH816/0-0.2	BH816/0.5-0.7	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	94	102	91	97	118

PAHs in Soil						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	104	107	110	119	109

PAHs in Soil					
Our Reference		275730-36	275730-37	275730-38	275730-39
Your Reference	UNITS	BH828/0.1	BH828/0.3	DS801	DS802
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.07
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	0.51
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	108	116	109	106

Organochlorine Pesticides in soil						
Our Reference		275730-1	275730-3	275730-5	275730-6	275730-7
Your Reference	UNITS	BH801/0.5-0.7	BH803/0.4-0.6	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	89	91	89	92

Organochlorine Pesticides in soil						
Our Reference		275730-8	275730-9	275730-10	275730-11	275730-13
Your Reference	UNITS	BH808/0.6-0.8	BH809/0.7-0.9	BH810/0.8-1.0	BH811/0.5-0.7	BH813/0.8-1.0
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	86	92	91	89

Organochlorine Pesticides in soil						
Our Reference		275730-15	275730-16	275730-17	275730-18	275730-20
Your Reference	UNITS	BH815/1.5-1.9	BH816/0-0.2	BH816/0.5-0.7	BH817/0-0.2	BH818/0-0.2
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	89	89	85	86	90

Organochlorine Pesticides in soil						
Our Reference		275730-22	275730-24	275730-26	275730-28	275730-30
Your Reference	UNITS	BH819/0-0.2	BH820/0-0.2	BH821/0-0.2	BH822/0-0.2	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	91	96	105	105

Organochlorine Pesticides in soil						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	103	99	100	114	106

Organochlorine Pesticides in soil			
Our Reference		275730-36	275730-37
Your Reference	UNITS	BH828/0.1	BH828/0.3
Date Sampled		10/08/2021	10/08/2021
Type of sample		Soil	Soil
Date extracted	-	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021
alpha-BHC	mg/kg	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Surrogate TCMX	%	102	102

Organophosphorus Pesticides in Soil						
Our Reference		275730-1	275730-3	275730-5	275730-6	275730-7
Your Reference	UNITS	BH801/0.5-0.7	BH803/0.4-0.6	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	89	91	89	92

Organophosphorus Pesticides in Soil						
Our Reference		275730-8	275730-9	275730-10	275730-11	275730-13
Your Reference	UNITS	BH808/0.6-0.8	BH809/0.7-0.9	BH810/0.8-1.0	BH811/0.5-0.7	BH813/0.8-1.0
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	86	92	91	89

Organophosphorus Pesticides in Soil						
Our Reference		275730-15	275730-16	275730-17	275730-18	275730-20
Your Reference	UNITS	BH815/1.5-1.9	BH816/0-0.2	BH816/0.5-0.7	BH817/0-0.2	BH818/0-0.2
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	89	89	85	86	90

Organophosphorus Pesticides in Soil						
Our Reference		275730-22	275730-24	275730-26	275730-28	275730-30
Your Reference	UNITS	BH819/0-0.2	BH820/0-0.2	BH821/0-0.2	BH822/0-0.2	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	91	96	105	105

Organophosphorus Pesticides in Soil						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	103	99	100	114	106

Organophosphorus Pesticides in Soil			
Our Reference		275730-36	275730-37
Your Reference	UNITS	BH828/0.1	BH828/0.3
Date Sampled		10/08/2021	10/08/2021
Type of sample		Soil	Soil
Date extracted	-	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021
Dichlorvos	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	102	102

PCBs in Soil						
Our Reference		275730-5	275730-6	275730-7	275730-8	275730-9
Your Reference	UNITS	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7	BH808/0.6-0.8	BH809/0.7-0.9
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	91	89	92	93	86

PCBs in Soil						
Our Reference		275730-10	275730-13	275730-16	275730-17	275730-30
Your Reference	UNITS	BH810/0.8-1.0	BH813/0.8-1.0	BH816/0-0.2	BH816/0.5-0.7	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	89	89	85	105

PCBs in Soil						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	103	99	100	114	106

PCBs in Soil			
Our Reference		275730-36	275730-37
Your Reference	UNITS	BH828/0.1	BH828/0.3
Date Sampled		10/08/2021	10/08/2021
Type of sample		Soil	Soil
Date extracted	-	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	102	102

Acid Extractable metals in soil						
Our Reference		275730-1	275730-3	275730-5	275730-6	275730-7
Your Reference	UNITS	BH801/0.5-0.7	BH803/0.4-0.6	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/08/2021	16/08/2021	19/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	19/08/2021	16/08/2021	16/08/2021
Arsenic	mg/kg	9	5	10	7	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	12	8	15	10
Copper	mg/kg	20	12	24	25	20
Lead	mg/kg	9	11	10	16	12
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	10	6	11	6
Zinc	mg/kg	26	30	24	26	27

Acid Extractable metals in soil						
Our Reference		275730-8	275730-9	275730-10	275730-11	275730-13
Your Reference	UNITS	BH808/0.6-0.8	BH809/0.7-0.9	BH810/0.8-1.0	BH811/0.5-0.7	BH813/0.8-1.0
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Arsenic	mg/kg	7	6	7	5	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	12	7	11	12
Copper	mg/kg	19	15	22	21	17
Lead	mg/kg	11	14	9	13	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	8	10	8	11
Zinc	mg/kg	17	22	34	20	28

Acid Extractable metals in soil						
Our Reference		275730-15	275730-16	275730-17	275730-18	275730-20
Your Reference	UNITS	BH815/1.5-1.9	BH816/0-0.2	BH816/0.5-0.7	BH817/0-0.2	BH818/0-0.2
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Arsenic	mg/kg	8	7	5	7	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	15	13	9	11
Copper	mg/kg	20	12	21	21	24
Lead	mg/kg	13	18	11	15	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	5	7	8	12
Zinc	mg/kg	21	12	13	140	110

Acid Extractable metals in soil						
Our Reference		275730-22	275730-24	275730-26	275730-28	275730-30
Your Reference	UNITS	BH819/0-0.2	BH820/0-0.2	BH821/0-0.2	BH822/0-0.2	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Arsenic	mg/kg	7	<4	5	5	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	8	9	9	13
Copper	mg/kg	12	11	14	12	10
Lead	mg/kg	14	9	15	10	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	6	6	6	4
Zinc	mg/kg	18	50	41	38	12

Acid Extractable metals in soil						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Arsenic	mg/kg	5	7	9	5	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	7	14	30	16
Copper	mg/kg	10	23	28	58	25
Lead	mg/kg	9	10	18	14	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	4	7	20	29	11
Zinc	mg/kg	14	35	60	150	37

Acid Extractable metals in soil						
Our Reference		275730-36	275730-37	275730-38	275730-39	275730-40
Your Reference	UNITS	BH828/0.1	BH828/0.3	DS801	DS802	DUP801
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Arsenic	mg/kg	7	9	10	7	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	32	17	13	21	19
Copper	mg/kg	39	20	33	38	30
Lead	mg/kg	17	15	22	22	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	35	9	15	16	12
Zinc	mg/kg	630	100	66	75	29

Acid Extractable metals in soil				
Our Reference		275730-41	275730-45	275730-46
Your Reference	UNITS	DUP802	BH816/0-0.2 - [TRIPLICATE]	BH825/0.4-0.6 - [TRIPLICATE]
Date Sampled		10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil
Date prepared	-	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021
Arsenic	mg/kg	7	5	7
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	16	15	15
Copper	mg/kg	16	26	11
Lead	mg/kg	19	15	12
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	7	10	4
Zinc	mg/kg	20	58	14

Moisture						
Our Reference		275730-1	275730-3	275730-5	275730-6	275730-7
Your Reference	UNITS	BH801/0.5-0.7	BH803/0.4-0.6	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Moisture	%	19	14	14	21	13

Moisture						
Our Reference		275730-8	275730-9	275730-10	275730-11	275730-13
Your Reference	UNITS	BH808/0.6-0.8	BH809/0.7-0.9	BH810/0.8-1.0	BH811/0.5-0.7	BH813/0.8-1.0
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Moisture	%	16	13	12	20	21

Moisture						
Our Reference		275730-15	275730-16	275730-17	275730-18	275730-20
Your Reference	UNITS	BH815/1.5-1.9	BH816/0-0.2	BH816/0.5-0.7	BH817/0-0.2	BH818/0-0.2
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Moisture	%	23	19	22	19	18

Moisture						
Our Reference		275730-22	275730-24	275730-26	275730-28	275730-30
Your Reference	UNITS	BH819/0-0.2	BH820/0-0.2	BH821/0-0.2	BH822/0-0.2	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Moisture	%	18	27	20	22	15

Moisture						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Moisture	%	18	15	30	12	18

Moisture						
Our Reference		275730-36	275730-37	275730-38	275730-39	275730-40
Your Reference	UNITS	BH828/0.1	BH828/0.3	DS801	DS802	DUP801
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Moisture	%	35	16	24	50	23

Moisture		
Our Reference		275730-41
Your Reference	UNITS	DUP802
Date Sampled		10/08/2021
Type of sample		Soil
Date prepared	-	13/08/2021
Date analysed	-	16/08/2021
Moisture	%	18

Asbestos ID - soils						
Our Reference		275730-1	275730-3	275730-5	275730-6	275730-7
Your Reference	UNITS	BH801/0.5-0.7	BH803/0.4-0.6	BH805/0.6-0.8	BH806/0.5-0.7	BH807/0.5-0.7
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Sample mass tested	g	Approx. 30g	Approx. 40g	Approx. 35g	Approx. 35g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275730-8	275730-9	275730-10	275730-11	275730-13
Your Reference	UNITS	BH808/0.6-0.8	BH809/0.7-0.9	BH810/0.8-1.0	BH811/0.5-0.7	BH813/0.8-1.0
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Sample mass tested	g	Approx. 35g	Approx. 30g	Approx. 40g	Approx. 30g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275730-15	275730-16	275730-17	275730-18	275730-20
Your Reference	UNITS	BH815/1.5-1.9	BH816/0-0.2	BH816/0.5-0.7	BH817/0-0.2	BH818/0-0.2
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Sample mass tested	g	Approx. 30g	Approx. 35g	Approx. 35g	Approx. 35g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275730-22	275730-24	275730-26	275730-28	275730-30
Your Reference	UNITS	BH819/0-0.2	BH820/0-0.2	BH821/0-0.2	BH822/0-0.2	BH823/0.4-0.6
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Sample mass tested	g	Approx. 30g	Approx. 25g	Approx. 35g	Approx. 25g	Approx. 35g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275730-31	275730-32	275730-33	275730-34	275730-35
Your Reference	UNITS	BH824/0.4-0.6	BH825/0.4-0.6	BH826/0.4-0.6	BH827/0.1	BH827/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Sample mass tested	g	Approx. 45g	Approx. 30g	Approx. 35g	Approx. 30g	Approx. 35g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils			
Our Reference		275730-36	275730-37
Your Reference	UNITS	BH828/0.1	BH828/0.3
Date Sampled		10/08/2021	10/08/2021
Type of sample		Soil	Soil
Date analysed	-	17/08/2021	17/08/2021
Sample mass tested	g	Approx. 25g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected

Misc Inorg - Soil				
Our Reference		275730-21	275730-30	275730-37
Your Reference	UNITS	BH818/0.4-0.6	BH823/0.4-0.6	BH828/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil
Date prepared	-	17/08/2021	17/08/2021	17/08/2021
Date analysed	-	17/08/2021	17/08/2021	17/08/2021
pH 1:5 soil:$CaCl_2$	pH Units	6.8	4.1	6.9

CEC				
Our Reference		275730-21	275730-30	275730-37
Your Reference	UNITS	BH818/0.4-0.6	BH823/0.4-0.6	BH828/0.3
Date Sampled		10/08/2021	10/08/2021	10/08/2021
Type of sample		Soil	Soil	Soil
Date prepared	-	18/08/2021	18/08/2021	18/08/2021
Date analysed	-	18/08/2021	18/08/2021	18/08/2021
Exchangeable Ca	meq/100g	7.5	4.2	8.6
Exchangeable K	meq/100g	0.1	2.7	0.3
Exchangeable Mg	meq/100g	4.4	3.3	3.5
Exchangeable Na	meq/100g	0.22	0.13	0.11
Cation Exchange Capacity	meq/100g	12	10	12

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-AES analytical finish.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275730-7
Date extracted	-			13/08/2021	6	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			13/08/2021	6	13/08/2021	13/08/2021		13/08/2021	13/08/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	6	<25	<25	0	77	90
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	6	<25	<25	0	77	90
Benzene	mg/kg	0.2	Org-023	<0.2	6	<0.2	<0.2	0	80	83
Toluene	mg/kg	0.5	Org-023	<0.5	6	<0.5	<0.5	0	79	81
Ethylbenzene	mg/kg	1	Org-023	<1	6	<1	<1	0	85	106
m+p-xylene	mg/kg	2	Org-023	<2	6	<2	<2	0	71	89
o-Xylene	mg/kg	1	Org-023	<1	6	<1	<1	0	83	104
naphthalene	mg/kg	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	114	6	100	104	4	106	105

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275730-33
Date extracted	-			[NT]	16	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			[NT]	16	13/08/2021	13/08/2021		13/08/2021	13/08/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	16	<25	<25	0	92	77
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	16	<25	<25	0	92	77
Benzene	mg/kg	0.2	Org-023	[NT]	16	<0.2	<0.2	0	85	74
Toluene	mg/kg	0.5	Org-023	[NT]	16	<0.5	<0.5	0	84	70
Ethylbenzene	mg/kg	1	Org-023	[NT]	16	<1	<1	0	110	90
m+p-xylene	mg/kg	2	Org-023	[NT]	16	<2	<2	0	91	75
o-Xylene	mg/kg	1	Org-023	[NT]	16	<1	<1	0	107	86
naphthalene	mg/kg	1	Org-023	[NT]	16	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	16	103	100	3	108	89

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	32	13/08/2021	13/08/2021		[NT]	[NT]
Date analysed	-			[NT]	32	13/08/2021	13/08/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	32	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	32	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	32	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	32	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	32	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	32	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	32	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	32	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	32	92	80	14	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275730-7
Date extracted	-			13/08/2021	6	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			14/08/2021	6	14/08/2021	14/08/2021		14/08/2021	14/08/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	6	<50	<50	0	67	66
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	6	<100	<100	0	66	66
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	6	<100	<100	0	61	68
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	6	<50	<50	0	67	66
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	6	<100	<100	0	66	66
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	6	<100	<100	0	61	68
Surrogate o-Terphenyl	%		Org-020	107	6	94	89	5	91	90

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275730-33
Date extracted	-			[NT]	16	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			[NT]	16	14/08/2021	14/08/2021		14/08/2021	14/08/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	16	<50	<50	0	68	67
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	65	64
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	82	61
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	16	<50	<50	0	68	67
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	65	64
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	82	61
Surrogate o-Terphenyl	%		Org-020	[NT]	16	95	98	3	85	113

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	32	13/08/2021	13/08/2021		[NT]	[NT]
Date analysed	-			[NT]	32	14/08/2021	14/08/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	32	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	32	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	32	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	32	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	32	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	32	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	32	110	110	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275730-7
Date extracted	-			13/08/2021	6	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			16/08/2021	6	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	105	123
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	87	116
Fluorene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	104	124
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	125	130
Anthracene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	104	124
Pyrene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	109	127
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	82	85
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	6	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	6	<0.05	<0.05	0	103	126
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	93	6	96	97	1	123	88

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275730-33
Date extracted	-			[NT]	16	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			[NT]	16	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	101	105
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	86	96
Fluorene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	95	107
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	109	123
Anthracene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	100	102
Pyrene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	104	109
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	76	80
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	16	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	16	<0.05	<0.05	0	120	102
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	16	91	93	2	101	112

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	32	13/08/2021	13/08/2021		[NT]	[NT]
Date analysed	-			[NT]	32	16/08/2021	16/08/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	32	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	32	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	32	107	110	3	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275730-7
Date extracted	-			13/08/2021	6	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			16/08/2021	6	16/08/2021	16/08/2021		16/08/2021	16/08/2021
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	108	130
HCB	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	126	130
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	99	110
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	106	126
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	105	114
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	109	130
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	107	113
Endrin	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	82	110
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	103	120
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	103	91
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	94	6	89	88	1	126	94

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275730-33
Date extracted	-			[NT]	16	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			[NT]	16	16/08/2021	16/08/2021		16/08/2021	16/08/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	99	101
HCB	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	98	130
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	79	103
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	103	106
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	97	93
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	108	99
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	95	107
Endrin	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	89	114
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	94	105
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	109	82
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	16	89	92	3	95	115

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	32	13/08/2021	13/08/2021		[NT]	[NT]
Date analysed	-			[NT]	32	16/08/2021	16/08/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	32	99	107	8	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275730-7
Date extracted	-			13/08/2021	6	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			16/08/2021	6	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	82	86
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	102	122
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	87	88
Malathion	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	112	81
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	117	124
Parathion	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	84	93
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	91	100
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	94	6	89	88	1	126	94

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275730-33
Date extracted	-			[NT]	16	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			[NT]	16	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	70	74
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	95	98
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	81	79
Malathion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	84	78
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	99	109
Parathion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	76	82
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	93	91
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	16	89	92	3	95	115

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	32	13/08/2021	13/08/2021		[NT]	[NT]
Date analysed	-			[NT]	32	16/08/2021	16/08/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	32	99	107	8	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275730-7
Date extracted	-			13/08/2021	6	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			16/08/2021	6	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	6	<0.1	<0.1	0	120	130
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	94	6	89	88	1	126	94

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275730-33
Date extracted	-			[NT]	16	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			[NT]	16	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	114	120
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	16	89	92	3	95	115

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	32	13/08/2021	13/08/2021		[NT]	[NT]
Date analysed	-			[NT]	32	16/08/2021	16/08/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	32	99	107	8	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275730-7
Date prepared	-			16/08/2021	6	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Date analysed	-			16/08/2021	6	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Arsenic	mg/kg	4	Metals-020	<4	6	7	7	0	89	78
Cadmium	mg/kg	0.4	Metals-020	<0.4	6	<0.4	<0.4	0	94	76
Chromium	mg/kg	1	Metals-020	<1	6	15	16	6	95	77
Copper	mg/kg	1	Metals-020	<1	6	25	25	0	93	78
Lead	mg/kg	1	Metals-020	<1	6	16	15	6	97	77
Mercury	mg/kg	0.1	Metals-021	<0.1	6	<0.1	<0.1	0	124	117
Nickel	mg/kg	1	Metals-020	<1	6	11	12	9	95	76
Zinc	mg/kg	1	Metals-020	<1	6	26	23	12	95	#

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275730-33
Date prepared	-			[NT]	16	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Date analysed	-			[NT]	16	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Arsenic	mg/kg	4	Metals-020	[NT]	16	7	4	55	77	90
Cadmium	mg/kg	0.4	Metals-020	[NT]	16	<0.4	<0.4	0	81	79
Chromium	mg/kg	1	Metals-020	[NT]	16	15	14	7	82	86
Copper	mg/kg	1	Metals-020	[NT]	16	12	23	63	81	104
Lead	mg/kg	1	Metals-020	[NT]	16	18	14	25	84	86
Mercury	mg/kg	0.1	Metals-021	[NT]	16	<0.1	<0.1	0	113	117
Nickel	mg/kg	1	Metals-020	[NT]	16	5	10	67	82	91
Zinc	mg/kg	1	Metals-020	[NT]	16	12	53	126	82	88

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	32	16/08/2021	16/08/2021		[NT]	[NT]
Date analysed	-			[NT]	32	16/08/2021	16/08/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	32	7	6	15	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	32	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	32	7	10	35	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	32	23	16	36	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	32	10	10	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	32	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	32	7	6	15	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	32	35	22	46	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	16/08/2021	16/08/2021		[NT]	[NT]
Date analysed	-			[NT]	41	16/08/2021	16/08/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	41	7	7	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	41	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	41	16	17	6	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	41	16	13	21	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	41	19	19	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	41	7	6	15	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	41	20	15	29	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			17/08/2021	[NT]	[NT]	[NT]	[NT]	17/08/2021	[NT]
Date analysed	-			17/08/2021	[NT]	[NT]	[NT]	[NT]	17/08/2021	[NT]
pH 1:5 soil:$CaCl_2$	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: CEC					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			18/08/2021	[NT]	[NT]	[NT]	[NT]	18/08/2021	[NT]
Date analysed	-			18/08/2021	[NT]	[NT]	[NT]	[NT]	18/08/2021	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	111	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 275730-1 to 37 were sub-sampled from jars provided by the client.

Acid Extractable Metals in Soil:
- The laboratory RPD acceptance criteria has been exceeded for 275730-16 for Cu, Zn and Ni. Therefore a triplicate result has been issued as laboratory sample number 275730-45.
- The laboratory RPD acceptance criteria has been exceeded for 275730-32 for Zn. Therefore a triplicate result has been issued as laboratory sample number 275730-46.
- # Percent recovery is not possible to report due to the inhomogeneous nature of the element in the sample. However an acceptable recovery was obtained for the LCS.

martens
consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Additional Testing													
Name	P1806774 – Menangle												
Martens Contact Officer	Robert Mehaffey					**Contact Email**	rmehaffey@martens.com.au bmcgiffin@martens.com.au						
Sampling and Shipping	**Sample Date**	10/08/2021		**Dispatch Date**	11/08/21		**Turnaround Time**		standard				
	Our Reference	P1806774COC09V01				**Shipping Method (X)**	**Hand**	**X**	**Post**		**Courier**		
	On Ice (X)	**X**	**No Ice (X)**		**Other (X)**								
Laboratory													
Name	EnviroLab												
Sample Delivery Address	12 Ashley Street, Chatswood												
Delivery Contact	**Name**		**Phone**	9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au					
Please Send Report By (X)	**Post**		**Fax**		**Email**	**X**	**Reporting Email Address**	rmehaffey@martens.com.au bmcgiffin@martens.com.au					

Item	Sample ID	Combo 6a	Combo 3	8 Heavy Metals	OC / OP Pesticides	Asbestos (detect / nondetect)	pH (CaCl)	CEC	TRH	BTEXN	HOLD
1	BH801/0.5-0.7			X	X	X					
2	BH802/0.5-0.7										X
3	BH803/0.4-0.6			X	X	X					
4	BH804/0.5-0.7										X
5	BH805/0.6-0.8	X									
6	BH806/0.5-0.7	X									
7	BH807/0.5-0.7	X									
8	BH808/0.6-0.8	X									
9	BH809/0.7-0.9	X									

ENVIROLAB Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

ED No: 275730

Date Received: 12/8/21 COC

Time Received: 1000

Received By: VV

Cool/Ambient

Icepack 4°C

Broken/No

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

Item	Sample ID	Combo 6a	Combo 3	8 Heavy Metals	OC / OP Pesticides	Asbestos (detect / nondetect)	pH (CaCl)	CEC	TRH	BTEXN	HOLD
10	BH810/0.8-1.0	X									
11	BH811/0.5-0.7			X	X	X					
12	BH812/0.7-0.9										X
13	BH813/0.8-1.0	X									
14	BH814/0.5-0.7										X
15	BH815/1.5-1.9			X	X	X					
16	BH816/0-0.2	X									
17	BH816/0.5-0.7	X									
18	BH817/0-0.2			X	X	X					
19	BH817/0.5-0.7										X
20	BH818/0-0.2			X	X	X					
21	BH818/0.4-0.6						X	X			
22	BH819/0-0.2			X	X	X					
23	BH819/0.5-0.7										X
24	BH820/0-0.2			X	X	X					
25	BH820/0.5-0.7										X
26	BH821/0-0.2			X	X	X					
27	BH821/0.5-0.7										X
28	BH822/0-0.2			X	X	X					
29	BH822/0.5-0.9										X
30	BH823/0.4-0.6	X					X	X			
31	BH824/0.4-0.6	X									
32	BH825/0.4-0.6	X									
33	BH826/0.4-0.6	X									
34	BH827/0.1	X									
35	BH827/0.3	X									
36	BH828/0.1	X									
37	BH828/0.3	X					X	X			

* 275730 11/8/21

SOIL ANALYSIS CHAIN OF CUSTODY

Item	Sample ID	Combo 6a	Combo 3	8 Heavy Metals	OC / OP Pesticides	Asbestos (detect / nondetect)	pH (CaCl)	CEC	TRH	BTEXN	HOLD
38	DS801		X								
39	-DS802 -		X								
40	DUP801			X							
41	DUP802			X							
42	Trip Spike (soil)									X	
43	Trip Blank (soil)								X		

(EXTRA) 44 DUP03

* 275730 11/8/21

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 275727

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774- Menangle**
Number of Samples	10 Water
Date samples received	11/08/2021
Date completed instructions received	12/08/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/08/2021
Date of Issue	19/08/2021

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Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Greta Petzold, Senior Report Coordinator
Hannah Nguyen, Metals Supervisor
Jaimie Loa-Kum-Cheung, Senior Chemist
Jeremy Faircloth, Operations Manager, Sydney
Josh Williams, LC Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	12/08/2021	12/08/2021	12/08/2021	13/08/2021	13/08/2021
Date analysed	-	12/08/2021	12/08/2021	12/08/2021	13/08/2021	13/08/2021
Dichlorodifluoromethane	µg/L	<10	<10	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Benzene	µg/L	<1	<1	<1	1	<1
Dibromomethane	µg/L	<1	<1	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	10	<1
1,3-dichloropropane	µg/L	<1	<1	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1

VOCs in water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Bromoform	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
Styrene	µg/L	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
o-xylene	µg/L	<1	<1	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	100	97	98	95	96
Surrogate toluene-d8	%	100	99	102	99	79
Surrogate 4-BFB	%	102	102	103	99	103

VOCs in water			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date extracted	-	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021
Dichlorodifluoromethane	µg/L	<10	<10
Chloromethane	µg/L	<10	<10
Vinyl Chloride	µg/L	<10	<10
Bromomethane	µg/L	<10	<10
Chloroethane	µg/L	<10	<10
Trichlorofluoromethane	µg/L	<10	<10
1,1-Dichloroethene	µg/L	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1
1,1-dichloroethane	µg/L	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1
Bromochloromethane	µg/L	<1	<1
Chloroform	µg/L	<1	<1
2,2-dichloropropane	µg/L	<1	<1
1,2-dichloroethane	µg/L	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1
1,1-dichloropropene	µg/L	<1	<1
Cyclohexane	µg/L	1	1
Carbon tetrachloride	µg/L	<1	<1
Benzene	µg/L	<1	<1
Dibromomethane	µg/L	<1	<1
1,2-dichloropropane	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Bromodichloromethane	µg/L	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1
Toluene	µg/L	<1	<1
1,3-dichloropropane	µg/L	<1	<1
Dibromochloromethane	µg/L	<1	<1
1,2-dibromoethane	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1
Chlorobenzene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1

VOCs in water			
Our Reference	UNITS	275727-6	275727-7
Your Reference		MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Bromoform	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
Styrene	µg/L	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1
o-xylene	µg/L	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1
Isopropylbenzene	µg/L	<1	<1
Bromobenzene	µg/L	<1	<1
n-propyl benzene	µg/L	<1	<1
2-chlorotoluene	µg/L	<1	<1
4-chlorotoluene	µg/L	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1
Tert-butyl benzene	µg/L	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1
Sec-butyl benzene	µg/L	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1
4-isopropyl toluene	µg/L	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1
n-butyl benzene	µg/L	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1
Hexachlorobutadiene	µg/L	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	88	97
Surrogate toluene-d8	%	73	100
Surrogate 4-BFB	%	100	101

vTRH(C6-C10)/BTEXN in Water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	12/08/2021	12/08/2021	12/08/2021	13/08/2021	13/08/2021
Date analysed	-	12/08/2021	12/08/2021	12/08/2021	13/08/2021	13/08/2021
TRH C_6 - C_9	µg/L	<10	<10	<10	22	<10
TRH C_6 - C_{10}	µg/L	<10	<10	<10	24	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	13	<10
Benzene	µg/L	<1	<1	<1	1	<1
Toluene	µg/L	<1	<1	<1	10	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	100	97	98	95	96
Surrogate toluene-d8	%	100	99	102	99	79
Surrogate 4-BFB	%	102	102	103	99	103

vTRH(C6-C10)/BTEXN in Water						
Our Reference		275727-6	275727-7	275727-8	275727-9	275727-10
Your Reference	UNITS	MW09/210810	DUP01/210810	RINS01/210810	Trip Spike (water)	Trip Blank (water)
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
TRH C_6 - C_9	µg/L	<10	<10	<10	[NA]	<10
TRH C_6 - C_{10}	µg/L	<10	<10	<10	[NA]	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	[NA]	<10
Benzene	µg/L	<1	<1	<1	78%	<1
Toluene	µg/L	<1	<1	<1	115%	<1
Ethylbenzene	µg/L	<1	<1	<1	98%	<1
m+p-xylene	µg/L	<2	<2	<2	96%	<2
o-xylene	µg/L	<1	<1	<1	99%	<1
Naphthalene	µg/L	<1	<1	<1	[NA]	<1
Surrogate Dibromofluoromethane	%	88	97	99	99	96
Surrogate toluene-d8	%	73	100	75	118	98
Surrogate 4-BFB	%	100	101	126	121	101

svTRH (C10-C40) in Water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	14/08/2021	14/08/2021	14/08/2021	14/08/2021	14/08/2021
TRH C_{10} - C_{14}	µg/L	<50	<50	<50	340	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	<100	1,900	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	1,400	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50	3,600	<50
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50	680	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50	680	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	2,900	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50	3,700	<50
Surrogate o-Terphenyl	%	73	75	72	109	71

svTRH (C10-C40) in Water				
Our Reference		275727-6	275727-7	275727-8
Your Reference	UNITS	MW09/210810	DUP01/210810	RINS01/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water
Date extracted	-	18/08/2021	13/08/2021	18/08/2021
Date analysed	-	18/08/2021	14/08/2021	18/08/2021
TRH C_{10} - C_{14}	µg/L	<50	<50	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	150
TRH C_{29} - C_{36}	µg/L	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	150
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	140
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	140
Surrogate o-Terphenyl	%	81	76	113

PAHs in Water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	77	78	72	80	66

PAHs in Water				
Our Reference		275727-6	275727-7	275727-8
Your Reference	UNITS	MW09/210810	DUP01/210810	RINS01/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water
Date extracted	-	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021
Naphthalene	µg/L	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1
Fluorene	µg/L	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1
Anthracene	µg/L	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1
Pyrene	µg/L	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1
Chrysene	µg/L	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	81	81	61

Organochlorine Pesticides in Water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
alpha-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
HCB	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
beta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
gamma-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
delta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Aldrin	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor Epoxide	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
gamma-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
alpha-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan I	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDE	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Dieldrin	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan II	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDD	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin Aldehyde	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
pp-DDT	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Endosulfan Sulphate	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Methoxychlor	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	80	78	72	73	65

Organochlorine Pesticides in Water			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date extracted	-	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021
alpha-BHC	µg/L	<0.2	<0.2
HCB	µg/L	<0.2	<0.2
beta-BHC	µg/L	<0.2	<0.2
gamma-BHC	µg/L	<0.2	<0.2
Heptachlor	µg/L	<0.2	<0.2
delta-BHC	µg/L	<0.2	<0.2
Aldrin	µg/L	<0.2	<0.2
Heptachlor Epoxide	µg/L	<0.2	<0.2
gamma-Chlordane	µg/L	<0.2	<0.2
alpha-Chlordane	µg/L	<0.2	<0.2
Endosulfan I	µg/L	<0.2	<0.2
pp-DDE	µg/L	<0.2	<0.2
Dieldrin	µg/L	<0.2	<0.2
Endrin	µg/L	<0.2	<0.2
Endosulfan II	µg/L	<0.2	<0.2
pp-DDD	µg/L	<0.2	<0.2
Endrin Aldehyde	µg/L	<0.2	<0.2
pp-DDT	µg/L	<0.2	<0.2
Endosulfan Sulphate	µg/L	<0.2	<0.2
Methoxychlor	µg/L	<0.2	<0.2
Surrogate TCMX	%	81	82

OP Pesticides in Water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Dichlorvos	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Diazinon	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos-methyl	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Ronnel	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Fenitrothion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos ethyl	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Ethion	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	80	78	72	73	65

OP Pesticides in Water			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date extracted	-	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021
Dichlorvos	µg/L	<0.2	<0.2
Dimethoate	µg/L	<0.2	<0.2
Diazinon	µg/L	<0.2	<0.2
Chlorpyriphos-methyl	µg/L	<0.2	<0.2
Ronnel	µg/L	<0.2	<0.2
Fenitrothion	µg/L	<0.2	<0.2
Malathion	µg/L	<0.2	<0.2
Chlorpyriphos	µg/L	<0.2	<0.2
Parathion	µg/L	<0.2	<0.2
Bromophos ethyl	µg/L	<0.2	<0.2
Ethion	µg/L	<0.2	<0.2
Azinphos-methyl (Guthion)	µg/L	<0.2	<0.2
Surrogate TCMX	%	81	82

PCBs in Water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Aroclor 1016	µg/L	<2	<2	<2	<2	<2
Aroclor 1221	µg/L	<2	<2	<2	<2	<2
Aroclor 1232	µg/L	<2	<2	<2	<2	<2
Aroclor 1242	µg/L	<2	<2	<2	<2	<2
Aroclor 1248	µg/L	<2	<2	<2	<2	<2
Aroclor 1254	µg/L	<2	<2	<2	<2	<2
Aroclor 1260	µg/L	<2	<2	<2	<2	<2
Surrogate TCMX	%	80	78	72	73	65

PCBs in Water			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date extracted	-	13/08/2021	13/08/2021
Date analysed	-	13/08/2021	13/08/2021
Aroclor 1016	µg/L	<2	<2
Aroclor 1221	µg/L	<2	<2
Aroclor 1232	µg/L	<2	<2
Aroclor 1242	µg/L	<2	<2
Aroclor 1248	µg/L	<2	<2
Aroclor 1254	µg/L	<2	<2
Aroclor 1260	µg/L	<2	<2
Surrogate TCMX	%	81	82

PFAS in Waters Short						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
Date analysed	-	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	<0.01	0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	100	98	100	98	104
Surrogate $^{13}C_2$ *PFOA*	%	93	93	96	101	94
Extracted ISTD $^{18}O_2$ *PFHxS*	%	98	100	103	100	97
Extracted ISTD $^{13}C_4$ *PFOS*	%	94	91	94	97	90
Extracted ISTD $^{13}C_4$ *PFOA*	%	103	97	101	103	103
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	83	73	87	150	98
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	98	103	118	187	116
Total Positive PFHxS & PFOS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOA & PFOS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	µg/L	<0.01	<0.01	<0.01	0.01	<0.01

PFAS in Waters Short			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date prepared	-	12/08/2021	12/08/2021
Date analysed	-	12/08/2021	12/08/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	103	101
Surrogate $^{13}C_2$ *PFOA*	%	97	96
Extracted ISTD $^{18}O_2$ *PFHxS*	%	94	94
Extracted ISTD $^{13}C_4$ *PFOS*	%	91	89
Extracted ISTD $^{13}C_4$ *PFOA*	%	101	100
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	91	89
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	112	123
Total Positive PFHxS & PFOS	µg/L	<0.01	<0.01
Total Positive PFOA & PFOS	µg/L	<0.01	<0.01
Total Positive PFAS	µg/L	<0.01	<0.01

HM in water - dissolved						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021	16/08/2021	16/08/2021
Arsenic-Dissolved	µg/L	<1	<1	<1	110	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	0.4	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	8	<1
Copper-Dissolved	µg/L	12	2	5	71	<1
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	6	16	22	97	2
Zinc-Dissolved	µg/L	130	15	53	38	<1

HM in water - dissolved				
Our Reference		275727-6	275727-7	275727-8
Your Reference	UNITS	MW09/210810	DUP01/210810	RINS01/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water
Date prepared	-	16/08/2021	16/08/2021	16/08/2021
Date analysed	-	16/08/2021	16/08/2021	16/08/2021
Arsenic-Dissolved	µg/L	20	26	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1
Copper-Dissolved	µg/L	4	3	<1
Lead-Dissolved	µg/L	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	38	51	<1
Zinc-Dissolved	µg/L	16	11	1

Metals in Waters - Acid extractable						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Date analysed	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Phosphorus - Total	mg/L	0.5	<0.05	0.06	13	3.1

Metals in Waters - Acid extractable			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date prepared	-	17/08/2021	17/08/2021
Date analysed	-	17/08/2021	17/08/2021
Phosphorus - Total	mg/L	<0.05	<0.05

Miscellaneous Inorganics						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
Date analysed	-	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
Total Nitrogen in water	mg/L	140	280	21	1,900	5.7
Nitrate as N in water	mg/L	140	260	16	<0.005	0.10
Nitrite as N in water	mg/L	0.018	0.047	0.044	<0.005	0.009
Ammonia as N in water	mg/L	0.035	0.085	0.31	1,600	0.18
Phosphate as P in water	mg/L	0.01	0.006	<0.005	10	<0.005
Formaldehyde in waters	mg/L	<0.1	<0.1	<0.1	1	<0.1
Free Carbon Dioxide as CO_2	mg/L	490	667	276	896	26
Sulphide	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5

Miscellaneous Inorganics			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date prepared	-	12/08/2021	12/08/2021
Date analysed	-	12/08/2021	12/08/2021
Total Nitrogen in water	mg/L	11	10
Nitrate as N in water	mg/L	7.7	7.8
Nitrite as N in water	mg/L	0.01	0.025
Ammonia as N in water	mg/L	0.11	0.092
Phosphate as P in water	mg/L	0.02	0.02
Formaldehyde in waters	mg/L	<0.1	<0.1
Free Carbon Dioxide as CO_2	mg/L	38	38
Sulphide	mg/L	<0.5	<0.5

Dissolved Gases in Water						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Date analysed	-	17/08/2021	17/08/2021	17/08/2021	17/08/2021	17/08/2021
Methane	µg/L	<5	<5	11	420	5

Dissolved Gases in Water			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date prepared	-	17/08/2021	17/08/2021
Date analysed	-	17/08/2021	17/08/2021
Methane	µg/L	<5	<5

Microbiologocal Testing						
Our Reference		275727-1	275727-2	275727-3	275727-4	275727-5
Your Reference	UNITS	MW01/210810	MW02/210810	MW03/210810	MW04/210810	MW06/210810
Date Sampled		10/08/2021	10/08/2021	10/08/2021	10/08/2021	10/08/2021
Type of sample		Water	Water	Water	Water	Water
Date of testing	-	13/08/2021	13/08/2021	13/08/2021	13/08/2021	13/08/2021
Total Coliforms	MPN/100mL	5,400	20	64 A NBO	3,500	50
E. coli	MPN/100mL	<20	<20	100 A	<20	<20

Microbiologocal Testing			
Our Reference		275727-6	275727-7
Your Reference	UNITS	MW09/210810	DUP01/210810
Date Sampled		10/08/2021	10/08/2021
Type of sample		Water	Water
Date of testing	-	13/08/2021	13/08/2021
Total Coliforms	MPN/100mL	70 A NBO	<1000 NBO
E. coli	MPN/100mL	<10 NBO	<1000

Method ID	Methodology Summary
APHA 4500-CO2	CO_2 -determined titrimetrically . Based on APHA , 4500-CO_2 C.
AT-006	Dissolved gases determined by GC-FID based on draft method USEPA SOP RSK175
Ext-008	Subcontracted to Sonic Food & Water Testing. NATA Accreditation No. 4034.
Inorg-051	Sulphide determined titrimetrically based on APHA latest edition 4500 S2- F. Note, the Sulphide is termed as Total Sulphide given any Sulphide contained in any sediment present is also included in the determination.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-060	Phosphate determined colourimetrically based on EPA365.1 and APHA latest edition 4500 P E. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-113	Formaldehyde in waters and solids (1:5 extract) using colourimetric analysis and/or LC-DAD.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			13/08/2021	6	13/08/2021	16/08/2021		12/08/2021	[NT]
Date analysed	-			13/08/2021	6	13/08/2021	16/08/2021		12/08/2021	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	86	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	6	<1	<1	0	94	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	82	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	92	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	6	1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Dibromomethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	83	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	6	<1	<1	0	81	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	6	<1	<1	0	86	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	93	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Bromoform	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	6	<2	<2	0	[NT]	[NT]
Styrene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
o-xylene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	95	6	88	103	16	100	[NT]
Surrogate toluene-d8	%		Org-023	99	6	73	94	25	103	[NT]
Surrogate 4-BFB	%		Org-023	105	6	100	102	2	98	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	7	13/08/2021	16/08/2021		[NT]	[NT]
Date analysed	-			[NT]	7	13/08/2021	16/08/2021		[NT]	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
2,2-dichloropropane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,1-dichloropropene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	[NT]	7	1	1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Dibromomethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Bromodichloromethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2-dibromoethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Bromoform	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	[NT]	7	<2	<2	0	[NT]	[NT]
Styrene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
o-xylene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	[NT]	7	97	97	0	[NT]	[NT]
Surrogate toluene-d8	%		Org-023	[NT]	7	100	79	23	[NT]	[NT]
Surrogate 4-BFB	%		Org-023	[NT]	7	101	103	2	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			12/08/2021	6	13/08/2021	16/08/2021		12/08/2021	[NT]
Date analysed	-			12/08/2021	6	13/08/2021	16/08/2021		12/08/2021	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	6	<10	<10	0	93	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	6	<10	<10	0	93	[NT]
Benzene	µg/L	1	Org-023	<1	6	<1	<1	0	102	[NT]
Toluene	µg/L	1	Org-023	<1	6	<1	<1	0	99	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	6	<1	<1	0	88	[NT]
m+p-xylene	µg/L	2	Org-023	<2	6	<2	<2	0	87	[NT]
o-xylene	µg/L	1	Org-023	<1	6	<1	<1	0	86	[NT]
Naphthalene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	95	6	88	103	16	122	[NT]
Surrogate toluene-d8	%		Org-023	100	6	73	94	25	121	[NT]
Surrogate 4-BFB	%		Org-023	102	6	100	102	2	94	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	7	13/08/2021	16/08/2021		[NT]	[NT]
Date analysed	-			[NT]	7	13/08/2021	16/08/2021		[NT]	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	[NT]	7	<10	<10	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	[NT]	7	<2	<2	0	[NT]	[NT]
o-xylene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Naphthalene	µg/L	1	Org-023	[NT]	7	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	[NT]	7	97	97	0	[NT]	[NT]
Surrogate toluene-d8	%		Org-023	[NT]	7	100	79	23	[NT]	[NT]
Surrogate 4-BFB	%		Org-023	[NT]	7	101	103	2	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	275727-5
Date extracted	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			14/08/2021	1	14/08/2021	14/08/2021		14/08/2021	14/08/2021
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	1	<50	<50	0	107	127
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	1	<100	<100	0	109	120
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	1	<100	<100	0	72	104
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	1	<50	<50	0	107	127
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	1	<100	<100	0	109	120
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	1	<100	<100	0	72	104
Surrogate o-Terphenyl	%		Org-020	112	1	73	68	7	90	90

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	275727-3
Date extracted	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Naphthalene	µg/L	1	Org-022/025	<1	1	<1	<1	0	76	83
Acenaphthylene	µg/L	1	Org-022/025	<1	1	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-022/025	<1	1	<1	<1	0	63	73
Fluorene	µg/L	1	Org-022/025	<1	1	<1	<1	0	68	79
Phenanthrene	µg/L	1	Org-022/025	<1	1	<1	<1	0	92	104
Anthracene	µg/L	1	Org-022/025	<1	1	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-022/025	<1	1	<1	<1	0	74	81
Pyrene	µg/L	1	Org-022/025	<1	1	<1	<1	0	77	86
Benzo(a)anthracene	µg/L	1	Org-022/025	<1	1	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-022/025	<1	1	<1	<1	0	72	70
Benzo(b,j+k)fluoranthene	µg/L	2	Org-022/025	<2	1	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-022/025	<1	1	<1	<1	0	92	100
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-022/025	<1	1	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-022/025	<1	1	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-022/025	<1	1	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	67	1	77	69	11	69	76

QUALITY CONTROL: Organochlorine Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	275727-3
Date extracted	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
alpha-BHC	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	78	84
HCB	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	74	78
gamma-BHC	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Heptachlor	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	78	86
delta-BHC	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Aldrin	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	84	95
Heptachlor Epoxide	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	87	96
gamma-Chlordane	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	81	91
Dieldrin	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	84	92
Endrin	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	80	91
Endosulfan II	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
pp-DDD	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	68	77
Endrin Aldehyde	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	79	88
Methoxychlor	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	64	1	80	68	16	71	75

QUALITY CONTROL: OP Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	275727-3
Date extracted	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Dichlorvos	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	74	82
Dimethoate	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Diazinon	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Ronnel	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	73	84
Fenitrothion	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	70	66
Malathion	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	85	96
Chlorpyriphos	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	83	94
Parathion	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	75	71
Bromophos ethyl	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Ethion	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	68	82
Azinphos-methyl (Guthion)	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	64	1	80	68	16	71	75

QUALITY CONTROL: PCBs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	275727-3
Date extracted	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Date analysed	-			13/08/2021	1	13/08/2021	13/08/2021		13/08/2021	13/08/2021
Aroclor 1016	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-021	<2	1	<2	<2	0	88	98
Aroclor 1260	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	64	1	80	68	16	71	75

QUALITY CONTROL: PFAS in Waters Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	275727-2
Date prepared	-			12/08/2021	1	12/08/2021	12/08/2021		12/08/2021	12/08/2021
Date analysed	-			12/08/2021	1	12/08/2021	12/08/2021		12/08/2021	12/08/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	118	118
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	111	115
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	107	112
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	111	113
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	103	109
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	99	1	100	103	3	97	100
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	92	1	93	93	0	92	96
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	99	1	98	99	1	97	99
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	89	1	94	92	2	93	91
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	103	1	103	99	4	104	95
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	96	1	83	80	4	96	73
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	109	1	98	102	4	120	93

QUALITY CONTROL: PFAS in Waters Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	4	12/08/2021	16/08/2021		[NT]	[NT]
Date analysed	-			[NT]	4	12/08/2021	16/08/2021		[NT]	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	[NT]	4	<0.01	<0.01	0	[NT]	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	[NT]	4	<0.01	<0.01	0	[NT]	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	[NT]	4	<0.01	<0.01	0	[NT]	[NT]
6:2 FTS	µg/L	0.01	Org-029	[NT]	4	0.01	0.02	67	[NT]	[NT]
8:2 FTS	µg/L	0.02	Org-029	[NT]	4	<0.02	<0.02	0	[NT]	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	[NT]	4	98	87	12	[NT]	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	[NT]	4	101	90	12	[NT]	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	[NT]	4	100	84	17	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	[NT]	4	97	87	11	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	[NT]	4	103	90	13	[NT]	[NT]

QUALITY CONTROL: PFAS in Waters Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	[NT]	4	150	127	17	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	[NT]	4	187	108	54	[NT]	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	275727-3
Date prepared	-			16/08/2021	1	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Date analysed	-			16/08/2021	1	16/08/2021	16/08/2021		16/08/2021	16/08/2021
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	93	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	92	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	97	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	12	11	9	99	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	98	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	107	111
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	6	6	0	94	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	130	140	7	98	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			17/08/2021	1	17/08/2021	17/08/2021		17/08/2021	[NT]
Date analysed	-			17/08/2021	1	17/08/2021	17/08/2021		17/08/2021	[NT]
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	1	0.5	0.5	0	114	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	17/08/2021	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	17/08/2021	[NT]
Phosphorus - Total	mg/L	0.05	Metals-020	[NT]	[NT]	[NT]	[NT]	[NT]	109	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	275727-2
Date prepared	-			12/08/2021	1	12/08/2021	12/08/2021		12/08/2021	12/08/2021
Date analysed	-			12/08/2021	1	12/08/2021	12/08/2021		12/08/2021	12/08/2021
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	<0.1	1	140	140	0	107	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	1	140	130	7	103	#
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	1	0.018	0.017	6	104	105
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	1	0.035	0.037	6	103	89
Phosphate as P in water	mg/L	0.005	Inorg-060	<0.005	1	0.01	0.01	0	111	109
Formaldehyde in waters	mg/L	0.1	Inorg-113	<0.1	1	<0.1	<0.1	0	100	83
Free Carbon Dioxide as CO_2	mg/L	0	APHA 4500-CO2	<0	1	490	496	1	[NT]	[NT]
Sulphide	mg/L	0.5	Inorg-051	<0.5	1	<0.5	[NT]		86	[NT]

QUALITY CONTROL: Dissolved Gases in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			17/08/2021	1	17/08/2021	17/08/2021		17/08/2021	[NT]
Date analysed	-			17/08/2021	1	17/08/2021	17/08/2021		17/08/2021	[NT]
Methane	µg/L	5	AT-006	<5	1	<5	<5	0	97	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

MISC_INORG:# Percent recovery is not applicable due to the high concentration of the analyte/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Total coliforms & E.coli was analysed by Sonic Food & Water Testing. Report No. W2118624 & W2118599
A: Approximate
NBO: The presence of competing background organisms in the sample may have reduced the count.
The time between collection and the commencement of testing should not exceed 24 hours. Samples tested outside this time may have their results compromised

Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle.
Note: there is a possibility some elements may be underestimated.

Dissolved Metals: no filtered, preserved sample was received for#4-8, therefore the unpreserved sample was filtered through 0.45µm filter at the lab.
Note: there is a possibility some elements may be underestimated.

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SOIL ANALYSIS CHAIN OF CUSTODY FORM

Additional Testing															
Name	P1806774 – Menangle														
Martens Contact Officer	Robert Mehaffey					**Contact Email**	rmehaffey@martens.com.au bmcgiffin@martens.com.au								
Sampling and Shipping	**Sample Date**	10/08/2021		**Dispatch Date**	11/08/21		**Turnaround Time**		standard						
	Our Reference	P1806774COC10V01				**Shipping Method (X)**	**Hand**	**X**	**Post**		**Courier**				
	On Ice (X)	**X**	**No Ice (X)**		**Other (X)**										
Laboratory															
Name	EnviroLab														
Sample Delivery Address	12 Ashley Street, Chatswood														
Delivery Contact	**Name**		**Phone**	9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au							
Please Send Report By (X)	**Post**		**Fax**		**Email**	**X**	**Reporting Email Address**	rmehaffey@martens.com.au bmcgiffin@martens.com.au							

Item	Sample ID	Combo 6	Combo 3	Nutrient Suite	Formaldehyde	VOC suite	PFAS Short suite	E.Coli	Coliforms	Dissolved CH_4, Dissolved CO_2, Dissolved H_2S	TRH	BTEXN	HOLD
1	MW01/210810	X		X	X	X	X	X	X	X			
2	MW02/210810	X		X	X	X	X	X	X	X			
3	MW03/210810	X		X	X	X	X	X	X	X			
4	MW04/210810	X		X	X	X	X	X	X	X			
5	MW06/210810	X		X	X	X	X	X	X	X			
6	MW09/210810	X		X	X	X	X	X	X	X			
7	DUP01/210810	X		X	X	X	X	X	X	X			

Environmental Laboratory Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

COC No: 275727

Date Received: 12/8/2021

Time Received: 1000

Received By:

Temp: Cool/Ambient / Ice/Icepack

Cooling: Ice/Broken/None

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

Item	Sample ID	Combo 6	Combo 3	Nutrient Suite	Formaldehyde	VOC suite	PFAS Short suite	E.Coli	Coliforms	Dissolved CH_4, Dissolved CO_2, Dissolved H_2S	TRH	BTEXN	HOLD
8	RINS01/210810		X										
9	Trip Spike (water)											X	
10	Trip Blank (water)										X		

275727 12/8/2021.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 275181

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774 - Menangle**
Number of Samples	103 Soil
Date samples received	03/08/2021
Date completed instructions received	04/08/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	11/08/2021
Date of Issue	11/08/2021

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Ridwan Wijaya
Authorised by Asbestos Approved Signatory: Matt Mansfield

Results Approved By
Dragana Tomas, Senior Chemist
Greta Petzold, Customer Service
Hannah Nguyen, Senior Chemist
Matt Mansfield, QHSE manager
Priya Samarawickrama, Senior Chemist
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	97	95	95	97	84

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2022
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	97	90	86	120	119

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2023	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	83	97	94	115	105

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2024	05/08/2021	05/08/2025	05/08/2021	05/08/2026
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	99	92	109	90	105

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2032	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	94	115	94	99	86

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2027	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	90	98	98	101	88

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2028	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	93	83	108	89	100

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-63	275181-64	275181-68	275181-71	275181-74
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2.8-3	BH702/2-2.2	BH703/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	82	83	99	106	100

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		275181-78	275181-81	275181-84	275181-88	275181-93
Your Reference	UNITS	BH704/3.5-3.7	BH705/2-2.2	BH706/2-2.2	BH707/3-3.2	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/08/2021	04/08/2021	04/08/2021	05/08/2039	04/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	97	100	104	100	101

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		275181-94	275181-95	275181-100	275181-101
Your Reference	UNITS	BH710/0.5	BH711/0.5	Trip Spike	Trip Blank
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2031
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	[NA]	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	[NA]	<25
Benzene	mg/kg	<0.2	<0.2	115%	[NA]
Toluene	mg/kg	<0.5	<0.5	106%	[NA]
Ethylbenzene	mg/kg	<1	<1	98%	[NA]
m+p-xylene	mg/kg	<2	<2	95%	[NA]
o-Xylene	mg/kg	<1	<1	83%	[NA]
naphthalene	mg/kg	<1	<1	[NT]	[NA]
Total +ve Xylenes	mg/kg	<3	<3	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%	102	91	110	113

svTRH (C10-C40) in Soil						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	91	80	104	108	90

svTRH (C10-C40) in Soil						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	170	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	200	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	200	<50
Surrogate o-Terphenyl	%	108	82	88	104	78

svTRH (C10-C40) in Soil						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	110	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	110	<50	<50
Surrogate o-Terphenyl	%	94	107	106	88	88

svTRH (C10-C40) in Soil						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	06/08/2021	05/08/2021	05/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	101	74	101	98	95

svTRH (C10-C40) in Soil						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	96	109	117	103	107

svTRH (C10-C40) in Soil						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	110	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	150	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	150	<50	<50	<50	<50
Surrogate o-Terphenyl	%	107	110	103	105	100

svTRH (C10-C40) in Soil						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	06/08/2021	05/08/2021	05/08/2021	06/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	110	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	140	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	57	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	57	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	180	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	140	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	370	<50	<50	<50	<50
Surrogate o-Terphenyl	%	104	93	106	100	109

svTRH (C10-C40) in Soil						
Our Reference		275181-63	275181-64	275181-68	275181-71	275181-74
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2.8-3	BH702/2-2.2	BH703/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	87	86	74	75	86

svTRH (C10-C40) in Soil						
Our Reference		275181-78	275181-81	275181-84	275181-88	275181-93
Your Reference	UNITS	BH704/3.5-3.7	BH705/2-2.2	BH706/2-2.2	BH707/3-3.2	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/08/2021	04/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	75	75	74	84	86

svTRH (C10-C40) in Soil			
Our Reference		275181-94	275181-95
Your Reference	UNITS	BH710/0.5	BH711/0.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil
Date extracted	-	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	98	94

PAHs in Soil						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	92	95	96	88

PAHs in Soil						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.4	<0.1	<0.1	0.4	<0.1
Pyrene	mg/kg	0.3	<0.1	<0.1	0.4	<0.1
Benzo(a)anthracene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Chrysene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.3	<0.2	<0.2	0.4	<0.2
Benzo(a)pyrene	mg/kg	0.2	<0.05	<0.05	0.3	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1
Total +ve PAH's	mg/kg	1.8	<0.05	<0.05	2.4	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	89	90	115	97

PAHs in Soil						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.5	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.5	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.4	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	3.5	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	96	91	96	95	93

PAHs in Soil						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.4	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	0.4	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.3	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.4	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.3	<0.05	<0.05	0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	2.3	<0.05	<0.05	0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	90	95	91	98	99

PAHs in Soil						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.5	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.7	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.53	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	4.8	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.7	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.7	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.8	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	91	96	94	94

PAHs in Soil						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.4
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.3
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	2.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5
Surrogate p-Terphenyl-d14	%	98	91	91	89	95

PAHs in Soil						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.4	0.3	<0.1	0.6	<0.1
Pyrene	mg/kg	0.5	0.2	<0.1	0.6	<0.1
Benzo(a)anthracene	mg/kg	0.3	0.2	<0.1	0.4	<0.1
Chrysene	mg/kg	0.3	0.2	<0.1	0.3	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.5	0.3	<0.2	0.5	<0.2
Benzo(a)pyrene	mg/kg	0.4	0.2	<0.05	0.4	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Total +ve PAH's	mg/kg	2.9	1.3	<0.05	3.3	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.5	<0.5	<0.5	0.6	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.6	<0.5	<0.5	0.6	<0.5
Surrogate p-Terphenyl-d14	%	94	93	90	105	93

PAHs in Soil						
Our Reference		275181-63	275181-64	275181-68	275181-71	275181-74
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2.8-3	BH702/2-2.2	BH703/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	93	90	88	89

PAHs in Soil						
Our Reference		275181-78	275181-81	275181-84	275181-88	275181-93
Your Reference	UNITS	BH704/3.5-3.7	BH705/2-2.2	BH706/2-2.2	BH707/3-3.2	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/08/2021	04/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.1	0.2	0.2	<0.1
Pyrene	mg/kg	0.1	0.1	0.1	0.2	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.09	0.07	0.09	0.1	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.3	0.3	0.4	0.74	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	89	89	87	89	92

PAHs in Soil			
Our Reference		275181-94	275181-95
Your Reference	UNITS	BH710/0.5	BH711/0.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil
Date extracted	-	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	92	92

Organochlorine Pesticides in soil						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	84	81	85	84

Organochlorine Pesticides in soil						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	82	84	83	96	84

Organochlorine Pesticides in soil						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	83	83	86	84

Organochlorine Pesticides in soil						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	80	86	83	84

Organochlorine Pesticides in soil						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	85	84	82	83

Organochlorine Pesticides in soil						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	82	84	82	85

Organochlorine Pesticides in soil						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	81	83	84	85	85

Organochlorine Pesticides in soil						
Our Reference		275181-63	275181-64	275181-68	275181-71	275181-74
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2.8-3	BH702/2-2.2	BH703/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	86	81	80	80

Organochlorine Pesticides in soil						
Our Reference		275181-78	275181-81	275181-84	275181-88	275181-93
Your Reference	UNITS	BH704/3.5-3.7	BH705/2-2.2	BH706/2-2.2	BH707/3-3.2	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/08/2021	04/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	80	79	79	80	80

Organochlorine Pesticides in soil					
Our Reference		275181-96	275181-97	275181-98	275181-99
Your Reference	UNITS	DUP601	DUP602	DUP604	DUP701
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	83	79	83

Organophosphorus Pesticides in Soil						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	84	81	85	84

Organophosphorus Pesticides in Soil						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	82	84	83	96	84

Organophosphorus Pesticides in Soil						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	83	83	86	84

Organophosphorus Pesticides in Soil						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	80	86	83	84

Organophosphorus Pesticides in Soil						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	85	84	82	83

Organophosphorus Pesticides in Soil						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	82	84	82	85

Organophosphorus Pesticides in Soil						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	81	83	84	85	85

Organophosphorus Pesticides in Soil						
Our Reference		275181-63	275181-64	275181-68	275181-71	275181-74
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2.8-3	BH702/2-2.2	BH703/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	86	81	80	80

Organophosphorus Pesticides in Soil						
Our Reference		275181-78	275181-81	275181-84	275181-88	275181-93
Your Reference	UNITS	BH704/3.5-3.7	BH705/2-2.2	BH706/2-2.2	BH707/3-3.2	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/08/2021	04/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	80	79	79	80	80

Organophosphorus Pesticides in Soil					
Our Reference		275181-96	275181-97	275181-98	275181-99
Your Reference	UNITS	DUP601	DUP602	DUP604	DUP701
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	83	79	83

PCBs in Soil						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	84	81	85	84

PCBs in Soil						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	82	84	83	96	84

PCBs in Soil						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	83	83	86	84

PCBs in Soil						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	80	86	83	84

PCBs in Soil						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	85	84	82	83

PCBs in Soil						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	82	84	82	85

PCBs in Soil						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	81	83	84	85	85

PCBs in Soil						
Our Reference		275181-63	275181-64	275181-68	275181-71	275181-74
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2.8-3	BH702/2-2.2	BH703/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/08/2021	05/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	86	81	80	80

PCBs in Soil						
Our Reference		275181-78	275181-81	275181-84	275181-88	275181-93
Your Reference	UNITS	BH704/3.5-3.7	BH705/2-2.2	BH706/2-2.2	BH707/3-3.2	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/08/2021	04/08/2021	04/08/2021	04/08/2021	04/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	80	79	79	80	80

Acid Extractable metals in soil						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	<4	5	5	9	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	20	6	17	6
Copper	mg/kg	33	24	32	21	14
Lead	mg/kg	22	12	13	17	7
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	22	10	12	19	2
Zinc	mg/kg	79	19	55	43	10

Acid Extractable metals in soil						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	4	8	7	8	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	15	29	13	19
Copper	mg/kg	26	28	20	25	25
Lead	mg/kg	48	21	20	27	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	9	16	12	8	15
Zinc	mg/kg	60	54	20	36	70

Acid Extractable metals in soil						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	6	9	9	8	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	19	15	25	16	13
Copper	mg/kg	16	24	48	33	29
Lead	mg/kg	17	22	27	15	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	18	18	10	15
Zinc	mg/kg	37	57	82	38	66

Acid Extractable metals in soil						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	9	5	12	5	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	20	21	23	35
Copper	mg/kg	29	22	35	15	14
Lead	mg/kg	17	22	18	15	20
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	15	18	24	18	11
Zinc	mg/kg	61	28	83	25	26

Acid Extractable metals in soil						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	5	8	5	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	26	16	23	10	9
Copper	mg/kg	11	21	21	6	4
Lead	mg/kg	16	16	22	9	7
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	9	9	4	3
Zinc	mg/kg	28	29	43	15	9

Acid Extractable metals in soil						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	6	<4	10	7	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	23	9	14	14	91
Copper	mg/kg	26	7	31	27	24
Lead	mg/kg	25	7	20	15	44
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	16	4	19	13	14
Zinc	mg/kg	94	13	65	43	81

Acid Extractable metals in soil						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	11/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	11/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	7	4	9	<4	11
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	31	240	17	84	9
Copper	mg/kg	22	14	23	12	32
Lead	mg/kg	78	19	15	21	12
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	10	9	7	13
Zinc	mg/kg	87	30	25	37	57

Acid Extractable metals in soil						
Our Reference		275181-63	275181-64	275181-67	275181-68	275181-70
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2-2.2	BH701/2.8-3	BH702/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	11	7	[NA]	5	[NA]
Cadmium	mg/kg	<0.4	<0.4	[NA]	<0.4	[NA]
Chromium	mg/kg	13	16	[NA]	12	[NA]
Copper	mg/kg	18	20	[NA]	19	[NA]
Lead	mg/kg	21	13	[NA]	13	[NA]
Mercury	mg/kg	<0.1	<0.1	[NA]	<0.1	[NA]
Nickel	mg/kg	4	8	[NA]	8	[NA]
Zinc	mg/kg	17	30	[NA]	32	[NA]
Phosphorus	mg/kg	[NA]	[NA]	260	120	160

Acid Extractable metals in soil						
Our Reference		275181-71	275181-73	275181-74	275181-77	275181-78
Your Reference	UNITS	BH702/2-2.2	BH703/1-1.2	BH703/2-2.2	BH704/2.5-2.7	BH704/3.5-3.7
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	7	[NA]	6	[NA]	8
Cadmium	mg/kg	<0.4	[NA]	<0.4	[NA]	<0.4
Chromium	mg/kg	16	[NA]	14	[NA]	17
Copper	mg/kg	22	[NA]	20	[NA]	29
Lead	mg/kg	16	[NA]	13	[NA]	21
Mercury	mg/kg	<0.1	[NA]	<0.1	[NA]	<0.1
Nickel	mg/kg	10	[NA]	10	[NA]	12
Zinc	mg/kg	44	[NA]	37	[NA]	64
Phosphorus	mg/kg	250	230	310	290	290

Acid Extractable metals in soil						
Our Reference		275181-80	275181-81	275181-83	275181-84	275181-87
Your Reference	UNITS	BH705/1-1.2	BH705/2-2.2	BH706/1-1.2	BH706/2-2.2	BH707/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	[NA]	8	[NA]	6	[NA]
Cadmium	mg/kg	[NA]	<0.4	[NA]	<0.4	[NA]
Chromium	mg/kg	[NA]	20	[NA]	15	[NA]
Copper	mg/kg	[NA]	24	[NA]	16	[NA]
Lead	mg/kg	[NA]	21	[NA]	13	[NA]
Mercury	mg/kg	[NA]	<0.1	[NA]	<0.1	[NA]
Nickel	mg/kg	[NA]	9	[NA]	9	[NA]
Zinc	mg/kg	[NA]	66	[NA]	31	[NA]
Phosphorus	mg/kg	140	190	40	80	250

Acid Extractable metals in soil						
Our Reference		275181-88	275181-92	275181-93	275181-94	275181-95
Your Reference	UNITS	BH707/3-3.2	BH709/0-0.2	BH709/1-1.2	BH710/0.5	BH711/0.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	8	[NA]	8	8	8
Cadmium	mg/kg	<0.4	[NA]	<0.4	<0.4	<0.4
Chromium	mg/kg	20	[NA]	13	15	17
Copper	mg/kg	26	[NA]	30	19	20
Lead	mg/kg	25	[NA]	18	15	17
Mercury	mg/kg	<0.1	[NA]	<0.1	<0.1	<0.1
Nickel	mg/kg	8	[NA]	15	11	9
Zinc	mg/kg	38	[NA]	72	26	27
Phosphorus	mg/kg	240	350	420	[NA]	[NA]

Acid Extractable metals in soil						
Our Reference		275181-96	275181-97	275181-98	275181-99	275181-104
Your Reference	UNITS	DUP601	DUP602	DUP604	DUP701	TP611/2.5 - [TRIPLICATE]
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Arsenic	mg/kg	6	7	7	6	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	17	14	13	20
Copper	mg/kg	23	29	13	20	20
Lead	mg/kg	20	29	22	12	36
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	12	10	10	8	16
Zinc	mg/kg	42	70	41	40	60

Acid Extractable metals in soil		
Our Reference		275181-105
Your Reference	UNITS	TP614/2.2 - [TRIPLICATE]
Date Sampled		29/05/2021 - 01/06/2021
Type of sample		Soil
Date prepared	-	05/08/2021
Date analysed	-	05/08/2021
Arsenic	mg/kg	6
Cadmium	mg/kg	<0.4
Chromium	mg/kg	38
Copper	mg/kg	27
Lead	mg/kg	85
Mercury	mg/kg	<0.1
Nickel	mg/kg	6
Zinc	mg/kg	99

Moisture						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	10	14	9.3	6.3	14

Moisture						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	14	13	20	19	8.7

Moisture						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	8.3	12	14	14	8.5

Moisture						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	8.6	13	18	14	20

Moisture						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	24	11	14	10	13

Moisture						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	24	12	16	15	13

Moisture						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	11	14	16	6.3	15

Moisture						
Our Reference		275181-63	275181-64	275181-67	275181-68	275181-70
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2-2.2	BH701/2.8-3	BH702/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	04/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	05/08/2021	06/08/2021
Moisture	%	18	16	14	14	12

Moisture						
Our Reference		275181-71	275181-73	275181-74	275181-77	275181-78
Your Reference	UNITS	BH702/2-2.2	BH703/1-1.2	BH703/2-2.2	BH704/2.5-2.7	BH704/3.5-3.7
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/08/2021	05/08/2021	04/08/2021	05/08/2021	04/08/2021
Date analysed	-	05/08/2021	06/08/2021	05/08/2021	06/08/2021	05/08/2021
Moisture	%	13	12	12	12	14

Moisture						
Our Reference		275181-80	275181-81	275181-83	275181-84	275181-87
Your Reference	UNITS	BH705/1-1.2	BH705/2-2.2	BH706/1-1.2	BH706/2-2.2	BH707/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	04/08/2021	05/08/2021	04/08/2021	05/08/2021
Date analysed	-	06/08/2021	05/08/2021	06/08/2021	05/08/2021	06/08/2021
Moisture	%	11	15	16	14	12

Moisture						
Our Reference		275181-88	275181-92	275181-93	275181-94	275181-95
Your Reference	UNITS	BH707/3-3.2	BH709/0-0.2	BH709/1-1.2	BH710/0.5	BH711/0.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/08/2021	05/08/2021	04/08/2021	05/08/2021	05/08/2021
Date analysed	-	05/08/2021	06/08/2021	05/08/2021	06/08/2021	06/08/2021
Moisture	%	19	13	14	14	15

Moisture					
Our Reference		275181-96	275181-97	275181-98	275181-99
Your Reference	UNITS	DUP601	DUP602	DUP604	DUP701
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	05/08/2021	05/08/2021	05/08/2021	05/08/2021
Date analysed	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Moisture	%	9.9	15	6.5	13

Asbestos ID - soils						
Our Reference		275181-2	275181-3	275181-4	275181-5	275181-7
Your Reference	UNITS	TP601/2.5	TP601/3.0	TP602/0.5	TP602/1.0	TP603/1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 25g	Approx. 25g	Approx. 30g	Approx. 30g	Approx. 20g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Beige coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-10	275181-11	275181-14	275181-15	275181-16
Your Reference	UNITS	TP604/2.2	TP604/2.5	TP605/2.5	TP605/3.4	TP605/3.8
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 35g	Approx. 25g	Approx. 30g	Approx. 30g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-19	275181-20	275181-23	275181-24	275181-27
Your Reference	UNITS	TP606/2.5	TP606/3.2	TP607/2.5	TP607/3.0	TP608/2.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 40g	Approx. 25g	Approx. 30g	Approx. 20g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Beige coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-28	275181-30	275181-31	275181-34	275181-35
Your Reference	UNITS	TP608/3.2	TP609/1.5	TP609/2.0	TP610/2.5	TP610/3.1
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 25g	Approx. 25g	Approx. 30g	Approx. 25g	Approx. 35g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-38	275181-39	275181-42	275181-43	275181-44
Your Reference	UNITS	TP611/2.5	TP611/2.8	TP612/2.5	TP612/3.5	TP612/4.5
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 20g	Approx. 25g	Approx. 40g	Approx. 40g	Approx. 35g
Sample Description	-	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Pink coarse-grained soil & rocks	Pink coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-45	275181-48	275181-49	275181-50	275181-53
Your Reference	UNITS	TP612/5.0	TP613/2.5	TP613/3.5	TP613/3.8	TP614/2.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 20g	Approx. 30g	Approx. 40g	Approx. 30g	Approx. 25g
Sample Description	-	Brown coarse-grained soil & rocks	Pink coarse-grained soil & rocks	Beige coarse-grained soil & rocks	Beige coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-54	275181-55	275181-56	275181-59	275181-60
Your Reference	UNITS	TP614/2.2	TP615/0.5	TP615/1.0	TP617/2.5	TP617/3.0
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 30g	Approx. 35g	Approx. 25g	Approx. 40g	Approx. 25g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Beige coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-63	275181-64	275181-68	275181-71	275181-74
Your Reference	UNITS	TP649/2.5	TP649/3.0	BH701/2.8-3	BH702/2-2.2	BH703/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 45g	Approx. 25g	Approx. 25g	Approx. 25g	Approx. 35g
Sample Description	-	Beige coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		275181-78	275181-81	275181-84	275181-88	275181-93
Your Reference	UNITS	BH704/3.5-3.7	BH705/2-2.2	BH706/2-2.2	BH707/3-3.2	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021	10-11/08/2021
Sample mass tested	g	Approx. 30g	Approx. 30g	Approx. 25g	Approx. 20g	Approx. 25g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Misc Inorg - Soil						
Our Reference		275181-67	275181-68	275181-70	275181-71	275181-73
Your Reference	UNITS	BH701/2-2.2	BH701/2.8-3	BH702/1-1.2	BH702/2-2.2	BH703/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/08/2021	09/08/2021	09/08/2021	09/08/2021	09/08/2021
Date analysed	-	09/08/2021	09/08/2021	09/08/2021	09/08/2021	09/08/2021
TKN in soil	mg/kg	460	590	590	710	860
Total Nitrogen in soil	mg/kg	460	590	590	710	860
Nitrate as N in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrite as N in soil	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Organic Nitrogen as N	mg/kg	460	590	590	710	850
Ammonia as N in soil	mg/kg	4.2	3.3	3.8	3.1	4.8
Phosphate as P in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Misc Inorg - Soil						
Our Reference		275181-74	275181-77	275181-78	275181-80	275181-81
Your Reference	UNITS	BH703/2-2.2	BH704/2.5-2.7	BH704/3.5-3.7	BH705/1-1.2	BH705/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/08/2021	09/08/2021	09/08/2021	09/08/2021	09/08/2021
Date analysed	-	09/08/2021	09/08/2021	09/08/2021	09/08/2021	09/08/2021
TKN in soil	mg/kg	920	530	640	370	540
Total Nitrogen in soil	mg/kg	920	530	640	370	540
Nitrate as N in soil	mg/kg	<0.5	1	<0.5	<0.5	<0.5
Nitrite as N in soil	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Organic Nitrogen as N	mg/kg	920	530	640	360	540
Ammonia as N in soil	mg/kg	2.6	2.6	3.4	9.7	3.5
Phosphate as P in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Misc Inorg - Soil						
Our Reference		275181-83	275181-84	275181-87	275181-88	275181-92
Your Reference	UNITS	BH706/1-1.2	BH706/2-2.2	BH707/2-2.2	BH707/3-3.2	BH709/0-0.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/08/2021	09/08/2021	09/08/2021	09/08/2021	09/08/2021
Date analysed	-	09/08/2021	09/08/2021	09/08/2021	09/08/2021	09/08/2021
TKN in soil	mg/kg	440	320	380	630	1,200
Total Nitrogen in soil	mg/kg	440	320	380	630	1,200
Nitrate as N in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	2
Nitrite as N in soil	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Organic Nitrogen as N	mg/kg	430	320	380	620	1,200
Ammonia as N in soil	mg/kg	3.8	4.3	4.1	6.8	4.0
Phosphate as P in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Misc Inorg - Soil		
Our Reference		275181-93
Your Reference	UNITS	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021
Type of sample		Soil
Date prepared	-	09/08/2021
Date analysed	-	09/08/2021
TKN in soil	mg/kg	1,800
Total Nitrogen in soil	mg/kg	1,800
Nitrate as N in soil	mg/kg	2
Nitrite as N in soil	mg/kg	0.6
Organic Nitrogen as N	mg/kg	1,800
Ammonia as N in soil	mg/kg	8.7
Phosphate as P in soil	mg/kg	<0.5

Micro testing in soil						
Our Reference		275181-67	275181-68	275181-70	275181-71	275181-73
Your Reference	UNITS	BH701/2-2.2	BH701/2.8-3	BH702/1-1.2	BH702/2-2.2	BH703/1-1.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date of testing	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Total Coliforms in soil	MPN/100g	<200	<200	800	900	160,000
E Coli in soil	MPN/100g	<200	<200	200	<200	3,300

Micro testing in soil						
Our Reference		275181-74	275181-77	275181-78	275181-80	275181-81
Your Reference	UNITS	BH703/2-2.2	BH704/2.5-2.7	BH704/3.5-3.7	BH705/1-1.2	BH705/2-2.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date of testing	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Total Coliforms in soil	MPN/100g	*	<200	<200	500	<200
E Coli in soil	MPN/100g	<200	<200	<200	<200	<200

Micro testing in soil						
Our Reference		275181-83	275181-84	275181-87	275181-88	275181-92
Your Reference	UNITS	BH706/1-1.2	BH706/2-2.2	BH707/2-2.2	BH707/3-3.2	BH709/0-0.2
Date Sampled		29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021	29/05/2021 - 01/06/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date of testing	-	06/08/2021	06/08/2021	06/08/2021	06/08/2021	06/08/2021
Total Coliforms in soil	MPN/100g	<200	<200	<200	200	92,000
E Coli in soil	MPN/100g	<200	<200	<200	200	4,900

Micro testing in soil		
Our Reference		275181-93
Your Reference	UNITS	BH709/1-1.2
Date Sampled		29/05/2021 - 01/06/2021
Type of sample		Soil
Date of testing	-	06/08/2021
Total Coliforms in soil	MPN/100g	*
E Coli in soil	MPN/100g	900

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Ext-008	Subcontracted to Sonic Food & Water Testing. NATA Accreditation No. 4034.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-060	Phosphate determined colourimetrically based on EPA365.1 and APHA latest edition 4500 P E. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-3
Date extracted	-			04/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			06/08/2021	2	06/08/2021	06/08/2021		06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	2	<25	<25	0	86	88
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	2	<25	<25	0	86	88
Benzene	mg/kg	0.2	Org-023	<0.2	2	<0.2	<0.2	0	101	100
Toluene	mg/kg	0.5	Org-023	<0.5	2	<0.5	<0.5	0	90	91
Ethylbenzene	mg/kg	1	Org-023	<1	2	<1	<1	0	83	86
m+p-xylene	mg/kg	2	Org-023	<2	2	<2	<2	0	79	82
o-Xylene	mg/kg	1	Org-023	<1	2	<1	<1	0	87	91
naphthalene	mg/kg	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	101	2	97	90	7	100	96

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275181-39
Date extracted	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			[NT]	19	06/08/2021	06/08/2021		06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	19	<25	<25	0	118	94
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	19	<25	<25	0	118	94
Benzene	mg/kg	0.2	Org-023	[NT]	19	<0.2	<0.2	0	104	87
Toluene	mg/kg	0.5	Org-023	[NT]	19	<0.5	<0.5	0	103	86
Ethylbenzene	mg/kg	1	Org-023	[NT]	19	<1	<1	0	127	114
m+p-xylene	mg/kg	2	Org-023	[NT]	19	<2	<2	0	129	92
o-Xylene	mg/kg	1	Org-023	[NT]	19	<1	<1	0	115	102
naphthalene	mg/kg	1	Org-023	[NT]	19	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	19	83	89	7	127	98

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275181-81
Date extracted	-			[NT]	38	05/08/2021	05/08/2021		04/08/2021	04/08/2021
Date analysed	-			[NT]	38	06/08/2021	06/08/2021		06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	38	<25	<25	0	105	88
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	38	<25	<25	0	105	88
Benzene	mg/kg	0.2	Org-023	[NT]	38	<0.2	<0.2	0	115	84
Toluene	mg/kg	0.5	Org-023	[NT]	38	<0.5	<0.5	0	105	80
Ethylbenzene	mg/kg	1	Org-023	[NT]	38	<1	<1	0	105	92
m+p-xylene	mg/kg	2	Org-023	[NT]	38	<2	<2	0	101	92
o-Xylene	mg/kg	1	Org-023	[NT]	38	<1	<1	0	111	102
naphthalene	mg/kg	1	Org-023	[NT]	38	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	38	94	94	0	108	98

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	54	06/08/2021	06/08/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	54	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	54	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	54	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	54	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	54	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	54	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	54	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	54	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	54	93	99	6	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	78	04/08/2021	04/08/2021		[NT]	[NT]
Date analysed	-			[NT]	78	06/08/2021	06/08/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	78	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	78	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	78	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	78	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	78	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	78	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	78	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	78	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	78	97	102	5	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	94	06/08/2021	06/08/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	94	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	94	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	94	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	94	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	94	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	94	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	94	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	94	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	94	102	98	4	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-3
Date extracted	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	2	<50	<50	0	90	77
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	2	<100	<100	0	97	83
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	2	<100	<100	0	102	70
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	2	<50	<50	0	90	77
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	2	<100	<100	0	97	83
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	2	<100	<100	0	102	70
Surrogate o-Terphenyl	%		Org-020	84	2	91	105	14	117	106

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275181-39
Date extracted	-			[NT]	19	05/08/2021	05/08/2021		04/08/2021	05/08/2021
Date analysed	-			[NT]	19	05/08/2021	05/08/2021		06/08/2021	05/08/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	19	<50	<50	0	69	106
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	78	100
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	122	78
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	19	<50	<50	0	69	106
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	78	100
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	122	78
Surrogate o-Terphenyl	%		Org-020	[NT]	19	94	103	9	91	126

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275181-63
Date extracted	-			[NT]	38	05/08/2021	05/08/2021		04/08/2021	05/08/2021
Date analysed	-			[NT]	38	05/08/2021	05/08/2021		06/08/2021	09/08/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	38	<50	<50	0	81	67
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	38	<100	<100	0	80	77
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	38	<100	<100	0	100	76
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	38	<50	<50	0	81	67
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	38	<100	<100	0	80	77
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	38	<100	<100	0	100	76
Surrogate o-Terphenyl	%		Org-020	[NT]	38	96	103	7	111	72

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	54	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	54	110	120	9	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	54	140	130	7	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	54	57	51	11	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	54	180	190	5	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	54	140	130	7	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	54	104	95	9	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	78	04/08/2021	04/08/2021		[NT]	[NT]
Date analysed	-			[NT]	78	06/08/2021	06/08/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	78	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	78	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	78	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	78	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	78	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	78	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	78	75	75	0	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	94	06/08/2021	06/08/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	94	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	94	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	94	98	94	4	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-3
Date extracted	-			04/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	108	106
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	81	81
Fluorene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	77	74
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	95	91
Anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	84	81
Pyrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	77	77
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	76	73
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	2	<0.05	<0.05	0	107	105
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	83	2	95	92	3	88	91

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275181-39
Date extracted	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	103	108
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	79	82
Fluorene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	74	75
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	91	115
Anthracene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	0.2	67	81	105
Pyrene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	0.2	67	73	102
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	0.1	0	76	76
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	19	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	19	<0.05	0.2	120	95	108
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	19	96	99	3	87	115

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275181-81
Date extracted	-			[NT]	38	05/08/2021	05/08/2021		04/08/2021	04/08/2021
Date analysed	-			[NT]	38	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	108	96
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	82	76
Fluorene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	77	70
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	0.1	0	119	88
Anthracene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	0.1	0	107	81
Pyrene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	0.1	0	100	79
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	63	74
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	38	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	38	<0.05	0.08	46	90	110
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	38	95	96	1	113	89

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	54	0.2	0.3	40	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	54	0.4	0.6	40	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	54	0.5	0.7	33	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	54	0.3	0.5	50	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	54	0.3	0.4	29	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	54	0.5	0.7	33	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	54	0.4	0.5	22	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	54	0.2	0.2	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	54	0.2	0.2	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	54	94	97	3	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	78	04/08/2021	04/08/2021		[NT]	[NT]
Date analysed	-			[NT]	78	05/08/2021	05/08/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	78	0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	78	0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	78	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	78	0.09	<0.05	57	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	78	89	90	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	94	05/08/2021	05/08/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	94	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	94	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	94	92	98	6	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-3
Date extracted	-			04/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	75	75
HCB	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	77	77
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	75	75
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	77	77
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	82	84
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	80	82
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	77	77
Endrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	68	70
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	74	76
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	82	84
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	82	2	85	82	4	84	86

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275181-39
Date extracted	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	71	73
HCB	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	75	81
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	77	91
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	72	101
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	76	110
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	77	111
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	73	101
Endrin	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	66	93
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	68	99
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	80	69
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	19	85	83	2	86	86

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275181-81
Date extracted	-			[NT]	38	05/08/2021	05/08/2021		04/08/2021	04/08/2021
Date analysed	-			[NT]	38	05/08/2021	05/08/2021		05/08/2021	05/08/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	73	70
HCB	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	74	74
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	67	75
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	101	70
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	109	78
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	106	80
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	101	73
Endrin	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	75	79
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	92	76
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	82	80
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	38	84	83	1	87	81

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	54	81	82	1	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	78	04/08/2021	04/08/2021		[NT]	[NT]
Date analysed	-			[NT]	78	05/08/2021	05/08/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	78	80	80	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	96	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	96	05/08/2021	05/08/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	96	84	83	1	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-3
Date extracted	-			04/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	82	71
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	84	82
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	71	77
Malathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	82	78
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	93	93
Parathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	75	73
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	67	71
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	82	2	85	82	4	84	86

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275181-39
Date extracted	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	82	69
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	79	100
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	77	75
Malathion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	73	71
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	82	115
Parathion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	69	90
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	69	91
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	19	85	83	2	86	86

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275181-81
Date extracted	-			[NT]	38	05/08/2021	05/08/2021		04/08/2021	04/08/2021
Date analysed	-			[NT]	38	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	78	76
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	102	79
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	79	77
Malathion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	73	82
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	117	87
Parathion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	92	69
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	91	72
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	38	84	83	1	87	81

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	54	81	82	1	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	78	04/08/2021	04/08/2021		[NT]	[NT]
Date analysed	-			[NT]	78	05/08/2021	05/08/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	78	80	80	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	96	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	96	05/08/2021	05/08/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	96	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	96	84	83	1	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-3
Date extracted	-			04/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	90	90
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	82	2	85	82	4	84	86

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275181-39
Date extracted	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	19	<0.1	<0.1	0	84	118
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	19	85	83	2	86	86

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275181-81
Date extracted	-			[NT]	38	05/08/2021	05/08/2021		04/08/2021	04/08/2021
Date analysed	-			[NT]	38	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	118	84
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	38	84	83	1	87	81

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	54	81	82	1	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	78	04/08/2021	04/08/2021		[NT]	[NT]
Date analysed	-			[NT]	78	05/08/2021	05/08/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	78	80	80	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-3
Date prepared	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			05/08/2021	2	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Arsenic	mg/kg	4	Metals-020	<4	2	<4	4	0	91	72
Cadmium	mg/kg	0.4	Metals-020	<0.4	2	<0.4	<0.4	0	97	89
Chromium	mg/kg	1	Metals-020	<1	2	21	18	15	109	102
Copper	mg/kg	1	Metals-020	<1	2	33	36	9	106	92
Lead	mg/kg	1	Metals-020	<1	2	22	26	17	105	89
Mercury	mg/kg	0.1	Metals-021	<0.1	2	<0.1	<0.1	0	100	93
Nickel	mg/kg	1	Metals-020	<1	2	22	23	4	106	97
Zinc	mg/kg	1	Metals-020	<1	2	79	82	4	102	93
Phosphorus	mg/kg	10	Metals-020	<10	78	290	310	7	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	275181-39
Date prepared	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			[NT]	19	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Arsenic	mg/kg	4	Metals-020	[NT]	19	6	6	0	98	78
Cadmium	mg/kg	0.4	Metals-020	[NT]	19	<0.4	<0.4	0	97	89
Chromium	mg/kg	1	Metals-020	[NT]	19	19	14	30	113	94
Copper	mg/kg	1	Metals-020	[NT]	19	16	21	27	111	92
Lead	mg/kg	1	Metals-020	[NT]	19	17	20	16	114	88
Mercury	mg/kg	0.1	Metals-021	[NT]	19	<0.1	<0.1	0	111	85
Nickel	mg/kg	1	Metals-020	[NT]	19	8	9	12	111	94
Zinc	mg/kg	1	Metals-020	[NT]	19	37	40	8	108	84

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	275181-81
Date prepared	-			[NT]	38	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Date analysed	-			[NT]	38	05/08/2021	05/08/2021		05/08/2021	05/08/2021
Arsenic	mg/kg	4	Metals-020	[NT]	38	5	6	18	96	81
Cadmium	mg/kg	0.4	Metals-020	[NT]	38	<0.4	<0.4	0	105	95
Chromium	mg/kg	1	Metals-020	[NT]	38	26	11	81	100	82
Copper	mg/kg	1	Metals-020	[NT]	38	11	14	24	104	85
Lead	mg/kg	1	Metals-020	[NT]	38	16	18	12	101	78
Mercury	mg/kg	0.1	Metals-021	[NT]	38	<0.1	<0.1	0	95	84
Nickel	mg/kg	1	Metals-020	[NT]	38	8	12	40	101	82
Zinc	mg/kg	1	Metals-020	[NT]	38	28	46	49	95	75
Phosphorus	mg/kg	10	Metals-020	[NT]	[NT]	[NT]	[NT]	[NT]	104	78

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	54	05/08/2021	05/08/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	54	7	7	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	54	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	54	31	54	54	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	54	22	28	24	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	54	78	76	3	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	54	7	8	13	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	54	87	98	12	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	78	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	78	05/08/2021	05/08/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	78	8	6	29	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	78	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	78	17	15	12	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	78	29	27	7	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	78	21	16	27	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	78	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	78	12	10	18	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	78	64	53	19	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	94	05/08/2021	05/08/2021		[NT]	[NT]
Date analysed	-			[NT]	94	05/08/2021	05/08/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	94	8	8	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	94	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	94	15	16	6	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	94	19	21	10	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	94	15	15	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	94	11	12	9	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	94	26	27	4	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	275181-71
Date prepared	-			09/08/2021	68	09/08/2021	09/08/2021		09/08/2021	09/08/2021
Date analysed	-			09/08/2021	68	09/08/2021	09/08/2021		09/08/2021	09/08/2021
TKN in soil	mg/kg	10	Inorg-062	<10	68	590	590	0	115	120
Total Nitrogen in soil	mg/kg	10	Inorg-055/062/127	<10	68	590	590	0	[NT]	[NT]
Nitrate as N in soil	mg/kg	0.5	Inorg-055	<0.5	68	<0.5	<0.5	0	103	102
Nitrite as N in soil	mg/kg	0.1	Inorg-055	<0.1	68	<0.1	<0.1	0	101	93
Organic Nitrogen as N	mg/kg	10		<10	68	590	580	2	[NT]	[NT]
Ammonia as N in soil	mg/kg	0.5	Inorg-057	<0.5	68	3.3	3.3	0	102	123
Phosphate as P in soil	mg/kg	0.5	Inorg-060	<0.5	68	<0.5	<0.5	0	109	95

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	84	09/08/2021	09/08/2021		[NT]	[NT]
Date analysed	-			[NT]	84	09/08/2021	09/08/2021		[NT]	[NT]
TKN in soil	mg/kg	10	Inorg-062	[NT]	84	320	340	6	[NT]	[NT]
Total Nitrogen in soil	mg/kg	10	Inorg-055/062/127	[NT]	84	320	340	6	[NT]	[NT]
Nitrate as N in soil	mg/kg	0.5	Inorg-055	[NT]	84	<0.5	<0.5	0	[NT]	[NT]
Nitrite as N in soil	mg/kg	0.1	Inorg-055	[NT]	84	<0.1	<0.1	0	[NT]	[NT]
Organic Nitrogen as N	mg/kg	10		[NT]	84	320	330	3	[NT]	[NT]
Ammonia as N in soil	mg/kg	0.5	Inorg-057	[NT]	84	4.3	4.4	2	[NT]	[NT]
Phosphate as P in soil	mg/kg	0.5	Inorg-060	[NT]	84	<0.5	<0.5	0	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Acid Extractable Metals in Soil:
- The laboratory RPD acceptance criteria has been exceeded for 275181-38 for Cr and Zn. Therefore a triplicate result has been issued as laboratory sample number 275181-104.
- The laboratory RPD acceptance criteria has been exceeded for 275181-54 for Cr. Therefore a triplicate result has been issued as laboratory sample number 275181-105.

Total Coliforms & E.coli in soil analysed by Sonic Food & Water Testing. Report No. W2118197 & W2118198
The time between collection and the commencement of testing should not exceed 24 hours. Samples tested outside this time may have their results compromised
* = A results cannot be reported, as a most probable number has been obtained that is not included in the table, as per the standard.

Asbestos: A portion of the supplied samples were sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that these sub-samples are indicative of the entire sample.
Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples requested for asbestos testing were sub-sampled from jars provided by the client.

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SOIL ANALYSIS CHAIN OF CUSTODY FORM

Additional Testing												
Name	P1806774 – Menangle											
Martens Contact Officer	Robert Mehaffey				**Contact Email**	rmehaffey@martens.com.au bmcgiffin@martens.com.au						
Sampling and Shipping	**Sample Date**	29/05/2021 – 01/06/2021	**Dispatch Date**	03/08/21	**Turnaround Time**	standard						
	Our Reference	P1806774COC08V01			**Shipping Method (X)**	**Hand**		**Post**	—	**Courier**	X	
	On Ice (X)	X	**No Ice (X)**		**Other (X)**							
Laboratory												
Name	EnviroLab											
Sample Delivery Address	12 Ashley Street, Chatswood											
Delivery Contact	**Name**		**Phone**	9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au				
Please Send Report By (X)	**Post**		**Fax**		**Email**	X	**Reporting Email Address**	rmehaffey@martens.com.au bmcgiffin@martens.com.au				

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
1	1	TP601/0.5										X
NR	2	TP601/1.5										X
2	3	TP601/2.5	X									
3	4	TP601/3.0	X									
4	5	TP602/0.5	X									
5	6	TP602/1.0	X									
6	7	TP603/0.5										X
NR	8	TP603/1.0	X									
7	9	TP603/2.2 (1.2).	X									

ENVIROLAB Division of Sonic...
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 275181
Date Received: 03/08/2021 COC 04/08/2021
Time Received: 14:10
Received By:
Temp: Cool/Ambient 11°C
Cooling: Ice/icepack
Security: Intact/Broken/N...

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
8	10	TP604/0.5										X
9	11	TP604/1.5										X
10	12	TP604/2.2	X									
11	13	TP604/2.4	X									
12	14	TP605/0.5										X
13	15	TP605/1.5										X
14	16	TP605/2.5	X									
15	17	TP605/3.4	X									
16	18	TP605/3.8	X									
17	19	TP606/0.5										X
18	20	TP606/1.5										X
19	21	TP606/2.5	X									
20	22	TP606/3.2	X									
21	23	TP607/0.5										X
22	24	TP607/1.5										X
23	25	TP607/2.5	X									
24	26	TP607/3.0	X									
25	27	TP608/0.5										X
26	28	TP608/1.5										X
27	29	TP608/2.5	X									
28	30	TP608/3.2	X									
29	31	TP609/0.5										X
30	32	TP609/1.5	X									
31	33	TP609/2.0	X									
32	34	TP610/0.5										X
33	35	TP610/1.5										X
34	36	TP610/2.5	X									
35	37	TP610/3.1	X									

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SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
36	38	TP611/0.5										X
37	39	TP611/1.5										X
38	40	TP611/2.5	X									
39	41	TP611/2.8	X									
40	42	TP612/0.5										X
41	43	TP612/1.5										X
42	44	TP612/2.5	X									
43	45	TP612/3.5	X									
44	46	TP612/4.5	X									
45	47	TP612/5.0	X									
46	48	TP613/0.5										X
47	49	TP613/1.5										X
48	50	TP613/2.5	X									
49	51	TP613/3.5	X									
50	52	TP613/3.8	X									
51	53	TP614/0.5										X
52	54	TP614/1.5										X
53	55	TP614/2.0	X									
54	56	TP614/2.2	X									
55	57	TP615/0.5	X									
56	58	TP615/1.0	X									
57	59	TP617/0.5										X
58	60	TP617/1.5										X
59	61	TP617/2.5	X									
60	62	TP617/3.0	X									
61	63	TP649/0.5										X
62	64	TP649/1.5										X
63	65	TP649/2.5	X									

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SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
64	66	TP649/3.0	X									
-	67											
65	68	BH701/0-0.2										X
66	69	BH701/1-1.2										X
67	70	BH701/2-2.2			X	X	X					
68	71	BH701/2.8-3	X		X	X	X					
69	72	BH702/0-0.2										X
70	73	BH702/1-1.2			X	X	X					
71	74	BH702/2-2.2	X		X	X	X					
72	75	BH703/0-0.2										X
73	76	BH703/1-1.2			X	X	X					
74	77	BH703/2-2.2	X		X	X	X					
75	78	BH704/0-0.2										X
76	79	BH704/1.2-1.4										X
77	80	BH704/2.5-2.7			X	X	X					
78	81	BH704/3.5-3.7	X		X	X	X					
79	82	BH705/0-0.2										X
80	83	BH705/1-1.2			X	X	X					
81	84	BH705/2-2.2	X		X	X	X					
82	85	BH706/0-0.2										X
83	86	BH706/1-1.2			X	X	X					
84	87	BH706/2-2.2	X		X	X	X					
85	88	BH707/0-0.2										X
86	89	BH707/1-1.2										X
87	90	BH707/2-2.2			X	X	X					
88	91	BH707/3-3.2	X		X	X	X					
89	92	BH708/0-0.2										X
90	93	BH708/1-1.2										X

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SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
91	94	BH708/2-2.2										X
92	95	BH709/0-0.2			X	X	X					
93	96	BH709/1-1.2	X		X	X	X					
94	97	BH710/0.5		X								
95	98	BH711/0.5		X								
	99											
96	100	DUP601						X	X			
97	101	DUP602						X	X			
	102	DUP603*						X	X			
98	103	DUP604						X	X			
99	104	DUP701						X	X			
	105	DUP702*						X	X			
	106											
100	107	Trip Spike									X	
101	108	Trip Blank								X		

***NOTE: Please forward DUP603 & DUP702 to Eurofins for analysis.**

102 BH703 2.5-2.7

103 Dup 04.

275181

Martens & Associates Pty Ltd
Suite 201, 20 George St
Hornsby
NSW 2077

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Robert Mehaffy**

Report **815102-S**
Project name MENANGLE
Project ID P1806774
Received Date Aug 04, 2021

Client Sample ID			**DUP603**	**DUP702**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S21-Au10358**	**S21-Au10359**
Date Sampled			**Jul 01, 2021**	**Jul 01, 2021**
Test/Reference	LOR	Unit		
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	0.1	mg/kg	< 0.1	< 0.1
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	%	116	117
Tetrachloro-m-xylene (surr.)	1	%	92	99
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

Client Sample ID			DUP603	DUP702
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-Au10358	S21-Au10359
Date Sampled			Jul 01, 2021	Jul 01, 2021
Test/Reference	LOR	Unit		
Organophosphorus Pesticides				
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
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	%	98	110
Heavy Metals				
Arsenic	2	mg/kg	2.1	7.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	11	34
Copper	5	mg/kg	7.3	37
Lead	5	mg/kg	11	44
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	11
Zinc	5	mg/kg	19	93
% Moisture	1	%	12	17

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
Organochlorine Pesticides	Sydney	Aug 06, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Aug 06, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Metals M8	Sydney	Aug 06, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Aug 05, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

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

Company Name: Martens & Associates Pty Ltd
Address: Suite 201, 20 George St
Hornsby
NSW 2077

Project Name: MENANGLE
Project ID: P1806774

Order No.:
Report #: 815102
Phone: 02 9476 9999
Fax: 02 9476 8767

Received: Aug 4, 2021 3:45 PM
Due: Aug 11, 2021
Priority: 5 Day
Contact Name: Robert Mehaffy

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Metals M8	Suite B14: OCP/OPP	Moisture Set
Melbourne Laboratory - NATA Site # 1254								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
Mayfield Laboratory - NATA Site # 25079								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	DUP603	Jul 01, 2021		Soil	S21-Au10358	X	X	X
2	DUP702	Jul 01, 2021		Soil	S21-Au10359	X	X	X
Test Counts						2	2	2

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.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - 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.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
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.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

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. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. 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.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. 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							
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	
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	< 0.1			0.1	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
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							
Organochlorine Pesticides							
Chlordanes - Total	%	94			70-130	Pass	
4.4'-DDD	%	84			70-130	Pass	
4.4'-DDE	%	93			70-130	Pass	
4.4'-DDT	%	90			70-130	Pass	
a-HCH	%	89			70-130	Pass	
Aldrin	%	93			70-130	Pass	
b-HCH	%	85			70-130	Pass	
d-HCH	%	90			70-130	Pass	
Dieldrin	%	85			70-130	Pass	
Endosulfan I	%	87			70-130	Pass	
Endosulfan II	%	84			70-130	Pass	
Endosulfan sulphate	%	80			70-130	Pass	
Endrin	%	101			70-130	Pass	
Endrin aldehyde	%	73			70-130	Pass	
Endrin ketone	%	85			70-130	Pass	
g-HCH (Lindane)	%	90			70-130	Pass	
Heptachlor	%	91			70-130	Pass	
Heptachlor epoxide	%	93			70-130	Pass	
Hexachlorobenzene	%	91			70-130	Pass	
Methoxychlor	%	96			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	113			70-130	Pass	
Dimethoate	%	113			70-130	Pass	
Ethion	%	125			70-130	Pass	
Fenitrothion	%	112			70-130	Pass	
Methyl parathion	%	71			70-130	Pass	
Mevinphos	%	118			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	113			80-120	Pass	
Cadmium	%	119			80-120	Pass	
Chromium	%	117			80-120	Pass	
Copper	%	111			80-120	Pass	
Lead	%	111			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury			%	102			80-120	Pass	
Nickel			%	112			80-120	Pass	
Zinc			%	110			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-Au12173	NCP	%	119			70-130	Pass	
4.4'-DDD	S21-Au12173	NCP	%	102			70-130	Pass	
4.4'-DDE	S21-Au12173	NCP	%	119			70-130	Pass	
4.4'-DDT	S21-Au12173	NCP	%	97			70-130	Pass	
a-HCH	S21-Au12173	NCP	%	107			70-130	Pass	
Aldrin	S21-Au12173	NCP	%	118			70-130	Pass	
b-HCH	S21-Au12173	NCP	%	107			70-130	Pass	
d-HCH	S21-Au12173	NCP	%	110			70-130	Pass	
Dieldrin	S21-Au12173	NCP	%	106			70-130	Pass	
Endosulfan I	S21-Au12173	NCP	%	113			70-130	Pass	
Endosulfan II	S21-Au12173	NCP	%	105			70-130	Pass	
Endosulfan sulphate	S21-Au12173	NCP	%	101			70-130	Pass	
Endrin	S21-Au12173	NCP	%	128			70-130	Pass	
Endrin ketone	S21-Au12173	NCP	%	107			70-130	Pass	
g-HCH (Lindane)	S21-Au12173	NCP	%	114			70-130	Pass	
Heptachlor	S21-Au12173	NCP	%	110			70-130	Pass	
Heptachlor epoxide	S21-Au12173	NCP	%	115			70-130	Pass	
Hexachlorobenzene	S21-Au12173	NCP	%	114			70-130	Pass	
Methoxychlor	S21-Au12173	NCP	%	105			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S21-Au12173	NCP	%	90			70-130	Pass	
Dimethoate	S21-Au12173	NCP	%	77			70-130	Pass	
Ethion	S21-Au12173	NCP	%	109			70-130	Pass	
Fenitrothion	S21-Au12173	NCP	%	94			70-130	Pass	
Mevinphos	S21-Au12173	NCP	%	111			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Au16169	NCP	%	106			75-125	Pass	
Cadmium	S21-Au16169	NCP	%	99			75-125	Pass	
Chromium	S21-Au16169	NCP	%	90			75-125	Pass	
Copper	S21-Au18205	NCP	%	101			75-125	Pass	
Lead	S21-Au16169	NCP	%	86			75-125	Pass	
Mercury	S21-Au16169	NCP	%	79			75-125	Pass	
Nickel	S21-Au16169	NCP	%	81			75-125	Pass	
Zinc	S21-Au18205	NCP	%	81			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Au10358	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Dieldrin	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-Au10358	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S21-Au10358	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S21-Au10358	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S21-Au10358	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S21-Au10358	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S21-Au10358	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au10358	CP	mg/kg	2.1	2.0	2.0	30%	Pass	
Cadmium	S21-Au10358	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au10358	CP	mg/kg	11	11	2.0	30%	Pass	
Copper	S21-Au10358	CP	mg/kg	7.3	7.1	2.0	30%	Pass	
Lead	S21-Au10358	CP	mg/kg	11	10	4.0	30%	Pass	
Mercury	S21-Au10358	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au10358	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S21-Au10358	CP	mg/kg	19	19	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au10319	NCP	%	8.9	12	27	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)

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.

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#815102

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SOIL ANALYSIS CHAIN OF CUSTODY FORM

Additional Testing												
Name	P1806774 – Menangle											
Martens Contact Officer	Robert Mehaffey				**Contact Email**	rmehaffey@martens.com.au bmcgiffin@martens.com.au						
Sampling and Shipping	**Sample Date**	29/05/2021 – 01/06/2021	**Dispatch Date**	03/08/21	**Turnaround Time**	standard						
	Our Reference	P1806774COC08V01			**Shipping Method (X)**	**Hand**		**Post**		**Courier**	X	
	On Ice (X)	X	**No Ice (X)**		**Other (X)**							
Laboratory												
Name	EnviroLab											
Sample Delivery Address	12 Ashley Street, Chatswood											
Delivery Contact	**Name**		**Phone**	9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au				
Please Send Report By (X)	**Post**		**Fax**		**Email**	X	**Reporting Email Address**	rmehaffey@martens.com.au bmcgiffin@martens.com.au				

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
1	1	TP601/0.5										X
NR	2	TP601/1.5										X
2	3	TP601/2.5	X									
3	4	TP601/3.0	X									
4	5	TP602/0.5	X									
5	6	TP602/1.0	X									
6	7	TP603/0.5										X
NR	8	TP603/1.0	X									
7	9	TP603/2.2 (1.2).	X									

ENVIROLAB 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200
Job No: 275181
Date Received: 03/08/2021 COC 04/08/2021
Time Received: 14:10
Received By: [illegible]
Temp: Cool/Ambient 11°C
Cooling: Ice/Icepack
Security: Intact/Broken/N...

Relinquished by: V. Vega 4/8/21 @ 1500

Received By: Suzanne Ford 4/8/2021 3:45PM

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
8	10	TP604/0.5										X
9	11	TP604/1.5										X
10	12	TP604/2.2	X									
11	13	TP604/2.4	X									
12	14	TP605/0.5										X
13	15	TP605/1.5										X
14	16	TP605/2.5	X									
15	17	TP605/3.4	X									
16	18	TP605/3.8	X									
17	19	TP606/0.5										X
18	20	TP606/1.5										X
19	21	TP606/2.5	X									
20	22	TP606/3.2	X									
21	23	TP607/0.5										X
22	24	TP607/1.5										X
23	25	TP607/2.5	X									
24	26	TP607/3.0	X									
25	27	TP608/0.5										X
26	28	TP608/1.5										X
27	29	TP608/2.5	X									
28	30	TP608/3.2	X									
29	31	TP609/0.5										X
30	32	TP609/1.5	X									
31	33	TP609/2.0	X									
32	34	TP610/0.5										X
33	35	TP610/1.5										X
34	36	TP610/2.5	X									
35	37	TP610/3.1	X									

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SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
36	38	TP611/0.5										X
37	39	TP611/1.5										X
38	40	TP611/2.5	X									
39	41	TP611/2.8	X									
40	42	TP612/0.5										X
41	43	TP612/1.5										X
42	44	TP612/2.5	X									
43	45	TP612/3.5	X									
44	46	TP612/4.5	X									
45	47	TP612/5.0	X									
46	48	TP613/0.5										X
47	49	TP613/1.5										X
48	50	TP613/2.5	X									
49	51	TP613/3.5	X									
50	52	TP613/3.8	X									
51	53	TP614/0.5										X
52	54	TP614/1.5										X
53	55	TP614/2.0	X									
54	56	TP614/2.2	X									
55	57	TP615/0.5	X									
56	58	TP615/1.0	X									
57	59	TP617/0.5										X
58	60	TP617/1.5										X
59	61	TP617/2.5	X									
60	62	TP617/3.0	X									
61	63	TP649/0.5										X
62	64	TP649/1.5										X
63	65	TP649/2.5	X									

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SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
64	66	TP649/3.0	X									
-	67											
65	68	BH701/0-0.2										X
66	69	BH701/1-1.2										X
67	70	BH701/2-2.2			X	X	X					
68	71	BH701/2.8-3	X		X	X	X					
69	72	BH702/0-0.2										X
70	73	BH702/1-1.2			X	X	X					
71	74	BH702/2-2.2	X		X	X	X					
72	75	BH703/0-0.2										X
73	76	BH703/1-1.2			X	X	X					
74	77	BH703/2-2.2	X		X	X	X					
75	78	BH704/0-0.2										X
76	79	BH704/1.2-1.4										X
77	80	BH704/2.5-2.7			X	X	X					
78	81	BH704/3.5-3.7	X		X	X	X					
79	82	BH705/0-0.2										X
80	83	BH705/1-1.2			X	X	X					
81	84	BH705/2-2.2	X		X	X	X					
82	85	BH706/0-0.2										X
83	86	BH706/1-1.2			X	X	X					
84	87	BH706/2-2.2	X		X	X	X					
85	88	BH707/0-0.2										X
86	89	BH707/1-1.2										X
87	90	BH707/2-2.2			X	X	X					
88	91	BH707/3-3.2	X		X	X	X					
89	92	BH708/0-0.2										X
90	93	BH708/1-1.2										X

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SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	Combo 3	Nutrient Suite (w/ Phosphorus)	E. Coli	Total Coliforms	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
91	94	BH708/2-2.2										X
92	95	BH709/0-0.2			X	X	X					
93	96	BH709/1-1.2	X		X	X	X					
94	97	BH710/0.5		X								
95	98	BH711/0.5		X								
	99											
96	100	DUP601						X	X			
97	101	DUP602						X	X			
	102	DUP603*						X	X			
98	103	DUP604						X	X			
99	104	DUP701						X	X			
	105	DUP702*						X	X			
	106											
100	107	Trip Spike									X	
101	108	Trip Blank								X		

***NOTE: Please forward DUP603 & DUP702 to Eurofins for analysis.**

102 BH1703 2.5 - 2.7

103 Dup 04.

275181

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET95198 / 98378 / 1 - 46
Your ref : P1806774COC07 – Finns Road Menangle
NATA Accreditation No: 14484

6 August 2021

Martens and Associates
Suite 201 - 20 George Street
Hornsby NSW 2077

Attn: Mr Robert Mehaffey

Accredited for compliance with ISO/IEC 17025 - Testing.

Dear Robert

Asbestos Identification
This report presents the results of forty six samples out of one hundred and ten samples, forwarded by Martens and Associates on 3 August 2021, for analysis for asbestos.

1.Introduction: Forty six samples out of one hundred and ten samples forwarded were examined and analysed for the presence of asbestos on 5 and 6 August 2021.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF**(Asbestos Fines), **FA**(Friable Asbestos) and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines).

3. Results :

Sample No. 1. ASET95198 / 98378 / 1. P1806774COC07 - TP601/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.6 cm
Approximate total dry weight of soil = 956.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, wood chips and plant matter.
No asbestos detected.

Sample No. 2. ASET95198 / 98378 / 2. P1806774COC07 - TP601/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.5 cm
Approximate total dry weight of soil = 947.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 3. ASET95198 / 98378 / 3. P1806774COC07 - TP601/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
Approximate total dry weight of soil = 842.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 4. ASET95198 / 98378 / 4. P1806774COC07-TP602/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.6 cm
Approximate total dry weight of soil = 862.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of shale, wood chips and plant matter.
No asbestos detected.

Sample No. 5. ASET95198 / 98378 / 5. P1806774COC07-TP603/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total dry weight of soil = 783.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips and plant matter.
No asbestos detected.

Sample No. 6. ASET95198 / 98378 / 6. P1806774COC07-TP603/1.0.
Approx dimensions 10.0 cm x 10.0 cm x 7.6 cm
Approximate total dry weight of soil = 757.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, shale and plant matter.
No asbestos detected.

Sample No. 7. ASET95198 / 98378 / 7. P1806774COC07-TP604/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.2 cm
Approximate total dry weight of soil = 817.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of brick, cement, slag and plant matter.
No asbestos detected.

Sample No. 8. ASET95198 / 98378 / 8. P1806774COC07-TP604/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.4 cm
Approximate total dry weight of soil = 638.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones and plant matter.
No asbestos detected.

Sample No. 9. ASET95198 / 98378 / 9. P1806774COC07-TP604/2.2.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total dry weight of soil = 784.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of animal and plant matter.
No asbestos detected.

Sample No. 10. ASET95198 / 98378 / 10. P1806774COC07-TP605/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total dry weight of soil = 779.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement, corroded metal, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 11. ASET95198 / 98378 / 11. P1806774COC07-TP605/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 5.8 cm
Approximate total dry weight of soil = 584.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 12. ASET95198 / 98378 / 12. P1806774COC07-TP605/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm
Approximate total dry weight of soil = 655.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones and plant matter.
No asbestos detected.

Sample No. 13. ASET95198 / 98378 / 13. P1806774COC07-TP606/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total dry weight of soil = 772.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement and plant matter.
No asbestos detected.

Sample No. 14. ASET95198 / 98378 / 14. P1806774COC07-TP606/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.9 cm
Approximate total dry weight of soil = 790.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement and plant matter
No asbestos detected.

Sample No. 15. ASET95198 / 98378 / 15. P1806774COC07-TP607/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total dry weight of soil = 776.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement and plant matter.
No asbestos detected.

Sample No. 16. ASET95198 / 98378 / 16. P1806774COC07-TP07/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.1 cm
Approximate total dry weight of soil = 805.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, ceramic tiles, corroded metal, wood chips and plant matter.
No asbestos detected.

Sample No. 17. ASET95198 / 98378 / 17. P1806774COC07-TP607/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm
Approximate total dry weight of soil = 603.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement and plant matter.
No asbestos detected.

Sample No. 18. ASET95198 / 98378 / 18. P1806774COC07-TP608/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.9 cm
Approximate total dry weight of soil = 790.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement, wood chips and plant matter.
No asbestos detected.

Sample No. 19. ASET95198 / 98378 / 19. P1806774COC07-TP608/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total dry weight of soil = 779.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of glass, wood chips and plant matter.
No asbestos detected.

Sample No. 20. ASET95198 / 98378 / 20. P1806774COC07-TP609/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.8 cm
Approximate total dry weight of soil = 877.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, plastic, sandstone, wood chips and plant matter.
No asbestos detected.

Sample No. 21. ASET95198 / 98378 / 21. P1806774COC07-TP609/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total dry weight of soil = 770.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, corroded metal, wood chips and plant matter.
No asbestos detected.

Sample No. 22. ASET95198 / 98378 / 22. P1806774COC07-TP610/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.8 cm
Approximate total dry weight of soil = 883.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of bitumen, cement, wood chips, animal and plant matter.
No asbestos detected.

Sample No. 23. ASET95198 / 98378 / 23. P1806774COC07-TP610/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 10.1 cm
Approximate total dry weight of soil = 1005.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of bitumen, cement, wood chips and plant matter.
No asbestos detected.

Sample No. 24. ASET95198 / 98378 / 24. P1806774COC07-TP610/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.4 cm
Approximate total dry weight of soil = 941.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement, wood chips and plant matter.
No asbestos detected.

Sample No. 25. ASET95198 / 98378 / 25. P1806774COC07-TP611/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.5 cm
Approximate total dry weight of soil = 952.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of bitumen, cement, corroded metal, wood chips and plant matter.
No asbestos detected.

Sample No. 26. ASET95198 / 98378 / 26. P1806774COC07-TP611/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 11.0 cm
Approximate total dry weight of soil = 1098.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of brick, cement, sandstone, wood chips and plant matter.
No asbestos detected.

Sample No. 27. ASET95198 / 98378 / 27. P1806774COC07-TP611/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.4 cm
Approximate total dry weight of soil = 943.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of wood chips and plant matter.
No asbestos detected.

Sample No. 28. ASET95198 / 98378 / 28. P1806774COC07-TP612/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 10.1 cm
Approximate total dry weight of soil = 1011.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone and plant matter.
No asbestos detected.

Sample No. 29. ASET95198 / 98378 / 29. P1806774COC07-TP612/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.8 cm
Approximate total dry weight of soil = 976.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of glass, plastic, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 30. ASET95198 / 98378 / 30. P1806774COC07-TP613/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.7 cm
Approximate total dry weight of soil = 872.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of corroded metal, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 31. ASET95198 / 98378 / 31. P1806774COC07-TP613/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.8 cm
Approximate total dry weight of soil = 875.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of shale, wood chips and plant matter.
No asbestos detected.

Sample No. 32. ASET95198 / 98378 / 32. P1806774COC07-TP613/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.5 cm
Approximate total dry weight of soil = 849.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 33. ASET95198/ 98378/ 33. P1806774COC07-TP613/3.5.
Approx dimensions 10.0 cm x 10.0 cm x 10.1 cm
Approximate total dry weight of soil = 1006.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement and plant matter.
No asbestos detected.

Sample No. 34. ASET95198 / 98378 / 34. P1806774COC07-TP614/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.7 cm
Approximate total dry weight of soil = 966.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of animal and plant matter.
No asbestos detected.

Sample No. 35. ASET95198 / 98378 / 35. P1806774COC07-TP614/1.5.
Sample not submitted.

Sample No. 36. ASET95198 / 98378 / 36. P1806774COC07-TP614/2.0.
Approx dimensions 10.0 cm x 10.0 cm x 10.4 cm
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, fibre cement* (ACM), glass, shale, slag, wood chips and plant matter.
Chrysotile* (Approximate estimated weight = 0.43g) asbestos and Amosite* (Approximate estimated weight = 0.09g) asbestos detected.
Approximate total dry weight of soil = 1039.0g.
Approximate estimated weight of asbestos in soil in the form of ACM = 0.52g.
Approximate w/w percentage of asbestos in soil in the form of ACM = 0.05%.

Sample No. 37. ASET95198 / 98378 / 37. P1806774COC07-TP615/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.5 cm
Approximate total dry weight of soil = 853.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of shale and plant matter.
No asbestos detected.

Sample No. 38. ASET95198 / 98378 / 38. P1806774COC07-TP618/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.3 cm
Approximate total dry weight of soil = 930.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 39. ASET95198 / 98378 / 39. P1806774COC07-TP618/1.3.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
Approximate total dry weight of soil = 838.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of shale, wood chips and plant matter.
No asbestos detected.

Sample No. 40. ASET95198 / 98378 / 40. P1806774COC07-TP619/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.0 cm
Approximate total dry weight of soil = 796.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of brick, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 41. ASET95198 / 98378 / 41. P1806774COC07-TP619/1.1.
Approx dimensions 10.0 cm x 10.0 cm x 7.3 cm
Approximate total dry weight of soil = 730.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 42. ASET95198 / 98378 / 42. P1806774COC07-TP620/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm
Approximate total dry weight of soil = 655.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of plastic, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 43. ASET95198 / 98378 / 43. P1806774COC07-TP620/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.2 cm
Approximate total dry weight of soil = 724.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 44. ASET95198 / 98378 / 44. P1806774COC07-TP621/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total dry weight of soil = 774.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement, plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 45. ASET95198 / 98378 / 45. P1806774COC07-TP621/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.0 cm
Approximate total dry weight of soil = 804.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 46. ASET95198 / 98378 / 46. P1806774COC07-TP621/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.2 cm
Approximate total dry weight of soil = 918.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement and plant matter.
No asbestos detected.

Reported by,

Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory

WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.
*** denotes asbestos detected in ACM in bonded form.**
 # denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by A4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;
Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001% for friable AF and FA portions detected and 0.01 % for ACM detected unless the approximate weight is given.

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET95198 / 98378 / 47 - 70
Your ref : P1806774COC07 – Finns Road Menangle
NATA Accreditation No: 14484

6 August 2021

Martens and Associates
Suite 201 - 20 George Street
Hornsby NSW 2077

Attn: Mr Robert Mehaffey

Accredited for compliance with ISO/IEC 17025 - Testing.

Dear Robert

Asbestos Identification
This report presents the results of twenty four samples out of one hundred and ten samples, forwarded by Martens and Associates on 3 August 2021, for analysis for asbestos.

1.Introduction: Twenty four samples out of one hundred and ten samples forwarded were examined and analysed for the presence of asbestos on 5 and 6 August 2021.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF** (Asbestos Fines), **FA** (Friable Asbestos) and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines).

3. Results :

Sample No. 47. ASET95198 / 98378 / 47. P1806774COC07 - TP622/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total dry weight of soil = 765.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, bitumen, glass, paint flakes, wood chips and plant matter.
No asbestos detected.

Sample No. 48. ASET95198 / 98378 / 48. P1806774COC07 - TP622/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total dry weight of soil = 830.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, glass, paint flakes, wood chips and plant matter.
No asbestos detected.

Sample No. 49. ASET95198 / 98378 / 49. P1806774COC07 - TP622/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.7 cm
Approximate total dry weight of soil = 870.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, glass, paint flakes and plant matter.
No asbestos detected.

Sample No. 50. ASET95198 / 98378 / 50. P1806774COC07 - TP623/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.7 cm
Approximate total dry weight of soil = 975.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, glass and plant matter.
No asbestos detected.

Sample No. 51. ASET95198 / 98378 / 51. P1806774COC07 - TP623/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.3 cm
Approximate total dry weight of soil = 730.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 52. ASET95198 / 98378 / 52. P1806774COC07 - TP624/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
Approximate total dry weight of soil = 835.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 53. ASET95198 / 98378 / 53. P1806774COC07 - TP624/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.3 cm
Approximate total dry weight of soil = 930.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, ceramic tile, plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 54. ASET95198 / 98378 / 54. P1806774COC07 - TP625/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 11.0 cm
Approximate total dry weight of soil = 1100.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 55. ASET95198 / 98378 / 55. P1806774COC07 - TP625/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.3 cm
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, glass, fibro plaster #(FA), wood chips and plant matter.
Chrysotile# (Approximate estimated weight = 0.0198g) asbestos detected.
Approximate total dry weight of soil = 930.0g
Approximate estimated weight of asbestos in soil in the form of FA = 0.0198g
Approximate w/w percentage of asbestos in soil in the form of FA = 0.0021 %.

Sample No. 56. ASET95198 / 98378 / 56. P1806774COC07 - TP626/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.2 cm
Approximate total dry weight of soil = 920.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 57. ASET95198 / 98378 / 57. P1806774COC07 - TP626/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.8 cm
Approximate total dry weight of soil = 880.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 58. ASET95198 / 98378 / 58. P1806774COC07 - TP627/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
Approximate total dry weight of soil = 845.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 59. ASET95198 / 98378 / 59. P1806774COC07 - TP627/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.3 cm
Approximate total dry weight of soil = 930.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, glass, char, wood chips and plant matter.
No asbestos detected.

Sample No. 60. ASET95198 / 98378 / 60. P1806774COC07 - TP628/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.3 cm
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, bitumen, glass, fibre cement* (ACM), wood chips and plant matter.
Chrysotile* (Approximate estimated weight = 0.031g) asbestos detected.
Approximate total dry weight of soil = 930.0g
Approximate estimated weight of asbestos in soil in the form of ACM = 0.031g
Approximate w/w percentage of asbestos in soil in the form of ACM = 0.0033 %.

Sample No. 61. ASET95198 / 98378 / 61. P1806774COC07 - TP628/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.7 cm
Approximate total dry weight of soil = 865.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, metal, cement, glass, paint flakes, wood chips and plant matter.
No asbestos detected.

Sample No. 62. ASET95198 / 98378 / 62. P1806774COC07 - TP629/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.8 cm
Approximate total dry weight of soil = 880.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, glass, plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 63. ASET95198 / 98378 / 63. P1806774COC07 - TP629/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.6cm
Approximate total dry weight of soil = 960.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 64. ASET95198 / 98378 / 64. P1806774COC07 - TP629/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.4cm
Approximate total dry weight of soil = 940.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, cement, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 65. ASET95198 / 98378 / 65. P1806774COC07 - TP630/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.4 cm
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, bitumen, glass, fibro plaster# (FA), wood chips and plant matter.
Chrysotile# (Approximate estimated weight = 0.0041g) asbestos detected.
Approximate total dry weight of soil = 940.0g
Approximate estimated weight of asbestos in soil in the form of FA = 0.0041g
Approximate w/w percentage of asbestos in soil in the form of FA = 0.0004 %.

Sample No. 66. ASET95198 / 98378 / 66. P1806774COC07 - TP630/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 10.5 cm
Approximate total dry weight of soil = 1050.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 67. ASET95198 / 98378 / 67. P1806774COC07 - TP630/2.2.
Approx dimensions 10.0 cm x 10.0 cm x 8.8 cm
Approximate total dry weight of soil = 880.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, cement, glass, metal and plant matter.
No asbestos detected.

Sample No. 68. ASET95198 / 98378 / 68. P1806774COC07 - TP631/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 10.1 cm
Approximate total dry weight of soil = 1010.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 69. ASET95198 / 98378 / 69. P1806774COC07 - TP631/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 11.5 cm
Approximate total dry weight of soil = 1150.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, brick, cement, bitumen, glass, metal, plastic, wood chips and plant matter.
No asbestos detected.

Sample No. 70. ASET95198 / 98378 / 70. P1806774COC07 - TP631/2.5.
Sample not submitted.

Reported by,

Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites

in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.
*** denotes asbestos detected in ACM in bonded form.**
 # denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by A4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;
Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001% for friable AF and FA portions detected and 0.01 % for ACM detected unless the approximate weight is given.

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET95198 / 98378 / 71 – 112
Your ref : P1806774COC07 – Finns Road Menangle
NATA Accreditation No: 14484

6 August 2021

Martens and Associates
Suite 201 - 20 George Street
Hornsby NSW 2077

Attn: Mr Robert Mehaffey

Accredited for compliance with ISO/IEC 17025 - Testing.

Dear Robert

Asbestos Identification
This report presents the results of forty two samples out of one hundred and ten samples, forwarded by Martens and Associates on 3 August 2021, for analysis for asbestos.

1.Introduction: Forty two samples out of one hundred and ten samples forwarded were examined and analysed for the presence of asbestos on 5 and 6 August 2021.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF** (Asbestos Fines), **FA** (Friable Asbestos) and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines.

3. Results :

Sample No. 71. ASET95198 / 98378 / 71. P1806774COC07 - TP632/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total dry weight of soil = 1008.0g.
The sample consisted of a mixture of clayish sandy soil, stones, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 72. ASET95198 / 98378 / 72. P1806774COC07 - TP632/1.2.
Approx dimensions 10.0 cm x 10.0 cm x 7.1 cm
Approximate total dry weight of soil = 869.0g.
The sample consisted of a mixture of clayish sandy soil, timber char, sandstones, organic fibres, stones and plant matter.
No asbestos detected.

Sample No. 73. ASET95198 / 98378 / 73. P1806774COC07 - TP633/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm
Approximate total dry weight of soil = 895.0g.
The sample consisted of a mixture of clayish sandy soil, stones, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 74. ASET95198 / 98378 / 74. P1806774COC07 - TP633/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm
Approximate total dry weight of soil = 906.0g.
The sample consisted of a mixture of clayish sandy soil, sandstones, organic fibres, timber char, stones and plant matter.
No asbestos detected.

Sample No. 75. ASET95198 / 98378 / 75. P1806774COC07 - TP633/2.0.
Approx dimensions 10.0 cm x 10.0 cm x 7.9 cm
Approximate total dry weight of soil = 957.0g.
The sample consisted of a mixture of clayish sandy soil, stones, sandstones, timber char, organic fibres and plant matter.
No asbestos detected.

Sample No. 76. ASET95198 / 98378 / 76. P1806774COC07 - TP634/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
The sample consisted of a mixture of clayish sandy soil, fragments of fibre cement* (ACM), sandstones, organic fibres, timber char, stones and plant matter.
Chrysotile* (Approximate estimated weight = 0.42g) asbestos and Amosite* (Approximate estimated weight = 0.13g) asbestos detected.
Approximate total dry weight of soil = 1001.0g.
Approximate estimated weight of asbestos in soil in the form of ACM = 0.55g.
Approximate w/w percentage of asbestos in soil in the form of ACM = 0.055%.

Sample No. 77. ASET95198 / 98378 / 77. P1806774COC07 - TP634/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.7 cm
Approximate total dry weight of soil = 802.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 78. ASET95198 / 98378 / 78. P1806774COC07 - TP634/2.3.
Approx dimensions 10.0 cm x 10.0 cm x 7.2 cm
Approximate total dry weight of soil = 869.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, sandstones, timber char, stones and plant matter.
No asbestos detected.

Sample No. 79. ASET95198 / 98378 / 79. P1806774COC07 - TP635/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.3 cm
Approximate total dry weight of soil = 977.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 80. ASET95198 / 98378 / 80. P1806774COC07 - TP635/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.2 cm
Approximate total dry weight of soil = 981.0g.
The sample consisted of a mixture of clayish sandy soil, stones, sandstones, timber char, organic fibres and plant matter.
No asbestos detected.

Sample No. 81. ASET95198 / 98378 / 81. P1806774COC07 - TP636/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 5.8 cm
Approximate total dry weight of soil = 707.0g.
The sample consisted of a mixture of clayish sandy soil, stones, glass pieces, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 82. ASET95198 / 98378 / 82. P1806774COC07 - TP636/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.1 cm
Approximate total dry weight of soil = 844.0g.
The sample consisted of a mixture of clayish sandy soil, stones, plaster cement, ceramic tiles, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 83. ASET95198 / 98378 / 83. P1806774COC07 - TP637/A.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total dry weight of soil = 1008.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, sandstones, stones and plant matter.
No asbestos detected.

Sample No. 84. ASET95198 / 98378 / 84. P1806774COC07 - TP637/B.
Approx dimensions 10.0 cm x 10.0 cm x 7.1 cm
Approximate total dry weight of soil = 951.0g.
The sample consisted of a mixture of clayish sandy soil, sandstones, organic fibres, stones and plant matter.
No asbestos detected.

Sample No. 85. ASET95198 / 98378 / 85. P1806774COC07 - TP637/C.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total dry weight of soil = 941.0g.
The sample consisted of a mixture of clayish sandy soil, stones, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 86. ASET95198 / 98378 / 86. P1806774COC07 - TP638/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 5.8 cm
Approximate total dry weight of soil = 692.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, sandstones, timber char, stones and plant matter.
No asbestos detected.

Sample No. 87. ASET95198 / 98378 / 87. P1806774COC07 - TP638/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm
Approximate total dry weight of soil = 819.0g.
The sample consisted of a mixture of clayish sandy soil, stones, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 88. ASET95198 / 98378 / 88. P1806774COC07 - TP638/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm
Approximate total dry weight of soil = 783.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, sandstones, timber char and plant matter.
No asbestos detected.

Sample No. 89. ASET95198 / 98378 / 89. P1806774COC07 - TP639/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.4 cm
Approximate total dry weight of soil = 881.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, timber char, sandstones and plant matter.
No asbestos detected.

Sample No. 90. ASET95198 / 98378 / 90. P1806774COC07 - TP639/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm
Approximate total dry weight of soil = 816.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 91. ASET95198 / 98378 / 91. P1806774COC07 - TP639/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.0 cm
Approximate total dry weight of soil = 973.0g.
The sample consisted of a mixture of clayish sandy soil, stones, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 92. ASET95198 / 98378 / 92. P1806774COC07 - TP640/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total dry weight of soil = 1013.0g.
The sample consisted of a mixture of sandy soil, stones, sandstones, glass pieces, organic fibres and plant matter.
No asbestos detected.

Sample No. 93. ASET95198 / 98378 / 93. P1806774COC07 - TP640/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total dry weight of soil = 936.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 94. ASET95198 / 98378 / 94. P1806774COC07 - TP641/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
Approximate total dry weight of soil = 1199.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 95. ASET95198 / 98378 / 95. P1806774COC07 - TP641/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 5.8 cm
Approximate total dry weight of soil = 701.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 96. ASET95198 / 98378 / 96. P1806774COC07 - TP641/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm
Approximate total dry weight of soil = 812.0g.
The sample consisted of a mixture of clayish sandy soil, stones, brick like material, sandstones, organic fibres, timber char and plant matter.
No asbestos detected.

Sample No. 97. ASET95198 / 98378 / 97. P1806774COC07 - TP642/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.9 cm
The sample consisted of a mixture of clayish sandy soil, stones, a fragment of fibre cement* (ACM), sandstones, timber char, organic fibres and plant matter.
Chrysotile* (Approximate estimated weight = 0.34g) asbestos detected.
Approximate total dry weight of soil = 940.0g.
Approximate estimated weight of asbestos in soil in the form of ACM = 0.34g.
Approximate w/w percentage of asbestos in soil in the form of ACM = 0.04%.

Sample No. 98. ASET95198 / 98378 / 98. P1806774COC07 - TP642/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.6 cm
Approximate total dry weight of soil = 1193.0g.
The sample consisted of a mixture of clayish sandy soil, stones, cement like material, sandstones, timber char, organic fibres and plant matter.
No asbestos detected.

Sample No. 99. ASET95198 / 98378 / 99. P1806774COC07 - TP642/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
Approximate total dry weight of soil = 1097.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 100. ASET95198 / 98378 / 100. P1806774COC07 - TP643/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total dry weight of soil = 1050.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 101. ASET95198 / 98378 / 101. P1806774COC07 - TP643/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.1 cm
Approximate total dry weight of soil = 970.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 102. ASET95198 / 98378 / 102. P1806774COC07 - TP643/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
Approximate total dry weight of soil = 1020.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, timber char, sandstones and plant matter.
No asbestos detected.

Sample No. 103. ASET95198 / 98378 / 103. P1806774COC07 - TP644/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.1 cm
Approximate total dry weight of soil = 862.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, timber char, sandstones and plant matter.
No asbestos detected.

Sample No. 104. ASET95198 / 98378 / 104. P1806774COC07 - TP644/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total dry weight of soil = 996.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 105. ASET95198 / 98378 / 105. P1806774COC07 - TP645/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm
Approximate total dry weight of soil = 783.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, timber char, sandstones and plant matter.
No asbestos detected.

Sample No. 106. ASET95198 / 98378 / 106. P1806774COC07 - TP645/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm
Approximate total dry weight of soil = 898.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 107. ASET95198 / 98378 / 107. P1806774COC07 - TP645/2.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm
Approximate total dry weight of soil = 841.0g.
The sample consisted of a mixture of clayish sandy soil, stones, organic fibres, timber char, sandstones and plant matter.
No asbestos detected.

Sample No. 108. ASET95198 / 98378 / 108. P1806774COC07 - TP645/3.2.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total dry weight of soil = 924.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 109. ASET95198 / 98378 / 109. P1806774COC07 - TP646/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm
Approximate total dry weight of soil = 901.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 110. ASET95198 / 98378 / 110. P1806774COC07 - TP646/1.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.9 cm
Approximate total dry weight of soil = 946.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, sandstones, organic fibres and plant matter.
No asbestos detected.

Sample No. 111. ASET95198 / 98378 / 111. P1806774COC07 - TP647/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.6 cm
Approximate total dry weight of soil = 927.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, organic fibres, sandstones and plant matter.
No asbestos detected.

Sample No. 112. ASET95198 / 98378 / 112. P1806774COC07 - TP648/0.5.
Approx dimensions 10.0 cm x 10.0 cm x 8.0 cm
Approximate total dry weight of soil = 982.0g.
The sample consisted of a mixture of clayish sandy soil, stones, timber char, sandstones, organic fibres and plant matter.
No asbestos detected.

Reported by,

Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory

Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

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AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.
*** denotes asbestos detected in ACM in bonded form.**
 # denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.
λ denotes samples that have been analysed only in accordance to AS 4964 – 2004.
Ω Sample volume criteria of 500mL have not been satisfied.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts

detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by A4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;
Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001% for friable AF and FA portions detected and 0.01 % for ACM detected unless the approximate weight is given.

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD
Suite 710/ 90 George Street Hornsby NSW 2077 PO Box 1644 Hornsby Westfield NSW 1635
Ph: 02 9987 2183 Fax: 02 9987 2151 Email: info@ausset.com.au

ASET JOB NO: AS4964.198/98378/1-112

Company Address:
Martens and Associates
Suite 201, 20 George St, Hornsby 2077

Contact Ph: 9476 9999

Contact Name:

Job No: P1806774COC07

Project Name: Finns Road, Menangle

Email Results to:
rmehaffey@martens.com.au
bmcgiffin@martens.com.au

		Sample ID	Date	Type	Container	Sample Location	Asbestos in Soil (AS4964 reporting)	Asbestos in Dust	Asbestos Fibre Count	Asbestos in Water	Asbestos WA/NEPM	HOLD
1	1	TP601/0.5									X	
2	2	TP601/1.5									X	
3	3	TP601/2.5									X	
4	4	TP602/0.5									X	
5	5	TP603/0.5									X	
6	6	TP603/1.0									X	
7	7	TP604/0.5									X	
8	8	TP604/1.5									X	
9	9	TP604/2.2									X	
10	10	TP605/0.5									X	
11	11	TP605/1.5									X	
12	12	TP605/2.5									X	
	X13	TP605/3.4										X
13	14	TP606/0.5									X	
14	15	TP606/1.5									X	
	X16	TP606/2.5										X
15	17	TP607/0.5									X	
16	18	TP607/1.5									X	
17	19	TP607/2.5									X	
18	20	TP608/0.5									X	
19	21	TP608/1.5									X	
	X22	TP608/2.5										X
20	23	TP609/0.5									X	
21	24	TP609/1.5									X	

RECEIVED
03 AUG 2021
BY:

Kuba
ASET
3/8/21 2pm

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD
Suite 710/ 90 George Street Hornsby NSW 2077 PO Box 1644 Hornsby Westfield NSW 1635
Ph: 02 9987 2183 Fax: 02 9987 2151 Email: info@ausset.com.au

22	25	TP610/0.5										X	
23	26	TP610/1.5										X	
24	27	TP610/2.5										X	
25	28	TP611/0.5										X	
26	29	TP611/1.5										X	
27	30	TP611/2.5										X	
28	31	TP612/0.5										X	
29	32	TP612/1.5										X	
	X33	TP612/2.5											X
	X34	TP612/3.5											X
	X35	TP612/4.5											X
30	36	TP613/0.5										X	
31	37	TP613/1.5										X	
32	38	TP613/2.5										X	
33	39	TP613/3.5										X	
34	40	TP614/0.5										X	
35	41	TP614/1.5	sample not	Submitted								X	
36	42	TP614/2.0										X	
37	43	TP615/0.5										X	
	X44	TP617/0.5											X
	X45	TP617/1.5											X
	X46	TP617/2.5											X
38	47	TP618/0.5										X	
39	48	TP618/1.3										X	
40	49	TP619/0.5										X	
41	50	TP619/1.1										X	
42	51	TP620/0.5										X	
43	52	TP620/1.5										X	
	X53	TP620/2.0											X
44	54	TP621/0.5										X	
45	55	TP621/1.5										X	
46	56	TP621/2.5										X	

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47	57	TP622/0.5										X	
48	58	TP622/1.5										X	
49	59	TP622/2.5										X	
X	60	TP622/3.2											X
50	61	TP623/0.5										X	
51	62	TP623/1.5										X	
X	63	TP623/2.5											X
52	64	TP624/0.5										X	
53	65	TP624/1.5										X	
X	66	TP624/2.5											X
54	67	TP625/0.5										X	
55	68	TP625/1.5										X	
56	69	TP626/0.5										X	
57	70	TP626/1.5										X	
X	71	TP626/2.5											X
X	72	TP626/3.5											X
58	73	TP627/0.5										X	
59	74	TP627/1.5										X	
X	75	TP627/2.5											X
X	76	TP627/3.5											X
60	77	TP628/0.5										X	
61	78	TP628/1.5										X	
X	79	TP628/2.5											X
62	80	TP629/0.5										X	
63	81	TP629/1.5										X	
64	82	TP629/2.5										X	
65	83	TP630/0.5										X	
66	84	TP630/1.5										X	
67	85	TP630/2.2										X	
68	86	TP631/0.5										X	
69	87	TP631/1.5										X	
70	88	TP631/2.5	Sample not	Submitted								X	

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71	89	TP632/0.5									X	
72	90	TP632/1.2									X	
73	91	TP633/0.5									X	
74	92	TP633/1.5									X	
75	93	TP633/2.0									X	
76	94	TP634/0.5									X	
77	95	TP634/1.5									X	
78	96	TP634/2.3									X	
79	97	TP635/0.5									X	
80	98	TP635/1.5									X	
81	99	TP636/0.5									X	
82	100	TP636/1.5									X	
83	101	TP637/~~0.5~~ A									X	
84	102	TP637/~~1.5~~ B									X	
85	103	TP637/~~2.5~~ C									X	
86	104	TP638/0.5									X	
87	105	TP638/1.5									X	
88	106	TP638/2.5									X	
89	107	TP639/0.5									X	
90	108	TP639/1.5									X	
91	109	TP639/2.5									X	
92	110	TP640/0.5									X	
93	111	TP640/1.5									X	
	~~112~~	~~TP640/2.5~~										X
	~~113~~	~~TP640/3.5~~										X
	~~114~~	~~TP640/4.5~~										X
94	115	TP641/0.5									X	
95	116	TP641/1.5									X	
96	117	TP641/2.5									X	
97	118	TP642/0.5									X	
98	119	TP642/1.5									X	
99	120	TP642/2.5									X	

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100	121	TP643/0.5										X	
101	122	TP643/1.5										X	
102	123	TP643/2.5										X	
103	124	TP644/0.5										X	
104	125	TP644/1.5										X	
	126	TP644/2.5											X
	127	TP644/3.5											X
	128	TP644/4.5											X
105	129	TP645/0.5										X	
106	130	TP645/1.5										X	
107	131	TP645/2.5										X	
108	132	TP645/3.2										X	
109	133	TP646/0.5										X	
110	134	TP646/1.5										X	
111	135	TP647/0.5										X	
112	136	TP648/0.5										X	
	137	TP649/0.5											X
	138	TP649/1.5											X
	139	TP649/2.5											X

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Signature:	Signature:		5 Days	X	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 269259-A

Client Details

Client	Martens & Associates Pty Ltd
Attention	Ben McGiffin
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774: 285 Finns Road, Menangle, NSW**
Number of Samples	additional analyses for 1 water
Date samples received	18/05/2021
Date completed instructions received	19/05/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	21/05/2021
Date of Issue	21/05/2021

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Results Approved By
Diego Bigolin, Team Leader, Inorganics
Dragana Tomas, Senior Chemist
Hannah Nguyen, Senior Chemist
Josh Williams, LC Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in water		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date extracted	-	18/05/2021
Date analysed	-	18/05/2021
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1

VOCs in water		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Bromoform	µg/L	<1
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	<1
1,2,3-trichloropropane	µg/L	<1
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	99
Surrogate toluene-d8	%	106
Surrogate 4-BFB	%	111

vTRH(C6-C10)/BTEXN in Water		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date extracted	-	18/05/2021
Date analysed	-	18/05/2021
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	99
Surrogate toluene-d8	%	106
Surrogate 4-BFB	%	111

svTRH (C10-C40) in Water		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date extracted	-	21/05/2021
Date analysed	-	21/05/2021
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	95

PAHs in Water		
Our Reference	UNITS	269259-A-5
Your Reference		6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date extracted	-	21/05/2021
Date analysed	-	21/05/2021
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b,j+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Benzo(a)pyrene TEQ	µg/L	<5
Total +ve PAH's	µg/L	NIL (+)VE
Surrogate p-Terphenyl-d14	%	110

Organochlorine Pesticides in Water		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date extracted	-	21/05/2021
Date analysed	-	21/05/2021
alpha-BHC	µg/L	<0.2
HCB	µg/L	<0.2
beta-BHC	µg/L	<0.2
gamma-BHC	µg/L	<0.2
Heptachlor	µg/L	<0.2
delta-BHC	µg/L	<0.2
Aldrin	µg/L	<0.2
Heptachlor Epoxide	µg/L	<0.2
gamma-Chlordane	µg/L	<0.2
alpha-Chlordane	µg/L	<0.2
Endosulfan I	µg/L	<0.2
pp-DDE	µg/L	<0.2
Dieldrin	µg/L	<0.2
Endrin	µg/L	<0.2
Endosulfan II	µg/L	<0.2
pp-DDD	µg/L	<0.2
Endrin Aldehyde	µg/L	<0.2
pp-DDT	µg/L	<0.2
Endosulfan Sulphate	µg/L	<0.2
Methoxychlor	µg/L	<0.2
Surrogate TCMX	%	87

OP Pesticides in Water		
Our Reference	UNITS	269259-A-5
Your Reference		6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date extracted	-	21/05/2021
Date analysed	-	21/05/2021
Dichlorvos	µg/L	<0.2
Dimethoate	µg/L	<0.2
Diazinon	µg/L	<0.2
Chlorpyriphos-methyl	µg/L	<0.2
Ronnel	µg/L	<0.2
Fenitrothion	µg/L	<0.2
Malathion	µg/L	<0.2
Chlorpyriphos	µg/L	<0.2
Parathion	µg/L	<0.2
Bromophos ethyl	µg/L	<0.2
Ethion	µg/L	<0.2
Azinphos-methyl (Guthion)	µg/L	<0.2
Surrogate TCMX	%	87

PCBs in Water		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date extracted	-	21/05/2021
Date analysed	-	21/05/2021
Aroclor 1016	µg/L	<2
Aroclor 1221	µg/L	<2
Aroclor 1232	µg/L	<2
Aroclor 1242	µg/L	<2
Aroclor 1248	µg/L	<2
Aroclor 1254	µg/L	<2
Aroclor 1260	µg/L	<2
Surrogate TCMX	%	87

HM in water - dissolved		
Our Reference	UNITS	269259-A-5
Your Reference		6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date prepared	-	21/05/2021
Date analysed	-	21/05/2021
Arsenic-Dissolved	µg/L	<1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	1
Zinc-Dissolved	µg/L	3

PFAS in Waters Short		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date prepared	-	20/05/2021
Date analysed	-	20/05/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	96
Surrogate $^{13}C_2$ *PFOA*	%	89
Extracted ISTD $^{18}O_2$ *PFHxS*	%	94
Extracted ISTD $^{13}C_4$ *PFOS*	%	94
Extracted ISTD $^{13}C_4$ *PFOA*	%	96
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	92
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	102
Total Positive PFHxS & PFOS	µg/L	<0.01
Total Positive PFOA & PFOS	µg/L	<0.01
Total Positive PFAS	µg/L	<0.01

Miscellaneous Inorganics		
Our Reference		269259-A-5
Your Reference	UNITS	6774/MW06
Date Sampled		17/05/2021
Type of sample		Water
Date prepared	-	20/05/2021
Date analysed	-	20/05/2021
Formaldehyde in waters	mg/L	<0.1

Method ID	Methodology Summary
Inorg-113	Formaldehyde in waters and solids (1:5 extract) using colourimetric analysis and/or LC-DAD.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
Date analysed	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromomethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	87	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromoform	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Styrene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	89	[NT]
Surrogate toluene-d8	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-023	112	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
Date analysed	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	89	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	89	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	91	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	89	[NT]
Surrogate toluene-d8	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-023	112	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	101	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	81	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	101	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	81	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
Surrogate o-Terphenyl	%		Org-020	85	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Naphthalene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Acenaphthylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Fluorene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Phenanthrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	124	[NT]
Pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	125	[NT]
Benzo(a)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-022/025	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	112	[NT]	[NT]	[NT]	[NT]	113	[NT]

QUALITY CONTROL: Organochlorine Pesticides in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
alpha-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	98	[NT]
HCB	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	96	[NT]
gamma-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	75	[NT]
delta-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	105	[NT]
Heptachlor Epoxide	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	98	[NT]
gamma-Chlordane	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	111	[NT]
Dieldrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Endrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	113	[NT]
Endosulfan II	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Endrin Aldehyde	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
Methoxychlor	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	88	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: OP Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Dichlorvos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	67	[NT]
Dimethoate	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Fenitrothion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	104	[NT]
Malathion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	107	[NT]
Chlorpyriphos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	96	[NT]
Parathion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	111	[NT]
Bromophos ethyl	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	84	[NT]
Azinphos-methyl (Guthion)	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	88	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: PCBs in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Aroclor 1016	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	104	[NT]
Aroclor 1260	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	88	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	108	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: PFAS in Waters Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			20/05/2021	[NT]	[NT]	[NT]	[NT]	20/05/2021	[NT]
Date analysed	-			20/05/2021	[NT]	[NT]	[NT]	[NT]	20/05/2021	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	108	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	102	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	95	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	269259-A-5
Date prepared	-			20/05/2021	[NT]	[NT]	[NT]	[NT]	20/05/2021	20/05/2021
Date analysed	-			20/05/2021	[NT]	[NT]	[NT]	[NT]	20/05/2021	20/05/2021
Formaldehyde in waters	mg/L	0.1	Inorg-113	<0.1	[NT]	[NT]	[NT]	[NT]	104	98

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Dissolved Metals: no filtered, preserved sample was received, therefore the unpreserved sample was filtered through 0.45µm filter at the lab.
Note: there is a possibility some elements may be underestimated.

Ming To

From: Ken Nguyen
Sent: Wednesday, 19 May 2021 9:32 PM
To: Ming To
Subject: FW: Results for Registration 269259 P1806774: 285 Finns Road, Menangle, NSW

Follow Up Flag: Follow up
Flag Status: Flagged

Ref: 269259-A.
TAT: 1 day.
Due: 21/05/2021
MT

From: Ben McGiffin <bmcgiffin@martens.com.au>
Sent: Wednesday, 19 May 2021 8:47 PM
To: Ken Nguyen <KNguyen@envirolab.com.au>
Cc: martens@esdat.com.au; Lara Tintinger <ltintinger@martens.com.au>; Andrew Norris <ANorris@martens.com.au>
Subject: Re: Results for Registration 269259 P1806774: 285 Finns Road, Menangle, NSW

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Ken
It appears we forgot to select sample MW06 (5) for any analysis.
Could we urgently get analysis completed for this sample. Same testing as other MW01-MW04 samples please. Fastest turn around time possible.
Thanks

Sent from my iPhone

> On 19 May 2021, at 7:58 pm, Ken Nguyen <KNguyen@envirolab.com.au> wrote:
>
> Please refer to attached for:
> a copy of the Certificate of Analysis
> a copy of the COC/paperwork received from you
> ESDAT Extracts
> an Excel or .csv file containing the results
> a copy of the Invoice
>
> Please note that a hard copy will not be posted.
>
> Enquiries should be made directly to:
> customerservice@envirolab.com.au
>
> How did we do? Send Feedback
>
> **Kind Regards,**

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 269259

Client Details

Client	Martens & Associates Pty Ltd
Attention	Ben McGiffin
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774: 285 Finns Road, Menangle, NSW**
Number of Samples	8 Water
Date samples received	18/05/2021
Date completed instructions received	18/05/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/05/2021
Date of Issue	19/05/2021

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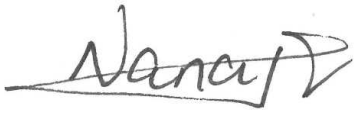
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Team Leader, Inorganics
Jaimie Loa-Kum-Cheung, Metals Supervisor
Josh Williams, LC Supervisor
Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in water					
Our Reference		269259-1	269259-2	269259-3	269259-4
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021
Date analysed	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021
Dichlorodifluoromethane	µg/L	<10	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Benzene	µg/L	<1	<1	<1	1
Dibromomethane	µg/L	<1	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1	<1
Toluene	µg/L	1	<1	<1	110
1,3-dichloropropane	µg/L	<1	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1

VOCs in water					
Our Reference		269259-1	269259-2	269259-3	269259-4
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water
Bromoform	µg/L	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2
Styrene	µg/L	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1	<1
o-xylene	µg/L	<1	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	95	89	89	90
Surrogate toluene-d8	%	95	94	94	96
Surrogate 4-BFB	%	109	110	111	108

vTRH(C6-C10)/BTEXN in Water						
Our Reference		269259-1	269259-2	269259-3	269259-4	269259-6
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04	6774/DUP02
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021	18/05/2021
Date analysed	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021	18/05/2021
TRH C_6 - C_9	µg/L	<10	<10	<10	220	<10
TRH C_6 - C_{10}	µg/L	<10	<10	<10	230	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	120	<10
Benzene	µg/L	<1	<1	<1	1	<1
Toluene	µg/L	1	<1	<1	110	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	95	89	89	90	107
Surrogate toluene-d8	%	95	94	94	96	111
Surrogate 4-BFB	%	109	110	111	108	112

vTRH(C6-C10)/BTEXN in Water			
Our Reference		269259-7	269259-8
Your Reference	UNITS	Trip Blank	Trip Spike
Date Sampled		17/05/2021	17/05/2021
Type of sample		Water	Water
Date extracted	-	18/05/2021	18/05/2021
Date analysed	-	18/05/2021	18/05/2021
TRH C_6 - C_9	µg/L	<10	[NA]
TRH C_6 - C_{10}	µg/L	<10	[NA]
Benzene	µg/L	[NA]	94%
Toluene	µg/L	[NA]	104%
Ethylbenzene	µg/L	[NA]	107%
m+p-xylene	µg/L	[NA]	102%
o-xylene	µg/L	[NA]	104%
Surrogate Dibromofluoromethane	%	102	88
Surrogate toluene-d8	%	104	94
Surrogate 4-BFB	%	111	105

svTRH (C10-C40) in Water						
Our Reference		269259-1	269259-2	269259-3	269259-4	269259-6
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04	6774/DUP02
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021	19/05/2021
TRH C_{10} - C_{14}	µg/L	<50	<50	<50	260	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	<100	2,000	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	1,000	<100
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50	550	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50	550	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	2,700	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	140	<100
Surrogate o-Terphenyl	%	91	90	81	95	89

PAHs in Water						
Our Reference		269259-1	269259-2	269259-3	269259-4	269259-6
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04	6774/DUP02
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021	18/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	115	121	111	84	114

Organochlorine Pesticides in Water					
Our Reference	UNITS	269259-1	269259-2	269259-3	269259-4
Your Reference		6774/MW01	6774/MW02	6774/MW03	6774/MW04
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021
alpha-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
HCB	µg/L	<0.2	<0.2	<0.2	<0.2
beta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
gamma-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
Heptachlor	µg/L	<0.2	<0.2	<0.2	<0.2
delta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
Aldrin	µg/L	<0.2	<0.2	<0.2	<0.2
Heptachlor Epoxide	µg/L	<0.2	<0.2	<0.2	<0.2
gamma-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2
alpha-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2
Endosulfan I	µg/L	<0.2	<0.2	<0.2	<0.2
pp-DDE	µg/L	<0.2	<0.2	<0.2	<0.2
Dieldrin	µg/L	<0.2	<0.2	<0.2	<0.2
Endrin	µg/L	<0.2	<0.2	<0.2	<0.2
Endosulfan II	µg/L	<0.2	<0.2	<0.2	<0.2
pp-DDD	µg/L	<0.2	<0.2	<0.2	<0.2
Endrin Aldehyde	µg/L	<0.2	<0.2	<0.2	<0.2
pp-DDT	µg/L	<0.2	<0.2	<0.2	<0.2
Endosulfan Sulphate	µg/L	<0.2	<0.2	<0.2	<0.2
Methoxychlor	µg/L	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	92	95	82	60

OP Pesticides in Water					
Our Reference		269259-1	269259-2	269259-3	269259-4
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Dichlorvos	µg/L	<0.2	<0.2	<0.2	<0.2
Dimethoate	µg/L	<0.2	<0.2	<0.2	<0.2
Diazinon	µg/L	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos-methyl	µg/L	<0.2	<0.2	<0.2	<0.2
Ronnel	µg/L	<0.2	<0.2	<0.2	<0.2
Fenitrothion	µg/L	<0.2	<0.2	<0.2	<0.2
Malathion	µg/L	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos	µg/L	<0.2	<0.2	<0.2	<0.2
Parathion	µg/L	<0.2	<0.2	<0.2	<0.2
Bromophos ethyl	µg/L	<0.2	<0.2	<0.2	<0.2
Ethion	µg/L	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	µg/L	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	92	95	82	60

PCBs in Water					
Our Reference		269259-1	269259-2	269259-3	269259-4
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	18/05/2021	18/05/2021	18/05/2021	18/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Aroclor 1016	µg/L	<2	<2	<2	<2
Aroclor 1221	µg/L	<2	<2	<2	<2
Aroclor 1232	µg/L	<2	<2	<2	<2
Aroclor 1242	µg/L	<2	<2	<2	<2
Aroclor 1248	µg/L	<2	<2	<2	<2
Aroclor 1254	µg/L	<2	<2	<2	<2
Aroclor 1260	µg/L	<2	<2	<2	<2
Surrogate TCMX	%	92	95	82	60

HM in water - dissolved						
Our Reference		269259-1	269259-2	269259-3	269259-4	269259-6
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04	6774/DUP02
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Arsenic-Dissolved	µg/L	<1	<1	<1	110	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	0.4	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	8	<1
Copper-Dissolved	µg/L	2	<1	1	2	<1
Lead-Dissolved	µg/L	<1	<1	1	1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	2	<1	<1	51	<1
Zinc-Dissolved	µg/L	27	2	2	13	2

PFAS in Waters Short					
Our Reference		269259-1	269259-2	269259-3	269259-4
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water
Date prepared	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	0.07	<0.01	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	94	95	92	93
Surrogate $^{13}C_2$ *PFOA*	%	85	82	82	80
Extracted ISTD $^{18}O_2$ *PFHxS*	%	95	97	98	89
Extracted ISTD $^{13}C_4$ *PFOS*	%	103	98	101	87
Extracted ISTD $^{13}C_4$ *PFOA*	%	118	112	114	124
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	127	93	113	#
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	98	89	103	#
Total Positive PFHxS & PFOS	µg/L	<0.01	<0.01	<0.01	<0.01
Total Positive PFOA & PFOS	µg/L	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	µg/L	0.07	<0.01	<0.01	<0.01

Miscellaneous Inorganics					
Our Reference		269259-1	269259-2	269259-3	269259-4
Your Reference	UNITS	6774/MW01	6774/MW02	6774/MW03	6774/MW04
Date Sampled		17/05/2021	17/05/2021	17/05/2021	17/05/2021
Type of sample		Water	Water	Water	Water
Date prepared	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Date analysed	-	19/05/2021	19/05/2021	19/05/2021	19/05/2021
Formaldehyde in waters	mg/L	<0.1	<0.1	<0.1	1.6

Method ID	Methodology Summary
Inorg-113	Formaldehyde in waters and solids (1:5 extract) using colourimetric analysis and/or LC-DAD.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
Date analysed	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromomethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	87	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromoform	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Styrene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	89	[NT]
Surrogate toluene-d8	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-023	112	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
Date analysed	-			18/05/2021	[NT]	[NT]	[NT]	[NT]	18/05/2021	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	89	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	89	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	91	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	89	[NT]
Surrogate toluene-d8	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-023	112	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			19/05/2021	2	19/05/2021	19/05/2021		19/05/2021	[NT]
Date analysed	-			19/05/2021	2	19/05/2021	19/05/2021		19/05/2021	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	2	<50	<50	0	109	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	2	<100	<100	0	98	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	2	<100	<100	0	108	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	2	<50	<50	0	109	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	2	<100	<100	0	98	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	2	<100	<100	0	109	[NT]
Surrogate o-Terphenyl	%		Org-020	86	2	90	83	8	108	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	269259-1
Date extracted	-			18/05/2021	2	18/05/2021	18/05/2021		18/05/2021	18/05/2021
Date analysed	-			19/05/2021	2	19/05/2021	19/05/2021		19/05/2021	19/05/2021
Naphthalene	µg/L	1	Org-022/025	<1	2	<1	<1	0	91	94
Acenaphthylene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-022/025	<1	2	<1	<1	0	83	88
Fluorene	µg/L	1	Org-022/025	<1	2	<1	<1	0	93	96
Phenanthrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	126	92
Anthracene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-022/025	<1	2	<1	<1	0	103	100
Pyrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	116	91
Benzo(a)anthracene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-022/025	<1	2	<1	<1	0	82	86
Benzo(b,j+k)fluoranthene	µg/L	2	Org-022/025	<2	2	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	98	98
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	105	2	121	109	10	111	121

QUALITY CONTROL: Organochlorine Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	269259-1
Date extracted	-			18/05/2021	2	18/05/2021	18/05/2021		18/05/2021	18/05/2021
Date analysed	-			19/05/2021	2	19/05/2021	19/05/2021		19/05/2021	19/05/2021
alpha-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	79	88
HCB	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	80	87
gamma-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Heptachlor	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	102	96
delta-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Aldrin	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	89	105
Heptachlor Epoxide	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	112	113
gamma-Chlordane	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	110	93
Dieldrin	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	112	120
Endrin	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	111	104
Endosulfan II	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
pp-DDD	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	104	105
Endrin Aldehyde	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	73	77
Methoxychlor	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	99	2	95	87	9	94	97

QUALITY CONTROL: OP Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	269259-1
Date extracted	-			18/05/2021	2	18/05/2021	18/05/2021		18/05/2021	18/05/2021
Date analysed	-			19/05/2021	2	19/05/2021	19/05/2021		19/05/2021	19/05/2021
Dichlorvos	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	80	82
Dimethoate	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Diazinon	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Ronnel	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	118	109
Fenitrothion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	72	70
Malathion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	71	92
Chlorpyriphos	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	102	119
Parathion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	85	73
Bromophos ethyl	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Ethion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	80	82
Azinphos-methyl (Guthion)	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	99	2	95	87	9	94	97

QUALITY CONTROL: PCBs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	269259-1
Date extracted	-			18/05/2021	2	18/05/2021	18/05/2021		18/05/2021	18/05/2021
Date analysed	-			19/05/2021	2	19/05/2021	19/05/2021		19/05/2021	19/05/2021
Aroclor 1016	µg/L	2	Org-021	<2	2	<2	<2	0	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-021	<2	2	<2	<2	0	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-021	<2	2	<2	<2	0	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-021	<2	2	<2	<2	0	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-021	<2	2	<2	<2	0	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-021	<2	2	<2	<2	0	80	120
Aroclor 1260	µg/L	2	Org-021	<2	2	<2	<2	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	99	2	95	87	9	94	97

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W10	269259-2
Date prepared	-			19/05/2021	1	19/05/2021	19/05/2021		19/05/2021	19/05/2021
Date analysed	-			19/05/2021	1	19/05/2021	19/05/2021		19/05/2021	19/05/2021
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	95	95
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	99	96
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	95	92
Copper-Dissolved	µg/L	1	Metals-022	<1	1	2	2	0	94	85
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	94	86
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	95	103
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	2	2	0	95	87
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	27	27	0	95	89

QUALITY CONTROL: PFAS in Waters Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	269259-2
Date prepared	-			19/05/2021	1	19/05/2021	19/05/2021		19/05/2021	19/05/2021
Date analysed	-			19/05/2021	1	19/05/2021	19/05/2021		19/05/2021	19/05/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	112	108
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	107	101
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	106	103
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	0.07	0.08	13	117	100
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	105	100
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	88	1	94	89	5	96	90
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	86	1	85	84	1	89	85
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	95	1	95	93	2	92	89
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	101	1	103	101	2	97	98
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	113	1	118	112	5	110	103
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	132	1	127	96	28	113	93
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	110	1	98	96	2	109	85

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			19/05/2021	[NT]	[NT]	[NT]	[NT]	19/05/2021	[NT]
Date analysed	-			19/05/2021	[NT]	[NT]	[NT]	[NT]	19/05/2021	[NT]
Formaldehyde in waters	mg/L	0.1	Inorg-113	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Dissolved Metals: no filtered, preserved sample was received, therefore the unpreserved sample was filtered through 0.45µm filter at the lab.
Note: there is a possibility some elements may be underestimated.

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consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Project												
Name	P1806774: 285 Finns Road, Menangle, NSW **(WATER SAMPLES)**											
Martens Contact Officer	Ben McGiffin					**Contact Email**	bmcgiffin@martens.com.au					
Sampling and Shipping	**Sample Date**	17.05.21	**Dispatch Date**	17.05.21		**Turnaround Time**			**1 DAY TAT**			
	Our Reference	P1806774COC04V01				**Shipping Method (X)**	**Hand**	**X**	**Post**		**Courier**	
	On Ice (X)	**X**	**No Ice (X)**		**Other (X)**							

Laboratory								
Name	Envirolab							
Sample Delivery Address	12 Ashley Street, Chatswood, NSW							
Instructions	**1 DAY TURNAROUND TIME** and Please lab filter for 8HM in green translucent bottles.							
Delivery Contact	**Name**	Sample receipt	**Phone**	08 9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au login@envirolab.com.au customerserive@envirolab.com.au SSong@envirolab.com.au AHie@envirolab.com.au
Please Send Report By (X)	**Post**		**Fax**		**Email**	**X**	**Reporting Email Address**	rmehaffey@martens.com.au anorris@martens.com.au bmcgiffin@martens.com.au martens@esdat.com.au

ENVIROLAB GROUP
Services
12 Ashley St
NSW 2067
Ph: (02) 9910 6200

Job No: 269259
Date Received: 17/05/21
Time Received: 17:00
Received: CH
Temp: Ambient
Cooling: Icepack
Security: Unbroken

CH 17/05/21 1700.
269259.

Head Office
Suite 201, 20 George St
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L

SOIL ANALYSIS CHAIN OF CUSTODY

	Sample ID	Formaldehyde	Combo 6 (Water)	VOC Suite (Water)	PFAS Short Suite (Water)	Combo 3 (Water)	TRH	BTEX
1	6774/MW01	X	X	X	X			
2	6774/MW02	X	X	X	X			
3	6774/MW03	X	X	X	X			
4	6774/MW04	X	X	X	X			
5	6774/MW06							
6	6774/DUP02***					X		
7	Trip Blank						X	
8	Trip Spike							X

Notes	**FASTEST TURNAROUND TIME** Please lab filter for 8HM in green translucent bottles. *** Please change sample name from Dup01 to Dup02

CH 17/05/21 1700 # 269259.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	Ben McGiffin

Sample Login Details

Your reference	P1806774: 285 Finns Road, Menangle, NSW
Envirolab Reference	269259
Date Sample Received	18/05/2021
Date Instructions Received	18/05/2021
Date Results Expected to be Reported	19/05/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	8 Water
Turnaround Time Requested	1 day
Temperature on Receipt (°C)	7.0
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHsin Water	Organochlorine Pesticides in Water	OP Pesticides in Water	PCBs in Water	HM in water - dissolved	PFAS in Waters Short	Formaldehyde in waters	On Hold
6774/MW01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6774/MW02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6774/MW03	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6774/MW04	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6774/MW06											✓
6774/DUP02		✓	✓	✓				✓			
Trip Blank		✓									
Trip Spike		✓									

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 268016-A

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774 - Menangle**
Number of Samples	addtional analyses on 11 soils
Date samples received	30/04/2021
Date completed instructions received	06/05/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

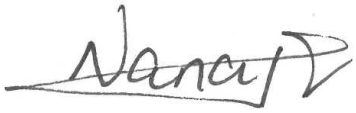
Date results requested by	13/05/2021
Date of Issue	11/05/2021

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Priya Samarawickrama, Senior Chemist

Authorised By



Nancy Zhang, Laboratory Manager

Miscellaneous Inorg - soil						
Our Reference		268016-A-3	268016-A-5	268016-A-8	268016-A-9	268016-A-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Formaldehyde in solids	mg/kg	<1	<1	1	<1	<1

Miscellaneous Inorg - soil						
Our Reference		268016-A-13	268016-A-16	268016-A-17	268016-A-20	268016-A-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Formaldehyde in solids	mg/kg	<1	<1	<1	<1	<1

Miscellaneous Inorg - soil						
Our Reference		268016-A-24	268016-A-25	268016-A-28	268016-A-29	268016-A-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Formaldehyde in solids	mg/kg	<1	<1	1	<1	<1

Miscellaneous Inorg - soil						
Our Reference		268016-A-34	268016-A-37	268016-A-40	268016-A-44	268016-A-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Formaldehyde in solids	mg/kg	<1	<1	<1	<1	<1

Miscellaneous Inorg - soil		
Our Reference		268016-A-48
Your Reference	UNITS	TP413/2.0
Date Sampled		29/04/2021
Type of sample		soil
Date prepared	-	07/05/2021
Date analysed	-	07/05/2021
Formaldehyde in solids	mg/kg	<1

Method ID	Methodology Summary
Inorg-113	Formaldehyde in waters and solids (1:5 extract) using colourimetric analysis and/or LC-DAD.

QUALITY CONTROL: Miscellaneous Inorg - soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	268016-A-3
Date prepared	-			07/05/2021	9	07/05/2021	07/05/2021		07/05/2021	07/05/2021
Date analysed	-			07/05/2021	9	07/05/2021	07/05/2021		07/05/2021	07/05/2021
Formaldehyde in solids	mg/kg	1	Inorg-113	<1	9	<1	<1	0	99	104

QUALITY CONTROL: Miscellaneous Inorg - soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			[NT]	21	07/05/2021	07/05/2021		07/05/2021	[NT]
Date analysed	-			[NT]	21	07/05/2021	07/05/2021		07/05/2021	[NT]
Formaldehyde in solids	mg/kg	1	Inorg-113	[NT]	21	<1	<1	0	107	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	37	07/05/2021	07/05/2021		[NT]	[NT]
Date analysed	-			[NT]	37	07/05/2021	07/05/2021		[NT]	[NT]
Formaldehyde in solids	mg/kg	1	Inorg-113	[NT]	37	<1	<1	0	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
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Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
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Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Ming To

From: Robert Mehaffey <rmehaffey@martens.com.au>
Sent: Thursday, 6 May 2021 10:36 AM
To: Aileen Hie
Cc: Ben McGiffin; Andrew Norris; Samplereceipt
Subject: RE: Sample Receipt for 268016 P1806774 - Menangle

Follow Up Flag: Follow up
Flag Status: Flagged

Ref:268016-A.
TAT: Standard
Due: 13/05/2021
MT.

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Aileen,

Can we get some additional testing for these samples?

3.5.8.9.12.13.16.17.20.21.24.25.28.29.31.34.37.40.44.45.48

For all the samples which are being tested for combo 6a, can we please also get them tested for formaldehyde.

Standard TAT is fine for the extra testing,

Thanks,
Rob

From: Aileen Hie [mailto:AHie@envirolab.com.au]
Sent: Friday, 30 April 2021 7:23 PM
To: Ben McGiffin <bmcgiffin@martens.com.au>; Robert Mehaffey <rmehaffey@martens.com.au>; Andrew Norris <ANorris@martens.com.au>
Subject: Sample Receipt for 268016 P1806774 - Menangle

Please refer to attached for:
a copy of the COC/paperwork received from you
a copy of our Sample Receipt Advice (SRA)
Please open and read the SRA as it contains important information.
Please let the lab know immediately if there are any issues.

Results will be available by 6.30pm on the date indicated.

PLEASE NOTE COMBO PRICES WILL ONLY APPLY IF COMBOS ARE SELECTED ON COC.

We have a new reporting format and would welcome your feedback. Sydney@envirolab.com.au

Please note that subcontracted testing or non routine testing may take significantly longer than just the standard 5 day TAT, contact the lab to get an approximate due date.

Enquiries should be made directly to:
customerservice@envirolab.com.au

Regards

Envirolab Services
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Kind Regards,

Aileen Hie | Customer Service Supervisor | Envirolab Services

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey

Sample Login Details

Your reference	P1806774 - Menangle
Envirolab Reference	268016-A
Date Sample Received	30/04/2021
Date Instructions Received	06/05/2021
Date Results Expected to be Reported	13/05/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	addtional analyses on 11 soils
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Formaldehyde in solids	On Hold
TP401/0.1		✓
TP401/1.0		✓
TP401/2.0	✓	
TP401/2.5		✓
TP401/3.0	✓	
TP402/0.1		✓
TP402/1.0		✓
TP402/3.0	✓	
TP402/3.6	✓	
TP403/0.1		✓
TP403/1.0		✓
TP403/2.0	✓	
TP403/2.6	✓	
TP404/0.1		✓
TP404/1.0		✓
TP404/3.0	✓	
TP404/3.3	✓	
TP405/0.1		✓
TP405/1.0		✓
TP405/2.2	✓	
TP405/2.5	✓	
TP406/0.1		✓
TP406/1.0		✓
TP406/2.5	✓	
TP406/2.8	✓	
TP407/0.1		✓
TP407/1.0		✓
TP407/2.2	✓	
TP407/2.6	✓	
TP408/0.1		✓
TP408/1.0	✓	
TP408/2.2		✓

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Formaldehyde in solids	On Hold
TP409/1.0		✓
TP409/2.0	✓	
TP409/3.0		✓
TP410/1.0		✓
TP410/2.0	✓	
TP410/3.0		✓
TP411/0.1		✓
TP411/1.0	✓	
TP411/2.0		✓
TP412/0.1		✓
TP412/1.0		✓
TP412/2.5	✓	
TP412/3.0	✓	
TP413/0.1		✓
TP413/1.0		✓
TP413/2.0	✓	
DUP401		✓
DUP402		✓
Trip Spike		✓
Trip Blank		✓
TP401/2.0 - [TRIPLICATE]		✓
TP405/2.2 - [TRIPLICATE]		✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Martens & Associates Pty Ltd
Suite 201, 20 George St
Hornsby
NSW 2077

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Robert Mehaffy**

Report **792156-S**
Project name MENANGLE
Project ID P1806774
Received Date May 03, 2021

Client Sample ID			**DUP403**
Sample Matrix			**Soil**
Eurofins Sample No.			**S21-My03329**
Date Sampled			**Apr 29, 2021**
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2
Toxaphene	0.1	mg/kg	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2
Dibutylchlorendate (surr.)	1	%	147
Tetrachloro-m-xylene (surr.)	1	%	64
Organophosphorus Pesticides			
Azinphos-methyl	0.2	mg/kg	< 0.2
Bolstar	0.2	mg/kg	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2
Coumaphos	2	mg/kg	< 2
Demeton-S	0.2	mg/kg	< 0.2

Client Sample ID			DUP403
Sample Matrix			Soil
Eurofins Sample No.			S21-My03329
Date Sampled			Apr 29, 2021
Test/Reference	LOR	Unit	
Organophosphorus Pesticides			
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Dimethoate	0.2	mg/kg	< 0.2
Disulfoton	0.2	mg/kg	< 0.2
EPN	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Malathion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2
Monocrotophos	2	mg/kg	< 2
Naled	0.2	mg/kg	< 0.2
Omethoate	2	mg/kg	< 2
Phorate	0.2	mg/kg	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Terbufos	0.2	mg/kg	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	134
Heavy Metals			
Arsenic	2	mg/kg	8.5
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	13
Copper	5	mg/kg	24
Lead	5	mg/kg	23
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	11
Zinc	5	mg/kg	50
% Moisture	1	%	9.8

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
Organochlorine Pesticides	Sydney	May 06, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	May 06, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Metals M8	Sydney	May 06, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	May 04, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

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

Company Name: Martens & Associates Pty Ltd
Address: Suite 201, 20 George St
Hornsby
NSW 2077

Project Name: MENANGLE
Project ID: P1806774

Order No.:
Report #: 792156
Phone: 02 9476 9999
Fax: 02 9476 8767

Received: May 3, 2021 2:30 PM
Due: May 10, 2021
Priority: 5 Day
Contact Name: A Mesthos

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Metals M8	Suite B14: OCP/OPP	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
Mayfield Laboratory - NATA Site # 25079								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	DUP403	Apr 29, 2021		Soil	S21-My03329	X	X	X
Test Counts						1	1	1

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.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - 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.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
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.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

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. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. 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.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. 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							
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-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	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	
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-BHC (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	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 0.1			0.1	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
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							
Organochlorine Pesticides							
Chlordanes - Total	%	97			70-130	Pass	
4.4'-DDD	%	115			70-130	Pass	
4.4'-DDE	%	104			70-130	Pass	
4.4'-DDT	%	103			70-130	Pass	
a-BHC	%	121			70-130	Pass	
Aldrin	%	95			70-130	Pass	
b-BHC	%	121			70-130	Pass	
d-BHC	%	120			70-130	Pass	
Dieldrin	%	109			70-130	Pass	
Endosulfan I	%	117			70-130	Pass	
Endosulfan II	%	129			70-130	Pass	
Endosulfan sulphate	%	82			70-130	Pass	
Endrin	%	127			70-130	Pass	
Endrin aldehyde	%	117			70-130	Pass	
Endrin ketone	%	85			70-130	Pass	
g-BHC (Lindane)	%	120			70-130	Pass	
Heptachlor epoxide	%	103			70-130	Pass	
Hexachlorobenzene	%	106			70-130	Pass	
Methoxychlor	%	121			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	124			70-130	Pass	
Dimethoate	%	99			70-130	Pass	
Ethion	%	98			70-130	Pass	
Fenitrothion	%	119			70-130	Pass	
Methyl parathion	%	82			70-130	Pass	
Mevinphos	%	108			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	100			80-120	Pass	
Cadmium	%	111			80-120	Pass	
Chromium	%	115			80-120	Pass	
Copper	%	113			80-120	Pass	
Lead	%	116			80-120	Pass	
Mercury	%	120			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel			%	111			80-120	Pass	
Zinc			%	111			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-Ap45587	NCP	%	90			70-130	Pass	
4.4'-DDD	S21-Ap45587	NCP	%	120			70-130	Pass	
4.4'-DDE	S21-Ap45587	NCP	%	90			70-130	Pass	
4.4'-DDT	S21-Ap45587	NCP	%	84			70-130	Pass	
a-BHC	S21-Ap45587	NCP	%	126			70-130	Pass	
Aldrin	S21-Ap45587	NCP	%	85			70-130	Pass	
b-BHC	S21-Ap45587	NCP	%	121			70-130	Pass	
d-BHC	S21-Ap45587	NCP	%	111			70-130	Pass	
Dieldrin	S21-Ap45587	NCP	%	120			70-130	Pass	
Endosulfan I	S21-Ap45587	NCP	%	117			70-130	Pass	
Endosulfan II	S21-Ap45587	NCP	%	114			70-130	Pass	
Endosulfan sulphate	S21-Ap45587	NCP	%	77			70-130	Pass	
Endrin	S21-Ap45587	NCP	%	121			70-130	Pass	
Endrin aldehyde	S21-Ap45587	NCP	%	91			70-130	Pass	
Endrin ketone	S21-Ap45587	NCP	%	77			70-130	Pass	
g-BHC (Lindane)	S21-Ap45587	NCP	%	119			70-130	Pass	
Heptachlor	S21-Ap50174	NCP	%	71			70-130	Pass	
Heptachlor epoxide	S21-Ap45587	NCP	%	90			70-130	Pass	
Hexachlorobenzene	S21-Ap45587	NCP	%	91			70-130	Pass	
Methoxychlor	S21-Ap54438	NCP	%	128			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S21-Ap50174	NCP	%	83			70-130	Pass	
Ethion	S21-Ap50174	NCP	%	99			70-130	Pass	
Fenitrothion	S21-Ap50174	NCP	%	114			70-130	Pass	
Methyl parathion	S21-Ap50174	NCP	%	128			70-130	Pass	
Mevinphos	S21-Ap50174	NCP	%	94			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-My08210	NCP	%	103			75-125	Pass	
Cadmium	S21-My08210	NCP	%	103			75-125	Pass	
Chromium	S21-My08210	NCP	%	109			75-125	Pass	
Copper	S21-My08210	NCP	%	109			75-125	Pass	
Lead	S21-My08230	NCP	%	91			75-125	Pass	
Mercury	S21-My08210	NCP	%	114			75-125	Pass	
Nickel	S21-My08210	NCP	%	114			75-125	Pass	
Zinc	S21-My08210	NCP	%	81			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	N21-My09867	NCP	mg/kg	0.2	0.1	34	30%	Fail	Q15
4.4'-DDD	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Dieldrin	N21-My09867	NCP	mg/kg	1.9	1.6	14	30%	Pass	
Endosulfan I	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	N21-My09867	NCP	mg/kg	0.09	< 0.05	69	30%	Fail	Q15
Endrin ketone	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	N21-My09867	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	N21-My09867	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	N21-My09867	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	N21-My09867	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	N21-My09867	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-My04182	NCP	mg/kg	9.3	11	18	30%	Pass	
Cadmium	S21-My04182	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-My04182	NCP	mg/kg	26	23	11	30%	Pass	
Copper	S21-My04182	NCP	mg/kg	38	29	27	30%	Pass	
Lead	S21-My04182	NCP	mg/kg	79	94	18	30%	Pass	
Mercury	S21-My04182	NCP	mg/kg	0.2	0.2	10	30%	Pass	
Nickel	S21-My04182	NCP	mg/kg	17	13	24	30%	Pass	
Zinc	S21-My04182	NCP	mg/kg	120	97	25	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-My03322	NCP	%	18	22	19	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
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:

John Nguyen	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)

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.

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GHV 03/05/21 2:30pm

742156

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consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Additional Testing												
Name	P1806774 – Menangle											
Martens Contact Officer	Robert Mehaffey				Contact Email	rmehaffey@martens.com.au						
Sampling and Shipping	Sample Date	29/4/2021		Dispatch Date	30/4/2021	Turnaround Time	standard					
	Our Reference	P1806774COC05V01			Shipping Method (X)	Hand		Post		Courier	X	
	On Ice (X)	X	No Ice (X)		Other (X)							
Laboratory												
Name	EnviroLab											
Sample Delivery Address	12 Ashley Street, Chatswood											
Delivery Contact	Name		Phone	9910 6200	Fax		Email	samplereceipt@envirolabservices.com.au				
Please Send Report By (X)	Post		Fax		Email	X	Reporting Email Address	rmehaffey@martens.com.au bmcgiffin@martens.com.au anorris@martens.com.au				

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
1	TP401/0.1						
2	TP401/1.0						
3	TP401/2.0	X					
4	TP401/2.5						
5	TP401/3.0	X					
6	TP402/0.1						
7	TP402/1.0						
8	TP402/3.0	X					
9	TP402/3.6	X					
10	TP403/0.1						
11	TP403/1.0						

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 268016
Date Received: 30/04/21
Time Received: 1415
Received By: CH
Temp: Cool/Ambient
Cooling: Ice/Ice Pack
Security: Intact/Broken/None

Relinquished by: ECS Syd
Christie. 03/05/21
1130

CH 30/04/21 # 268016

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

G+N 03/05/21 2:30pm

SOIL ANALYSIS CHAIN OF CUSTODY

742156

	Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
41	41	TP411/2.0						
42	42	TP412/0.1						
43	43	TP412/1.0						
44	44	TP412/2.5	X					
45	45	TP412/3.0	X					
46	46	TP413/0.1						
47	47	TP413/1.0						
48	48	TP413/2.0	X					
49	49	DUP401		X	X			
50	50	DUP402		X	X			
51	51	– DUP403*		X	X			
52	52	51 Trip Spike					X	
53		52 Trip Blank				X		

*NOTE: Please forward DUP403 to Eurofins for analysis.

Relinquished by: Christine ECS Syp. 03/05/21 1130

CH 3/04/21 # 265016

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 268016

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774 - Menangle**
Number of Samples	52 soil
Date samples received	30/04/2021
Date completed instructions received	30/04/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	07/05/2021
Date of Issue	07/05/2021

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Panika Wongchanda
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Lucy Zhu, Asbestos Supervisor
Manju Dewendrage, Chemist
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	70	76	69	75	72

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	74	72	83	84	80

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	72	76	76	75	72

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	72	75	79	76	80

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		268016-48	268016-51	268016-52
Your Reference	UNITS	TP413/2.0	Trip Spike	Trip Blank
Date Sampled		29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021
TRH C_6 - C_9	mg/kg	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	[NA]	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	[NA]	<25
Benzene	mg/kg	<0.2	107%	[NA]
Toluene	mg/kg	<0.5	111%	[NA]
Ethylbenzene	mg/kg	<1	102%	[NA]
m+p-xylene	mg/kg	<2	102%	[NA]
o-Xylene	mg/kg	<1	103%	[NA]
naphthalene	mg/kg	<1	[NT]	[NA]
Total +ve Xylenes	mg/kg	<3	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%	78	99	88

svTRH (C10-C40) in Soil						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	04/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	1,100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	290	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	1,300	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	1,300	<50	<50
Surrogate o-Terphenyl	%	119	102	117	103	103

svTRH (C10-C40) in Soil						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	650	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	690	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	690	<50	<50	<50
Surrogate o-Terphenyl	%	102	108	104	102	101

svTRH (C10-C40) in Soil						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	120	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	850	<100	170	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	920	<100	160	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	920	<50	160	<50	<50
Surrogate o-Terphenyl	%	115	101	110	103	102

svTRH (C10-C40) in Soil						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	89	105	97	100	105

svTRH (C10-C40) in Soil		
Our Reference		268016-48
Your Reference	UNITS	TP413/2.0
Date Sampled		29/04/2021
Type of sample		soil
Date extracted	-	03/05/2021
Date analysed	-	05/05/2021
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	105

PAHs in Soil						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.5
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.6
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.5
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.3
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	3.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5
Surrogate p-Terphenyl-d14	%	120	125	125	124	122

PAHs in Soil						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.07	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	0.2	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	118	116	123	121	125

PAHs in Soil						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	117	125	122	118	122

PAHs in Soil						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.3	0.3	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.4	0.2	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.2	0.2	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.3	0.2	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.4	0.5	<0.2	0.2	<0.2
Benzo(a)pyrene	mg/kg	0.2	0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	2.2	1.5	<0.05	0.2	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	121	107	110	115	113

PAHs in Soil		
Our Reference		268016-48
Your Reference	UNITS	TP413/2.0
Date Sampled		29/04/2021
Type of sample		soil
Date extracted	-	03/05/2021
Date analysed	-	06/05/2021
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	109

Organochlorine Pesticides in soil						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	97	93	97	98

Organochlorine Pesticides in soil						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	95	95	94	96

Organochlorine Pesticides in soil						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	98	94	99	94	97

Organochlorine Pesticides in soil						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	99	98	98	94

Organochlorine Pesticides in soil				
Our Reference		268016-48	268016-49	268016-50
Your Reference	UNITS	TP413/2.0	DUP401	DUP402
Date Sampled		29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	95	95

Organophosphorus Pesticides in Soil						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	97	93	97	98

Organophosphorus Pesticides in Soil						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	95	95	94	96

Organophosphorus Pesticides in Soil						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	98	94	99	94	97

Organophosphorus Pesticides in Soil						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	99	98	98	94

Organophosphorus Pesticides in Soil				
Our Reference		268016-48	268016-49	268016-50
Your Reference	UNITS	TP413/2.0	DUP401	DUP402
Date Sampled		29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	95	95

PCBs in Soil						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	97	93	97	98

PCBs in Soil						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	95	95	94	96

PCBs in Soil						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	98	94	99	94	97

PCBs in Soil						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	99	98	98	94

PCBs in Soil		
Our Reference		268016-48
Your Reference	UNITS	TP413/2.0
Date Sampled		29/04/2021
Type of sample		soil
Date extracted	-	03/05/2021
Date analysed	-	06/05/2021
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	101

Acid Extractable metals in soil						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Arsenic	mg/kg	<4	6	5	6	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	8	11	9	13
Copper	mg/kg	27	20	20	23	37
Lead	mg/kg	49	10	11	8	120
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	34	7	8	5	19
Zinc	mg/kg	34	38	71	20	99

Acid Extractable metals in soil						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Arsenic	mg/kg	7	5	4	9	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	6	10	10	9	11
Copper	mg/kg	19	15	12	11	21
Lead	mg/kg	10	12	10	20	13
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	43	7	4	1	9
Zinc	mg/kg	89	33	16	21	24

Acid Extractable metals in soil						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Arsenic	mg/kg	4	8	5	6	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	15	12	9	6
Copper	mg/kg	22	17	26	26	12
Lead	mg/kg	8	18	13	11	39
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	32	8	29	10	5
Zinc	mg/kg	71	26	53	40	46

Acid Extractable metals in soil						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Arsenic	mg/kg	<4	5	<4	5	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	17	40	190	10	14
Copper	mg/kg	36	26	11	21	14
Lead	mg/kg	47	36	15	18	12
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	6	6	7	11	6
Zinc	mg/kg	55	42	30	40	15

Acid Extractable metals in soil						
Our Reference		268016-48	268016-49	268016-50	268016-53	268016-54
Your Reference	UNITS	TP413/2.0	DUP401	DUP402	TP401/2.0 - [TRIPLICATE]	TP405/2.2 - [TRIPLICATE]
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Date analysed	-	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Arsenic	mg/kg	6	8	6	<4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	9	14	13	15	8
Copper	mg/kg	15	28	17	22	5
Lead	mg/kg	7	31	13	38	16
Mercury	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	5	4	8	5	1
Zinc	mg/kg	16	36	35	50	10

Moisture						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	04/05/2021	04/05/2021	04/05/2021	04/05/2021	04/05/2021
Moisture	%	22	12	37	18	21

Moisture						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	04/05/2021	04/05/2021	04/05/2021	04/05/2021	04/05/2021
Moisture	%	15	25	19	17	19

Moisture						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	04/05/2021	04/05/2021	04/05/2021	04/05/2021	04/05/2021
Moisture	%	22	24	26	17	18

Moisture						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	03/05/2021	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	04/05/2021	04/05/2021	04/05/2021	04/05/2021	04/05/2021
Moisture	%	18	20	13	10	14

Moisture				
Our Reference		268016-48	268016-49	268016-50
Your Reference	UNITS	TP413/2.0	DUP401	DUP402
Date Sampled		29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil
Date prepared	-	03/05/2021	03/05/2021	03/05/2021
Date analysed	-	04/05/2021	04/05/2021	04/05/2021
Moisture	%	13	21	25

Asbestos ID - soils						
Our Reference		268016-3	268016-5	268016-8	268016-9	268016-12
Your Reference	UNITS	TP401/2.0	TP401/3.0	TP402/3.0	TP402/3.6	TP403/2.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Sample mass tested	g	Approx. 15g	Approx. 15g	Approx. 10g	Approx. 15g	Approx. 15g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown clayey soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		268016-13	268016-16	268016-17	268016-20	268016-21
Your Reference	UNITS	TP403/2.6	TP404/3.0	TP404/3.3	TP405/2.2	TP405/2.5
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Sample mass tested	g	Approx. 15g	Approx. 15g	Approx. 15g	Approx. 15g	Approx. 15g
Sample Description	-	Brown clayey soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		268016-24	268016-25	268016-28	268016-29	268016-31
Your Reference	UNITS	TP406/2.5	TP406/2.8	TP407/2.2	TP407/2.6	TP408/1.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Sample mass tested	g	Approx. 15g	Approx. 15g	Approx. 15g	Approx. 15g	Approx. 15g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		268016-34	268016-37	268016-40	268016-44	268016-45
Your Reference	UNITS	TP409/2.0	TP410/2.0	TP411/1.0	TP412/2.5	TP412/3.0
Date Sampled		29/04/2021	29/04/2021	29/04/2021	29/04/2021	29/04/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Sample mass tested	g	Approx. 15g	Approx. 15g	Approx. 15g	Approx. 20g	Approx. 15g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils		
Our Reference		268016-48
Your Reference	UNITS	TP413/2.0
Date Sampled		29/04/2021
Type of sample		soil
Date analysed	-	07/05/2021
Sample mass tested	g	Approx. 20g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	268016-5
Date extracted	-			03/05/2021	3	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			05/05/2021	3	05/05/2021	05/05/2021		05/05/2021	05/05/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	3	<25	<25	0	123	112
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	3	<25	<25	0	123	112
Benzene	mg/kg	0.2	Org-023	<0.2	3	<0.2	<0.2	0	120	110
Toluene	mg/kg	0.5	Org-023	<0.5	3	<0.5	<0.5	0	123	113
Ethylbenzene	mg/kg	1	Org-023	<1	3	<1	<1	0	125	114
m+p-xylene	mg/kg	2	Org-023	<2	3	<2	<2	0	124	112
o-Xylene	mg/kg	1	Org-023	<1	3	<1	<1	0	121	109
naphthalene	mg/kg	1	Org-023	<1	3	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	75	3	70	87	22	93	81

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	268016-45
Date extracted	-			[NT]	20	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			[NT]	20	05/05/2021	05/05/2021		05/05/2021	05/05/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	20	<25	<25	0	120	112
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	20	<25	<25	0	120	112
Benzene	mg/kg	0.2	Org-023	[NT]	20	<0.2	<0.2	0	116	112
Toluene	mg/kg	0.5	Org-023	[NT]	20	<0.5	<0.5	0	120	114
Ethylbenzene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	121	111
m+p-xylene	mg/kg	2	Org-023	[NT]	20	<2	<2	0	121	111
o-Xylene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	117	108
naphthalene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	20	84	83	1	91	84

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	03/05/2021	03/05/2021		[NT]	[NT]
Date analysed	-			[NT]	44	05/05/2021	05/05/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	44	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	44	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	44	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	44	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	44	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	44	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	44	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	44	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	44	76	89	16	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	268016-5
Date extracted	-			03/05/2021	3	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			05/05/2021	3	04/05/2021	04/05/2021		04/05/2021	05/05/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	3	<50	<50	0	132	118
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	3	<100	<100	0	97	86
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	3	<100	<100	0	92	97
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	3	<50	<50	0	132	118
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	3	<100	<100	0	97	86
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	3	<100	<100	0	92	97
Surrogate o-Terphenyl	%		Org-020	100	3	119	137	14	75	102

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	268016-45
Date extracted	-			[NT]	20	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			[NT]	20	05/05/2021	05/05/2021		05/05/2021	05/05/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	20	<50	<50	0	126	120
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	20	<100	<100	0	93	90
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	20	<100	<100	0	92	86
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	20	<50	<50	0	126	120
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	20	<100	<100	0	93	90
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	20	<100	<100	0	92	86
Surrogate o-Terphenyl	%		Org-020	[NT]	20	102	104	2	71	105

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	03/05/2021	03/05/2021		[NT]	[NT]
Date analysed	-			[NT]	44	05/05/2021	05/05/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	44	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	44	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	44	100	103	3	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	268016-5
Date extracted	-			03/05/2021	3	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			06/05/2021	3	06/05/2021	06/05/2021		06/05/2021	06/05/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	99	99
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	81	81
Fluorene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	91	91
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	109	121
Anthracene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	112	99
Pyrene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	98	113
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	80	76
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	3	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	3	<0.05	0.05	0	86	88
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	119	3	120	119	1	117	111

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	268016-45
Date extracted	-			[NT]	20	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			[NT]	20	06/05/2021	06/05/2021		06/05/2021	06/05/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	106	100
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	100	96
Fluorene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	114	102
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	112	118
Anthracene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	20	0.1	0.2	67	126	110
Pyrene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	0.2	67	120	114
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	0.2	67	78	76
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	20	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	20	0.07	0.1	35	114	106
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	20	121	123	2	113	103

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	03/05/2021	03/05/2021		[NT]	[NT]
Date analysed	-			[NT]	44	06/05/2021	06/05/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	44	0.2	0.3	40	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	44	<0.05	0.06	18	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	44	115	112	3	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	268016-5
Date extracted	-			03/05/2021	3	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			06/05/2021	3	06/05/2021	06/05/2021		06/05/2021	06/05/2021
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	87	85
HCB	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	83	87
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	113	107
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	94	85
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	114	114
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	115	109
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	123	117
Endrin	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	125	132
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	103	99
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	93	86
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	96	3	96	92	4	95	96

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	268016-45
Date extracted	-			[NT]	20	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			[NT]	20	06/05/2021	06/05/2021		06/05/2021	06/05/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	108	104
HCB	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	96	92
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	130	124
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	124	112
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	128	108
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	124	105
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	90	92
Endrin	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	126	117
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	101	102
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	112	106
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	20	94	95	1	97	96

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	03/05/2021	03/05/2021		[NT]	[NT]
Date analysed	-			[NT]	44	06/05/2021	06/05/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	44	98	95	3	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	268016-5
Date extracted	-			03/05/2021	3	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			06/05/2021	3	06/05/2021	06/05/2021		06/05/2021	06/05/2021
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	84	80
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	104	93
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	87	95
Malathion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	112	110
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	126	122
Parathion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	86	92
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	91	103
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	96	3	96	92	4	95	96

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	268016-45
Date extracted	-			[NT]	20	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			[NT]	20	06/05/2021	06/05/2021		06/05/2021	06/05/2021
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	80	75
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	121	104
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	84	72
Malathion	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	130	100
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	108	96
Parathion	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	78	80
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	106	99
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	20	94	95	1	97	96

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	03/05/2021	03/05/2021		[NT]	[NT]
Date analysed	-			[NT]	44	06/05/2021	06/05/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	44	98	95	3	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	268016-5
Date extracted	-			03/05/2021	3	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			06/05/2021	3	06/05/2021	06/05/2021		06/05/2021	06/05/2021
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	120	116
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	96	3	96	92	4	95	96

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	268016-45
Date extracted	-			[NT]	20	03/05/2021	03/05/2021		03/05/2021	03/05/2021
Date analysed	-			[NT]	20	06/05/2021	06/05/2021		06/05/2021	06/05/2021
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	20	<0.1	<0.1	0	122	80
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	20	94	95	1	97	96

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	03/05/2021	03/05/2021		[NT]	[NT]
Date analysed	-			[NT]	44	06/05/2021	06/05/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	44	98	95	3	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	268016-5
Date prepared	-			05/05/2021	3	05/05/2021	05/05/2021		05/05/2021	05/05/2021
Date analysed	-			05/05/2021	3	05/05/2021	05/05/2021		05/05/2021	05/05/2021
Arsenic	mg/kg	4	Metals-020	<4	3	<4	<4	0	100	85
Cadmium	mg/kg	0.4	Metals-020	<0.4	3	<0.4	<0.4	0	103	81
Chromium	mg/kg	1	Metals-020	<1	3	11	13	17	101	84
Copper	mg/kg	1	Metals-020	<1	3	27	26	4	95	86
Lead	mg/kg	1	Metals-020	<1	3	49	39	23	98	81
Mercury	mg/kg	0.1	Metals-021	<0.1	3	<0.1	<0.1	0	102	103
Nickel	mg/kg	1	Metals-020	<1	3	34	5	149	99	77
Zinc	mg/kg	1	Metals-020	<1	3	34	49	36	99	82

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	268016-45
Date prepared	-			[NT]	20	05/05/2021	05/05/2021		05/05/2021	05/05/2021
Date analysed	-			[NT]	20	05/05/2021	05/05/2021		05/05/2021	05/05/2021
Arsenic	mg/kg	4	Metals-020	[NT]	20	9	8	12	103	70
Cadmium	mg/kg	0.4	Metals-020	[NT]	20	<0.4	<0.4	0	104	73
Chromium	mg/kg	1	Metals-020	[NT]	20	9	9	0	101	74
Copper	mg/kg	1	Metals-020	[NT]	20	11	5	75	95	83
Lead	mg/kg	1	Metals-020	[NT]	20	20	15	29	100	#
Mercury	mg/kg	0.1	Metals-021	[NT]	20	<0.1	<0.1	0	110	98
Nickel	mg/kg	1	Metals-020	[NT]	20	1	1	0	102	#
Zinc	mg/kg	1	Metals-020	[NT]	20	21	12	55	102	72

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	44	05/05/2021	05/05/2021		[NT]	[NT]
Date analysed	-			[NT]	44	05/05/2021	05/05/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	44	5	4	22	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	44	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	44	10	11	10	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	44	21	18	15	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	44	18	16	12	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	44	11	12	9	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	44	40	30	29	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Acid Extractable Metals in Soil:
- The laboratory RPD acceptance criteria has been exceeded for 268016-3 for Ni. Therefore a triplicate result has been issued as laboratory sample number 268016-53.
- The laboratory RPD acceptance criteria has been exceeded for268016-20 for Cu and Zn. Therefore a triplicate result has been issued as laboratory sample number 268016-54.
- # Percent recovery is not possible to report due to the inhomogeneous nature of the elements in the sample. However an acceptable recovery was obtained for the LCS.

Asbestos: A portion of the supplied samples were sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that these sub-samples are indicative of the entire sample.
Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples requested for asbestos testing were sub-sampled from jars provided by the client.

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consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Additional Testing												
Name	P1806774 – Menangle											
Martens Contact Officer	Robert Mehaffey					**Contact Email**	rmehaffey@martens.com.au					
Sampling and Shipping	**Sample Date**	29/4/2021		**Dispatch Date**	30/4/2021		**Turnaround Time**		standard			
	Our Reference	P1806774COC05V01				**Shipping Method (X)**	**Hand**		**Post**		**Courier**	X
	On Ice (X)	X	**No Ice (X)**		**Other (X)**							
Laboratory												
Name	EnviroLab											
Sample Delivery Address	12 Ashley Street, Chatswood											
Delivery Contact	**Name**		**Phone**	9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au				
Please Send Report By (X)	**Post**		**Fax**		**Email**	X	**Reporting Email Address**	rmehaffey@martens.com.au bmcgiffin@martens.com.au anorris@martens.com.au				

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
1	TP401/0.1						
2	TP401/1.0						
3	TP401/2.0	X					
4	TP401/2.5						
5	TP401/3.0	X					
6	TP402/0.1						
7	TP402/1.0						
8	TP402/3.0	X					
9	TP402/3.6	X					
10	TP403/0.1						
11	TP403/1.0						

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 268016
Date Received: 30/04/21
Time Received: 1915
Received By: CH
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

CH 30/04/21 # 268016

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
12	12	TP403/2.0	X					
13	13	TP403/2.6	X					
14	14	TP404/0.1						
15	15	TP404/1.0						
16	16	TP404/3.0	X					
17	17	TP404/3.3	X					
18	18	TP405/0.1						
19	19	TP405/1.0						
20	20	TP405/2.2	X					
21	21	TP405/2.5	X					
22	22	TP406/0.1						
23	23	TP406/1.0						
24	24	TP406/2.5	X					
25	25	TP406/2.8	X					
26	26	TP407/0.1						
27	27	TP407/1.0						
28	28	TP407/2.2	X					
29	29	TP407/2.6	X					
30	30	TP408/0.1						
31	31	TP408/1.0	X					
32	32	TP408/2.2						
33	33	TP409/1.0						
34	34	TP409/2.0	X					
35	35	TP409/3.0						
36	36	TP410/1.0						
37	37	TP410/2.0	X					
38	38	TP410/3.0						
39	39	TP411/0.1						
40	40	TP411/1.0	X					

CH 30/04/21 # 268016

SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
41	41	TP411/2.0						
42	42	TP412/0.1						
43	43	TP412/1.0						
44	44	TP412/2.5	X					
45	45	TP412/3.0	X					
46	46	TP413/0.1						
47	47	TP413/1.0						
48	48	TP413/2.0	X					
49	49	DUP401		X	X			
50	50	DUP402		X	X			
51	51	– DUP403*		X	X			
52	52	51 Trip Spike					X	
53		52 Trip Blank				X		

***NOTE: Please forward DUP403 to Eurofins for analysis.**

CH 30/09/21 # 265016

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey

Sample Login Details

Your reference	P1806774 - Menangle
Envirolab Reference	268016
Date Sample Received	30/04/2021
Date Instructions Received	30/04/2021
Date Results Expected to be Reported	07/05/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	52 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBsin Soil	Acid Extractable metalsin soil	Asbestos ID - soils	On Hold
TP401/0.1									✓
TP401/1.0									✓
TP401/2.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP401/2.5									✓
TP401/3.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP402/0.1									✓
TP402/1.0									✓
TP402/3.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP402/3.6	✓	✓	✓	✓	✓	✓	✓	✓	
TP403/0.1									✓
TP403/1.0									✓
TP403/2.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP403/2.6	✓	✓	✓	✓	✓	✓	✓	✓	
TP404/0.1									✓
TP404/1.0									✓
TP404/3.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP404/3.3	✓	✓	✓	✓	✓	✓	✓	✓	
TP405/0.1									✓
TP405/1.0									✓
TP405/2.2	✓	✓	✓	✓	✓	✓	✓	✓	
TP405/2.5	✓	✓	✓	✓	✓	✓	✓	✓	
TP406/0.1									✓
TP406/1.0									✓
TP406/2.5	✓	✓	✓	✓	✓	✓	✓	✓	
TP406/2.8	✓	✓	✓	✓	✓	✓	✓	✓	
TP407/0.1									✓
TP407/1.0									✓
TP407/2.2	✓	✓	✓	✓	✓	✓	✓	✓	
TP407/2.6	✓	✓	✓	✓	✓	✓	✓	✓	
TP408/0.1									✓
TP408/1.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP408/2.2									✓

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ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBsin Soil	Acid Extractable metalsin soil	Asbestos ID - soils	On Hold
TP409/1.0									✓
TP409/2.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP409/3.0									✓
TP410/1.0									✓
TP410/2.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP410/3.0									✓
TP411/0.1									✓
TP411/1.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP411/2.0									✓
TP412/0.1									✓
TP412/1.0									✓
TP412/2.5	✓	✓	✓	✓	✓	✓	✓	✓	
TP412/3.0	✓	✓	✓	✓	✓	✓	✓	✓	
TP413/0.1									✓
TP413/1.0									✓
TP413/2.0	✓	✓	✓	✓	✓	✓	✓	✓	
DUP401				✓	✓		✓		
DUP402				✓	✓		✓		
Trip Spike	✓								
Trip Blank	✓								

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 266720

Client Details

Client	Martens & Associates Pty Ltd
Attention	William Xu
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774: 285 Finns Road, Menangle, NSW**
Number of Samples	7 Water
Date samples received	15/04/2021
Date completed instructions received	15/04/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	16/04/2021
Date of Issue	16/04/2021

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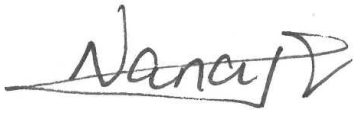
Results Approved By
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Nancy Zhang, Laboratory Manager, Sydney
Phalak Inthakesone, Organics Development Manager, Sydney
Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in water					
Our Reference		266720-1	266720-2	266720-3	266720-4
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Dichlorodifluoromethane	µg/L	<10	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Benzene	µg/L	<1	<1	<1	5
Dibromomethane	µg/L	<1	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1	<1
Toluene	µg/L	4	2	1	170
1,3-dichloropropane	µg/L	<1	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1	<1

VOCs in water					
Our Reference		266720-1	266720-2	266720-3	266720-4
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water
Ethylbenzene	µg/L	<1	<1	<1	<1
Bromoform	µg/L	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2
Styrene	µg/L	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1	<1
o-xylene	µg/L	<1	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	80	81	74	83
Surrogate toluene-d8	%	99	100	100	101
Surrogate 4-BFB	%	129	131	128	129

vTRH(C6-C10)/BTEXN in Water						
Our Reference		266720-1	266720-2	266720-3	266720-4	266720-5
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415	6774/DUP01/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_6 - C_9	µg/L	<10	<10	<10	300	<10
TRH C_6 - C_{10}	µg/L	<10	<10	<10	770	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	590	<10
Benzene	µg/L	<1	<1	<1	5	<1
Toluene	µg/L	4	2	1	170	4
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	80	81	74	83	81
Surrogate toluene-d8	%	99	100	100	101	101
Surrogate 4-BFB	%	129	131	128	129	128

vTRH(C6-C10)/BTEXN in Water			
Our Reference		266720-6	266720-7
Your Reference	UNITS	Trip Blank	Trip Spike
Date Sampled		16/04/2021	16/04/2021
Type of sample		Water	Water
Date extracted	-	16/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021
TRH C_6 - C_9	µg/L	<10	[NA]
TRH C_6 - C_{10}	µg/L	<10	[NA]
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	[NA]
Benzene	µg/L	<1	101%
Toluene	µg/L	<1	105%
Ethylbenzene	µg/L	<1	135%
m+p-xylene	µg/L	<2	133%
o-xylene	µg/L	<1	140%
Naphthalene	µg/L	<1	[NA]
Surrogate Dibromofluoromethane	%	97	71
Surrogate toluene-d8	%	104	100
Surrogate 4-BFB	%	94	130

svTRH (C10-C40) in Water						
Our Reference		266720-1	266720-2	266720-3	266720-4	266720-5
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415	6774/DUP01/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_{10} - C_{14}	µg/L	<50	<50	<50	330	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	<100	1,900	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	5,400	<100
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50	680	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50	680	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	6,800	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	250	<100
Surrogate o-Terphenyl	%	78	89	96	85	77

PAHs in Water						
Our Reference		266720-1	266720-2	266720-3	266720-4	266720-5
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415	6774/DUP01/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	79	105	94	70	106

Organochlorine Pesticides in Water					
Our Reference		266720-1	266720-2	266720-3	266720-4
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
alpha-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
HCB	µg/L	<0.2	<0.2	<0.2	<0.2
beta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
gamma-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
Heptachlor	µg/L	<0.2	<0.2	<0.2	<0.2
delta-BHC	µg/L	<0.2	<0.2	<0.2	<0.2
Aldrin	µg/L	<0.2	<0.2	<0.2	<0.2
Heptachlor Epoxide	µg/L	<0.2	<0.2	<0.2	<0.2
gamma-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2
alpha-Chlordane	µg/L	<0.2	<0.2	<0.2	<0.2
Endosulfan I	µg/L	<0.2	<0.2	<0.2	<0.2
pp-DDE	µg/L	<0.2	<0.2	<0.2	<0.2
Dieldrin	µg/L	<0.2	<0.2	<0.2	<0.2
Endrin	µg/L	<0.2	<0.2	<0.2	<0.2
Endosulfan II	µg/L	<0.2	<0.2	<0.2	<0.2
pp-DDD	µg/L	<0.2	<0.2	<0.2	<0.2
Endrin Aldehyde	µg/L	<0.2	<0.2	<0.2	<0.2
pp-DDT	µg/L	<0.2	<0.2	<0.2	<0.2
Endosulfan Sulphate	µg/L	<0.2	<0.2	<0.2	<0.2
Methoxychlor	µg/L	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	78	97	83	86

OP Pesticides in Water					
Our Reference		266720-1	266720-2	266720-3	266720-4
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Dichlorvos	µg/L	<0.2	<0.2	<0.2	<0.2
Dimethoate	µg/L	<0.2	<0.2	<0.2	<0.2
Diazinon	µg/L	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos-methyl	µg/L	<0.2	<0.2	<0.2	<0.2
Ronnel	µg/L	<0.2	<0.2	<0.2	<0.2
Fenitrothion	µg/L	<0.2	<0.2	<0.2	<0.2
Malathion	µg/L	<0.2	<0.2	<0.2	<0.2
Chlorpyriphos	µg/L	<0.2	<0.2	<0.2	<0.2
Parathion	µg/L	<0.2	<0.2	<0.2	<0.2
Bromophos ethyl	µg/L	<0.2	<0.2	<0.2	<0.2
Ethion	µg/L	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	µg/L	<0.2	<0.2	<0.2	<0.2
Surrogate TCMX	%	78	97	83	86

PCBs in Water					
Our Reference		266720-1	266720-2	266720-3	266720-4
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water
Date extracted	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Aroclor 1016	µg/L	<2	<2	<2	<2
Aroclor 1221	µg/L	<2	<2	<2	<2
Aroclor 1232	µg/L	<2	<2	<2	<2
Aroclor 1242	µg/L	<2	<2	<2	<2
Aroclor 1248	µg/L	<2	<2	<2	<2
Aroclor 1254	µg/L	<2	<2	<2	<2
Aroclor 1260	µg/L	<2	<2	<2	<2
Surrogate TCMX	%	78	97	83	86

HM in water - dissolved						
Our Reference		266720-1	266720-2	266720-3	266720-4	266720-5
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415	6774/DUP01/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Arsenic-Dissolved	µg/L	<1	<1	1	320	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	0.6	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	18	<1
Copper-Dissolved	µg/L	<1	<1	2	21	<1
Lead-Dissolved	µg/L	<1	<1	<1	6	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	3	2	8	110	3
Zinc-Dissolved	µg/L	3	4	5	44	4

PFAS in Waters Short					
Our Reference		266720-1	266720-2	266720-3	266720-4
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	<0.01	<0.01	0.03
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	<0.01	0.01
6:2 FTS	µg/L	0.01	<0.01	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	118	97	104	96
Surrogate $^{13}C_2$ *PFOA*	%	121	120	133	119
Extracted ISTD $^{18}O_2$ *PFHxS*	%	106	114	117	111
Extracted ISTD $^{13}C_4$ *PFOS*	%	84	103	101	98
Extracted ISTD $^{13}C_4$ *PFOA*	%	77	77	87	80
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	61	48	79	167
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	53	37	57	79
Total Positive PFHxS & PFOS	µg/L	<0.01	<0.01	<0.01	0.03
Total Positive PFOA & PFOS	µg/L	<0.01	<0.01	<0.01	0.04
Total Positive PFAS	µg/L	0.01	<0.01	<0.01	0.04

Miscellaneous Inorganics					
Our Reference		266720-1	266720-2	266720-3	266720-4
Your Reference	UNITS	6774/MW01/210415	6774/MW02/210415	6774/MW03/210415	6774/MW04/210415
Date Sampled		16/04/2021	16/04/2021	16/04/2021	16/04/2021
Type of sample		Water	Water	Water	Water
Date prepared	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Formaldehyde in waters	mg/L	<0.1	<0.1	<0.1	1.4

Method ID	Methodology Summary
Inorg-113	Formaldehyde in waters and solids (1:5 extract) using colourimetric analysis and/or LC-DAD.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/04/2021	1	15/04/2021	16/04/2021		15/04/2021	[NT]
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	74	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	1	<1	<1	0	78	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	78	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	79	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Dibromomethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	114	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	73	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	1	4	4	0	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	80	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	96	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromoform	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	[NT]	[NT]
Styrene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	109	1	80	97	19	107	[NT]
Surrogate toluene-d8	%		Org-023	100	1	99	104	5	100	[NT]
Surrogate 4-BFB	%		Org-023	128	1	129	95	30	130	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/04/2021	1	15/04/2021	16/04/2021		15/04/2021	[NT]
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	1	<10	<10	0	98	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	1	<10	<10	0	98	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	82	[NT]
Toluene	µg/L	1	Org-023	<1	1	4	4	0	83	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	107	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	108	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	108	[NT]
Naphthalene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	109	1	80	97	19	107	[NT]
Surrogate toluene-d8	%		Org-023	100	1	99	104	5	100	[NT]
Surrogate 4-BFB	%		Org-023	128	1	129	95	30	130	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Date analysed	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	87	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	82	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	66	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	87	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	82	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	66	[NT]
Surrogate o-Terphenyl	%		Org-020	84	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Date analysed	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Naphthalene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Acenaphthylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Fluorene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Phenanthrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Benzo(a)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-022/025	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	108	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: Organochlorine Pesticides in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Date analysed	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
alpha-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
HCB	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	91	[NT]
gamma-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	88	[NT]
delta-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor Epoxide	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	96	[NT]
gamma-Chlordane	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
Dieldrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	100	[NT]
Endrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan II	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	91	[NT]
Endrin Aldehyde	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	94	[NT]
Methoxychlor	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	102	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: OP Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Date analysed	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Dichlorvos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	120	[NT]
Dimethoate	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	100	[NT]
Fenitrothion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	104	[NT]
Malathion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	136	[NT]
Chlorpyriphos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	108	[NT]
Parathion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	100	[NT]
Bromophos ethyl	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	110	[NT]
Azinphos-methyl (Guthion)	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	102	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PCBs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Date analysed	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Aroclor 1016	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	80	[NT]
Aroclor 1260	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	102	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	266720-5
Date prepared	-			16/04/2021	3	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Date analysed	-			16/04/2021	3	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Arsenic-Dissolved	µg/L	1	Metals-022	<1	3	1	1	0	104	100
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	3	<0.1	<0.1	0	99	96
Chromium-Dissolved	µg/L	1	Metals-022	<1	3	<1	<1	0	106	101
Copper-Dissolved	µg/L	1	Metals-022	<1	3	2	2	0	108	100
Lead-Dissolved	µg/L	1	Metals-022	<1	3	<1	<1	0	114	102
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	3	<0.05	<0.05	0	103	108
Nickel-Dissolved	µg/L	1	Metals-022	<1	3	8	9	12	106	98
Zinc-Dissolved	µg/L	1	Metals-022	<1	3	5	6	18	109	113

QUALITY CONTROL: PFAS in Waters Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	266720-2
Date prepared	-			15/04/2021	1	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			15/04/2021	1	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	92	92
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	82	88
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	92	93
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	0.01	<0.01	0	103	106
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	97	96
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	104	1	118	116	2	97	98
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	97	1	121	121	0	96	119
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	92	1	106	116	9	102	111
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	86	1	84	87	4	101	98
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	91	1	77	86	11	98	77
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	92	1	61	76	22	96	52
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	83	1	53	62	16	88	45

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Date analysed	-			16/04/2021	[NT]	[NT]	[NT]	[NT]	16/04/2021	[NT]
Formaldehyde in waters	mg/L	0.1	Inorg-113	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).
Dissolved Metals: no filtered, preserved sample was received, therefore the unpreserved sample was filtered through 0.45µm filter at the lab.
Note: there is a possibility some elements may be underestimated.

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consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Project													
Name	P1806774: 285 Finns Road, Menangle, NSW **(WATER SAMPLES)**												
Martens Contact Officer	William Xu Robert Mehaffey Andrew Norris Ben McGiffin					**Contact Email**	wxu@martens.com.au rmehaffey@martens.com.au anorris@martens.com.au bmcgiffin@martens.com.au						
Sampling and Shipping	**Sample Date**	16.04.21		**Dispatch Date**	16.04.21		**Turnaround Time**				**24 hours or fastest possible time**		
	Our Reference	P1806774COC04V01				**Shipping Method (X)**	**Hand**	**X**	**Post**		**Courier**		
	On Ice (X)	**X**	**No Ice (X)**		**Other (X)**								
Laboratory													
Name	Envirolab												
Sample Delivery Address	12 Ashley Street, Chatswood, NSW												
Instructions	**FASTEST TURNAROUND TIME** and Please lab filter for 8HM in green translucent bottles.												
Delivery Contact	**Name**	Sample receipt		**Phone**	08 9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au login@envirolab.com.au customerserive@envirolab.com.au SSong@envirolab.com.au AHie@envirolab.com.au				
Please Send Report By (X)	**Post**		**Fax**		**Email**	**X**	**Reporting Email Address**	wxu@martens.com.au rmehaffey@martens.com.au anorris@martens.com.au bmcgiffin@martens.com.au martens@esdat.com.au					

ENVIROLAB GROUP

Envirolab Service
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 266720
Date Received: 15/4/21
Time Received: 13:45
Received By: M
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Head Office
Suite 201, 20 George St
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

	Sample ID	Formaldehyde	Combo 6 (Water)	VOC Suite (Water)	PFAS Short Suite (Water)	Combo 3 (Water)	TRH	BTEX
1	6774/MW01/210415	X	X	X	X			
2	6774/MW02/210415	X	X	X	X			
3	6774/MW03/210415	X	X	X	X			
4	6774/MW04/210415	X	X	X	X			
5	6774/DUP01/210415					X		
6	Trip Blank						X	
7	Trip Spike							X

Notes	**FASTEST TURNAROUND TIME** Please lab filter for 8HM in green translucent bottles.

ENVIROLAB GROUP

Envirolab Service
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 266720

Date Received: 15/4/21

Time Received: 13:45

Received By:

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	William Xu

Sample Login Details

Your reference	P1806774: 285 Finns Road, Menangle, NSW
Envirolab Reference	266720
Date Sample Received	15/04/2021
Date Instructions Received	15/04/2021
Date Results Expected to be Reported	16/04/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	7 Water
Turnaround Time Requested	1 day
Temperature on Receipt (°C)	18.5
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHsin Water	Organochlorine Pesticides in Water	OP Pesticides in Water	PCBs in Water	HM in water - dissolved	PFAS in Waters Short	Formaldehyde in waters
6774/MW01/210415	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6774/MW02/210415	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6774/MW03/210415	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6774/MW04/210415	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6774/DUP01/210415		✓	✓	✓				✓		
Trip Blank		✓								
Trip Spike		✓								

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 266725

Client Details

Client	Martens & Associates Pty Ltd
Attention	William Xu
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774: 285 Finns Road, Menangle, NSW**
Number of Samples	41 Soil
Date samples received	15/04/2021
Date completed instructions received	15/04/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	16/04/2021
Date of Issue	16/04/2021

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Nyovan Moonean
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Diego Bigolin, Team Leader, Inorganics
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Hannah Nguyen, Senior Chemist
Lucy Zhu, Asbestos Supervisor
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	105	101	105	109	107

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	101	110	110	111	113

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		266725-11	266725-12	266725-19	266725-20	266725-21
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS07	6774/SS08	6774/SS09
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	112	109	110	111	112

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		266725-22	266725-23	266725-24	266725-25	266725-29
Your Reference	UNITS	6774/SS10	6774/SS11	6774/SS12	6774/SS13	Trip Blank (Soil)
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	[NA]
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	[NA]
Ethylbenzene	mg/kg	<1	<1	<1	<1	[NA]
m+p-xylene	mg/kg	<2	<2	<2	<2	[NA]
o-Xylene	mg/kg	<1	<1	<1	<1	[NA]
naphthalene	mg/kg	<1	<1	<1	<1	[NA]
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	[NA]
Surrogate aaa-Trifluorotoluene	%	108	105	105	112	100

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		266725-30
Your Reference	UNITS	Trip Spike (Soil)
Date Sampled		15-16/04/2021
Type of sample		Soil
Date extracted	-	15/04/2021
Date analysed	-	16/04/2021
Benzene	mg/kg	76%
Toluene	mg/kg	75%
Ethylbenzene	mg/kg	75%
m+p-xylene	mg/kg	77%
o-Xylene	mg/kg	74%
Surrogate aaa-Trifluorotoluene	%	94

svTRH (C10-C40) in Soil						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	97	92	91	90	92

svTRH (C10-C40) in Soil						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	120	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	350	300	250	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	350	290	240	<100
TRH >C_{34} -C_{40}	mg/kg	<100	420	350	310	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	770	640	560	<50
Surrogate o-Terphenyl	%	87	90	94	95	91

svTRH (C10-C40) in Soil						
Our Reference		266725-11	266725-12	266725-19	266725-20	266725-21
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS07	6774/SS08	6774/SS09
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	890	580
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	150	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	160	74
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	160	74
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	870	530
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	140	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	1,200	600
Surrogate o-Terphenyl	%	90	71	90	#	#

svTRH (C10-C40) in Soil					
Our Reference		266725-22	266725-23	266725-24	266725-25
Your Reference	UNITS	6774/SS10	6774/SS11	6774/SS12	6774/SS13
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	270	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	230	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	130	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	360	<50	<50	<50
Surrogate o-Terphenyl	%	95	90	98	98

PAHs in Soil						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	99	102	98	99	97

PAHs in Soil						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.3	0.2	0.3	<0.1
Pyrene	mg/kg	<0.1	0.4	0.2	0.3	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.1	0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	0.2	0.2	0.2	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.9	0.6	0.3	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.2	0.2	0.2	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.3	0.2	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.5	0.4	0.2	<0.1
Total +ve PAH's	mg/kg	<0.05	2.9	2.2	1.6	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	101	98	98	99	102

PAHs in Soil						
Our Reference		266725-11	266725-12	266725-19	266725-20	266725-21
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS07	6774/SS08	6774/SS09
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	101	100	96	95	96

PAHs in Soil					
Our Reference		266725-22	266725-23	266725-24	266725-25
Your Reference	UNITS	6774/SS10	6774/SS11	6774/SS12	6774/SS13
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	100	99	103	101

Organochlorine Pesticides in soil						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	100	97	99	99

Organochlorine Pesticides in soil						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	95	94	98	101

Organochlorine Pesticides in soil						
Our Reference		266725-11	266725-12	266725-13	266725-14	266725-15
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS01	6774/SS02	6774/SS03
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	103	98	109	100	96

Organochlorine Pesticides in soil						
Our Reference		266725-16	266725-17	266725-18	266725-22	266725-23
Your Reference	UNITS	6774/SS04	6774/SS05	6774/SS06	6774/SS10	6774/SS11
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	96	99	98	96

Organochlorine Pesticides in soil			
Our Reference		266725-24	266725-25
Your Reference	UNITS	6774/SS12	6774/SS13
Date Sampled		15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil
Date extracted	-	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021
alpha-BHC	mg/kg	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Surrogate TCMX	%	98	97

Organophosphorus Pesticides in Soil						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	100	97	99	99

Organophosphorus Pesticides in Soil						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	95	94	98	101

Organophosphorus Pesticides in Soil						
Our Reference		266725-11	266725-12	266725-13	266725-14	266725-15
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS01	6774/SS02	6774/SS03
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	103	98	109	100	96

Organophosphorus Pesticides in Soil						
Our Reference		266725-16	266725-17	266725-18	266725-22	266725-23
Your Reference	UNITS	6774/SS04	6774/SS05	6774/SS06	6774/SS10	6774/SS11
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	96	99	98	96

Organophosphorus Pesticides in Soil			
Our Reference		266725-24	266725-25
Your Reference	UNITS	6774/SS12	6774/SS13
Date Sampled		15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil
Date extracted	-	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021
Dichlorvos	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	98	97

Acid Extractable metals in soil						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Arsenic	mg/kg	6	<4	<4	8	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	14	7	5	21	12
Copper	mg/kg	14	7	14	20	12
Lead	mg/kg	15	11	14	15	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	5	9	9	6
Zinc	mg/kg	44	30	69	28	37

Acid Extractable metals in soil						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Arsenic	mg/kg	6	<4	<4	5	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	19	5	5	18	17
Copper	mg/kg	22	71	57	26	22
Lead	mg/kg	12	5	6	18	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	4	3	18	19
Zinc	mg/kg	24	39	25	61	54

Acid Extractable metals in soil						
Our Reference		266725-11	266725-12	266725-13	266725-14	266725-15
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS01	6774/SS02	6774/SS03
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Arsenic	mg/kg	10	9	<4	5	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	12	9	9	14
Copper	mg/kg	28	33	29	27	20
Lead	mg/kg	13	25	18	19	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	14	17	14	12	9
Zinc	mg/kg	48	180	360	310	240

Acid Extractable metals in soil						
Our Reference		266725-16	266725-17	266725-18	266725-19	266725-20
Your Reference	UNITS	6774/SS04	6774/SS05	6774/SS06	6774/SS07	6774/SS08
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Arsenic	mg/kg	6	8	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	12	21	7	36
Copper	mg/kg	17	28	48	5	16
Lead	mg/kg	12	15	11	14	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	6	11	28	6	40
Zinc	mg/kg	150	160	100	40	110

Acid Extractable metals in soil						
Our Reference		266725-21	266725-22	266725-23	266725-24	266725-25
Your Reference	UNITS	6774/SS09	6774/SS10	6774/SS11	6774/SS12	6774/SS13
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Arsenic	mg/kg	<4	5	4	8	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	0.6	<0.4
Chromium	mg/kg	19	15	22	14	11
Copper	mg/kg	41	30	48	51	28
Lead	mg/kg	14	14	13	19	13
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	23	19	32	15	34
Zinc	mg/kg	180	410	250	3,900	170

Acid Extractable metals in soil					
Our Reference		266725-26	266725-27	266725-28	266725-42
Your Reference	UNITS	6774/DUP01	6774/DUP02	6774/DUP03	6774/SS10 - [TRIPLICATE]
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Arsenic	mg/kg	8	5	<4	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	18	10	27	16
Copper	mg/kg	17	29	23	31
Lead	mg/kg	15	21	33	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	14	40	19
Zinc	mg/kg	37	310	170	310

Moisture						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Moisture	%	9.3	2.5	5.6	19	8.8

Moisture						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Moisture	%	13	3.1	4.0	5.3	5.8

Moisture						
Our Reference		266725-11	266725-12	266725-13	266725-14	266725-15
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS01	6774/SS02	6774/SS03
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Moisture	%	11	6.1	15	16	17

Moisture						
Our Reference		266725-16	266725-17	266725-18	266725-19	266725-20
Your Reference	UNITS	6774/SS04	6774/SS05	6774/SS06	6774/SS07	6774/SS08
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Moisture	%	23	24	11	1.7	1.7

Moisture						
Our Reference		266725-21	266725-22	266725-23	266725-24	266725-25
Your Reference	UNITS	6774/SS09	6774/SS10	6774/SS11	6774/SS12	6774/SS13
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Moisture	%	1.3	13	16	19	4.5

Moisture				
Our Reference		266725-26	266725-27	266725-28
Your Reference	UNITS	6774/DUP01	6774/DUP02	6774/DUP03
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil
Date prepared	-	15/04/2021	15/04/2021	15/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021
Moisture	%	18	16	1.3

Asbestos ID - soils						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Sample mass tested	g	Approx. 25g	Approx. 20g	Approx. 20g	Approx. 15g	Approx. 20g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Sample mass tested	g	Approx. 15g	Approx. 20g	Approx. 20g	Approx. 20g	Approx. 20g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		266725-11	266725-12	266725-22	266725-23	266725-24
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS10	6774/SS11	6774/SS12
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Sample mass tested	g	Approx. 20g	Approx. 20g	Approx. 10g	Approx. 10g	Approx. 20g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils		
Our Reference		266725-25
Your Reference	UNITS	6774/SS13
Date Sampled		15-16/04/2021
Type of sample		Soil
Date analysed	-	16/04/2021
Sample mass tested	g	Approx. 15g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected

Miscellaneous Inorg - soil						
Our Reference		266725-1	266725-2	266725-3	266725-4	266725-5
Your Reference	UNITS	6774/BH301/0-0.2	6774/BH302/0-0.2	6774/BH303/0-0.2	6774/BH304/0-0.3	6774/BH305/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Formaldehyde in solids	mg/kg	<1	<1	<1	<1	<1

Miscellaneous Inorg - soil						
Our Reference		266725-6	266725-7	266725-8	266725-9	266725-10
Your Reference	UNITS	6774/BH306/0-0.2	6774/BH307/0-0.2	6774/BH308/0-0.2	6774/BH309/0-0.2	6774/BH310/0-0.2
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Formaldehyde in solids	mg/kg	<1	<1	<1	<1	<1

Miscellaneous Inorg - soil						
Our Reference		266725-11	266725-12	266725-13	266725-14	266725-15
Your Reference	UNITS	6774/BH311/0-0.2	6774/BH312/0-0.2	6774/SS01	6774/SS02	6774/SS03
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Formaldehyde in solids	mg/kg	<1	<1	<1	<1	<1

Miscellaneous Inorg - soil						
Our Reference		266725-16	266725-17	266725-18	266725-22	266725-23
Your Reference	UNITS	6774/SS04	6774/SS05	6774/SS06	6774/SS10	6774/SS11
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Formaldehyde in solids	mg/kg	<1	<1	<1	<1	<1

Miscellaneous Inorg - soil						
Our Reference		266725-24	266725-25	266725-26	266725-27	266725-28
Your Reference	UNITS	6774/SS12	6774/SS13	6774/DUP01	6774/DUP02	6774/DUP03
Date Sampled		15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021	15-16/04/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Date analysed	-	16/04/2021	16/04/2021	16/04/2021	16/04/2021	16/04/2021
Formaldehyde in solids	mg/kg	<1	<1	<1	<1	<1

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-113	Formaldehyde in waters and solids (1:5 extract) using colourimetric analysis and/or LC-DAD.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	266725-2
Date extracted	-			15/04/2021	1	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	102	100
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	102	100
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	116	114
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	109	105
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	99	98
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	92	91
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	117	120
naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	111	1	105	113	7	105	109

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	266725-23
Date extracted	-			[NT]	11	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	11	<25	<25	0	107	106
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	11	<25	<25	0	107	106
Benzene	mg/kg	0.2	Org-023	[NT]	11	<0.2	<0.2	0	122	120
Toluene	mg/kg	0.5	Org-023	[NT]	11	<0.5	<0.5	0	116	115
Ethylbenzene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	103	104
m+p-xylene	mg/kg	2	Org-023	[NT]	11	<2	<2	0	97	95
o-Xylene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	115	126
naphthalene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	11	112	116	4	110	112

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	15/04/2021	15/04/2021		[NT]	[NT]
Date analysed	-			[NT]	22	16/04/2021	16/04/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	22	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	22	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	22	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	22	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	22	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	22	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	22	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	22	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	22	108	105	3	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	266725-2
Date extracted	-			15/04/2021	1	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	115	101
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	92	75
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	80	76
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	115	101
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	92	75
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	80	76
Surrogate o-Terphenyl	%		Org-020	97	1	97	96	1	116	92

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	266725-23
Date extracted	-			[NT]	11	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	11	<50	<50	0	112	92
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	88	84
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	92	66
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	11	<50	<50	0	112	92
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	88	84
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	92	66
Surrogate o-Terphenyl	%		Org-020	[NT]	11	90	93	3	120	120

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	15/04/2021	15/04/2021		[NT]	[NT]
Date analysed	-			[NT]	22	16/04/2021	16/04/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	22	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	22	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	22	270	440	48	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	22	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	22	230	300	26	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	22	130	220	51	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	22	95	102	7	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	266725-2
Date extracted	-			15/04/2021	1	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	86	84
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	77	64
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	72
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	95
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	95
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	80
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	80	82
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.05	<0.05	0	78	78
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	103	1	99	100	1	100	113

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	266725-23
Date extracted	-			[NT]	11	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	116	105
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	76	71
Fluorene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	89	84
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	113	112
Anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	74	101
Pyrene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	104	93
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	76	72
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	11	<0.05	<0.05	0	78	76
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	11	101	101	0	116	115

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	15/04/2021	15/04/2021		[NT]	[NT]
Date analysed	-			[NT]	22	16/04/2021	16/04/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	22	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	22	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	22	100	100	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	266725-2
Date extracted	-			15/04/2021	1	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	77
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	75
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	87	89
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	95	90
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	90
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	91
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	89
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	86	86
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	79	74
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	86	82
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	102	1	96	98	2	99	98

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	266725-23
Date extracted	-			[NT]	11	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	90	85
HCB	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	91	83
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	115	101
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	108	106
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	112	101
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	80	106
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	119	105
Endrin	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	104	100
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	101	88
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	84	84
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	11	103	104	1	100	96

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	15/04/2021	15/04/2021		[NT]	[NT]
Date analysed	-			[NT]	22	16/04/2021	16/04/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	22	98	97	1	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	266725-2
Date extracted	-			15/04/2021	1	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	83	71
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	86	79
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	79	77
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	75	78
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	91	87
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	71	75
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	69	73
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	102	1	96	98	2	99	98

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	266725-23
Date extracted	-			[NT]	11	15/04/2021	15/04/2021		15/04/2021	15/04/2021
Date analysed	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	70	70
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	104	86
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	77	73
Malathion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	73	73
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	109	97
Parathion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	80	78
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	77	81
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	11	103	104	1	100	96

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	15/04/2021	15/04/2021		[NT]	[NT]
Date analysed	-			[NT]	22	16/04/2021	16/04/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	22	98	97	1	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	266725-2
Date prepared	-			16/04/2021	1	15/04/2021	15/04/2021		16/04/2021	16/04/2021
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Arsenic	mg/kg	4	Metals-020	<4	1	6	7	15	93	91
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	98	100
Chromium	mg/kg	1	Metals-020	<1	1	14	17	19	98	96
Copper	mg/kg	1	Metals-020	<1	1	14	15	7	90	96
Lead	mg/kg	1	Metals-020	<1	1	15	16	6	97	89
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	89	89
Nickel	mg/kg	1	Metals-020	<1	1	8	7	13	94	105
Zinc	mg/kg	1	Metals-020	<1	1	44	36	20	94	118

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	266725-23
Date prepared	-			[NT]	11	15/04/2021	15/04/2021		16/04/2021	16/04/2021
Date analysed	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Arsenic	mg/kg	4	Metals-020	[NT]	11	10	11	10	93	88
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	100	101
Chromium	mg/kg	1	Metals-020	[NT]	11	15	16	6	98	93
Copper	mg/kg	1	Metals-020	[NT]	11	28	27	4	97	83
Lead	mg/kg	1	Metals-020	[NT]	11	13	12	8	98	101
Mercury	mg/kg	0.1	Metals-021	[NT]	11	<0.1	<0.1	0	91	90
Nickel	mg/kg	1	Metals-020	[NT]	11	14	15	7	94	87
Zinc	mg/kg	1	Metals-020	[NT]	11	48	47	2	98	#

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	22	15/04/2021	15/04/2021		[NT]	[NT]
Date analysed	-			[NT]	22	16/04/2021	16/04/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	22	5	5	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	22	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	22	15	28	60	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	22	30	32	6	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	22	14	13	7	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	22	19	26	31	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	22	410	460	11	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	266725-2
Date prepared	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Date analysed	-			16/04/2021	1	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Formaldehyde in solids	mg/kg	1	Inorg-113	<1	1	<1	<1	0	112	113

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	266725-22
Date prepared	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Date analysed	-			[NT]	11	16/04/2021	16/04/2021		16/04/2021	16/04/2021
Formaldehyde in solids	mg/kg	1	Inorg-113	[NT]	11	<1	<1	0	110	103

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Asbestos: A portion of the supplied samples were sub-sampled for asbestos
analysis according to Envirolab procedures.
We cannot guarantee that these sub-samples are indicative of the entire sample.
Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 266725-1-12,22-25 were sub-sampled from jars provided by the client.

Acid Extractable Metals in Soil:
- The laboratory RPD acceptance criteria has been exceeded for 266725-22 for Cr. Therefore a triplicate result has been issued as laboratory sample number 266725-42.
- # Percent recovery is not possible to report due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

TRH Soil C10-C40 NEPM - # Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 266725-20,21 have caused interference.

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consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Project												
Name	P1806774: 285 Finns Road, Menangle, NSW **(SOIL SAMPLES)**											
Martens Contact Officer	William Xu Robert Mehaffey Andrew Norris Ben McGiffin					**Contact Email**	wxu@martens.com.au rmehaffey@martens.com.au anorris@martens.com.au bmcgiffin@martens.com.au					
Sampling and Shipping	**Sample Date**	15.04.21 to 16.04.21		**Dispatch Date**	16.04.21		**Turnaround Time**				**24 hours or fastest possible time**	
	Our Reference	P1806774COC03V01				**Shipping Method (X)**	**Hand**	**X**	**Post**		**Courier**	
	On Ice (X)	**X**	**No Ice (X)**		**Other (X)**							
Laboratory												
Name	Envirolab											
Sample Delivery Address	12 Ashley Street, Chatswood, NSW											
Instructions	**FASTEST TURNAROUND TIME**											
Delivery Contact	**Name**	Sample receipt	**Phone**	08 9910 6200	**Fax**	**Email**	samplereceipt@envirolabservices.com.au login@envirolab.com.au customerserive@envirolab.com.au SSong@envirolab.com.au AHie@envirolab.com.au					
Please Send Report By (X)	**Post**		**Fax**		**Email**	**X**	**Reporting Email Address**	wxu@martens.com.au rmehaffey@martens.com.au anorris@martens.com.au bmcgiffin@martens.com.au martens@esdat.com.au				

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 266725

Date Received: 15/4/21
Time Received: 1345
Received By:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Head Office
Suite 201, 20 George St
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

	Sample ID	Combo 5a (Soil) Please do OCP/OPP instead of PCB	Formaldehyde	8HM	OCP and OPP	Combo 3 (Soil)	TRH	BTEX	Hold
1	6774/BH301/0-0.2	X	X						
2	6774/BH302/0-0.2	X	X						
3	6774/BH303/0-0.2	X	X						
4	6774/BH304/0-0.3	X	X						
5	6774/BH305/0-0.2	X	X						
6	6774/BH306/0-0.2	X	X						
7	6774/BH307/0-0.2	X	X						
8	6774/BH308/0-0.2	X	X						
9	6774/BH309/0-0.2	X	X						
10	6774/BH310/0-0.2	X	X						
11	6774/BH311/0-0.2	X	X						
12	6774/BH312/0-0.2	X	X						
13									
14	6774/SS01		X	X	X				
15	6774/SS02		X	X	X				
16	6774/SS03		X	X	X				
17	6774/SS04		X	X	X				
18	6774/SS05		X	X	X				
19	6774/SS06		X	X	X				
20	6774/SS07					X			
21	6774/SS08					X			
22	6774/SS09					X			
23	6774/SS10	X	X						
24	6774/SS11	X	X						
25	6774/SS12	X	X						
26	6774/SS13	X	X						
27									
28	6774/DUP01		X	X					
	6774/DUP02		X	X					
	6774/DUP03		X	X					

ENVIROLAB GROUP

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 266775

Date Received: 15/4/21

Time Received: 13:25

Received By: MH

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

SOIL ANALYSIS CHAIN OF CUSTODY

	Sample ID	Combo 5a (Soil) Please do OCP/OPP instead of PCB	Formaldehyde	8HM	OCP and OPP	Combo 3 (Soil)	TRH	BTEX	Hold
29	Trip Blank (Soil)						X		
30	Trip Spike (Soil)							X	
31	6774/BH301/0.3-0.5								X
32	6774/BH302/0.2-0.4								X
33	6774/BH303/0.3-0.5								X
34	6774/BH304/0.4-0.6								X
35	6774/BH305/0.3-0.5								X
36	6774/BH306/0.3-0.5								X
37	6774/BH307/0.2-0.4								X
38	6774/BH308/0.3-0.5								X
39	6774/BH309/0.3-0.5								X
40	6774/BH310/0.2-0.4								X
41	6774/BH311/0.3-0.5								X

Notes	FASTEST TURNAROUND TIME

Envirolab Service
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

ENVIROLAB GROUP

Job No: 266725

Date Received: 5/4/21

Time Received: 13:45

Received By:

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	William Xu

Sample Login Details

Your reference	P1806774: 285 Finns Road, Menangle, NSW
Envirolab Reference	266725
Date Sample Received	15/04/2021
Date Instructions Received	15/04/2021
Date Results Expected to be Reported	16/04/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	41 Soil
Turnaround Time Requested	1 day
Temperature on Receipt (°C)	15.3
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	Acid Extractable metalsin soil	Asbestos ID - soils	Formaldehyde in solids	On Hold
6774/BH301/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH302/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH303/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH304/0-0.3	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH305/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH306/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH307/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH308/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH309/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH310/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH311/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/BH312/0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
6774/SS01				✓	✓	✓		✓	
6774/SS02				✓	✓	✓		✓	
6774/SS03				✓	✓	✓		✓	
6774/SS04				✓	✓	✓		✓	
6774/SS05				✓	✓	✓		✓	
6774/SS06				✓	✓	✓		✓	
6774/SS07	✓	✓	✓			✓			
6774/SS08	✓	✓	✓			✓			
6774/SS09	✓	✓	✓			✓			
6774/SS10	✓	✓	✓	✓	✓	✓	✓	✓	
6774/SS11	✓	✓	✓	✓	✓	✓	✓	✓	
6774/SS12	✓	✓	✓	✓	✓	✓	✓	✓	
6774/SS13	✓	✓	✓	✓	✓	✓	✓	✓	
6774/DUP01						✓		✓	
6774/DUP02						✓		✓	
6774/DUP03						✓		✓	
Trip Blank (Soil)	✓								
Trip Spike (Soil)	✓								
6774/BH301/0.3-0.5									✓
6774/BH302/0.2-0.4									✓

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	Acid Extractable metalsin soil	Asbestos ID - soils	Formaldehyde in solids	On Hold
6774/BH303/0.3-0.5									✓
6774/BH304/0.4-0.6									✓
6774/BH305/0.3-0.5									✓
6774/BH306/0.3-0.5									✓
6774/BH307/0.2-0.4									✓
6774/BH308/0.3-0.5									✓
6774/BH309/0.3-0.5									✓
6774/BH310/0.2-0.4									✓
6774/BH311/0.3-0.5									✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Martens & Associates Pty Ltd
Suite 201, 20 George St
Hornsby
NSW 2077

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Robert Mehaffy**

Report **780555-S**
Project name MENANGLE
Project ID P1806774
Received Date Mar 15, 2021

Client Sample ID			**DUP104**
Sample Matrix			**Soil**
Eurofins Sample No.			**S21-Ma28518**
Date Sampled			**Mar 10, 2021**
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2
Toxaphene	0.1	mg/kg	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2
Dibutylchlorendate (surr.)	1	%	78
Tetrachloro-m-xylene (surr.)	1	%	103
Organophosphorus Pesticides			
Azinphos-methyl	0.2	mg/kg	< 0.2
Bolstar	0.2	mg/kg	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2
Coumaphos	2	mg/kg	< 2
Demeton-S	0.2	mg/kg	< 0.2

Client Sample ID			DUP104
Sample Matrix			Soil
Eurofins Sample No.			S21-Ma28518
Date Sampled			Mar 10, 2021
Test/Reference	LOR	Unit	
Organophosphorus Pesticides			
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Dimethoate	0.2	mg/kg	< 0.2
Disulfoton	0.2	mg/kg	< 0.2
EPN	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Malathion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2
Monocrotophos	2	mg/kg	< 2
Naled	0.2	mg/kg	< 0.2
Omethoate	2	mg/kg	< 2
Phorate	0.2	mg/kg	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Terbufos	0.2	mg/kg	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	96
Heavy Metals			
Arsenic	2	mg/kg	11
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	21
Copper	5	mg/kg	25
Lead	5	mg/kg	33
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	14
Zinc	5	mg/kg	59
% Moisture	1	%	9.3

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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
Organochlorine Pesticides	Sydney	Mar 17, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Mar 17, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Metals M8	Sydney	Mar 17, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Mar 15, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448

New Zealand

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

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

Company Name:	Martens & Associates Pty Ltd	**Order No.:**		**Received:**	Mar 15, 2021 3:08 PM
Address:	Suite 201, 20 George St Hornsby NSW 2077	**Report #:**	780555	**Due:**	Mar 22, 2021
		Phone:	02 9476 9999	**Priority:**	5 Day
		Fax:	02 9476 8767	**Contact Name:**	Robert Mehaffy
Project Name:	MENANGLE				
Project ID:	P1806774				

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Metals M8	Suite B14: OCP/OPP	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
Mayfield Laboratory								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	DUP104	Mar 10, 2021		Soil	S21-Ma28518	X	X	X
Test Counts						1	1	1

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.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - 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.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
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.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

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. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. 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.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. 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							
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-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	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	
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-BHC (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	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 0.1			0.1	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
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							
Organochlorine Pesticides							
Chlordanes - Total	%	104			70-130	Pass	
4.4'-DDD	%	99			70-130	Pass	
4.4'-DDE	%	111			70-130	Pass	
4.4'-DDT	%	103			70-130	Pass	
a-BHC	%	97			70-130	Pass	
Aldrin	%	105			70-130	Pass	
b-BHC	%	103			70-130	Pass	
d-BHC	%	105			70-130	Pass	
Dieldrin	%	101			70-130	Pass	
Endosulfan I	%	110			70-130	Pass	
Endosulfan II	%	97			70-130	Pass	
Endosulfan sulphate	%	95			70-130	Pass	
Endrin	%	117			70-130	Pass	
Endrin aldehyde	%	95			70-130	Pass	
Endrin ketone	%	91			70-130	Pass	
g-BHC (Lindane)	%	108			70-130	Pass	
Heptachlor	%	101			70-130	Pass	
Heptachlor epoxide	%	106			70-130	Pass	
Hexachlorobenzene	%	99			70-130	Pass	
Methoxychlor	%	115			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	121			70-130	Pass	
Dimethoate	%	82			70-130	Pass	
Ethion	%	126			70-130	Pass	
Fenitrothion	%	111			70-130	Pass	
Methyl parathion	%	121			70-130	Pass	
Mevinphos	%	114			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	104			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	110			80-120	Pass	
Copper	%	107			80-120	Pass	
Lead	%	106			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury			%	105			80-120	Pass	
Nickel			%	110			80-120	Pass	
Zinc			%	104			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-Ma20704	NCP	%	78			70-130	Pass	
4.4'-DDD	S21-Ma32454	NCP	%	87			70-130	Pass	
4.4'-DDE	S21-Ma20704	NCP	%	89			70-130	Pass	
4.4'-DDT	S21-Ma32454	NCP	%	86			70-130	Pass	
a-BHC	S21-Ma20704	NCP	%	80			70-130	Pass	
Aldrin	S21-Ma20704	NCP	%	79			70-130	Pass	
b-BHC	S21-Ma20704	NCP	%	74			70-130	Pass	
d-BHC	S21-Ma20704	NCP	%	84			70-130	Pass	
Dieldrin	S21-Ma20704	NCP	%	85			70-130	Pass	
Endosulfan I	S21-Ma20704	NCP	%	91			70-130	Pass	
Endosulfan II	S21-Ma32454	NCP	%	81			70-130	Pass	
Endosulfan sulphate	S21-Ma20704	NCP	%	75			70-130	Pass	
Endrin	S21-Ma20704	NCP	%	79			70-130	Pass	
Endrin aldehyde	S21-Ma20704	NCP	%	80			70-130	Pass	
Endrin ketone	S21-Ma32454	NCP	%	76			70-130	Pass	
g-BHC (Lindane)	S21-Ma20704	NCP	%	93			70-130	Pass	
Heptachlor	S21-Ma20704	NCP	%	78			70-130	Pass	
Heptachlor epoxide	S21-Ma20704	NCP	%	80			70-130	Pass	
Hexachlorobenzene	S21-Ma20704	NCP	%	75			70-130	Pass	
Methoxychlor	S21-Ma20704	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S21-Ma20775	NCP	%	86			70-130	Pass	
Dimethoate	S21-Ma20775	NCP	%	81			70-130	Pass	
Ethion	S21-Ma20775	NCP	%	105			70-130	Pass	
Fenitrothion	S21-Ma20775	NCP	%	97			70-130	Pass	
Methyl parathion	S21-Ma20775	NCP	%	113			70-130	Pass	
Mevinphos	S21-Ma20775	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Ma28880	NCP	%	98			75-125	Pass	
Cadmium	S21-Ma28880	NCP	%	98			75-125	Pass	
Chromium	S21-Ma28880	NCP	%	101			75-125	Pass	
Copper	S21-Ma28880	NCP	%	102			75-125	Pass	
Lead	S21-Ma28880	NCP	%	102			75-125	Pass	
Mercury	S21-Ma28880	NCP	%	102			75-125	Pass	
Nickel	S21-Ma28880	NCP	%	103			75-125	Pass	
Zinc	S21-Ma28880	NCP	%	123			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Ma30622	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-Ma30622	NCP	mg/kg	2.2	0.25	160	30%	Fail	Q15
4.4'-DDE	S21-Ma30622	NCP	mg/kg	1.8	0.68	91	30%	Fail	Q15
4.4'-DDT	S21-Ma30622	NCP	mg/kg	9.2	0.27	190	30%	Fail	Q15
a-BHC	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
b-BHC	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-Ma30622	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S21-Ma30622	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S21-Ma30622	NCP	mg/kg	0.3	< 0.2	190	30%	Fail	Q15
Ethoprop	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S21-Ma30622	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S21-Ma30622	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S21-Ma30622	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Ma32645	NCP	mg/kg	5.0	4.0	24	30%	Pass	
Cadmium	S21-Ma32645	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Ma32645	NCP	mg/kg	21	15	31	30%	Fail	Q15
Copper	S21-Ma32645	NCP	mg/kg	17	17	2.0	30%	Pass	
Lead	S21-Ma32645	NCP	mg/kg	20	17	16	30%	Pass	
Mercury	S21-Ma32645	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Ma32645	NCP	mg/kg	11	9.5	15	30%	Pass	
Zinc	S21-Ma32645	NCP	mg/kg	37	40	7.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Ma28498	NCP	%	31	31	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
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:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)

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.

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SCC0130

COC rec'd: 12/3/21 1560 JM

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Additional Testing											
	P1806774 – Menangle										
Martens Contact Officer	Robert Mehaffey				**Contact Email**	rmehaffey@martens.com.au					
Sampling and Shipping	**Sample Date**	10-11/3/2021	**Dispatch Date**	11/3/2021	**Turnaround Time**	standard					
	Our Reference	P1806774COC01V01			**Shipping Method (X)**	**Hand**		**Post**		**Courier**	X
	On Ice (X)	X	**No Ice (X)**		**Other (X)**						
Laboratory											
Name	EnviroLab										
Sample Delivery Address	12 Ashley Street, Chatswood										
Delivery Contact	**Name**		**Phone**	9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au			
Please Send Report By (X)	**Post**		**Fax**		**Email**	X	**Reporting Email Address**	rmehaffey@martens.com.au bmcgiffin@martens.com.au anorris@martens.com.au			

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
1	TP101/0.1	X					
2	TP102/0.1	X					
3	TP102/1.0						
4	TP103/0.1						X
5	TP103/1.0	X					X
6	TP103/2.0						
7	TP104/0.1	X					X
8	TP104/1.0						
9	TP104/2.0						X
10	TP105/0.1	X					X
11	TP105/1.0						
							X

ENVIROLAB Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200

Job No: 264163

Date Received: 11/3/21

Time Received: 1650

Received By: JD

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

RELINQUISHED BY: VINA VEERA

DATE & TIME: 15/3/21 @ 1133

Grace Enfm 15/3 3:08 0.5°C #780555

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

264163
DAH

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
12	TP106/0.1	X					
13	TP106/1.0						X
14	TP107/0.1						X
15	TP107/1.0	X					
16	TP107/2.0						X
17	TP108/0.1	X					
18	TP109/0.1						X
19	TP109/1.0	X					
20	TP109/2.0						X
21	TP110/0.1	X					
22	TP110/1.0						X
23	TP110/2.0						X
24	TP111/0.1	X					
25	TP111/1.0						X
26	TP112/0.1						X
27	TP112/1.0						X
28	TP112/2.0	X					
29	TP112/3.0						X
30	TP113/0.1	X					
31	TP113/1.0						X
32	TP114/0.1	X					
33	TP114/1.0						X
34	TP114/2.0						X
35	TP116/0.1						X
36	TP116/1.0	X					
37	TP117/0.1	X					
38	TP117/1.0						X
39	TP117/2.0						X
40	TP118/0.1						X

RELINQUISHED BY: VINA VEGA
DATE & TIME: 15/3/21 @ 1133

Grace Eelm 15/3
3:05 6.5°C #78555

SOIL ANALYSIS CHAIN OF CUSTODY

~~SDH~~ 264163

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
41	TP118/1.0	X					
42	TP118/2.0						X
43	TP119/0.1	X					
44	TP119/1.0						X
45	TP119/2.0						X
46	TP120/0.1						X
47	TP120/1.0	X					
48	TP121/0.1						X
49	TP121/1.0	X					
50	TP121/2.0						X
51	TP122/0.1	X					
52	TP123/0.1	X					
53	TP124/0.1	X					
54	TP124/1.0						X
55	TP125/0.1						X
56	TP125/1.0	X					
57	TP126/0.1	X					
58	TP127/0.1						X
59	TP127/1.0						X
60	TP127/2.0	X					
61	TP128/0.1						X
62	TP128/1.0	X					
63	TP129/0.1	X					
64	TP129/1.0						X
65	DUP101		X	X			
66	DUP102		X	X			
67	DUP103		X	X			
68	DUP104*		X	X			
69	DUP105						X

68

RELINQUISHED BY : VINA VEGA
DATE & TIME : 15/3/21 @ 1133

Grace Enbom 15/3 6.5°C
786555

SOIL ANALYSIS CHAIN OF CUSTODY

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
69							
70	DUP106						X
71	Trip Spike					X	
72	Trip Blank				X		

***NOTE: Please forward DUP104 to Eurofins for analysis.**

72 TP116/2.0 Extra -30

264063

RELINQUISHED BY: V. VEGA

DATE & TIME: 15/3/21 @ 1153

Grace Eufm 15/3 6.5°C

780555

martens
consulting engineers since 1989

SCC0130

SOIL ANALYSIS CHAIN OF CUSTODY FORM

COC rec'd: 12/3/21 1500 JM

Additional Testing

	P1806774 – Menangle										
Martens Contact Officer	Robert Mehaffey				**Contact Email**	rmehaffey@martens.com.au					
Sampling and Shipping	**Sample Date**	10-11/3/2021	**Dispatch Date**	11/3/2021	**Turnaround Time**			standard			
	Our Reference	P1806774COC01V01			**Shipping Method (X)**	**Hand**		**Post**		**Courier**	X
	On Ice (X)	X	**No Ice (X)**		**Other (X)**						

Laboratory

Name	EnviroLab							
Sample Delivery Address	12 Ashley Street, Chatswood							
Delivery Contact	**Name**		**Phone**	9910 6200	**Fax**		**Email**	samplereceipt@envirolabservices.com.au
Please Send Report By (X)	**Post**		**Fax**		**Email**	X	**Reporting Email Address**	rmehaffey@martens.com.au bmcgiffin@martens.com.au anorris@martens.com.au

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
1	TP101/0.1	X					
2	TP102/0.1	X					
3	TP102/1.0						X
4	TP103/0.1						X
5	TP103/1.0	X					
6	TP103/2.0						X
7	TP104/0.1	X					
8	TP104/1.0						X
9	TP104/2.0						X
10	TP105/0.1	X					
11	TP105/1.0						X

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 264163
Date Received: 11/3/21
Time Received: 1650
Received By: JD
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Head Office
Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476 8767

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

SOIL ANALYSIS CHAIN OF CUSTODY

264163

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
12	TP106/0.1	X					
13	TP106/1.0						X
14	TP107/0.1						X
15	TP107/1.0	X					
16	TP107/2.0						X
17	TP108/0.1	X					
18	TP109/0.1						X
19	TP109/1.0	X					
20	TP109/2.0						X
21	TP110/0.1	X					
22	TP110/1.0						X
23	TP110/2.0						X
24	TP111/0.1	X					
25	TP111/1.0						X
26	TP112/0.1						X
27	TP112/1.0						X
28	TP112/2.0	X					
29	TP112/3.0						X
30	TP113/0.1	X					
31	TP113/1.0						X
32	TP114/0.1	X					
33	TP114/1.0						X
34	TP114/2.0						X
35	TP116/0.1						X
36	TP116/1.0	X					
37	TP117/0.1	X					
38	TP117/1.0						X
39	TP117/2.0						X
40	TP118/0.1						X

SOIL ANALYSIS CHAIN OF CUSTODY

SDH 264163

Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
41	TP118/1.0	X					
42	TP118/2.0						X
43	TP119/0.1	X					
44	TP119/1.0						X
45	TP119/2.0						X
46	TP120/0.1						X
47	TP120/1.0	X					
48	TP121/0.1						X
49	TP121/1.0	X					
50	TP121/2.0						X
51	TP122/0.1	X					
52	TP123/0.1	X					
53	TP124/0.1	X					
54	TP124/1.0						X
55	TP125/0.1						X
56	TP125/1.0	X					
57	TP126/0.1	X					
58	TP127/0.1						X
59	TP127/1.0						X
60	TP127/2.0	X					
61	TP128/0.1						X
62	TP128/1.0	X					
63	TP129/0.1	X					
64	TP129/1.0						X
65	DUP101		X	X			
66	DUP102		X	X			
67	DUP103		X	X			
68	DUP104*		X	X			
69	DUP105						X

SOIL ANALYSIS CHAIN OF CUSTODY

	Item	Sample ID	Combo 6a	8HM	OC/OP Pesticides	TRH	BTEXN	HOLD
69	70	DUP106						X
70	71	Trip Spike					X	
71	72	Trip Blank				X		

***NOTE: Please forward DUP104 to Eurofins for analysis.**

72 TP116/2.0 Extra -30

264163
2077

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 264163

Client Details

Client	Martens & Associates Pty Ltd
Attention	Robert Mehaffey
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P1806774 - Menangle**
Number of Samples	72 soil
Date samples received	11/03/2021
Date completed instructions received	12/03/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/03/2021
Date of Issue	19/03/2021

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Ridwan Wijaya
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Jaimie Loa-Kum-Cheung, Metals Supervisor
Lucy Zhu, Asbestos Supervisor
Manju Dewendrage, Chemist
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	91	94	98	100	103

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	89	94	98	92	97

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	92	98	89	96	96

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	94	100	88	101	97

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	92	94	103	97	104

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		264163-60	264163-62	264163-63	264163-70	264163-71
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1	Trip Spike	Trip Blank
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	[NA]	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	[NA]	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	89%	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	96%	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	91%	<1
m+p-xylene	mg/kg	<2	<2	<2	88%	<2
o-Xylene	mg/kg	<1	<1	<1	86%	<1
naphthalene	mg/kg	<1	<1	<1	[NA]	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	[NA]	<3
Surrogate aaa-Trifluorotoluene	%	102	100	83	94	102

svTRH (C10-C40) in Soil						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	240
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	250
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	300
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	540
Surrogate o-Terphenyl	%	86	76	92	86	90

svTRH (C10-C40) in Soil						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	84	92	82	87	84

svTRH (C10-C40) in Soil						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	170
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	160
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	210
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	370
Surrogate o-Terphenyl	%	83	87	83	84	87

svTRH (C10-C40) in Soil						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	160	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	200	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	190	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	380	<50	<50	<50	<50
Surrogate o-Terphenyl	%	89	85	80	80	79

svTRH (C10-C40) in Soil						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	80	79	81	78	84

svTRH (C10-C40) in Soil				
Our Reference		264163-60	264163-62	264163-63
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	120	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	120	<50	<50
Surrogate o-Terphenyl	%	79	75	76

PAHs in Soil						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	0.4	0.7
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Fluoranthene	mg/kg	0.4	<0.1	0.1	0.4	1.5
Pyrene	mg/kg	0.4	<0.1	0.1	0.4	1.6
Benzo(a)anthracene	mg/kg	0.3	<0.1	<0.1	0.2	1.1
Chrysene	mg/kg	0.2	<0.1	<0.1	0.2	0.8
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.8
Benzo(a)pyrene	mg/kg	0.2	<0.05	0.06	0.2	0.88
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.5
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.7
Total +ve PAH's	mg/kg	1.7	<0.05	0.3	1.9	8.6
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	1.1
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	1.2
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	1.2
Surrogate p-Terphenyl-d14	%	100	98	95	96	101

PAHs in Soil						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	0.8	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Fluoranthene	mg/kg	0.2	0.2	0.2	2.1	<0.1
Pyrene	mg/kg	0.2	0.2	0.2	1.9	<0.1
Benzo(a)anthracene	mg/kg	0.2	0.1	0.1	1.2	<0.1
Chrysene	mg/kg	0.1	0.1	0.1	0.9	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.8	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.1	0.89	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.5	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.1	0.6	<0.1
Total +ve PAH's	mg/kg	0.92	0.62	0.90	10	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	1.2	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	1.2	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	1.3	<0.5
Surrogate p-Terphenyl-d14	%	107	98	107	101	103

PAHs in Soil						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	1	0.5	<0.1	0.1	0.2
Anthracene	mg/kg	0.3	0.7	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	1.4	4.1	<0.1	0.3	0.4
Pyrene	mg/kg	1.2	3.7	0.1	0.3	0.4
Benzo(a)anthracene	mg/kg	0.9	2.3	<0.1	0.3	0.3
Chrysene	mg/kg	0.6	1.6	<0.1	0.2	0.2
Benzo(b,j+k)fluoranthene	mg/kg	0.6	2.4	<0.2	0.2	0.3
Benzo(a)pyrene	mg/kg	0.61	1.5	0.07	0.2	0.4
Indeno(1,2,3-c,d)pyrene	mg/kg	0.3	0.6	<0.1	0.1	0.2
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.4	0.6	<0.1	0.1	0.4
Total +ve PAH's	mg/kg	7.3	18	0.2	1.9	2.7
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.8	2.3	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.8	2.3	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.9	2.3	<0.5	<0.5	0.5
Surrogate p-Terphenyl-d14	%	92	104	103	102	104

PAHs in Soil						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Naphthalene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	2.0	0.2	<0.1	<0.1	0.4
Anthracene	mg/kg	0.6	<0.1	<0.1	<0.1	0.1
Fluoranthene	mg/kg	4.5	0.5	<0.1	<0.1	0.9
Pyrene	mg/kg	4.8	0.5	<0.1	<0.1	1.1
Benzo(a)anthracene	mg/kg	3.0	0.4	<0.1	<0.1	0.8
Chrysene	mg/kg	2.1	0.2	<0.1	<0.1	0.6
Benzo(b,j+k)fluoranthene	mg/kg	3.7	0.3	<0.2	<0.2	0.6
Benzo(a)pyrene	mg/kg	2.6	0.3	<0.05	<0.05	0.73
Indeno(1,2,3-c,d)pyrene	mg/kg	1.2	0.2	<0.1	<0.1	0.4
Dibenzo(a,h)anthracene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	1.2	0.2	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	26	2.8	<0.05	<0.05	5.7
Benzo(a)pyrene TEQ calc (zero)	mg/kg	3.7	<0.5	<0.5	<0.5	0.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	3.7	<0.5	<0.5	<0.5	1
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	3.7	<0.5	<0.5	<0.5	1.0
Surrogate p-Terphenyl-d14	%	101	102	104	97	101

PAHs in Soil						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.2	<0.1	<0.1	0.3
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	0.4	0.2	0.1	0.5
Pyrene	mg/kg	0.2	0.4	0.2	0.1	0.5
Benzo(a)anthracene	mg/kg	<0.1	0.4	0.2	<0.1	0.4
Chrysene	mg/kg	<0.1	0.2	0.1	<0.1	0.3
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.2	<0.2	<0.2	0.3
Benzo(a)pyrene	mg/kg	0.1	0.3	0.1	0.3	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	<0.1	<0.1	0.2
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.2	<0.1	<0.1	0.3
Total +ve PAH's	mg/kg	0.5	2.5	0.81	0.54	2.9
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	108	97	97	97	104

PAHs in Soil				
Our Reference		264163-60	264163-62	264163-63
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	0.2
Pyrene	mg/kg	0.2	0.1	0.2
Benzo(a)anthracene	mg/kg	0.2	<0.1	0.1
Chrysene	mg/kg	0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.1	0.06	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	<0.1	<0.1
Total +ve PAH's	mg/kg	1.3	0.2	0.56
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	92	102	105

Organochlorine Pesticides in soil						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	99	97	98	96	98

Organochlorine Pesticides in soil						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	100	99	97	99

Organochlorine Pesticides in soil						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	101	104	99	98

Organochlorine Pesticides in soil						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	100	104	96	94

Organochlorine Pesticides in soil						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	96	97	97	99

Organochlorine Pesticides in soil						
Our Reference		264163-60	264163-62	264163-63	264163-65	264163-66
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1	DUP101	DUP102
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	97	100	95	96	97

Organochlorine Pesticides in soil		
Our Reference		264163-67
Your Reference	UNITS	DUP103
Date Sampled		10/03/2021
Type of sample		soil
Date extracted	-	16/03/2021
Date analysed	-	19/03/2021
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	95

Organophosphorus Pesticides in Soil						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	99	97	98	96	98

Organophosphorus Pesticides in Soil						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	100	99	97	99

Organophosphorus Pesticides in Soil						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	101	101	99	98

Organophosphorus Pesticides in Soil						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	100	104	96	94

Organophosphorus Pesticides in Soil						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	96	97	97	99

Organophosphorus Pesticides in Soil						
Our Reference		264163-60	264163-62	264163-63	264163-65	264163-66
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1	DUP101	DUP102
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	97	100	95	96	97

Organophosphorus Pesticides in Soil		
Our Reference		264163-67
Your Reference	UNITS	DUP103
Date Sampled		10/03/2021
Type of sample		soil
Date extracted	-	16/03/2021
Date analysed	-	19/03/2021
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Surrogate TCMX	%	95

PCBs in Soil						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	99	97	98	96	98

PCBs in Soil						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	100	99	97	99

PCBs in Soil						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	101	101	99	98

PCBs in Soil						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	100	104	96	94

PCBs in Soil						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021	19/03/2021	19/03/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	96	97	97	99

PCBs in Soil				
Our Reference		264163-60	264163-62	264163-63
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil
Date extracted	-	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	19/03/2021	19/03/2021	19/03/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	97	100	95

Acid Extractable metals in soil						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Arsenic	mg/kg	7	6	6	8	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	9	11	13	13	13
Copper	mg/kg	24	30	22	27	70
Lead	mg/kg	16	72	21	37	56
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	14	12	10	10
Zinc	mg/kg	42	58	46	82	83

Acid Extractable metals in soil						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Arsenic	mg/kg	8	6	5	8	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	26	20	14	13	17
Copper	mg/kg	55	27	17	17	26
Lead	mg/kg	44	31	18	18	36
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	10	8	5	7
Zinc	mg/kg	67	59	24	21	120

Acid Extractable metals in soil						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Arsenic	mg/kg	<4	5	5	6	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	43	13	12	21
Copper	mg/kg	15	20	7	25	21
Lead	mg/kg	31	19	14	17	30
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	9	1	9	8
Zinc	mg/kg	33	33	22	46	43

Acid Extractable metals in soil						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Arsenic	mg/kg	7	4	9	5	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	30	28	16	13	9
Copper	mg/kg	21	18	20	21	16
Lead	mg/kg	50	36	18	15	81
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	7	8	3	11	2
Zinc	mg/kg	34	33	9	36	34

Acid Extractable metals in soil						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Arsenic	mg/kg	7	7	7	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	15	16	8	16
Copper	mg/kg	22	25	16	16	17
Lead	mg/kg	24	71	23	20	24
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	12	10	6	4	5
Zinc	mg/kg	36	70	28	16	27

Acid Extractable metals in soil						
Our Reference		264163-60	264163-62	264163-63	264163-65	264163-66
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1	DUP101	DUP102
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Arsenic	mg/kg	6	7	5	<4	5
Cadmium	mg/kg	0.6	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	9	31	14	13
Copper	mg/kg	19	40	26	42	25
Lead	mg/kg	26	18	18	160	39
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	9	13	13	21	6
Zinc	mg/kg	31	54	55	76	69

Acid Extractable metals in soil		
Our Reference		264163-67
Your Reference	UNITS	DUP103
Date Sampled		10/03/2021
Type of sample		soil
Date prepared	-	17/03/2021
Date analysed	-	17/03/2021
Arsenic	mg/kg	66
Cadmium	mg/kg	<0.4
Chromium	mg/kg	13
Copper	mg/kg	22
Lead	mg/kg	22
Mercury	mg/kg	<0.1
Nickel	mg/kg	9
Zinc	mg/kg	21

Moisture						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Moisture	%	9.6	11	13	12	11

Moisture						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Moisture	%	18	13	14	16	15

Moisture						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Moisture	%	9.9	19	15	13	14

Moisture						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Moisture	%	12	14	20	16	13

Moisture						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Moisture	%	14	12	13	15	8.7

Moisture						
Our Reference		264163-60	264163-62	264163-63	264163-65	264163-66
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1	DUP101	DUP102
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	16/03/2021	16/03/2021	16/03/2021	16/03/2021	16/03/2021
Date analysed	-	17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Moisture	%	14	11	10	9.8	16

Moisture		
Our Reference		264163-67
Your Reference	UNITS	DUP103
Date Sampled		10/03/2021
Type of sample		soil
Date prepared	-	16/03/2021
Date analysed	-	17/03/2021
Moisture	%	16

Asbestos ID - soils						
Our Reference		264163-1	264163-2	264163-5	264163-7	264163-10
Your Reference	UNITS	TP101/0.1	TP102/0.1	TP103/1.0	TP104/0.1	TP105/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	18/03/2021	18/03/2021	18/03/2021	18/03/2021	18/03/2021
Sample mass tested	g	Approx. 55g	Approx. 45g	Approx. 45g	Approx. 45g	Approx. 45g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		264163-12	264163-15	264163-17	264163-19	264163-21
Your Reference	UNITS	TP106/0.1	TP107/1.0	TP108/0.1	TP109/1.0	TP110/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	18/03/2021	18/03/2021	18/03/2021	18/03/2021	18/03/2021
Sample mass tested	g	Approx. 45g	Approx. 50g	Approx. 40g	Approx. 45g	Approx. 45g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		264163-24	264163-28	264163-30	264163-32	264163-36
Your Reference	UNITS	TP111/0.1	TP112/2.0	TP113/0.1	TP114/0.1	TP116/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	18/03/2021	18/03/2021	18/03/2021	18/03/2021	18/03/2021
Sample mass tested	g	Approx. 50g	Approx. 40g	Approx. 50g	Approx. 45g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		264163-37	264163-41	264163-43	264163-47	264163-49
Your Reference	UNITS	TP117/0.1	TP118/1.0	TP119/0.1	TP120/1.0	TP121/1.0
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	18/03/2021	18/03/2021	18/03/2021	18/03/2021	18/03/2021
Sample mass tested	g	Approx. 50g	Approx. 45g	Approx. 45g	Approx. 45g	Approx. 45g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		264163-51	264163-52	264163-53	264163-56	264163-57
Your Reference	UNITS	TP122/0.1	TP123/0.1	TP124/0.1	TP125/1.0	TP126/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	18/03/2021	18/03/2021	18/03/2021	18/03/2021	18/03/2021
Sample mass tested	g	Approx. 45g	Approx. 45g	Approx. 45g	Approx. 45g	Approx. 45g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils				
Our Reference		264163-60	264163-62	264163-63
Your Reference	UNITS	TP127/2.0	TP128/1.0	TP129/0.1
Date Sampled		10/03/2021	10/03/2021	10/03/2021
Type of sample		soil	soil	soil
Date analysed	-	18/03/2021	18/03/2021	18/03/2021
Sample mass tested	g	Approx. 45g	Approx. 50g	Approx. 45g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	264163-2
Date extracted	-			16/03/2021	1	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			17/03/2021	1	17/03/2021	17/03/2021		17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	95	91
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	95	91
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	99	94
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	89	84
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	91	87
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	99	94
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	99	94
naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	100	1	91	101	10	103	98

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	264163-52
Date extracted	-			[NT]	24	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			[NT]	24	17/03/2021	17/03/2021		17/03/2021	17/03/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	24	<25	<25	0	103	92
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	24	<25	<25	0	103	92
Benzene	mg/kg	0.2	Org-023	[NT]	24	<0.2	<0.2	0	106	97
Toluene	mg/kg	0.5	Org-023	[NT]	24	<0.5	<0.5	0	95	85
Ethylbenzene	mg/kg	1	Org-023	[NT]	24	<1	<1	0	98	87
m+p-xylene	mg/kg	2	Org-023	[NT]	24	<2	<2	0	108	95
o-Xylene	mg/kg	1	Org-023	[NT]	24	<1	<1	0	107	94
naphthalene	mg/kg	1	Org-023	[NT]	24	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	24	92	96	4	109	97

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	51	17/03/2021	17/03/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	51	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	51	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	51	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	51	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	51	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	51	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	51	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	51	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	51	92	101	9	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	63	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	63	17/03/2021	17/03/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	63	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	63	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	63	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	63	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	63	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	63	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	63	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	63	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	63	83	101	20	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	264163-2
Date extracted	-			16/03/2021	1	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			17/03/2021	1	17/03/2021	17/03/2021		17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	87	85
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	70	75
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	108	101
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	87	85
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	70	75
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	108	101
Surrogate o-Terphenyl	%		Org-020	84	1	86	94	9	101	98

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	264163-52
Date extracted	-			[NT]	24	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			[NT]	24	17/03/2021	17/03/2021		17/03/2021	17/03/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	24	<50	<50	0	87	77
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	24	<100	<100	0	70	108
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	24	<100	<100	0	108	82
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	24	<50	<50	0	87	77
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	24	<100	<100	0	70	108
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	24	<100	<100	0	108	82
Surrogate o-Terphenyl	%		Org-020	[NT]	24	83	87	5	101	95

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	51	17/03/2021	17/03/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	51	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	51	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	51	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	51	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	51	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	51	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	51	80	84	5	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	63	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	63	17/03/2021	17/03/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	63	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	63	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	63	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	63	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	63	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	63	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	63	76	77	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	264163-2
Date extracted	-			16/03/2021	1	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			19/03/2021	1	19/03/2021	19/03/2021		19/03/2021	19/03/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	94
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	103	113
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	109	116
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	<0.1	67	117	111
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	0.4	<0.1	120	111	102
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	0.4	0.1	120	111	97
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.3	<0.1	100	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	<0.1	67	104	94
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	0.2	0.08	86	124	124
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	109	1	100	98	2	104	96

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	264163-52
Date extracted	-			[NT]	24	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			[NT]	24	19/03/2021	19/03/2021		19/03/2021	19/03/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	99	97
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	103	96
Fluorene	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	111	107
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	24	1	0.8	22	117	133
Anthracene	mg/kg	0.1	Org-022/025	[NT]	24	0.3	0.2	40	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	24	1.4	1.2	15	109	121
Pyrene	mg/kg	0.1	Org-022/025	[NT]	24	1.2	1.1	9	109	122
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	24	0.9	0.8	12	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	24	0.6	0.6	0	106	115
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	24	0.6	0.5	18	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	24	0.61	0.53	14	128	100
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	24	0.3	0.3	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	24	0.4	0.4	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	24	92	100	8	99	103

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	51	19/03/2021	19/03/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	51	0.2	0.2	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	51	0.2	0.2	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	51	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	51	0.1	0.09	11	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	51	108	109	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	63	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	63	19/03/2021	19/03/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	63	0.2	0.2	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	63	0.2	0.2	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	63	0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	63	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	63	0.1	0.09	11	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	63	105	108	3	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	264163-2
Date extracted	-			16/03/2021	1	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			19/03/2021	1	19/03/2021	19/03/2021		19/03/2021	19/03/2021
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	122
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	104	115
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	109	95
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	110	95
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	104	91
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	111	101
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	105	103
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	104	98
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	106	101
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	112	101
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	101	1	99	98	1	103	120

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	264163-52
Date extracted	-			[NT]	24	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			[NT]	24	19/03/2021	19/03/2021		19/03/2021	19/03/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	104	99
HCB	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	104	98
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	103	99
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	105	101
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	105	100
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	111	106
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	109	105
Endrin	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	114	98
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	103	103
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	97	95
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	24	94	98	4	102	98

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	51	19/03/2021	19/03/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	51	96	96	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	63	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	63	19/03/2021	19/03/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	63	95	98	3	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	264163-2
Date extracted	-			16/03/2021	1	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			19/03/2021	1	19/03/2021	19/03/2021		19/03/2021	19/03/2021
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	61
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	109	98
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	103	93
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	70	129
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	105	105
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	88
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	115	113
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	101	1	99	98	1	103	120

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	264163-52
Date extracted	-			[NT]	24	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			[NT]	24	19/03/2021	19/03/2021		19/03/2021	19/03/2021
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	124	76
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	111	109
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	111	113
Malathion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	73	71
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	115	113
Parathion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	104	102
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	125	129
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	24	94	98	4	102	98

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	51	19/03/2021	19/03/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	51	96	96	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	63	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	63	19/03/2021	19/03/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	63	95	98	3	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	264163-2
Date extracted	-			16/03/2021	1	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			19/03/2021	1	19/03/2021	19/03/2021		19/03/2021	19/03/2021
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	90	90
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	101	1	99	98	1	103	120

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	264163-52
Date extracted	-			[NT]	24	16/03/2021	16/03/2021		16/03/2021	16/03/2021
Date analysed	-			[NT]	24	19/03/2021	19/03/2021		19/03/2021	19/03/2021
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	24	<0.1	<0.1	0	100	90
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	24	94	98	4	102	98

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	51	19/03/2021	19/03/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	51	96	96	0	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	63	16/03/2021	16/03/2021		[NT]	[NT]
Date analysed	-			[NT]	63	19/03/2021	19/03/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	63	95	98	3	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	264163-2
Date prepared	-			17/03/2021	1	17/03/2021	17/03/2021		17/03/2021	17/03/2021
Date analysed	-			17/03/2021	1	17/03/2021	17/03/2021		17/03/2021	17/03/2021
Arsenic	mg/kg	4	Metals-020	<4	1	7	7	0	97	84
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	91	74
Chromium	mg/kg	1	Metals-020	<1	1	9	9	0	94	87
Copper	mg/kg	1	Metals-020	<1	1	24	25	4	96	100
Lead	mg/kg	1	Metals-020	<1	1	16	17	6	93	#
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	102	103
Nickel	mg/kg	1	Metals-020	<1	1	10	11	10	96	81
Zinc	mg/kg	1	Metals-020	<1	1	42	44	5	94	85

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	264163-52
Date prepared	-			[NT]	24	17/03/2021	17/03/2021		17/03/2021	17/03/2021
Date analysed	-			[NT]	24	17/03/2021	17/03/2021		17/03/2021	17/03/2021
Arsenic	mg/kg	4	Metals-020	[NT]	24	<4	<4	0	103	85
Cadmium	mg/kg	0.4	Metals-020	[NT]	24	<0.4	<0.4	0	95	75
Chromium	mg/kg	1	Metals-020	[NT]	24	12	12	0	98	86
Copper	mg/kg	1	Metals-020	[NT]	24	15	12	22	102	103
Lead	mg/kg	1	Metals-020	[NT]	24	31	22	34	98	87
Mercury	mg/kg	0.1	Metals-021	[NT]	24	<0.1	<0.1	0	113	118
Nickel	mg/kg	1	Metals-020	[NT]	24	5	5	0	101	80
Zinc	mg/kg	1	Metals-020	[NT]	24	33	31	6	99	81

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	51	17/03/2021	17/03/2021		[NT]	[NT]
Date analysed	-			[NT]	51	17/03/2021	17/03/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	51	7	6	15	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	51	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	51	16	14	13	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	51	22	19	15	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	51	24	21	13	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	51	12	8	40	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	51	36	36	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	63	17/03/2021	17/03/2021		[NT]	[NT]
Date analysed	-			[NT]	63	17/03/2021	17/03/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	63	5	5	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	63	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	63	31	26	18	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	63	26	22	17	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	63	18	18	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	63	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	63	13	9	36	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	63	55	41	29	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

8 metals in soil - # Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples were sub-sampled from jars provided by the client.

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD
Suite 710/ 90 George Street Hornsby NSW 2077 PO Box 1644 Hornsby Westfield NSW 1635
Ph: 02 9987 2183 Fax: 02 9987 2151 Email: info@ausset.com.au

ASET JOB NO: ASET91863 A5043/1-7

Company Address:
Martens and Associates
Suite 201, 20 George St, Hornsby 2077

Contact Ph: 9476 9999

Contact Name:
Job No: P1806774COC02
Project Name: Menangle

Email Results to:
rmehaffey@martens.com.au
bmcgiffin@martens.com.au

	Sample ID	Date	Type	Container	Sample Location	Asbestos in Material	Asbestos in Soil (AS4964 reporting)	Asbestos in Dust	Asbestos Fibre Count	Asbestos in Water	Asbestos WA/NEPM	Weight (g)
1	6774/MS101 - 9	10/3/21	Material	Ziplock		X						X
2	6774/MS102	10/3/21	Material	Ziplock		X						X
3	6774/MS103	10/3/21	Material	Ziplock		X						X
4	6774/MS104	10/3/21	Material	Ziplock		X						X
5	6774/MS105	11/3/21	Material	Ziplock		X						X
6	6774/MS106	11/3/21	Material	Ziplock		X						X
7												

Relinquished By: Robert Mehaffey
Date & Time: 12/3/21
Signature:

Received By:
Date & Time: 12/3/21 4-15pm
Signature:

Turn around time				Method of Shipment
24 Hrs		3 Days		Hand
48 Hrs		5 Days	X	

RECEIVED
12 MAR 2021
BY:

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET91863 / 95043 / 1 - 7
Your ref : P1806774COC02 - Manangle
NATA Accreditation No: 14484

15 March 2021

Martens and Associates
Suite 201 - 20 George Street
Hornsby NSW 2077

Attn: Mr Robert Mehaffey

Accredited for compliance with ISO/IEC 17025 - Testing.

Dear Robert

Asbestos Identification

This report presents the results of seven samples, forwarded by Martens and Associates on 12 March 2021, for analysis for asbestos.

1.Introduction: Seven samples forwarded were examined and analysed for the presence of asbestos on 15 March 2021.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

3. Results :

Sample No. 1. ASET91863 / 95043 / 1. P1806774COC02 - 6774/MS101-a.
Approx dimensions 4.6 cm x 3.1 cm x 0.6 cm
The sample consisted of a fragment of a fibre cement material.
Approximate total weight of fibre cement = 8.0g.
Chrysotile asbestos, Amosite asbestos and Crocidolite asbestos detected.

Sample No. 2. ASET91863 / 95043 / 2. P1806774COC02 - 6774/MS101-b.
Approx dimensions 3.1 cm x 2.0 cm x 0.5 cm
The sample consisted of a fragment of a fibre cement material.
Approximate total weight of fibre cement = 3.0g.
Chrysotile asbestos and Amosite asbestos detected.

Sample No. 3. ASET91863 / 95043 / 3. P1806774COC02 - 6774/MS102.
Approx dimensions 8.2 cm x 3.0 cm x 0.5 cm
The sample consisted of fragments of a fibre cement material.
Approximate total weight of fibre cement = 14.0g.
Chrysotile asbestos and Amosite asbestos detected.

Sample No. 4. ASET91863 / 95043 / 4. P1806774COC02 - 6774/MS103.
Approx dimensions 8.5 cm x 3.1 cm x 0.4 cm
The sample consisted of fragments of a fibre cement material.
Approximate total weight of fibre cement = 20.0g.
Chrysotile asbestos and Amosite asbestos detected.

Sample No. 5. ASET91863 / 95043 / 5. P1806774COC02 - 6774/MS104.
Approx dimensions 5.2 cm x 3.1 cm x 0.5 cm
The sample consisted of fragments of a fibre cement material.
Approximate total weight of fibre cement = 13.0g.
Chrysotile asbestos, Amosite asbestos and Crocidolite asbestos detected.

Sample No. 6. ASET91863 / 95043 / 6. P1806774COC02 - 6774/MS105.
Approx dimensions 8.8 cm x 8.0 cm x 0.3 cm
The sample consisted of a fragment of a fibre cement material.
Approximate total weight of fibre cement = 45.0g.
Chrysotile asbestos, Amosite asbestos and Crocidolite asbestos detected.

Sample No. 7. ASET91863 / 95043 / 7. P1806774COC02 - 6774/MS106.
Approx dimensions 6.0 cm x 5.0 cm x 0.3 cm
The sample consisted of fragments of a fibre cement material.
Approximate total weight of fibre cement = 14.0g.
Chrysotile asbestos, Amosite asbestos and Crocidolite asbestos detected.

Reported by,

Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory

NATA
WORLD RECOGNISED
ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by A4964-2004. Trace / respirable level asbestos will be reported only when detected.

19 Attachment G – Data Validation Report

Sample Handling

Lab Report	Sample chain of custody (COC) procedures	Sample preservation	Sample receipt notification matches COC	Samples analysed within holding time
264163	Pass	Pass	Pass	Pass
266725	Pass	Pass	Pass	Pass
275181	Pass	Pass	Pass	Pass
268016	Pass	Pass	Pass	Pass
275730	Pass	Pass	Pass	Pass
266720	Pass	Pass	Pass	Pass
269259	Pass	Pass	Pass	Pass
275727	Pass	Pass	Pass	Pass

Precision / Accuracy

Lab Report	Analysed by Nata laboratory	Trip spike and blank used	Adequate duplicates analysed	Field rinsate analysed
264163	Pass	Pass	Pass	NA
266725	Pass	Pass	Pass	NA
275181	Pass	Pass	Pass	NA
268016	Pass	Pass	Pass	NA
275730	Pass	NA	Pass	NA
266720	Pass	Pass	Pass	NA
269259	Pass	Pass	Pass	NA
275727	Pass	Pass	Pass	**Fail**

Trip spike and blank were used where volatiles were analysed.

Field rinsate for report 275727 identified minor TRH detections. It is noted that deionised water used for the rinsate was collected from plastic bottles and the detections may be a result of hydrocarbon breakdown from the bottle.

Dedicated sampling equipment were used during all investigations, no rinsate was required.

Duplicates/ laboratory QA / QC

Lab Report	Field RPD	Laboratory Surrogate Recovery	Laboratory Duplicate RPD	Lab Blank and Matrix Spike Recovery	Laboratory Control Sample
264163	**Fail**	Pass	Pass	Pass	Pass
266725	**Fail**	Pass	Pass	Pass	Pass
275181	**Fail**	Pass	Pass	Pass	Pass
268016	**Fail**	Pass	Pass	Pass	Pass
275730	Pass	Pass	Pass	Pass	Pass
266720	Pass	Pass	Pass	Pass	Pass
269259	Pass	Pass	Pass	Pass	Pass
275727	**Fail**	Pass	Pass	Pass	Pass

RPD control limits were exceeded for heavy metals in the following duplicate samples:

- TP112/0.1 and Dup104 for zinc (48%)
- SS08 and Dup03 for lead (64%) and zinc (43%)
- TP607/2.5 and Dup602 for copper (49%) and nickel (57%)
- TP611/2.5 and Dup604 for chromium (III + VI) (60%) and zinc (38%)
- TP401/2.0 and Dup401 for lead (45%) and nickel (137%)
- TP403/2.6 and Dup402 for chromium (III + VI) (74%), nickel (137%) and zinc (87%)
- BH709/1-1.2 and Dup702 for chromium (III VI) (89%) and lead (84%)
- MW09/210810 and Dup01 for nitrite (86%)

Soil samples exceeding RPDs were collected from heterogeneous fill. All values were significantly less than the SAC, the data is considered usable for this report.

Lab Report Number			266725	266725		266725	266725		266725	266725		275181	275181		
Field ID			6774/BH304/0-0.3	6774/DUP01		6774/SS02	6774/DUP02		6774/SS08	6774/DUP03		BH702/2-2.2	DUP701		
Date															
Matrix Type			Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD	
	Unit	EQL													
Halogenated Benzenes															
Hexachlorobenzene	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Metals															
Arsenic	mg/kg	4	8	8	0	5	5	0	<4	<4	0	7	6	15	
Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	
Chromium (III+VI)	mg/kg	1	21	18	15	9	10	11	36	27	29	16	13	21	
Copper	mg/kg	1	20	17	16	27	29	7	16	23	36	22	20	10	
Lead	mg/kg	1	15	15	0	19	21	10	17	33	64	16	12	29	
Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
Nickel	mg/kg	1	9	8	12	12	14	15	40	40	0	10	8	22	
Zinc	mg/kg	1	28	37	28	310	310	0	110	170	43	44	40	10	
Organochlorine Pesticides															
4,4-DDE	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
a-BHC	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Aldrin	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
b-BHC	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Chlordane (cis)	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Chlordane (trans)	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
d-BHC	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
DDD	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
DDT	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
DDT+DDE+DDD	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Dieldrin	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Endosulfan I	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Endosulfan II	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Endosulfan sulphate	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Endrin	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Endrin aldehyde	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
g-BHC (Lindane)	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Heptachlor	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Heptachlor epoxide	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Methoxychlor	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Organophosphorous Pesticides															
Azinophos methyl	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Bromophos-ethyl	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Chlorpyrifos	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Chlorpyrifos-methyl	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Diazinon	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Dichlorvos	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Dimethoate	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Ethion	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Fenitrothion	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Malathion	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Ronnel	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	
Pesticides															
Parathion	mg/kg	0.1	<0.1			<0.1						<0.1	<0.1	0	

**RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Lab Report Number			264163	780555		268016	792156		275181	815102		275181	815102	
Field ID			TP122/0.1	6774/DUP104		TP412/2.5	6774/DUP403		TP612/3.5	6774/DUP603		BH709/1-1.2	DUP702	
Date														
Matrix Type			Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD
	Unit	EQL												
Halogenated Benzenes														
Hexachlorobenzene	mg/kg	0.1	<0.1	<0.05		<0.1						<0.1	<0.1	0
Metals														
Arsenic	mg/kg	4	7	11	44	5	8.5	52	<4	2.1	0	8	7.1	12
Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0
Chromium (III+VI)	mg/kg	1	16	21	27	10	13	26	10	11	10	13	34	89
Copper	mg/kg	1	22	25	13	21	24	13	6	7.3	15	30	37	21
Lead	mg/kg	1	24	33	31	18	23	24	9	11	20	18	44	84
Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Nickel	mg/kg	1	12	14	15	11	11	0	4	<5	0	15	11	31
Zinc	mg/kg	1	36	59	48	40	50	22	15	19	24	72	93	25
Organochlorine Pesticides														
4,4-DDE	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
a-BHC	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Aldrin	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
b-BHC	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Chlordane (cis)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Chlordane (trans)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
d-BHC	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
DDD	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
DDT	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
DDT+DDE+DDD	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Dieldrin	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Endosulfan I	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Endosulfan II	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Endrin	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Endrin aldehyde	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
g-BHC (Lindane)	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Heptachlor	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0
Methoxychlor	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Organophosphorous Pesticides														
Azinophos methyl	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Bromophos-ethyl	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Chlorpyrifos	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Chlorpyrifos-methyl	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Diazinon	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Dichlorvos	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Dimethoate	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Ethion	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Fenitrothion	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Malathion	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Ronnel	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0
Pesticides														
Parathion	mg/kg	0.1	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.2	0	<0.1	<0.1	0

		275181	275181		275181	275181		275181	275181		268016	268016		268016	268016	
		TP607/2.5	DUP602		TP611/2.5	DUP604		TP613/3.8	DUP601		TP401/2.0	DUP401		TP403/2.6	DUP402	
											29/04/2021	29/04/2021		29/04/2021	29/04/2021	
	Unit	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD
Halogenated Benzenes																
Hexachlorobenzene	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Metals																
Arsenic	mg/kg	9	7	25	5	7	33	7	6	15	<4	8	67	7	6	15
Cadmium	mg/kg	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0
Chromium (III+VI)	mg/kg	25	17	38	26	14	60	14	12	15	11	14	24	6	13	74
Copper	mg/kg	48	29	49	11	13	17	27	23	16	27	28	4	19	17	11
Lead	mg/kg	27	29	7	16	22	32	15	20	29	49	31	45	10	13	26
Mercury	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Nickel	mg/kg	18	10	57	8	10	22	13	12	8	34	4	158	43	8	137
Zinc	mg/kg	82	70	16	28	41	38	43	42	2	34	36	6	89	35	87
Organochlorine Pesticides																
4,4-DDE	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
a-BHC	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Aldrin	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
b-BHC	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Chlordane (cis)	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Chlordane (trans)	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
d-BHC	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
DDD	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
DDT	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
DDT+DDE+DDD	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Dieldrin	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Endosulfan I	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Endosulfan II	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Endosulfan sulphate	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Endrin	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Endrin aldehyde	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
g-BHC (Lindane)	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Heptachlor	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Heptachlor epoxide	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Methoxychlor	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Organophosphorous Pesticides																
Azinophos methyl	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Bromophos-ethyl	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Chlorpyrifos	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Diazinon	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Dichlorvos	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Dimethoate	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Ethion	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Fenitrothion	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Malathion	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Ronnel	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
Pesticides																
Parathion	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0

***RPDs have only been considered where a concentration i**
****Elevated RPDs are highlighted as per QAQC Profile setti**
*****Interlab Duplicates are matched on a per compound b**

		275730	275730		275730	275730	
		BH815/1.5-1.9	DUP801		BH816/0-0.2	DUP802	
		10/08/2021	10/08/2021		10/08/2021	10/08/2021	
		Soil	Soil	RPD	Soil	Soil	RPD
	Unit						
Halogenated Benzenes							
Hexachlorobenzene	mg/kg	<0.1			<0.1		
Metals							
Arsenic	mg/kg	8	10	22	7	7	0
Cadmium	mg/kg	<0.4	<0.4	0	<0.4	<0.4	0
Chromium (III+VI)	mg/kg	15	19	24	15	16	6
Copper	mg/kg	20	30	40	12	16	29
Lead	mg/kg	13	17	27	18	19	5
Mercury	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0
Nickel	mg/kg	8	12	40	5	7	33
Zinc	mg/kg	21	29	32	12	20	50
Organochlorine Pesticides							
4,4-DDE	mg/kg	<0.1			<0.1		
a-BHC	mg/kg	<0.1			<0.1		
Aldrin	mg/kg	<0.1			<0.1		
b-BHC	mg/kg	<0.1			<0.1		
Chlordane (cis)	mg/kg	<0.1			<0.1		
Chlordane (trans)	mg/kg	<0.1			<0.1		
d-BHC	mg/kg	<0.1			<0.1		
DDD	mg/kg	<0.1			<0.1		
DDT	mg/kg	<0.1			<0.1		
DDT+DDE+DDD	mg/kg	<0.1			<0.1		
Dieldrin	mg/kg	<0.1			<0.1		
Endosulfan I	mg/kg	<0.1			<0.1		
Endosulfan II	mg/kg	<0.1			<0.1		
Endosulfan sulphate	mg/kg	<0.1			<0.1		
Endrin	mg/kg	<0.1			<0.1		
Endrin aldehyde	mg/kg	<0.1			<0.1		
g-BHC (Lindane)	mg/kg	<0.1			<0.1		
Heptachlor	mg/kg	<0.1			<0.1		
Heptachlor epoxide	mg/kg	<0.1			<0.1		
Methoxychlor	mg/kg	<0.1			<0.1		
Organophosphorous Pesticides							
Azinophos methyl	mg/kg	<0.1			<0.1		
Bromophos-ethyl	mg/kg	<0.1			<0.1		
Chlorpyrifos	mg/kg	<0.1			<0.1		
Chlorpyrifos-methyl	mg/kg	<0.1			<0.1		
Diazinon	mg/kg	<0.1			<0.1		
Dichlorvos	mg/kg	<0.1			<0.1		
Dimethoate	mg/kg	<0.1			<0.1		
Ethion	mg/kg	<0.1			<0.1		
Fenitrothion	mg/kg	<0.1			<0.1		
Malathion	mg/kg	<0.1			<0.1		
Ronnel	mg/kg	<0.1			<0.1		
Pesticides							
Parathion	mg/kg	<0.1			<0.1		

*RPDs have only been considered where a concentration i
**Elevated RPDs are highlighted as per QAQC Profile setti
***Interlab Duplicates are matched on a per compound b

	Lab Report Number		266720	266720		269259	269259		275727	275727		
	Field ID		6774/MW01/210415	6774/DUP01/210415		6774/MW02	6774/DUP02		MW09/210810	DUP01/210810		
	Date		16/04/2021	16/04/2021		17/05/2021	17/05/2021		10/08/2021	10/08/2021		
	Matrix Type		Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	
	Unit	EQL										
NA												
Formaldehyde	mg/L	0.1	<0.1			<0.1			<0.1	<0.1	0	
BTEX												
Benzene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Toluene	µg/L	1	4	4	0	<1	<1	0	<1	<1	0	
Ethylbenzene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Xylene (m & p)	µg/L	2	<2	<2	0	<2	<2	0	<2	<2	0	
Xylene (o)	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
TRH												
C6-C10 Fraction (F1)	µg/L	10	<10	<10	0	<10	<10	0	<10	<10	0	
C6-C10 (F1 minus BTEX)	µg/L	10	<10	<10	0	<10	<10	0	<10	<10	0	
>C10-C16 Fraction (F2)	µg/L	50	<50	<50	0	<50	<50	0	<50	<50	0	
>C10-C16 Fraction (F2 minus Naphthalene)	µg/L	50	<50	<50	0	<50	<50	0	<50	<50	0	
>C16-C34 Fraction (F3)	µg/L	100	<100	<100	0	<100	<100	0	<100	<100	0	
>C34-C40 Fraction (F4)	µg/L	100	<100	<100	0	<100	<100	0	<100	<100	0	
>C10-C40 Fraction (Sum)	µg/L	50							<50	<50	0	
Biological												
E. Coli	cfu/100 ml	1								<1,000		
Chlorinated Hydrocarbons												
1,1,1,2-tetrachloroethane	µg/L	1	<1			<1			<1	<1	0	
1,1,1-trichloroethane	µg/L	1	<1			<1			<1	<1	0	
1,1,2,2-tetrachloroethane	µg/L	1	<1			<1			<1	<1	0	
1,1,2-trichloroethane	µg/L	1	<1			<1			<1	<1	0	
1,1-dichloroethane	µg/L	1	<1			<1			<1	<1	0	
1,1-dichloroethene	µg/L	1	<1			<1			<1	<1	0	
1,1-dichloropropene	µg/L	1	<1			<1			<1	<1	0	
1,2,3-trichloropropane	µg/L	1	<1			<1			<1	<1	0	
1,2-dibromo-3-chloropropane	µg/L	1	<1			<1			<1	<1	0	
1,2-dichloroethane	µg/L	1	<1			<1			<1	<1	0	
1,2-dichloropropane	µg/L	1	<1			<1			<1	<1	0	
1,3-dichloropropane	µg/L	1	<1			<1			<1	<1	0	
2,2-dichloropropane	µg/L	1	<1			<1			<1	<1	0	
Bromochloromethane	µg/L	1	<1			<1			<1	<1	0	
Bromodichloromethane	µg/L	1	<1			<1			<1	<1	0	
Bromoform	µg/L	1	<1			<1			<1	<1	0	
Carbon tetrachloride	µg/L	1	<1			<1			<1	<1	0	
Chlorodibromomethane	µg/L	1	<1			<1			<1	<1	0	
Chloroethane	µg/L	10	<10			<10			<10	<10	0	
Chloroform	µg/L	1	<1			<1			<1	<1	0	
Chloromethane	µg/L	10	<10			<10			<10	<10	0	
cis-1,2-dichloroethene	µg/L	1	<1			<1			<1	<1	0	
cis-1,3-dichloropropene	µg/L	1	<1			<1			<1	<1	0	
Dibromomethane	µg/L	1	<1			<1			<1	<1	0	
Hexachlorobutadiene	µg/L	1	<1			<1			<1	<1	0	
Trichloroethene	µg/L	1	<1			<1			<1	<1	0	
Tetrachloroethene	µg/L	1	<1			<1			<1	<1	0	
trans-1,2-dichloroethene	µg/L	1	<1			<1			<1	<1	0	
trans-1,3-dichloropropene	µg/L	1	<1			<1			<1	<1	0	
Vinyl chloride	µg/L	10	<10			<10			<10	<10	0	
Halogenated Benzenes												
1,2,3-trichlorobenzene	µg/L	1	<1			<1			<1	<1	0	
1,2,4-trichlorobenzene	µg/L	1	<1			<1			<1	<1	0	
1,2-dichlorobenzene	µg/L	1	<1			<1			<1	<1	0	
1,3-dichlorobenzene	µg/L	1	<1			<1			<1	<1	0	
1,4-dichlorobenzene	µg/L	1	<1			<1			<1	<1	0	
2-chlorotoluene	µg/L	1	<1			<1			<1	<1	0	
4-chlorotoluene	µg/L	1	<1			<1			<1	<1	0	
Bromobenzene	µg/L	1	<1			<1			<1	<1	0	
Chlorobenzene	µg/L	1	<1			<1			<1	<1	0	
Hexachlorobenzene	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Halogenated Hydrocarbons												
1,2-dibromoethane	µg/L	1	<1			<1			<1	<1	0	
Dibromomethane	µg/L	10	<10			<10			<10	<10	0	
Dichlorodifluoromethane	µg/L	10	<10			<10			<10	<10	0	
Trichlorofluoromethane	µg/L	10	<10			<10			<10	<10	0	
Perfluoroalkane Carboxylic Acids												
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01			<0.01			<0.01	<0.01	0	
(n:2) Fluorotelomer Sulfonic Acids												
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	0.01			<0.01			<0.01	<0.01	0	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	<0.02			<0.02			<0.02	<0.02	0	
Perfluoroalkane Sulfonic Acids												
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01			<0.01			<0.01	<0.01	0	
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01			<0.01			<0.01	<0.01	0	
PFAS												
Sum of PFHxS and PFOS	µg/L	0.01	<0.01			<0.01			<0.01	<0.01	0	
Sum of PFAS	µg/L	0.01	0.01			<0.01			<0.01	<0.01	0	
Sum of PFAS (PFOS + PFOA)	µg/L	0.01	<0.01			<0.01			<0.01	<0.01	0	
Inorganics												
Free Carbon Dioxide as CO2	mg/L	0							38	38	0	
Ammonia as N	mg/L	0.005							0.11	0.092	18	
Nitrate (as N)	mg/L	0.005							7.7	7.8	1	
Nitrite (as N)	mg/L	0.005							0.01	0.025	86	
Nitrogen (Total)	mg/L	0.1							11	10	10	
Total Phosphorus (Organic Phosphate)	mg/L	0.05							<0.05	<0.05	0	
Reactive Phosphorus as P (Orthophosphate as P)	mg/L	0.005							0.02	0.02	0	
Sulphide	mg/L	0.5							<0.5	<0.5	0	
MAH												
1,2,4-trimethylbenzene	µg/L	1	<1			<1			<1	<1	0	
1,3,5-trimethylbenzene	µg/L	1	<1			<1			<1	<1	0	
Isopropylbenzene	µg/L	1	<1			<1			<1	<1	0	
n-butylbenzene	µg/L	1	<1			<1			<1	<1	0	
n-propylbenzene	µg/L	1	<1			<1			<1	<1	0	
p-isopropyltoluene	µg/L	1	<1			<1			<1	<1	0	
sec-butylbenzene	µg/L	1	<1			<1			<1	<1	0	
Styrene	µg/L	1	<1			<1			<1	<1	0	
tert-butylbenzene	µg/L	1	<1			<1			<1	<1	0	
Metals												
Arsenic (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0	0.02	0.026	26	
Cadmium (filtered)	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0	
Chromium (III+VI) (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	
Copper (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0	0.004	0.003	29	
Lead (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	
Mercury (filtered)	mg/L	0.00005	<0.00005	<0.00005	0	<0.00005	<0.00005	0	<0.00005	<0.00005	0	
Nickel (filtered)	mg/L	0.001	0.003	0.003	0	<0.001	<0.001	0	0.038	0.051	29	
Zinc (filtered)	mg/L	0.001	0.003	0.004	29	0.002	0.002	0	0.016	0.011	37	
Organic												
Methane	mg/L	0.005							<0.005	<0.005	0	
Organochlorine Pesticides												
4,4-DDE	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
a-BHC	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Aldrin	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
b-BHC	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Chlordane (cis)	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Chlordane (trans)	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
d-BHC	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
DDD	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
DDT	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Dieldrin	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Endosulfan I	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Endosulfan II	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Endosulfan sulphate	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Endrin	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Endrin aldehyde	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
g-BHC (Lindane)	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Heptachlor	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Heptachlor epoxide	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Methoxychlor	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Organophosphorous Pesticides												
Azinophos methyl	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Bromophos-ethyl	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Chlorpyrifos	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Chlorpyrifos-methyl	mg/L	0.0002	<0.0002			<0.0002			<0.0002	<0.0002	0	
Diazinon	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Dichlorvos	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Dimethoate	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Ethion	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Fenitrothion	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Malathion	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Ronnel	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
PAH												
Benzo(b+j+k)fluoranthene	mg/L	0.002	<0.002	<0.002	0	<0.002	<0.002	0	<0.002	<0.002	0	
Acenaphthene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Acenaphthylene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Anthracene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Benz(a)anthracene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Benzo(a) pyrene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Benzo(g,h,i)perylene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Chrysene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Dibenz(a,h)anthracene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Fluoranthene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Fluorene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Naphthalene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Phenanthrene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Pyrene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	0	
Benzo(a)pyrene TEQ	mg/L	0.005	<0.005	<0.005	0	<0.005	<0.005	0	<0.005	<0.005	0	
PAHs (Sum of positives)	mg/L	0.001	0	0		0	0		0	0		
PCBs												
Arochlor 1016	µg/L	2	<2			<2			<2	<2	0	
Arochlor 1221	µg/L	2	<2			<2			<2	<2	0	
Arochlor 1232	µg/L	2	<2			<2			<2	<2	0	
Arochlor 1242	µg/L	2	<2			<2			<2	<2	0	
Arochlor 1248	µg/L	2	<2			<2			<2	<2	0	
Arochlor 1254	µg/L	2	<2			<2			<2	<2	0	
Arochlor 1260	µg/L	2	<2			<2			<2	<2	0	
Pesticides												
Parathion	µg/L	0.2	<0.2			<0.2			<0.2	<0.2	0	
Solvents												
Cyclohexane	mg/L	0.001	<0.001			<0.001			0.001	0.001	0	
TPH												
C6-C9 Fraction	µg/L	10	<10	<10	0	<10	<10	0	<10	<10	0	
C10-C14 Fraction	µg/L	50	<50	<50	0	<50	<50	0	<50	<50	0	
C15-C28 Fraction	µg/L	100	<100	<100	0	<100	<100	0	<100	<100	0	
C29-C36 Fraction	µg/L	100	<100	<100	0	<100	<100	0	<100	<100	0	
C10-C36 Fraction (Sum)	µg/L	50							<50	<50	0	

**RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

20 Attachment H – GW062945 Bore Information

WaterNSW
Work Summary

GW062945

Licence: 10WA109931
Licence Status: CURRENT

Authorised Purpose(s): STOCK,DOMESTIC,FARMING
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore open thru rock
Work Status:
Construct.Method: Cable Tool
Owner Type: Private

Commenced Date:
Completion Date: 01/08/1986
Final Depth: 150.00 m
Drilled Depth: 150.00 m

Contractor Name: (None)
Driller: John Hans Iselt
Assistant Driller:

Property: N/A NSW
GWMA: -
GW Zone: -
Standing Water Level (m):
Salinity Description: Fresh
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CAMDEN	CAMDEN	L1 DP718840 (3)
Licensed:	CAMDEN	CAMDEN	Whole Lot 1//718840

Region: 10 - Sydney South Coast
River Basin: 212 - HAWKESBURY RIVER
Area/District:
CMA Map: 9029-4S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: (Unknown)
Northing: 6221031.000
Easting: 287960.000
Latitude: 34°07'48.3"S
Longitude: 150°42'02.2"E

GS Map: -
MGA Zone: 56
Coordinate Source: GD.,ACC.MAP

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	Welded Steel	-0.30	86.90	168			Cemented
1	1	Casing	Pressure Cemented	0.00	86.90				

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
29.60	30.80	1.20	Fractured	15.00		1.20			
101.30	101.70	0.40	Consolidated	85.00		0.20			
144.80	145.90	1.10	Consolidated	40.00		0.70			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	6.20	6.20	Clay Shale	Clay	
6.20	77.80	71.60	Shale Water Supply	Shale	
77.80	150.00	72.20	Sandstone Grey Water Supply	Sandstone	

***** End of GW062945 *****

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