

114 Newdegate Street Greenslopes Remediation Planning

Supplementary Investigation

Department of Veteran Affairs



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1. INTRODUCTION

The Department of Veteran Affairs (DVA) is planning the redevelopment of 114 Newdegate Street, Greenslopes (Lot 123-125 RP46047) ("the Site") for park/community use and pass the Land Title to Brisbane City Council (BCC). The location of the Site is shown in **Figure 1, Appendix A**.

The Site is listed on the Environmental Management Register (EMR) for Hazardous Contaminants as a result of organochlorine pesticides (OCPs) being previously detected in soil. The Site is not subject to a Site Management Plan (SMP) and the EMR listing does not include a Site Suitability Statement¹. The Site currently contains two disused, large buildings with Asbestos Containing Materials (ACM).

Previous investigations have confirmed the presence of the OCPs Aldrin + Dieldrin which exceed the Schedule B1 *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM) Health-based Investigation Levels for recreational areas (HIL-C). OCPs are associated with historical application of termite barriers around buildings. Fragments of ACM and asbestos fines have also been reported in soil which exceed NEPM guidelines for recreational areas.

There are two remediation strategies which could be considered for the Site including:

- Partial remediation of the Site such that the property is suitable for Park and Community use and remains on the EMR. The strategy is likely to require a Contaminated Land Investigation Document (CLID) including a Site Suitability Statement and Draft SMP. As BCC will take ownership for the Site the Department of Environment and Science (DES) will require BCC to consent to the SMP (and therefore any residual contamination present on the Site and its on-going management).
- Full remediation of the Site enabling the Site to be removed from the EMR through completion of a CLID/Validation Report.

Site Auditor Certification will need to accompany the CLID/Draft SMP or Validation Report, and will be required prior to use of the Site for community use.

A review of the previous investigations identified data gaps which need to be addressed for the planning of remediation and redevelopment of the Site. These data gaps are described in:

- Coffey (2020) 114 Newdegate Street Greenslopes Remediation Planning, Sampling, Analysis and Quality Plan, 19 July 2021 ("the SAQP").

A supplementary investigation was undertaken to implement the scope of work described in the SAQP as well as comments provided by the Site Auditor on the SAQP.

The Commonwealth Department of Agriculture, Water and the Environment (DAWE). DAWE has determined the demolition and removal of the contaminated soil on the site as a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and requires further information before making a decision on whether the action can proceed, and any required conditions if approval is granted. In DAWE Request for Additional Information (RAI), DAWE has made a recommendation to remove OCPs to the laboratory limits of detect (LOR). DAWE confirmed this requirement in a meeting on the 9 December 2021.

This report provides a summary of the findings of the supplementary investigation and the proposed remediation strategy for the Site. Following confirmation of the remediation strategy by DVA and the Site Auditor a Remediation Action Plan (RAP) will be prepared for the Site. Remediation of the Site is expected to take place in Q1-Q2 2022.

This report is to be read in conjunction with the limitations included in this report.

¹ A Site Suitability Statement is a statement prepared by a Suitably Qualified Person (SQP) which describes the permitted uses of the land, and whether there is a requirement for a SMP. The Site Suitability Statement can also include a statement that the site is 'suitable for any use' (i.e. can be removed from the EMR).

2. SITE DESCRIPTION

2.1 SITE IDENTIFICATION

The Site is located on the corner of Newdegate Street and Headfort Street, Greenslopes, Brisbane. The Site is shown in **Figure 2-1** below, and the location of the Site in Brisbane is shown in **Figure 1, Appendix A**.



Figure 2-1 114 Newdegate Street, Greenslopes (Image source: Queensland Globe, 2021)

Two buildings are located on the Site and comprise a former Main Hall Building and Accommodation Building (see Figure 2-1). The Site is currently not in use due to the condition of the buildings and the presence of ACM.

Further information on the Site and surrounding land use is summarised in **Table 2-1**.

Table 2-1 Site Identification Details

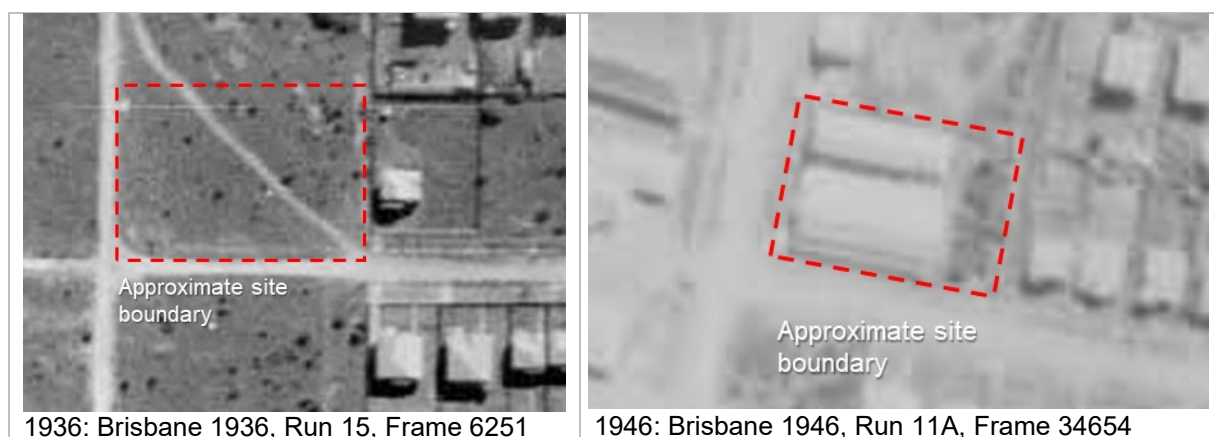
Item	Detail
Site Address	114 Newdegate Street, Greenslopes QLD
Lot/Plan Number	Lot 123 on RP46047 Lot 124 on RP46047 Lot 125 on RP46047
Current Zoning	NC Neighbourhood Centre ²

² Brisbane City Plan 2014. Neighbourhood centre is a small mix of land uses to service residential neighbourhoods. It includes small-scale convenience shopping, professional offices, community services and other uses that directly support the immediate community.

Item	Detail
Local Council	Brisbane City Council
Total Site Area	Approximately 1,933 m2
Site Owner	The site is currently owned by Department of Veterans Affairs.
Land Use	The property currently consists of disused main hall and accommodation building.
Surrounding Land Uses	North – Residential houses and small cafeteria East – Residential houses South – Residential houses West – Health care (Greenslopes Private Hospital)

2.2 SITE HISTORY

Historical aerial photography shows the Site was cleared land in 1936, and potentially in use for rural purposes (see image below). The site was acquired by the Commonwealth of Australia in 1945 for the development of the Australian Red Cross Centre (ARCC). The ARCC was developed on the Site in approximately 1945 and is shown in historical aerial imagery from 1946 (see image below).



The ARCC was built to provide recreational services to military personnel who were patients at the 112th Australian Military Hospital. Post World War II, the ARCC was used for a similar purpose for service personnel and veterans. The buildings on the Site were later used for community purposes and to provide temporary accommodation for the families of patients at the Greenslopes Repatriation Hospital³. The former ARCC buildings remain on the Site to the present day. It is not known whether historically there were smaller structures located on the Site which have subsequently been demolished and the source of any fill material used on the Site.

³ <https://heritage.brisbane.qld.gov.au/heritage-places/806>, accessed 16 July 2021.

2.3 ENVIRONMENTAL MANAGEMENT REGISTER

The Site is listed on the EMR for Hazardous Contaminants including elevated concentrations of organochlorine pesticides (DDD/DDT/DDE and Aldrin/Dieldrin). EMR search results are included in **Appendix E**. Maximum concentrations reported on the Site from previous investigations are summarised in **Section 3**.

The Site is not subject to a SMP and the EMR listing does not include a Site Suitability Statement.

The Site is not listed on the Contaminated Land Register (CLR).

2.4 TOPOGRAPHY AND DRAINAGE

The Site is located at approximately 25 m AHD. Topography in the vicinity of the Site falls in an approximate north west direction towards the Norman Creek (drain⁴) in Ekibin Park East.

2.5 REGIONAL GEOLOGY AND HYDROGEOLOGY

Regional geology of the Site and surrounding land is the Neranleigh-Fernvale beds (DCf). This geological formation is described as feldspathic and lithic meta-arenite, metasilstone and conglomerate proximal turbidites, with structurally intercalated or stratigraphically underlying chert, jasper and basic meta- volcanics⁵.

The topography of the surrounding area is dominated by Stephen Mountain⁶ which has a height of 55 m AHD and is located west of the Greenslopes Hospital and approximately 400 m west of the Site.

The nearest registered groundwater bore (RN 133887) is located approximately 900 m west of the Site, and was installed in the Neranleigh-Fernvale beds. The bore report for this registered bore has been abandoned/destroyed and describes groundwater as being located at approximately 51 m depth (approximately -10 m AHD⁷) and 'salty'.

Groundwater on the Site has not been previously investigated. Based on the regional geology and the Site being located in an elevated area off Stephens Mountain, groundwater is expected to occur in the Neranleigh-Fernvale beds at a depth greater than 30 m below ground surface (bgs).

2.6 ENVIRONMENTAL VALUES AND WATER QUALITY OBJECTIVES

The Site is located within freshwater reaches of Norman Creek Catchment as per the *Environmental Protection (Water) Policy 2009 South-east Queensland Map Series, PLAN WQ1431* (Queensland Government, 2010).

Under the Environmental Protection (Water) Policy (2009), the Site falls within the area covered by the 'Brisbane River Estuary - Environmental Values and Water Quality Objectives (2010) Basin No. 143 (part), including all creeks of the Brisbane River estuary, other than Oxley Creek (Department of Environment and Resource Management, 2020). The environmental values identified for Norman Creek (freshwater) in this document are summarised below in **Table 2-2**.

⁴ Note Norman Creek is a concrete lined drain in Ekibin Park East

⁵ <https://asud.qa.gov.au/search-stratigraphic-units/results/14021>, accessed 1 September 2021

⁶ Stephens Mountain has an elevation of 55 m AHD and is located west of Greenslopes Private Hospital and is approximately 400 m from the Site (<https://qtopo.information.qld.gov.au/>, accessed 1 September 2021)

⁷ RN 133887 is located at approximately 40 m AHD

Table 2-2 Water Quality Environmental Values

Water Resource	Environmental Values											
	Aquatic ecosystems	Irrigation	Farm supply/use	Stock water	Aquaculture	Human consumer	Primary Recreation	Secondary recreation	Visual recreation	Drinking water	Industrial use	Cultural and spiritual values
Groundwater	✓	✓	✓	✓						✓		
Norman Ck Fresh Water	✓							✓	✓			✓

Water Quality Objectives for Protection of Environmental Values

The Brisbane River Estuary Environmental Values and Water Quality Objectives (2010) identifies the area in which the Site is located, to be a moderately disturbed ecosystem and refers to the following guidelines for water quality objectives:

- Australian drinking water guidelines (2011 updated December 2013) prepared by National Health and Medical Research Council (NHMRC)
- Australian and New Zealand guidelines for fresh and marine water quality 2000 (2018 edition) prepared by Australian and New Zealand Environment and Conservation Council (ANZECC) and the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) ("ANZECC Guidelines). For toxicants a 95% level of protection is assumed for lowland freshwater based on the management intent described in *Environmental Protection (Water) Policy 2009, South-east Queensland Map Series PLAN WQ1423* (Queensland Government, 2010)
- Guidelines for Managing Risks in Recreational Water (NHMRC, 2008).

3. PREVIOUS INVESTIGATIONS

Previous investigations of the Site were completed in 2013 and 2019. The investigations were undertaken based on the requirements of the ASC NEPM and involved undertaking phased investigations to assess the presence and then potential extent of contamination at the Site.

A brief summary of these investigations is provided in **Appendix F**, and further information on the investigations undertaken is included in the SAQP. Data from previous investigations has been included in the tables provided in **Appendix C**. Sample locations from previous investigations are shown in **Figure 2**, **Appendix A**.

Coffey (2019) describes soils on the Site to be mainly comprised of silty CLAY to 0.3 m, and CLAY with silt and sand to 0.5 m. Fill material containing anthropogenic materials (wood, brick, concrete, and/or slag) has also been found on the Site in previous investigations.

OCPs were detected in soils beneath and surrounding the buildings on the Site from the historical application of termiticides. Higher concentrations of OCPs have been reported in soil materials < 0.2 m below ground surface (bgs) and in the soil materials surrounding the perimeter of buildings. These findings are consistent with the application of termite barriers around the perimeter of buildings.

The maximum concentration of OCPs reported in previous investigations are summarised in **Table 3-1**.

Table 3-1 Summary of OCP and Metal Soil Data from Previous Investigations

Analyte (mg/kg unless shown)	Maximum Value	HIL-A Residential Guidelines	No. of Samples Exceeding HIL-A Residential Guidelines	HIL-C Recreational Guidelines	No. of Samples Exceeding HIL-C Recreational Guidelines
OCPs					
4,4-DDE	2.2		-		-
a-BHC	<0.1		-		-
Aldrin	2.32		-		-
Aldrin + Dieldrin	109	6	15	10	13
b-BHC	<0.1		-		-
chlordane	140	50	2	70	1
d-BHC	<0.1		-		-
DDD	2.1		-		-
DDT	23		-		-
DDT+DDE+DDD	26.5	240	0	400	0
Dieldrin	107		-		-
Endrin aldehyde	0.24		-		-
Endrin ketone	1.4		-		-
Endosulfan I	0.26	270	0	340	0
Endosulfan II	<0.05		-		-
Endosulfan sulphate	<0.1		-		-
Endrin	1.47	10	0	20	0
g-BHC (Lindane)	<0.1		-		-
Heptachlor	1	6	0	10	0
Heptachlor epoxide	3.4		-		-
Hexachlorobenzene	<0.1	10	0	10	0
Methoxychlor	<0.2	300	0	400	0
Toxaphene	<1	20	0	30	0
Metals					
Arsenic	32	100	0	300	0
Cadmium	1.4	20	0	90	0
Chromium (III+VI)	90	100	0	300	0

Analyte (mg/kg unless shown)	Maximum Value	HIL-A Residential Guidelines	No. of Samples Exceeding HIL-A Residential Guidelines	HIL-C Recreational Guidelines	No. of Samples Exceeding HIL-C Recreational Guidelines
Copper	33	6000	0	17000	0
Lead	140	300	0	600	0
Mercury	0.1	10	0	13	0
Nickel	35	400	0	1200	0
Zinc	2000	7400	0	30000	0

In summary elevated concentrations of Aldrin + Dieldrin (mainly Dieldrin) have been found which exceed ASC NEPM health based guidelines for open space and recreation areas (HIL-C) and residential landuse with accessible gardens (HIL-A). Chlordane also exceeded HIL-C and HIL-A guidelines in one sample, and HIL-A guidelines in another sample.

As shown in **Table 3-1** a range of other OCPs have also been detected with concentrations below HIL-C and HIL-A guidelines including:

- DDT+DDE+DDD
- Endosulfan I
- Endrin
- Heptachlor.

Endrin aldehyde and endrin ketone were also detected in samples analysed and do not have guideline values in the NEPM. These compounds are breakdown products of endrin.

Heptachlor epoxide which is a breakdown product of heptachlor were also detected in samples analysed and does not have guideline values in the NEPM.

All samples of metals analysed were below the NEPM HIL-C and HIL-A guidelines, however elevated concentrations of zinc (in comparison to other samples) were noted in sample locations SS01 and SS02.

Fragments of Asbestos Containing Materials (ACM) and/or asbestos fines which exceed the nominated ILs have been reported in previous investigations of the Site at the following locations (refer to Figure 3):

- SS01
- SS02
- SA01/A01
- Main Hall (under building)
- Accommodation Building (under building)
- Unsealed External Areas
- A01, A04, A10
- A06, A10

Previous investigations of the Site did not report the detection of other potential contaminants of concern (PCOC) including organophosphate pesticides (OPPs), poly aromatic hydrocarbons (PAH) including soil materials containing a slag type material, and total recoverable hydrocarbons (TRH).

3.1 DATA GAPS

Based on a review of the previous investigations the following data gaps were identified and described in the SAQP:

- Previous investigations have not sampled soil materials beneath the concrete slab located along the northern half of the Accommodation Building, and beneath the concrete pavement along the eastern boundary of the Site.
- Elevated concentrations of zinc were found at two locations in Area 2 (SS01 and SS02). While the concentrations are below NEPM Guidelines for Parks and Open Spaces, recipient landfills may require leachability tests for waste classification purposes.
- The potential for contamination in the concrete slabs has not been previously investigated. OCPs have the potential to be present in concrete slabs as wells as building stumps/footings.
- Soil materials containing slag have been analysed however it is recommended that the slag materials be analysed for waste disposal purposes.

Based on discussion with the Site Auditor on the SAQP it was identified that further consideration on the risk to groundwater was required and the Site Auditor recommended that a groundwater monitoring well be installed if there was a requirement to remove the Site from the EMR.

The OCP contaminants of concern have low solubility and based on geology and topography groundwater is expected to be deep on the Site (>20 m below ground surface, refer to **Section 2.5**) and accordingly the risk to groundwater was considered to be low. Notwithstanding this, in order to confirm that there was not a groundwater receptor on the Site which could be impacted from leaching of OCPs it was agreed that a groundwater well would be installed on the Site to a maximum depth of 6 m bgs.

The supplementary investigation was undertaken to address these data gaps.

3.2 CONTAMINANTS OF CONCERN

Based on previous investigations the following PCOC are considered to be relevant to the Site:

- OCPs
- Asbestos fines and ACM
- Metals (zinc)

While previous investigations have investigated soil materials containing a slag type material, the slag type material has not been investigated as a discrete sample. PCOC with these materials include metals (arsenic, cadmium, chromium, copper, nickel, lead and zinc) and PAHs.

The Site does not include activities described in Appendix B of HEPA (2020) *Per-and poly-fluoroalkyl substances National Environmental Management Plan, Version 2.0* (PFAS NEMP). Accordingly no analysis for PFAS is proposed to be undertaken in the investigation.

4. PRELIMINARY CONCEPTUAL SITE MODEL

Historical termiticides applied to Site and asbestos containing materials (ACM) (most likely from buildings on the Site) are considered to be the **primary sources** of contamination on the Site.

Contamination present in soil and other environmental media as a result of the primary source is considered as a **secondary source** of contamination.

Once in soil, contamination has the potential to be distributed through **transportation pathways** such as erosion and deposition (wind and water) and the leaching of contaminants to groundwater and surface water, and anthropogenic activities which involve the movement of soil materials such as site redevelopment. Transportation pathways can also be considered as secondary sources of contamination (e.g. contamination in groundwater).

Receptors could potentially be exposed to contaminants derived from the disturbance of contaminants present in within soil.

Potential receptors considered applicable redevelopment of the Site include:

- workers involved with the site redevelopment work
- persons involved with the cleaning clothing, vehicles and equipment used in redevelopment
- general public including persons who could be subject to contaminated media generated during redevelopment (e.g. dust)
- ecological receptors including native and domestic terrestrial flora and fauna
- groundwater and surface water receptors.

Post redevelopment potential receptors which may be exposed to contaminants in soil include:

- general public accessing the park and community facilities
- persons involved with maintenance of the park and community facilities
- persons who work at the community facilities
- persons who could be subject to contaminated media generated from the Site (e.g. dust)
- ecological receptors including terrestrial and aquatic flora and fauna (including native and domestic terrestrial fauna).
- groundwater and surface water receptors.

5. DATA QUALITY OBJECTIVES

The National Environment Protection Measure (NEPM, Schedule B2 Guideline on Site Characterisation - 2013) states that the nature and quality of the data collected for a particular assessment will be determined by the Data Quality Objectives (DQOs). The NEPM and the Australian Standard AS4482.1-2005 reference the US EPA *Guidance on Systematic Planning Using the Data Quality Objectives Process* (US EPA, 2006) which defines the DQO process. The US EPA defines the process as 'a strategic planning approach based on the Scientific Methods that is used to prepare for a data collection activity. It provides a systematic procedure for defining the criteria that a data collection design should satisfy, including when to collect samples, where to collect samples, the tolerable level of decision errors for the study, and how many samples to collect.'

The process for establishing DQOs appropriate for a project is defined by the US EPA and comprises seven steps. The DQOs have been briefly summarised in **Table 5-1**.

Table 5-1 Data Quality Objectives

Data Quality Objectives
<p>1. State the Problem</p> <p>DVA is planning to redevelop the Site for park/community use. DVA has advised that it has had preliminary discussions with BCC which support the end use of the Site as a Park, and has advised that remediation of the Site to a standard suitable for Park is an appropriate remediation strategy for the Site. Previous investigations have identified OCPs and asbestos which exceed guidelines for recreational use. Review of previous investigation have identified 'Data Gaps' (refer to Section 3.1) which need to be addressed to confirm the remediation strategy for the Site.</p> <p>The investigation planning team comprised Tetra Tech Coffey with input from the Site Auditor and DVA.</p>
<p>2. Identify the Goal of the Study</p> <p>The purpose of the investigation is to investigate the Data Gaps described in Section 3.1, and to develop a remediation strategy for the Site.</p>
<p>3. Identify Information Inputs</p> <ul style="list-style-type: none"> • Previous investigations (where applicable) • Field observations including the presence of visual/olfactory indicators of contamination • Analytical data of sample media, and quality assurance / quality control (QA/QC) samples • Outcome of QA/QC samples • Nominated investigation levels (refer to Section 7).
<p>4. Define the Boundary of the Study</p> <p>The study boundary is defined as Lot 123-125 RP46047 ('the Site') (refer to Figure 2, Appendix A), the investigation of soil materials to approximately 0.5 m bgs within the Site, and to determine whether any groundwater receptors are present within 6 m bgs. The investigation of soil was completed over 1-day in September 2021 and the investigation of groundwater over 2-days in November 2021.</p>
<p>5. Develop a Decision Rule</p> <p>Field and laboratory data collected from the investigation were compared against predetermined DQI defined in Appendix G. Where the data was found to meet these DQI, then the data was considered to be suitable quality to assess contamination in the context of the project objectives.</p> <p>Where contamination is identified and exceeds the nominated investigation levels for the protection of human health and/or the environment a recommendation will be made for:</p> <ul style="list-style-type: none"> • completion of further investigations to assess the nature and extent of contamination requiring management (if required) • remediation of the Site to enable the Site to be used for its intended use.

6. Specify Performance of Acceptance Criteria

The assessment as a whole (including consideration of previous assessments) must reliably characterise the sources of contamination from the site and described the risk that the contamination may pose to human or ecological receptors. In order to achieve that, there must be multiple lines of evidence to support location of primary source areas; the characterisation of the nature and extent of secondary sources of contamination; the significance of the risk that that contamination currently poses to relevant receptors. Analytical data quality indicators are described in **Section 9**.

7. Develop a plan for obtaining the data

The methodology and rationale for obtaining relevant data for the detailed site investigation is described in the SAQP and summarised in **Section 6**.

6. METHODOLOGY

6.1 SOIL INVESTIGATION

The methodology for the soil investigation is described in the SAQP (Coffey, 2021). In summary the investigation involved the excavation of 21 hand augered boreholes over the Site 3 September 2021. Sample locations sites are shown in **Figure 2, Appendix A** and are summarised in the following table. Bore logs for the sampling sites are included in **Appendix B**.

Soils were logged in accordance with the Unified Soil Classification System (USCS), including environmental observations (staining, odour, and discolouration) to assist with evaluation of site contamination. A summary of ground conditions encountered is presented **Section 8.1**. On completion of ground investigation works, boreholes were backfilled with soil cuttings in order of excavation and the surface reinstated to match surrounds.

Table 6-1 Summary of Sample Locations

Sample Location	Purpose of Sample Location
BH01 to BH08	Concrete coring and soil sampling beneath the sealed area beneath Main Hall Building, and the concrete drive way along the eastern end of the Site.
BH09 to BH11	Concrete coring between the accommodation building and main hall.
BH12 to BH13	Two surface soil samples (0-0.1 m bgs) where elevated levels of zinc were reported in previous investigations
BH14 to BH15	Two boreholes at previous sampling sites where elevated concentrations of OCPs were reported and there is currently no leachability data including HA10 and HA09.
BH16 to BH17	Two boreholes at previous sampling sites where elevated concentrations of OCPs were reported and there is currently no leachability data including HA10 and HA09.
BH16 to BH20	Four boreholes around the perimeter of the Site in grassy areas outside the building envelope.
BH21	Concrete coring and soil sampling beneath the sealed area of the Accommodation Building
Slag 1 to 2	Collection of two pieces of slag from garden bed (surface) on the southern side of the Main Hall.

Soil samples were collected at 0-0.1 m, 0.3 m and 0.5 m below ground level (if practicable). Concrete cores and soil samples were be submitted for laboratory analysis. Samples collected were submitted for NATA accredited laboratory for analysis of the following:

- Soil samples: OCPs, metals (arsenic, cadmium, chromium, copper, lead, nickel and zinc), and asbestos.
- Concrete samples: OCPs
- slag samples: metals, PAH, OCPs

Ash and a slag type material was countered in the sampling sites BH06, BH17, BH18, and BH19. PAHs were scheduled at these sampling sites where these materials were encountered as well as the samples of slag (Slag 1 and Slag 2).

Based on the results of soil samples, selected samples were submitted for leachability analysis via the TCLP for waste classification purposes.

Organophosphate Pesticides (OPPs) were also analysed on selected samples.

6.2 GROUNDWATER INVESTIGATION

One groundwater monitoring well (MW01) was installed in the north western corner of the Site, near the previous sample location site SA04/A04. The location of the groundwater monitoring well installed is shown in **Figure 2, Appendix A**, and bore and well construction log included in **Appendix B**. Groundwater was not intersected during drilling and a dry well was installed. The location of this monitoring well was discussed with the Site Auditor. The location was selected on the basis that it is downgradient of areas where the highest concentrations of OCPs have been reported and is approximately the lowest point of elevation on the Site.

The monitoring well was constructed from 50mm Class 18 uPVC with machine slotted screening and casing. Threaded joins and end caps were used. The bore annulus was backfilled with washed, graded sand to approximately 0.5 m above the top of the 3 m screened well section and then sealed by an approximate 1 m thickness of bentonite. The remaining bore annulus was backfilled with cement grout to seal the bore annulus from surface water infiltration. A cap was installed on top of the well string to minimise the potential for infiltration of water and other foreign matter falling into the well. The monitoring well was finished with a flush gatic cover. Drill cuttings from the borehole were placed in the void beneath the accommodation building.

The monitoring well was checked on the 24 November 2021 with an interface probe. No groundwater was present in the monitoring well.

Soil samples during drilling were collected at 0-0.1 m, 0.25 m, 0.5 m, 1 m and then 1 m intervals to the based of the borehole. Samples collected at 0-0.1 m, 0.25 m and 0.5 m were submitted for laboratory analysis.

6.3 QUALITY ASSURANCE AND QUALITY CONTROL PROGRAM

For quality assurance / quality control (QA/QC) purposes, the methods used during soil sampling are summarised in **Table 6-2**. Field quality control samples will be analysed for OCPs and metals. A review of the QA/QC data against the DQIs adopted for the investigation is provided in **Appendix G**.

Table 6-2 Field QAQC program

Activity	Detail / Comments
Collection of Samples	Samples collected were undertaken by experienced environmental practitioners with appropriate qualifications and training. These samples were collected in accordance with Coffey's Standard Operating Procedures which are based on good industry practice.
Intra-laboratory duplicates	<p>Intra-laboratory field duplicates were collected at a minimum frequency of one sample per twenty samples collected (5%). The analytical results of the two duplicate samples were compared to assess the precision of the sampling protocol and to provide an indication of variation in the sample source.</p> <p>Repeatability was assessed by calculating the relative percentage difference (RPD) between the primary and duplicate results. Where the RPD was greater than 30%, the potential causes of variability were reviewed.</p>
Inter-laboratory duplicates	<p>Inter-laboratory field duplicates were collected of surface water and sediment samples at a minimum frequency of one sample per twenty samples collected (5%). The analytical results of the two duplicate samples were compared to assess the precision of the sampling protocol, provide an indication of variation in the sample source and to assess the accuracy of analysis.</p> <p>Reproducibility was assessed by calculating the relative percentage difference (RPD) between the primary and duplicate sample results. Where the RPD was greater than 30%, the potential causes of variability were reviewed.</p>
Trip blanks	Laboratory provided trip blanks were used for each sampling event. The blank remained with the sample containers during sampling and during the return trip to the laboratory. At no time during these procedures was the blank opened.

Rinsate samples	Rinsate samples were prepared in the field using empty bottles and the distilled water/potable water used for the cleaning of non-disposable sampling equipment (if used). These samples were a check of field decontamination procedures. Rinsate samples were collected and analysed for each day of field work carried out, where non-disposable sampling equipment has been used.
Samples chain of custody (COC)	Sample details were recorded on laboratory supplied COC templates. All quality control samples were labelled without reference to the parent sample on the sample container and COC to ensure analytical results were not biased by the laboratories. COC documentation was completed at the time of sample collection and accompanied the samples to the laboratory.
Selected laboratories	All laboratories used were NATA accredited for the analyses undertaken. Primary groundwater samples, duplicate, field blank and rinsate samples were submitted to Eurofins for analysis. The split sample was submitted ALS Environmental for analysis.
Equipment calibration	All scientific equipment used during groundwater monitoring works was calibrated as per manufacturers requirements. Refer to Appendix H for copies of the equipment calibration certificates.
Laboratory QAQC	The accuracy and precision of laboratory QC results were measured by percentage recovery, relative percentage difference (RPD), method blank value, duplicate, laboratory control control, matrix spike, and surrogate recovery. Definitions and acceptance targets for these measures are detailed in the laboratory reports contained in Appendix D .

Laboratory quality control included:

- analysis of samples environmental testing laboratory(s) who hold NATA accredited analytical methods
- the laboratory analyses will include reagent blanks, spike samples, duplicate spikes, matrix spikes, and surrogates spikes and duplicates to assess the laboratory quality control.

Based on the review of the field and laboratory QAQC data against the DQIs in **Appendix G**, Coffey considers the analytical data are suitable for the intended purpose.

7. INVESTIGATION LEVELS

Soil samples analysed were compared to established guidelines for the protection of human health and the environment. The guidelines adopted for this investigation are referred to as the nominated investigation levels (ILs).

Exceedance of an IL may trigger further consideration of risk through either qualitative risk assessment with consideration to source-pathway-receptors and/or further refinement of the IL. The ILs are summarised in the following sections.

7.1 PROTECTION OF HUMAN HEALTH

The nominated ILs have been selected to assess the suitability of the Site for its intended use for recreational purposes or removal of the Site from the EMR. Based on the PCOC identified in previous investigations the nominated ILs include:

Assessment of the Site for Recreational Use:

- NEPM health-based investigation levels in recreational land use (HIL-C)
- Other guideline as required based on the findings of the investigation.

Assessment of the Site for removal from EMR

- NEPM health-based investigation levels in residential landuse with accessible gardens/soil (HIL-A)
- Other guideline as required based on the findings of the investigation.

Table 7-1 and **Table 7-2** summarise the adopted human health guidelines for soils.

Table 7-1 Human Health ILs for Soil and Sediment

Analyte	Adopted IL
<ul style="list-style-type: none"> • Metals • Organo-chlorine pesticides (OCs) • Carcinogenic PAH (Benzo(a)pyrene TEQ) • Total PAH 	<p>Assessment of the Site for Recreational Use:</p> <ul style="list-style-type: none"> • NEPM health-based investigation levels in recreational land use (HIL-C) • Other guideline as required based on the findings of the investigation. <p>Assessment of the Site for removal from EMR</p> <ul style="list-style-type: none"> • NEPM health-based investigation levels in residential landuse with accessible gardens/soil (HIL-A) • Other guideline as required based on the findings of the investigation.
<ul style="list-style-type: none"> • Total Recoverable Hydrocarbons (TRH) • Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) Compounds • Naphthalene (N) 	<p>The most conservative of the following guidelines has been selected (refer to Table 7-2):</p> <ul style="list-style-type: none"> • NEPM HSL Vapour intrusion (Residential) <1 m SAND or Recreational/Open Space <1m SAND • NEPM Management Limits (Residential, Parkland and Open Space). • CRC Care Soil Health Screening Levels for Direct Contact Residential HSL-A Low Density.

Table 7-2 Summary of Adopted Human Health ILs for TRH

TRH Fraction	HSL-A	Management Limits ⁸	Direct Contact	Adopted IL
TRH C6-C10 minus BTEX	45	700	4400 ⁹	45
TRH >C10-C16	110	1000	3300	110
TRH >C16-C34	N/A	2500	4500	2500
TRH >C34-C40	N/A	10000	6300	6300

Asbestos

For asbestos in soil, a screening level of 0.1 g/kg (0.01 % w/w equivalent) was adopted based on the laboratory detection limit for analysis of asbestos in non-homogenous samples using the methodology outlined in Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples (AS4964-2004). Furthermore, an assessment criterion of ‘no respirable fibres’ was adopted; a detection of respirable fibres would indicate an exceedance of the assessment criteria.

7.2 PROTECTION OF ECOLOGICAL RECEPTORS

For the purpose of this assessment the following Ecological ILs (EILs) have been adopted based on the NEPM Ecological Investigation Levels (EIL) for in Urban Residential/Public Open Space land use settings.

The EILs were derived with consideration to the following physico-chemical soil properties from two soil samples reported in Coffey (2013) including HA11 (replication of sample SS02) and HA07, and soil samples from MW01 which was completed in this investigation. Soil material reported from these locations were comprised of Clayey Sandy SILT (HA07), sandy silty CLAY (HA11), and generally consistent with the description of fill and natural materials observed on the Site (refer to **Section 6.1**).

The physico-chemical properties of the samples previously investigated included:

- CEC: 17 meq/100g (MW01-0.25), 25 meq/100g (HA07), 30 meq/100g (HA11), 33 meq/100g (MW01-0.75)
- pH: 5.5 (MW01-0.25), 5.8 (HA07), 6.3 (HA11) and 6.6 (MW01-0.75).

EILs derived based on the ASC NEPM are summarised in the following **Table 7-3**.

Table 7-3 Adopted EILs

Potential Contaminant	Adopted EIL	Assumption
Zinc	420	Based on the sum of the Aged Contamination Limits (ACL) and Ambient Background Concentration (ABC) where: <ul style="list-style-type: none"> • ACL = 400 mg/kg (urban residential/public open space land use and an assumed CEC of 20 meq/100g and pH of 6 • ABC = 20 mg/kg (Note 1)

⁸ The NEPM defines the management limits as *Petroleum hydrocarbon ‘management limits’ are limited to petroleum hydrocarbon compounds. They are maximum values that should remain in a site following evaluation of human health and ecological risks and risks to groundwater resources and apply to all soil depths based on site-specific considerations. These limits are to consider the formation of light non aqueous phase liquids, fire and explosion risks and damage to buried infrastructure.*

⁹ Note the direct contract guideline is for TRH C6-C10 (inclusive of BTEX)

Potential Contaminant	Adopted EIL	Assumption
Copper	196	Based on the sum of the Aged Contamination Limits (ACL) and Ambient Background Concentration (ABC) where: <ul style="list-style-type: none"> ACL = 190 mg/kg (urban residential/public open space land use and an assumed pH of 6) ABC = 6 mg/kg (Note 1)
Chromium III	245	Based on the sum of the ACL and ABC where: <ul style="list-style-type: none"> ACL = 190 mg/kg (urban residential/public open space land use and 1% clay content was assumed) ABC = 55 mg/kg (Note 1)
Nickel	287	Based on the sum of the ACL and ABC where: <ul style="list-style-type: none"> ACL = 270 mg/kg (urban residential/public open space land use and an assumed CEC of 20 meq/100g) ABC = 17 mg/kg (Note 1)
Lead	1112	Based on the sum of the ACL and ABC where: <ul style="list-style-type: none"> ACL = 1100 mg/kg (urban residential/public open space land use) ABC = 12 mg/kg (Note 1)
Arsenic	100	Based on the generic EIL for urban residential/public open space land use
DDT	180	
TRH C6-C10	180	Based on the generic ESL for urban residential/public open space land use, and coarse soils
TRH >C10-C16	120	
TRH >C16-C34	300	
TRH >C34-C40	2800	

Note 1: BH01 to BH05 are located beneath the Main Building and were found to comprised natural materials (an no fill materials). The Ambient Background Concentration (ABC) was derived as the arithmetic mean of sample results from these sample locations.

There are no EILs for a range of OCPs reported on the site including Aldrin, Dieldrin, Endosulfan, Endrin and Heptachlor.

Ecological guidelines from the United States Environmental Protection Agency (USEPA) have been adopted where there is no Australian guideline. These are discussed further in **Section 9.3**.

8. RESULTS OF INVESTIGATION

8.1 GROUND CONDITIONS

Bore logs from the investigation are provided in **Appendix B**.

Fill Materials

Sample locations and fill depths encountered in the investigation are shown **Figure 3, Appendix A**.

In open areas surface geology typically comprised sparse grass coverage with very thin (<10 mm) silty sand topsoil across the open areas of the investigation area (surrounding the Accommodation and Main Hall buildings) and concrete paved driveways in between and to the east of the Accommodation and Main Hall buildings and a concrete footpath to the south of the Main Hall.

The subsurface geology in open areas typically comprised reworked firm, dry, red brown, low plasticity silty clay FILL interspersed with bedding sands and gravels in the upper profile. Fill material containing ash and slag-type materials in soil were recovered from the east and west of the site. Examples of ash and slag-type materials encountered are shown in **Figure 6-1**. Intrusive locations where anthropogenic materials were encountered are shown in **Figure 3, Appendix A**.

Fill depths in the west ranged from 0.2m bgs (BH19) in the north western corner, 0.6m bgs (BH17) in the south western corner, 0.3m bgs (BH06) in the south eastern corner and 0.45m bgs (BH20) in the north western corner. In between the Accommodation and Main Hall buildings, the depth of fill material ranged from 0.15m bgs (BH21) to 0.38 (BH14).

Fill material was not encountered beneath the slab of the Main Hall Building.

Natural Materials

Underlying the fill material was the apparent natural soils typically comprised firm, dry, red/brown, low plasticity silty clays transitioning to slightly moist medium plasticity orange/brown silty clays with occasional bands of sub rounded gravels.

Apparent refusal on weathered mudstone was encountered at 0.65m bgs during excavation of BH19 located in the north western portion of the site. Weathered mudstone was encountered from approximately 2.4 m bgs at MW1 in the north western corner of the Site.

Visual and Olfactory Signs of Contamination

With the exception of the observed ash and slag in fill materials, no visual or olfactory evidence of contamination (i.e. ACM, staining, or odours) was noted during the investigation.

Groundwater

Groundwater was not intersected during the drilling of MW01 which was extended to 6 m bgs. No groundwater was encountered in the monitoring well when it was gauged on the 24 November 2021. This was approximately one week after installation of the monitoring well.

Concrete Slab

Concrete slabs were found to be approximately 100 mm in thickness including slab beneath the Main Hall Building and Accommodation Building, and the concrete materials between these building and along the driveway on the eastern side of the Site.

Figure 8-1 Examples of Ash/Slag Type Material



BH18 (3/9/21 Facing South West)



BH19 (3/9/21 Looking Down)



Slag 2 (3/9/21 Facing north and from garden bed along the southern side of Main Hall Building)



Fill material at ground surface near BH18 (8/12/21 looking down. Photograph taken after rain)

8.2 LABORATORY RESULTS

Tabulated laboratory results (including previous investigations) in comparison to the ILs are provided in **Appendix C**.

Based on a review of the data, the data has been conceptualised into four categories of materials including:

- soil materials from surface to 0.2 m below ground level (bgs)
- soil materials deeper than 0.2 m bgs
- slag type material
- concrete.

The following sections provide a summary of the results of these materials and includes data from previous investigations.

8.2.1 Soil materials surface to 0.2 m bgs

Soil investigation results for OCPs and metals are summarised in the following table for samples collected from surface to 0.2 m bgs.

Table 8-1 Summary of Soil Data Surface to 0.2 m bgs

Analyte (mg/kg unless shown)	No. Samples / Detects	Maximum Value	EIL - Res/Open Space	No. of Samples Exceeding EIL - Res/Open Space	HIL-A Residential	No. of Samples Exceeding HIL-A Residential	HIL-C Recreational	No. of Samples Exceeding HIL-C Recreational
OCPs								
4,4-DDE	69 / 38	2.2		-		-		-
a-BHC	57 / 0	<0.1		-		-		-
Aldrin	69 / 18	98		-		-		-
Aldrin + Dieldrin	69 / 32	506		-	6	18	10	15
b-BHC	69 / 0	<0.1		-		-		-
chlordane	69 / 30	140		-	50	2	70	1
d-BHC	69 / 0	<0.1		-		-		-
DDD	69 / 23	2.1		-		-		-
DDT	69 / 34	23	180	Nil		-		-
DDT+DDE+DDD	69 / 37	26.5		-	240	Nil	400	Nil
Dieldrin	69 / 38	420		-		-		-
Endrin aldehyde	69 / 4	0.24		-		-		-
Endrin ketone	68 / 19	8.5		-		-		-
Endosulfan I	69 / 2	0.26		-	270	Nil	340	Nil
Endosulfan II	68 / 0	<0.05		-		-		-
Endosulfan sulphate	69 / 0	<0.1		-		-		-
Endrin	69 / 17	6.5		-	10	Nil	20	Nil
g-BHC (Lindane)	69 / 0	<0.1		-		-		-
Heptachlor	69 / 10	1		-	6	Nil	10	Nil
Heptachlor epoxide	69 / 19	3.4		-		-		-
Hexachlorobenzene	69 / 0	<0.1		-	10	Nil	10	Nil
Methoxychlor	69 / 0	<0.2		-	300	Nil	400	Nil
Toxaphene	65 / 0	<1		-	20	Nil	30	Nil
Total OCP	69 / 56	527.38		-		-		-
Metals								
Arsenic	35 / 32	32	100	Nil	100	Nil	300	Nil
Cadmium	35 / 6	1.4		-	20	Nil	90	Nil
Chromium (III+VI)	35 / 35	100	245	Nil	100	1	300	Nil
Copper	35 / 32	33	196	Nil	6000	Nil	17000	Nil
Lead	35 / 32	160	1112	Nil	300	Nil	600	Nil
Mercury	35 / 1	0.1		-	10	Nil	13	Nil
Nickel	35 / 32	66	287	Nil	400	Nil	1200	Nil
Zinc	35 / 35	2000	420	3	7400	Nil	30000	Nil

OCPs

In summary elevated concentrations of the OCP aldrin and dieldrin have been found in soil samples which exceed NEPM HIL-A and HIL-C guidelines. The OCP chlordane also exceeded these investigation levels in one sample. Sampling sites with exceedences are shown in **Figure 3, Appendix A**.

A range of other OCPs were also detected although were below the HIL-A and HIL-C guidelines in the samples analysed including:

- DDT+DDE+DDD
- Endosulfan I
- Endrin
- Heptachlor.

Endrin aldehyde and endrin ketone were also detected in samples analysed and do not have guideline values in the NEPM. These compounds are breakdown products of endrin.

Heptachlor epoxide which is a breakdown product of heptachlor were also detected in samples analysed and does not have guideline values in the NEPM.

OCPs were not reported above the limit of reporting (LOR) in soil samples from the following areas:

- the concrete slab along the driveway along the eastern boundary of the Site (BH06 to BH08)
- the south eastern corner (BH16).
- the western boundary of the Site (BH17 to BH19).

Metals

With the exception of zinc all samples of metals analysed were below the NEPM HIL-A and HIL-C guidelines, and the EILs. Elevated concentrations of zinc with concentrations which were below the NEPM HIL-A and HIL-C guidelines and exceeded the EILs were reported in SS01, SS02 and HA11. These locations were resampled as part of this investigation in BH12 and BH13. These sample sites returned zinc concentrations below the adopted EILs and HIL-A and HIL-C.

Asbestos

Fragments of ACM have been observed in surface soils, and asbestos fines have previously been reported in sample locations SS01, SS02 and SA01.

Fragments of ACM were not observed in the investigation completed in 2021. All samples analysed for asbestos in 2021 reported no asbestos detected at the LOR of 0.01% w/w.

Other Potential Contaminants of Concern (PCOC)

With the exception of previous sample location site SS04 located in the north eastern corner of the Site, other PCOC included OPs, TRH/BTEXN and PAH have not been reported in soil samples with concentrations above the LOR.

Sample location SS04 in Coffey (2013) reported TRH in the C16-C34 fraction with concentration which was below the adopted HIL-A, HIL-C and EILs. No visual or olfactory signs of contamination were observed at this sampling location (and elsewhere on the site) however organic matter was present. The TRH previously reported is potentially a false positive, relating to organic matter within the shallow soil profile for the following reasons:

- no visual or olfactory signs of hydrocarbon contamination were observed at this sampling location
- the site history has not identified storage/use of hydrocarbons
- other potential organic contaminants (BTEX and PAH) were not reported in the sample analysed (or other samples analysed)
- the sample was collected from a depth and location where organic matter would be present.

Further investigation of SS04 is not considered necessary based on the low concentration of TRH reported, and no other visual/olfactory signs of hydrocarbons in all sampling locations and the site history which has not identified the storage/use of hydrocarbon on the site.

8.2.2 Soil materials deeper than 0.2 m bgs

Soil investigation results for OCPs and metals from samples collected deeper than 0.2 bgs are summarised in the following table.

Table 8-2 Summary of Soil Data deeper than 0.2 m bgs

Analyte (mg/kg unless shown)	No. Samples / Detects	Maximum Value	EIL - Res/Open Space	No. of Samples Exceeding EIL - Res/Open Space	HIL-A Residential	No. of Samples Exceeding HIL-A Residential	HIL-C Recreational	No. of Samples Exceeding HIL-C Recreational
OCPs								
4,4-DDE	47 / 3	0.22		-		-		-
a-BHC	47 / 0	<0.05		-		-		-
Aldrin	47 / 5	0.98		-		-		-
Aldrin + Dieldrin	47 / 11	14		-	6	2	10	1
b-BHC	47 / 0	<0.05		-		-		-
chlordane	47 / 6	0.5		-	50	Nil	70	Nil
d-BHC	47 / 0	<0.05		-		-		-
DDD	47 / 1	0.15		-		-		-
DDT	47 / 0	<0.2	180	Nil		-		-
DDT+DDE+DDD	47 / 3	0.37		-	240	Nil	400	Nil
Dieldrin	47 / 10	14		-		-		-
Endrin aldehyde	47 / 0	<0.05		-		-		-
Endrin ketone	47 / 1	0.05		-		-		-
Endosulfan I	47 / 0	<0.05		-	270	Nil	340	Nil
Endosulfan II	47 / 0	<0.05		-		-		-
Endosulfan sulphate	47 / 0	<0.05		-		-		-
Endrin	47 / 2	0.1		-	10	Nil	20	Nil
g-BHC (Lindane)	47 / 0	<0.05		-		-		-
Heptachlor	47 / 0	<0.05		-	6	Nil	10	Nil
Heptachlor epoxide	47 / 2	0.26		-		-		-
Hexachlorobenzene	47 / 0	<0.05		-	10	Nil	10	Nil
Methoxychlor	47 / 0	<0.2		-	300	Nil	400	Nil
Toxaphene	44 / 0	<1		-	20	Nil	30	Nil
Total OCP	47 / 17	14.52		-		-		-
Metals								
Arsenic	26 / 22	23	100	Nil	100	Nil	300	Nil
Cadmium	26 / 0	<1		-	20	Nil	90	Nil
Chromium (III+VI)	26 / 23	180	245	Nil	100	7	300	Nil
Copper	26 / 26	74	196	Nil	6000	Nil	17000	Nil
Lead	26 / 21	120	1112	Nil	300	Nil	600	Nil
Mercury	26 / 0	<0.1		-	10	Nil	13	Nil
Nickel	26 / 22	84	287	Nil	400	Nil	1200	Nil
Zinc	26 / 26	160	420	Nil	7400	Nil	30000	Nil

OCPs

In summary lower concentrations of OCP pesticides were detected in soils deeper than 0.2 m bgs on the Site. This finding is consistent with the application of termiticides to surface soil. Aldrin+Endrin exceeded HIL-A residential guidelines in two samples (10-0.45 and 11-0.45) and HIL-C recreational guidelines in 11-0.45. Sample location 10 is located on the southern side of the Accommodation Building and sample location 11 located on the eastern side of this building. These results are discussed further in **Section 9.1**.

Metals

With the exception of chromium, all samples from soil material deeper than 0.2 m bgs reported metals with concentrations which were below the NEPM HIL-A and HIL-C guidelines, and the EILs.

Chromium was below the NEPM-HIL C and EILs, and exceeded the NEPM HIL-A in the following samples: BH06_0.5, BH07_0.3, BH08_0.3, BH16_0.5, BH21_0.3, and BH21_0.5. All of these samples are from natural materials, and at these locations the concentration of chromium was found to increase with depth.

The NEPM HIL-A guideline is based on Chromium VI which is commonly used as a solvent within industrial processes. It is noted that the more toxic Chromium VI readily reduces to the less toxic Chromium III. As no source of chromium has been identified in fill materials and there is no previous industrial use of the Site, the source of chromium in these samples is considered to be natural and Chromium III. Analysis of Chromium (Total) and Chromium VI was undertaken from soil samples collected from MW01 at 0.25, 0.5, 0.75 and 1 m bgl. Concentrations of Chromium (Total) increased with depth however no positive detection of Chromium VI was reported. This finding supports the assumption that chromium reported in soil samples is Chromium III.

Chromium III is an essential nutrient and does not have a guideline value in the NEPM. The US EPA regional screening level (THQ 0.1)¹⁰ for Chromium III is 12,000 mg/kg. All soil samples had concentrations of chromium below this guideline.

Other PCOC

Other PCOC including PAH have not been reported in soil samples with concentrations above the LOR. OPPs in soil samples were not reported with concentrations above the LOR.

8.2.3 Slag and Ash Materials

Two samples of the slag type material (Slag 1 and Slag 2) obtained from the garden bed along the southern extent of the Main Hall Building (refer to **Figure 6-2**) were analysed and found to have PAHs not above the LOR. Low concentrations of lead and zinc were reported in the Slag 1 sample and all other metal analytes were not above the LOR from Slag 1 and Slag 2. All results were below the NEPM HIL-A, HIL-C and EILs.

In the 2021 investigation soil samples containing ash and/or slag type materials were intersected in BH06, BH17, BH18 and BH19. All samples of these materials reported PAHs not above the LOR and metals below the NEPM HIL-A, HIL-C and EILs. This finding is consistent with sample results from previous investigations where similar materials were investigated.

In summary where ash and/or slag type materials are encountered on the Site, contaminants of concern have not been reported.



Figure 6-2 Slag Type Material in Garden Bed along Main Hall Building

8.2.4 Concrete

Ten samples of concrete slab were submitted for analysis for OCPs for waste classification purposes. Low concentrations of OCPs were reported in the slab material at BH05 and BH21. The samples from concrete floor slabs are not considered to be representative of stumps

¹⁰ <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>, accessed 2 December 2021

and footings. Further testing of stumps and footings will be required as part of the completion of demolition works.

8.2.5 Waste Disposal Criteria

A comparison of the soil results with Veolia Ti Tree Synthetically Lined Landfill Disposal Criteria is included in **Appendix C**.

All TCLP leachability results were below the Synthetically Lined Landfill Disposal Criteria. Further discussion on the potential waste classification of materials is provided in **Section 10.4.3**.

9. DISCUSSION OF RESULTS AND QUALITATIVE RISK ASSESSMENT

This section provides a qualitative risk assessment based on the findings of the supplementary investigation and previous investigations. OCP pesticides have been reported in soil samples which exceed HIL-A and HIL-C guidelines. Soil samples where HIL-C and HIL-A guidelines have been exceeded are shown in **Figure 3, Appendix A**.

9.1 CONTAMINANT DISTRIBUTION

Soil material with OCPs which exceed HIL-C are predominately located in the upper soil deposits between the Accommodation Building and Main Hall Building, and in a small area south of the Main Hall Building and along the western perimeter of the Accommodation Building.

Soil material with OCPs which exceed HIL-A are more widely distributed and generally include upper soil materials north of the Main Hall Building and an area south of the Main Hall Building.

Elevated concentrations of OCPs (predominately Dieldrin) are mainly limited to soil materials from surface to 0.2 m depth with the exception of sampling site 11 and 10. Elevated concentrations were reported at 0.45 m depth which exceed HIL-C at site 11, and exceeded the HIL-A in sampling site 10 in the investigation completed in 2019 (Coffey, 2019). While these sampling sites potentially represent localised hotspots where contamination is found at a deeper depth from the application of termiticides, the elevated results at this depth may also be the result of cross-contamination where materials from the upper ground deposits contaminated materials from lower ground deposits during sampling. Further investigation to confirm whether cross-contamination occurred at these locations is not considered to be necessary.

Elevated concentrations of OCPs at depths greater than >0.2 m have not been observed in any of the other sample locations. This includes the following sample locations from the 2021 investigation:

- BH14 which is located next to the sampling point where the highest concentration of OCPs had previously been reported (HA10, Dieldrin+Aldrin 505 mg/kg). BH14 reported a concentrations of Dieldrin+Aldrin of 9.15 mg/kg at 0.1 m and 0.91 mg/kg at 0.3 m.
- BH21 which was completed in 2021 and reported the highest Dieldrin+Aldrin concentration in this mobilisation of 103.2 mg/kg at 0.1 m, and 1.41 mg/kg at 0.3 m.

The occurrence of elevated concentrations of OCPs in shallow soil materials is consistent the application of termiticides into the shallow soil materials (~100 mm bgs) adjacent to the two structures on the Site and the chemical properties of aldrin and dieldrin which absorb to soils (particularly soils with high organic matter) and have low solubility (and therefore leachability). These properties also apply to the other OCPs reported including DDT and its breakdown products DDD and DDE, and endosulfan compounds and heptachlor compounds.

OCPs were not reported above the limit of reporting (LOR) in soil samples from the following areas:

- the concrete slab along the driveway along the eastern boundary of the Site (BH06 to BH08)
- the south eastern corner (BH16).
- the western boundary of the Site (BH17 to BH19).

9.2 RISK TO HUMAN HEALTH

Soil materials on the Site containing OCPs which exceed the NEPM HIL-C guidelines are considered to pose a potentially unacceptable risk to human health in the context of the proposed future use of the Site for a park/open space land use.

Fragments of ACM and asbestos fines which exceed the nominated ILs have been reported in previous investigations of the Site. Fragments of ACM were not observed in the 2021 investigation and were not reported in soil samples analysed in 2021. As a precautionary measure the upper soil deposits should be considered to contain ACM and there would also be the potential for fragments of ACM to be displaced into the upper soil deposits during demolition of the existing buildings.

Fill containing anthropogenic materials which pose physical hazards (sharp and angular) are considered to be unsuitable for use in a park/open space and should also be removed from the Site where there is a likelihood that future users of the Site may come into contact with these materials. Conceptually this is considered to be to approximately 0.5 m depth based on the assumption that the maximum depth community members would dig to would be 0.4 m if undertaking double digging for a garden bed.

9.3 RISK TO ECOLOGICAL ENVIRONMENT

With the exception of DDT, there are currently no EILs in the NEPM for the other OCP analytes reported.

The US EPA¹¹ has set the following ecological screening levels for dieldrin (0.0029 mg/kg), aldrin (0.03 mg/kg), chlordane (0.0029 mg/kg), heptachlor epoxide (0.00015 mg/kg) and endrin (0.00019 mg/kg).

Soils materials with elevated concentrations of OCPs are considered to pose a potentially unacceptable risk to ecological receptors. This includes invertebrates present in soil materials (mainly within the upper A Horizon (topsoil) where the majority of organic matter is present and soil conditions are moist¹²), and other vertebrates (mammals/birds) which could bioaccumulate OCPs through the consumption of organisms and/or direct contact with the soil.

A quantitative ecological risk assessment would be required to assess risk to ecological receptors from existing contamination on the Site and is outside the scope of this investigation.

The recommended requirement for the remediation of the Site to mitigate risks to potential ecological receptors is the removal of up to 0.5 m of soil and the replacement of this material with clean fill and clean topsoil. This strategy would remove the majority of OCP contamination from the Site, and remove the contaminant source which the majority of ecological receptors could be exposed to including invertebrates present in soil materials and vertebrates which may be present on the Site (i.e. birds and mammals). The clean fill would also act as a barrier which mitigates exposure to any underlying materials which may have residual contamination post remediation.

Based on the existing analytical data residual materials which could remain on the Site if 0.5 m of material were removed is summarised in **Table 9-1**. This data set includes soil results from 0.4 to 0.5 m bgs with the exception of the results for site 11 and 10 which were excluded for the reasons described in **Section 9.1**. The 95% upper confidence limit (UCL 95%) was calculated for aldrin, dieldrin, chlordane and heptachlor epoxide. Of these contaminants of concern the UCLs for aldrin, dieldrin, chlordane and heptachlor epoxide exceeded the ecological guideline. Any residual contamination remaining at depth however would not be considered to pose an unacceptable risk to ecological receptors for the reasons outlined in the preceding paragraph.

¹¹ USEPA Region 4 (2018), Region 4 Ecological Risk Assessment Supplementary Guidance, March 2018 update.

¹² Earthworms typically burrow at 20 cm depth and within moist (rather than dry) soil ([Worm Wise II | VRO | Agriculture Victoria](#), accessed 3 December 2021). Some larger earthworm species burrow to deeper depths (40-60cm) ([Worm Wise II | VRO | Agriculture Victoria](#), accessed 3 December 2021) .

Table 9-1 Summary of Soil Data 0.4 to 0.5 m bgs

Analyte (mg/kg unless shown)	No. Samples / Detects	Maximum Value	UCL 95% (Note 2)	Ecological Guidelines
4,4-DDE	18 / 0	<0.05		
a-BHC	18 / 0	<0.05	-	-
Aldrin	18 / 2	0.12	0.0612	0.03 (Note 1)
Aldrin + Dieldrin	18 / 6	3.86	1.313	-
b-BHC	18 / 0	<0.05	-	-
chlordan	18 / 2	0.5	0.186	0.0029 (Note 1)
d-BHC	18 / 0	<0.05	-	-
DDD	18 / 0	<0.05	-	-
DDT	18 / 0	<0.05	-	180
DDT+DDE+DDD	18 / 0	<0.05	-	-
Dieldrin	18 / 5	3.8	1.293	0.0029 (Note 1)
Endrin aldehyde	18 / 0	<0.05	-	-
Endrin ketone	18 / 0	<0.05	-	-
Endosulfan I	18 / 0	<0.05	-	-
Endosulfan II	18 / 0	<0.05	-	-
Endosulfan sulphate	18 / 0	<0.05	-	-
Endrin	18 / 0	<0.05	-	-
g-BHC (Lindane)	18 / 0	<0.05	-	-
Heptachlor	18 / 0	<0.05	-	-
Heptachlor epoxide	18 / 2	0.26	0.0921	0.00015 (Note 1)
Hexachlorobenzene	18 / 0	<0.05	-	-
Methoxychlor	18 / 0	<0.05	-	-
Toxaphene	18 / 0	<1	-	-

Notes:

1) USEPA Region 4 (2018), Region 4 Ecological Risk Assessment Supplementary Guidance, March 2018 update.

2) UCL 95% calculated using ProUCL v.5.1 from soil results from 0.4 m bgs to 0.5 m bgs, and excluding the data for sample site 11 and 10 (refer to Section 6.3.1)

9.4 RISK TO GROUNDWATER

The risk to groundwater on the Site is considered to be low and not of concern for the following reasons:

- OCP contaminants on the site strongly absorb to soils and have low solubility/leachability. The risk of these contaminants leaching to underlying groundwater is therefore considered to be low.
- No shallow water bearing zone has been identified within 6 m of the ground surface.

9.5 RISK TO SURFACE WATER

As noted in **Section 9.4** OCPs have low solubility/leachability and therefore low risk of leaching into surface water during rainfall events and being transported to surface water receptors.

The primary risk to surface water receptors from the OCPs on the Site is through erosion of soil materials. The Site has been observed to be in a stable condition with hardstand and ground cover vegetation present and no visual signs of erosion. Therefore, the Site in its current condition is considered to pose a low risk to surface water receptors.

During remediation there is potential for soil materials to erode during rainfall events and be transported to surface water receptors. Risk to surface water during remediation would be managed through routine controls implemented during remediation works including:

- scheduling remediation of contaminated areas in periods where rain has not been forecast.
- undertaking remediation works such that excavated soils can be take off-site directly to landfill facilities and minimising requirement for stockpiling on site.
- Implementing appropriate erosion and sediment control measures on site.

Post remediation the risk to surface water receptors is considered to be low based on the removal of the contaminant source from the Site, the reinstatement of the Site with clean fill, and stabilisation of soil materials with ground cover and/or sealed areas.

10. REMEDIATION STRATEGY

This section provides a summary of the proposed remediation strategy for the Site. Further information on the proposed remediation works will be included in the Remedial Action Plan (RAP) which will be prepared following acceptance of the remediation strategy by DVA and the Site Auditor.

The Commonwealth Department of Agriculture, Water and the Environment (DAWE). DAWE has determined the demolition and removal of the contaminated soil on the site as a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and requires further information before making a decision on whether the action can proceed, and any required conditions if approval is granted. In DAWE Request for Additional Information (RAI), DAWE has made a recommendation to remove OCPs to the laboratory limits of detect (LOR). DAWE confirmed this requirement in a meeting on the 9 December 2021. This requirement has been incorporated into the remediation strategy.

It is understood that as part of the redevelopment of the Site the brick façade and brick gate shown in the following image and in **Figure 4, Appendix A** are to be retained on-site for heritage purposes.



Source: Hayball (2021) Brisbane Legacy Concept Design. Note red outlines show location of gates and the façade.

Figure 10-1 Brick Façade and Brick Gate

The retention of these structures may make it impracticable to remove contaminated materials which potentially underlie these structures and therefore remove the property from the EMR. This constraint was

discussed in the meeting with DAWE on the 9 December 2021 and it was agreed that contaminated materials surrounding these structures should be removed to the extent as practicable. However, DAWE was not expecting contaminated soil materials which underlie these structures to be removed.

The following remediation strategy has been developed for the Site based on DAWE requirement to remove OCP contaminated soil to the LOR and to make it suitable for park and community use. This includes the removal of soils which are unsuitable for park use based on the presence of physical hazards.

Soils removed from the site will need to be replaced with clean fill from a certified clean source (quarry).

While the remediation strategy is not intended to remove the property from the EMR, following completion of the proposed remediation works a decision will be made in conjunction with the Site Auditor on whether the Site can be removed from the EMR, or whether the property is to remain on the EMR with a Site Management Plan (SMP) or can remain on the EMR without a SMP.

10.1 REMEDIATION OBJECTIVE

The primary objective for the remediation of the Site is to make it suitable for park and community use, and to remove the OCP contaminated soil from the Site as practicable.

10.2 REMEDIATION CRITERIA

For OCPs the proposed remediation criteria are the standard LOR from the NATA accredited laboratory Eurofins or ALS. For Eurofins these range from 0.05 mg/kg to 0.1 mg/kg.

For all other potential contaminants, the proposed remediation criteria for the Site are the NEPM health-based investigation levels in recreational land use (HIL-C).

Note on removal from the EMR

Following the successful implementation of the remediation works it is expected that the residual concentration of contaminants in soil will be below the NEPM health-based investigation levels for residential land use with accessible gardens/soil (HIL-A). While these are not the proposed remediation criteria for the site, compliance with the NEPM HIL-A guidelines will be required if the Site is to be removed from the EMR.

Note on ecological receptors

Following implementation of the proposed remediation strategy it is considered that there would be no plausible exposure pathway for ecological receptors on the basis that the majority of the contaminant source would have been removed with the exception of soil materials beneath structures which are to be retained on the Site.

Note on groundwater and surface water receptors

OCPs have low solubility/leachability and therefore low risk of leaching into surface water and groundwater is low and not of concern.

Post remediation the risk to surface water and groundwater receptors is considered to be low based on the removal of the contaminant source from the Site, the reinstatement of the Site with clean fill, and stabilisation of soil materials with ground cover and/or sealed areas. Accordingly no remediation criteria are considered to be required for the protection of groundwater and surface water receptors.

10.3 PROPOSED REMEDIATION WORKS

For remediation planning the Site has been segregated into six areas which are shown in **Figure 10-2**, and **Figure 4, Appendix A**.

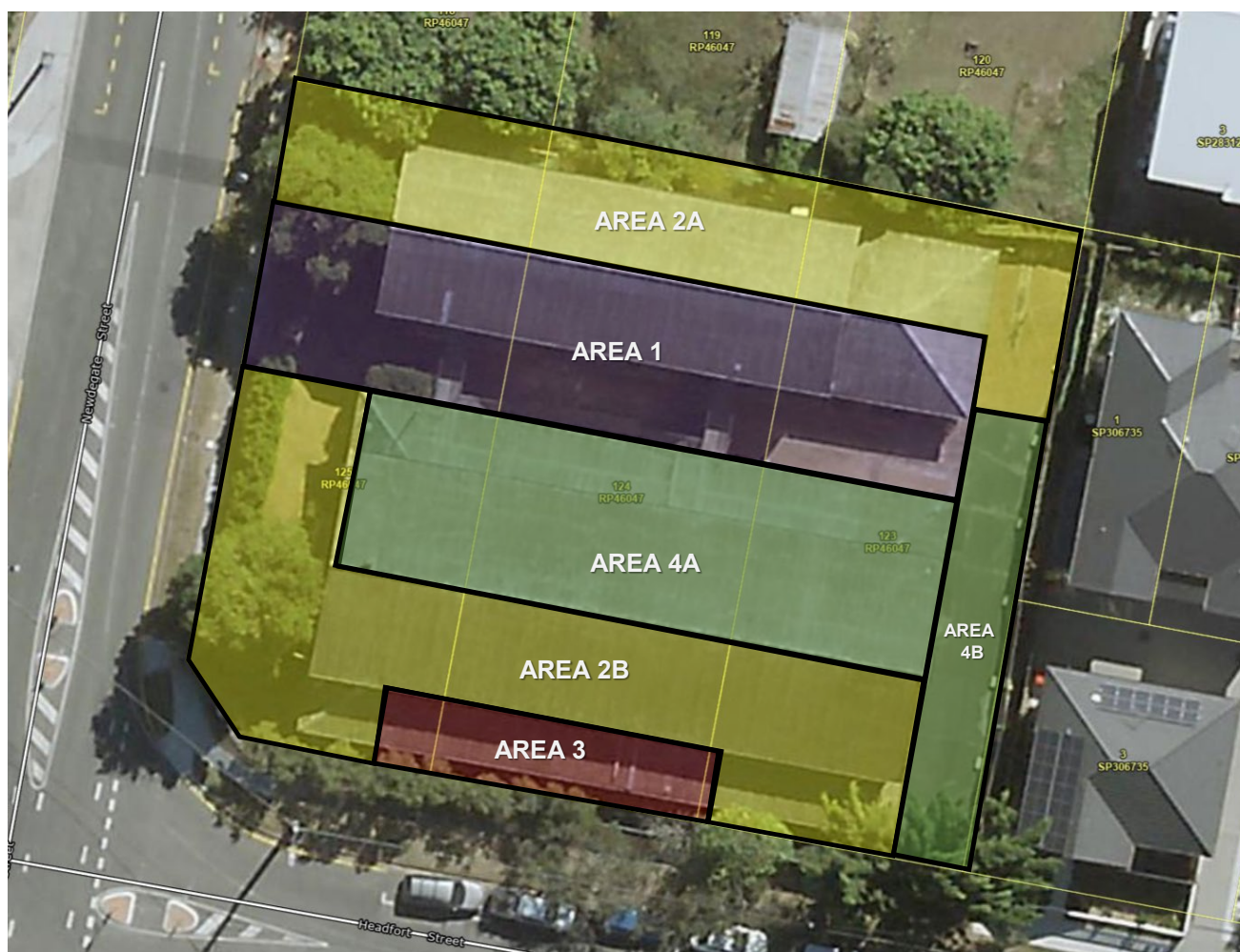


Figure 10-2 Remediation Areas

The concentration of OCPs and metals in these areas are summarised in the following tables.

Table 10-1 Maximum Concentration of OCPs in Soil

Analyte (mg/kg)	Area 1 (Note 1)		Area 2A		Area 2B		Area 3		Area 4A		Area 4B	
	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m
4,4-DDE	0.34	0.07	0.49	<0.05	2.2	0.39	0.57	<0.05	0.39	-	<0.05	<0.05
a-BHC	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
Aldrin	98	0.98	0.11	<0.05	0.49	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
Aldrin + Dieldrin	506	3.86	1.81	<0.05	20	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05
b-BHC	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
chlordane	20	<0.1	8.2	<0.1	42	<0.1	140	0.5	<0.1	-	<0.1	<0.1
d-BHC	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
DDD	0.18	<0.05	0.27	<0.05	2.1	0.06	0.36	<0.05	0.06	-	<0.05	<0.05
DDT	0.26	<0.05	4.2	<0.05	23	0.31	1.6	<0.2	0.31	-	<0.05	<0.05
DDT+DDE+DDD	0.52	0.07	4.96	<0.05	26.5	0.76	2.35	<0.05	0.76	-	<0.05	<0.05
Dieldrin	420	3.8	1.7	<0.05	20	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05
Endrin aldehyde	0.13	<0.05	<0.05	<0.05	<0.1	<0.05	0.24	<0.05	<0.05	-	<0.05	<0.05
Endrin ketone	8.5	<0.05	0.07	<0.05	0.22	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05

Analyte (mg/kg)	Area 1 (Note 1)		Area 2A		Area 2B		Area 3		Area 4A		Area 4B	
	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m
Endosulfan I	0.26	<0.05	<0.05	<0.05	<0.1	<0.05	0.05	<0.05	<0.05	-	<0.05	<0.05
Endosulfan II	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
Endosulfan sulphate	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
Endrin	6.5	<0.05	<0.05	<0.05	0.18	<0.05	0.12	<0.05	<0.05	-	<0.05	<0.05
g-BHC (Lindane)	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
Heptachlor	0.87	<0.05	<0.05	<0.05	0.2	<0.05	1	<0.05	<0.05	-	<0.05	<0.05
Heptachlor epoxide	0.38	<0.05	0.24	<0.05	1	<0.05	3.4	0.26	<0.05	-	<0.05	<0.05
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05
Methoxychlor	<0.2	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<0.2	<0.05	-	<0.05	<0.05
Toxaphene	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<0.5	-	<0.5	<0.5
Total OCP	527.38	3.86	9.54	<0.1	43.94	0.76	143.06	0.76	0.76	-	<0.1	<0.1

Note 1: excludes results for Sample location 10-0.45 and 11-0.45.

Table 10-2 Maximum Concentration of Metals in Soil

Analyte (mg/kg)	Area 1 (Note 1)		Area 2A		Area 2B		Area 3		Area 4A		Area 4B	
	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m	≤ 0.2 m	> 0.2 m
Arsenic	19	12	22	3.4	32	12	20	2.6	12	-	19	12
Cadmium	1.4	<0.4	0.6	<0.4	0.9	<0.4	<0.4	<0.4	<0.4	-	<0.4	<0.4
Chromium (III+VI)	73	180	88	100	90	75	69	<5	75	-	100	170
Copper	30	30	33	20	21	7.1	12	12	7.1	-	20	21
Lead	160	120	75	20	140	40	27	32	40	-	160	47
Mercury	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1
Nickel	25	84	19	41	66	22	25	5.8	22	-	15	45
Zinc	2000	160	250	39	760	29	92	72	29	-	320	53

Note 1: excludes results for Sample location 10-0.45 and 11-0.45.

Summary of Proposed Remediation Works

Remediation will take place following the completion of demolition works and the removal of the buildings from the Site. As part of the demolition works the concrete hardstand in Area 4A and 4B will be retained. The hardstand from these areas is to be removed once excavation has been completed in Area 1, Area 2A/2B and Area 3.

The proposed sequence of remediation works includes:

- Site establishment and set up of environmental controls required during remediation works
- Clearing of shrubs/trees around the Site
- Excavation of contaminated materials in accordance with the depth described in **Table 10-3**. The proposed sequence of remediation planning areas in order of excavation are:
 - Area 1
 - Area 2A
 - Area 2B and Area 3
 - Area 4A and Area 4B.
- Validation sampling¹³ including a hold point to determine if further excavation is required to the achieve remediation objective.
- Reinstatement of excavated areas with clean fill sourced from a certified quarry, clean topsoil from a certified source, and establishment of an appropriate ground cover.
- Discussion with Site Auditor on whether the Site is to remain on the EMR or can be removed from the EMR.

¹³ Note validation sampling will be undertaken progressively during site excavation work

- Preparation of a Contaminated Land Investigation Document (CLID) including a Site Suitability Statement and Draft SMP (if required) if the Site is to remain on the EMR, or Preparation of a Validation Report including a Site Suitability Statement if the property is to be removed from the EMR.
- Preparation of the Site Auditor Certification and submission of the documentation to the Department of Environmental and Science (DES).
- Providing copies of the documentation submitted to DES to DAWE.

Note as BCC will take ownership for the Site, DES will require BCC to consent to the SMP (and therefore any residual contamination present on the Site and its on-going management).

Table 10-3 Proposed Excavation Depths

Area	Proposed Excavation Depths
Area 1	<p>Requirement for Remediation</p> <p>OCPs in Area 1 exceed NEPM HIL-C guidelines for parks and open space areas and HIL-A guidelines for residential areas with accessible gardens. While the majority of OCP contamination is expected to be within the first 0.2 m bgs of soil, based on the existing data OCP contamination extends further into deeper soil deposits (~0.4 to 0.5 m bgs).</p> <p>ACM is potentially present in shallow soil materials. Fill materials containing anthropogenic materials which pose physical hazards (sharp and angular) are unsuitable for use in a park/open space are also potentially present ("Unsuitable Fill Materials").</p> <p>Proposed Excavation Depths</p> <p>Excavate and remove 0.25 m depth of soil for disposal to lined landfill as contaminated soil potentially containing ACM.</p> <p>Excavate a further 0.35 m depth of soil for disposal to lined landfill or re-use in an appropriately licenced resource recovering facility for commercial/industrial use.</p>
Area 2A	<p>Requirement for Remediation</p> <p>OCPs in Area 2A exceed NEPM HIL-A guidelines for residential areas with accessible gardens. Based on the analytical data OCPs are expected to be limited to the upper soil deposits (within 0.2 m from ground surface).</p> <p>ACM is potentially present in shallow soil materials. Unsuitable Fill Materials are also potentially present.</p> <p>Proposed Excavation Depths</p> <p>Excavate and remove 0.25 m depth of soil for disposal to lined landfill as contaminated soil potentially containing ACM.</p> <p>Where Unsuitable Fill Materials are present excavate a further 0.25 m of soil for disposal to lined landfill or re-use in an appropriately licenced resource recovering facility for commercial/industrial use.</p>
Area 2B	<p>Requirement for Remediation</p> <p>OCPs in Area 2B exceed NEPM HIL-A guidelines for residential areas with accessible gardens. While the majority of OCP contamination is expected to be within the first 0.2 m of soil, based on the existing data OCP contamination extends further into deeper soil deposits.</p> <p>ACM is potentially present in shallow soil materials. Unsuitable Fill Materials are also potentially present.</p> <p>Proposed Excavation Depths</p> <p>Excavate and remove 0.25 m depth of soil for disposal to lined landfill as contaminated soil potentially containing ACM with the exception of soil materials beneath the brick fence gates and brick façade on the Main Building which are to be retained (excavate as close as practicable to these features).</p> <p>Where Unsuitable Fill Materials are present excavate a further 0.25 m depth of soil for disposal to lined landfill or re-use in an appropriately licenced resource recovering facility for commercial/industrial use with the exception of soil materials beneath the brick fence gates and brick façade on the Main Building which are to be retained (excavate as close as practicable to these features).</p>

Area	Proposed Excavation Depths
Area 3	Requirement for Remediation OCPs in Area 3 exceed NEPM HIL-C guidelines for parks and open space areas and HIL-A guidelines for residential areas with accessible gardens. While the majority of OCP contamination is expected to be within the first 0.2 m of soil, based on the existing data OCP contamination extends further into deeper soil deposits. ACM is potentially present in shallow soil materials. Unsuitable Fill Materials are also potentially present.
	Proposed Excavation Depths Excavate and remove 0.25 m depth of soil for disposal to lined landfill as contaminated soil potentially containing ACM. Excavate a further 0.35 m depth of soil for disposal to lined landfill or re-use in an appropriately licenced resource recovering facility for commercial/industrial use.
Area 4A	Requirement for Remediation OCPs in Area 4A are below the NEPM HIL-A guidelines for residential areas with accessible gardens. Detectable OCPs concentrations were observed at the perimeter of Area 4A (at sampling locations BH01, BH03, BH12). These detectable OCP concentrations are below the NEPM HIL-A guidelines for residential areas with accessible gardens; however, they exceed the adopted remediation criteria of standard LOR (Section 10.2) ACM is not expected to be present in shallow soil materials in this area based on the site geology being natural material (and no apparent fill) and the soil material being covered in hardstand.
	Proposed Excavation Depths Excavate and remove 0.25 m depth of soil and disposal of this material to lined landfill. Where Unsuitable Fill Materials are present excavate a further 0.25 m of soil for disposal to lined landfill or re-use in an appropriately licenced resource recovering facility for commercial/industrial use.
Area 4B	Requirement for Remediation OCPs in Area 4B were not detected in the samples analysed from this area. OCPs are potentially present in soil material around the perimeter of this area which adjoin Area 1 and Area 2B. ACM is not expected to be present in shallow soil materials in this area based on available data and the soil material being covered in hardstand. Unsuitable Fill Materials are also potentially present.
	Proposed Excavation Depths Excavate and remove 0.25 m depth and 0.3 m width of soil around the perimeter of Area 4B which adjoin Area 1 and Area 2B and disposal to lined landfill as contaminated soil potentially containing ACM. Where Unsuitable Fill Materials are present within Area 4B excavate up to 0.5 m of soil for disposal to lined landfill or re-use in an appropriately licenced resource recovering facility for commercial/industrial use.

10.4 MANAGEMENT OF EXCAVATED MATERIAL

10.4.1 Preliminary Volume Estimate

A preliminary estimate of the in-situ volume of soil material to be excavated in each area is provided in the following table. Note the preliminary volume estimate is subject to change based on site conditions and validation sampling.

Table 10-4 Preliminary In-situ Volume Estimate

Remediation Planning Area	Area (m ²)	Assumed Excavation Depth (m)	Assumed Excavation Vol. (rounded) (m ³)
Area 1	456	0.6	270
Area 2A	386	0.5	190
Area 2B	493	0.5	250
Area 3	117	0.6	70
Area 4A	348	0.25	90
Area 4B	186	0.25	50

Total	-	-	920
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Assuming a bulking factor of 1.3 the ex-situ volume of material would be approximately 1,200 m³. Contingencies to this estimate will be considered in the Remediation Action Plan.

10.4.2 Queensland Waste Levy

For contaminated soil to be exempt from the Waste Levy the material needs to be:

- derived from a property on the EMR/CLR
- contaminated by a 'Hazardous Contaminant' as defined in the *Environmental Protection Act 1994* and the contamination occurred prior to the 1 January 1992¹⁴
- contaminated by contaminants which cannot be readily/practicably removed to render the material as clean earth.

OCPs present on the Site (aldrin, dieldrin, chlordane, and heptachlor) were withdrawn from use in Australia as termiticides in 1995 (Peters (2007¹⁵) and DPI NSW (2017¹⁶)). DDT was banned in 1987¹⁷.

On the basis that termiticides containing OCPs could have been used on the Site between 1992 and 1995 and there are no available site records which can verify when the chemicals were applied, excavated materials are not considered to be exempt from the Queensland Waste Levy based on the criteria regarding contamination occurring prior to the 1 January 1992.

Soil materials disposed to landfill facilities will therefore attract the waste levy for contaminated soil which is currently \$85/tonne.

The exception to the above would be whether the State considers the project to be a 'significant community project'. Significant community projects are considered to be projects which have an aesthetic, conservation, cultural or economic benefit to a local or regional community or the State. These are considered to be projects which serve an essential need of the community or projects which improve community access to services. Coffey recommends that a waste levy exemption application be submitted on the basis that the redeveloped site could be considered a 'significant community project'.

10.4.3 Disposal or Reuse of Excavated Material

Based on OCP and the potential for ACM the first 0.25 m of soil material from Area 1, Area 2A, Area 2B, and Area 3 ("Type 1 Materials") will require disposal to an appropriately licenced landfill facility under a DES issued Disposal Permit.

Based on the analytical data and material properties soil materials excavated from the second 0.25 m to 0.35 m excavated from Area 1, Area 2A, Area 2B, and Area 3 or the first 0.25 m excavated from Area 4A and Area 4B ("Type 2 Materials") can be:

- disposed to an appropriately licenced landfill facility under a DES issued Disposal Permit, OR
 - reused at an appropriately licenced resource recovery facility for future commercial/industrial use, and provided it does not contain ACM and demolition materials such as broken brick, concrete, timber etc.
- Note where materials are reused the soil material is not subject to the Queensland Waste Levy.*

Coffey has provided the site investigation data to potential recipient facilities (Veolia, Remondis and BMI Group) and have been provided with the following from the BMI Group at the time of writing:

¹⁴ Note for contamination to be considered pre-1992 information needs to be presented in the exemption application which justifies this assertion.

¹⁵ Peters, B & Fitzgerald, C (2007) Developments in termite management in Queensland, Australia: Life after Cyclodienes (Isoptera). *Sociobiology*, 49(3), January 2007

¹⁶ NSW Department of Primary Industries (2017), Management of organochlorine and related residues

¹⁷ <https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/water-quality-toxicants/toxicants/ddt-2000>

- BMI Group can accept Type 1 Materials at its Staplyton Landfill facility as Contaminated Soil on the assumption it receives all of the Type 1 Materials from Area 1, Area 2A, Area 2B and Area 3. Type 1 Materials will be received under a Disposal Permit and the rate for these materials is \$120.60/tonne including the Queensland Waste Levy.
- BMI Group can accept Type 2 Materials for reuse at the Redbank Resource Recovery Facility at a rate of \$7.50/m³. Note this is measured as an ex-situ volume based on the volume of the truck and equates to approximately ~ \$15/tonne assuming a bulking factor of 1.3 and a soil bulk density of 2.

10.5 CONTROLS DURING REMEDIATION

Controls to be implemented during remediation are to be documented in the Environmental Management Plan (EMP) by the Remediation Contractor. Controls to be implemented are expected to include but not limited to:

- Implementation of an erosion and sediment control plan prepared by a Certified Professional in Erosion and Sediment Control (CPESC)
- Water sampling during rainfall events where an off-site release of runoff occurs and analysing the water for OCPs
- Dust suppression and monitoring by visual observations
- Air monitoring for asbestos during excavation works (in addition to demolition)
- Air monitoring for OCPs in dust during excavation works.
- Implementation of on-site hygiene facilities and controls by the Remediation Contractor to protect the health of on-site workers during remediation
- Stockpile management: dedicated area, covers, cap on heights
- Noise: Use of modern equipment with silencers, engines switched off when not in used, and normal working hours.
- Competent person to guide asbestos identification/management
- Site induction includes discussion on the types of contamination present. Tool box talks to reinforce positive safe behaviours/management of unexpected finds.
- Unexpected finds protocol as part of the EMP.

Full-time supervision by a competent person is recommended to monitor compliance against the RAP and EMP, and to monitor the suitability of materials excavated for re-use at the resource recovery facility.

The Competent Person is to be experienced in the undertaking of remediation works and have the necessary training and experience to:

- identify soil materials containing ACM
- identify soil materials which contain anthropogenic materials which potentially pose physical hazards (sharp and angular) are unsuitable for use in a park/open space
- identify unforeseen contamination
- implement the RAP and EMP including but not limited to the required controls to manage potential risks to human health and the environment.

11. CONCLUSIONS

The Department of Veteran Affairs (DVA) is planning the redevelopment of land located at 114 Newdegate Street, Greenslopes (Lot 123-125 RP46047) ("the Site") for park/community use and pass the Land Title to Brisbane City Council (BCC). The Site currently contains two disused, large buildings with Asbestos Containing Materials (ACM).

The Site is listed on the Environmental Management Register (EMR) for Hazardous Contaminants as a result of organochlorine pesticides (OCPs) being previously detected in soil. The Site is not subject to a Site Management Plan (SMP) and the EMR listing does not include a Site Suitability Statement¹⁸.

Summary of Contamination

Soil material with OCPs which exceed human health-based guidelines for park/community use (NEPM HIL-C) are predominately located in the upper soil deposits between the Accommodation Building and Main Hall Building, and in a small area south of the Main Hall Building and along the western perimeter of the Accommodation Building.

Soil material with OCPs which exceed human-health based guidelines for residential use with accessible gardens (NEPM HIL-A¹⁹) are more widely distributed and generally include upper soil materials north of the Main Hall Building and an area south of the Main Hall Building.

Elevated concentrations of OCPs are generally limited to soil materials less than 0.2 m below ground surface (bgs). The occurrence of elevated concentrations of OCPs in shallow soil materials is consistent the application of termiticides into the shallow soil materials and the chemical properties of OCPs detected which readily absorb to soils (particularly soils with high organic matter) and have low solubility (and therefore low leachability).

OCPs were not reported above the limit of reporting (LOR) in soil samples from the following areas:

- the concrete slab along the driveway along the eastern boundary of the Site (BH06 to BH08)
- the south eastern corner (BH16).
- the western boundary of the Site (BH17 to BH19).

Fragments of Asbestos Containing Materials (ACM) and asbestos fines which exceed the nominated ILs have been reported in previous investigations of the Site. Fragments of ACM were not observed in the 2021 investigation and asbestos was not reported in soil samples analysed in 2021. As a precautionary measure the upper soil deposits should be considered to contain ACM and there would also be the potential for fragments of ACM to be displaced into the upper soil deposits during demolition of the existing buildings.

Fill materials have been found across the Site. The thickness of fill is deepest along the western boundary of the Site (approximately 0.6 m) and shallowest along the eastern boundary (approximately 0.1 m). Fill materials were not found beneath the concrete slab beneath Main Hall Building.

Fill materials containing ash and/or slag type material has been reported across the Site, and particularly along the western side of the Site. Contamination posing unacceptable health or ecological risks has not been found in association with this material.

¹⁸ A Site Suitability Statement is a statement prepared by a Suitably Qualified Person (SQP) which describes the permitted uses of the land, and whether there is a requirement for a SMP. The Site Suitability Statement can also include a statement that the site is 'suitable for any use' (i.e. can be removed from the EMR).

¹⁹ Compliance with NEPM HIL-A guidelines will be required if the Site is to be removed from the EMR.

Further testing of stumps and footings will be required as part of the completion of demolition works and is being discussed with the Remediation Contractor.

Risk to Human Health and Ecological Receptors

Soil materials which in the upper ground deposits (~ <0.25 m bgs) are considered to pose an unacceptable risk to human health where OCPs are present which exceed the NEPM HIL-C and due to the potential for ACM. OCPs also pose a potential unacceptable risk to ecological receptors based on the adopted guidelines.

Risk to Groundwater Receptors

A groundwater monitoring well was installed in the north western corner of the Site to 6 m bgs. Groundwater was not intersected and is likely to be at a depth greater than 30 m bgs. Risk to groundwater receptors is considered to be low based on no shallow water bearing zone being found on the Site and the low leachability of the OCPs present.

Risk to Surface Receptors

Risk to surface water receptors is also considered to be low based on the low leachability of OCPs present and the Site being in a stable condition. There is a potential risk to surface water receptors during remediation from the erosion of soil materials during rainfall events. Risk to surface water receptors can be managed during site clearance and remediation activity through the implementation of routine construction site management controls.

Remediation Strategy

The Commonwealth Department of Agriculture, Water and the Environment (DAWE) has determined the demolition and removal of the contaminated soil on the Site to be Controlled Action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). DAWE has made a recommendation to remove OCPs to the laboratory limit of reporting (LOR) and confirmed this requirement in a meeting on the 9 December 2021.

The primary objective for the remediation of the Site is to make it suitable for park and community use, and to remove OCP contaminated soil to the LOR as practicable²⁰.

For all other potential contaminants the proposed remediation criteria for the Site are the NEPM health-based investigation levels in recreational land use (HIL-C).

The proposed remediation strategy will involve the excavation and removal of up to 0.6 m depth of soil material over the Site based on the presence of OCPs, ACM and/or the presence of fill materials which contain anthropogenic materials and physical hazards (e.g. sharp and angular) which are considered unsuitable for use in a park.

Materials removed from the Site will be disposed at a licenced landfill under a Disposal Permit, or re-used at a resource recovery facility for commercial/industrial use where appropriate.

Validation sampling will be undertaken to confirm that the remediation objectives have been met.

Excavated materials will be backfilled with clean fill sourced from a certified quarry, and a ground cover re-established on the Site post remediation.

²⁰ For OCPs the proposed remediation criteria are the standard LOR from the NATA accredited laboratory Eurofins or ALS. For Eurofins these range from 0.05 mg/kg to 0.1 mg/kg.

At the completion of a remediation a Contaminated Land Investigation Document (CLID) including a Site Suitability Statement and Draft SMP (if required) will be prepared and submitted to the Department of Environment and Science with the Site Auditor Certification.

The required controls to be implemented during remediation are expected to include but not limited to:

- Implementation of an erosion and sediment control plan prepared by a Certified Professional in Erosion and Sediment Control (CPESC)
- Water sampling during rainfall events where an off-site release of runoff occurs and analysing the water for OCPs
- Dust suppression and monitoring by visual observations
- Air monitoring for asbestos during excavation works (in addition to demolition)
- Air monitoring for OCPs in dust during excavation works. Implementation of on-site hygiene facilities and controls by the Remediation Contractor to protect the health of on-site workers during remediation
- Stockpile management: dedicated area, covers, cap on heights
- Noise: Use of modern equipment with silencers, engines switched off when not in used, and normal working hours.
- Competent person to guide asbestos identification/management
- Site induction includes discussion on the types of contamination present. Tool box talks to reinforce positive safe behaviours/management of unexpected finds.
- Unexpected finds protocol as part of the EMP.

Full-time supervision by a competent person is recommended to monitor compliance against the RAP and EMP, and to monitor the suitability of materials excavated for re-use at the resource recovery facility.

This report is to be read in conjunction with the limitations included in this report.

12. REFERENCES

Coffey, 2013a. Department of Veteran Affairs Phase 1 Contaminated Land Assessment, 114 Newdegate Street, Greenslopes Queensland

Coffey, 2013b. Department of Veteran Affairs Phase 2 Contaminated Land Assessment, 114 Newdegate Street, Greenslopes Queensland

Coffey, 2019. Department of Veteran Affairs Delineation of Organochlorine Soil Impacts, 114 Newdegate Street, Greenslopes Queensland

Coffey (2020) *114 Newdegate Street Greenslopes Remediation Planning, Sampling, Analysis and Quality Plan*, 19 July 2021

Department of Environment and Resource Management (2020), *Brisbane River Estuary - Environmental Values and Water Quality Objectives (2010) Basin No. 143 (part), including all creeks of the Brisbane River estuary, other than Oxley Creek*.

HEPA (2020) Per-and poly-fluoroalkyl substances National Environmental Management Plan, Version 2.0 (PFAS NEMP).

NSW Department of Primary Industries (2017), *Management of organochlorine and related residues*

Peters, B & Fitzgerald, C (2007) *Developments in termite management in Queensland, Australia: Life after Cyclodienes (Isoptera)*. *Sociobiology*, 49(3), January 2007

Queensland Government, (2010), *Environmental Protection (Water) Policy 2009 South-east Queensland Map Series, PLAN WQ1431*.

LIMITATIONS

IMPORTANT INFORMATION ABOUT YOUR TETRA TECH COFFEY ENVIRONMENTAL REPORT

Introduction

This report has been prepared by Tetra Tech Coffey for you, as Tetra Tech Coffey's client, in accordance with our agreed purpose, scope, schedule and budget.

The report has been prepared using accepted procedures and practices of the consulting profession at the time it was prepared, and the opinions, recommendations and conclusions set out in the report are made in accordance with generally accepted principles and practices of that profession.

The report is based on information gained from environmental conditions (including assessment of some or all of soil, groundwater, vapour and surface water) and supplemented by reported data of the local area and professional experience. Assessment has been scoped with consideration to industry standards, regulations, guidelines and your specific requirements, including budget and timing. The characterisation of site conditions is an interpretation of information collected during assessment, in accordance with industry practice.

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. Tetra Tech Coffey may have also relied on data and other information provided by you and other qualified individuals in preparing this report. Tetra Tech Coffey has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

Your report has been written for a specific purpose

Your report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

Limitations of the Report

The work was conducted, and the report has been prepared, in response to an agreed purpose and scope, within time and budgetary constraints, and in reliance on certain data and information made available to Tetra Tech Coffey.

The analyses, evaluations, opinions and conclusions presented in this report are based on that purpose and scope, requirements, data or information, and they could change if such requirements or data are inaccurate or incomplete.

This report is valid as of the date of preparation. The condition of the site (including subsurface conditions) and extent or nature of contamination or other environmental hazards can change over time, as a result of either natural processes or human influence. Tetra Tech Coffey should be kept apprised of any such events and should be consulted for further investigations if any changes are noted, particularly during construction activities where excavations often reveal subsurface conditions.

In addition, advancements in professional practice regarding contaminated land and changes in applicable statutes and/or guidelines may affect the validity of this report. Consequently, the currency of conclusions and recommendations in this report should be verified if you propose to use this report more than 6 months after its date of issue.

The report does not include the evaluation or assessment of potential geotechnical engineering constraints of the site.

Interpretation of factual data

Environmental site assessments identify actual conditions only at those points where samples are taken and on the date collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. Tetra Tech Coffey would be pleased to assist with any investigation or advice in such circumstances.

Recommendations in this report

This report assumes, in accordance with industry practice, that the site conditions recognised through discrete sampling are representative of actual conditions throughout the investigation area. Recommendations are based on the resulting interpretation.

Should further data be obtained that differs from the data on which the report recommendations are based (such as through excavation or other additional assessment), then the recommendations would need to be reviewed and may need to be revised.

Report for benefit of client

Unless otherwise agreed between us, the report has been prepared for your benefit and no other party. Other parties should not rely upon the report or the accuracy or completeness of any recommendation and should make their own enquiries and obtain independent advice in relation to such matters.

Tetra Tech Coffey assumes no responsibility and will not be liable to any other person or organisation for, or in relation to, any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report.

To avoid misuse of the information presented in your report, we recommend that Tetra Tech Coffey be consulted before the report is provided to another party who may not be familiar with the background and the purpose of the report. In particular, an environmental disclosure report for a property vendor may not be suitable for satisfying the needs of that property's purchaser. This report should not be applied for any purpose other than that stated in the report.

Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, a suitably qualified and experienced environmental consultant should be retained to explain the implications of the report to other professionals referring to the report and then review plans and specifications produced to see how other professionals have incorporated the report findings.

Given Tetra Tech Coffey prepared the report and has familiarity with the site, Tetra Tech Coffey is well placed to provide such assistance. If another party is engaged to interpret the recommendations of the report, there is a risk that the contents of the report may be misinterpreted and Tetra Tech Coffey disowns any responsibility for such misinterpretation.

Data should not be separated from the report

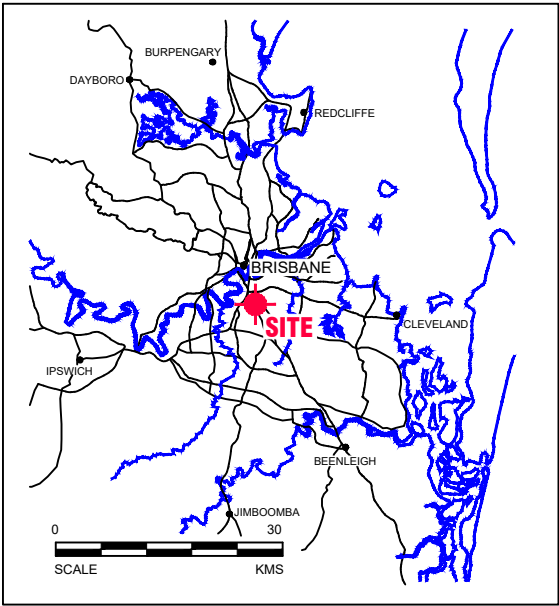
The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

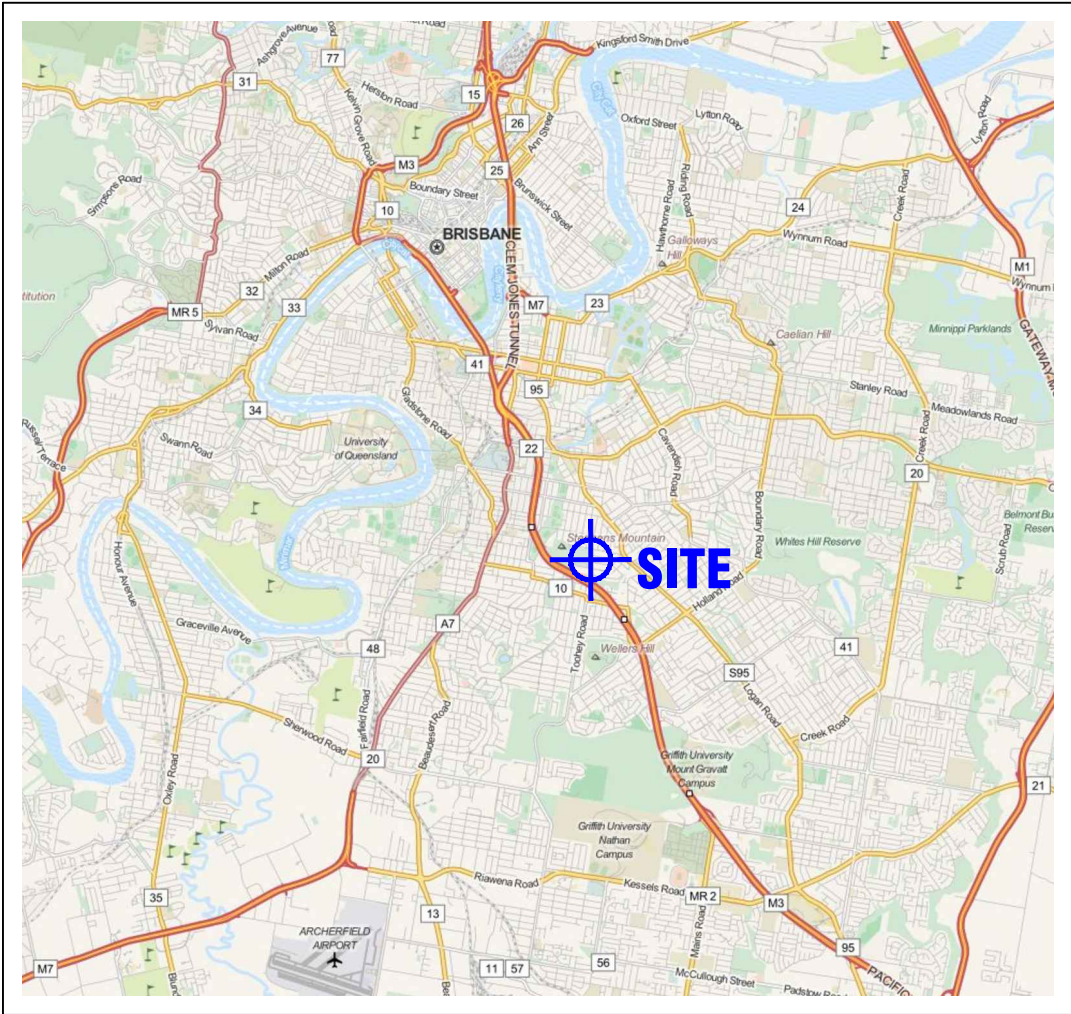
Responsibility

Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.

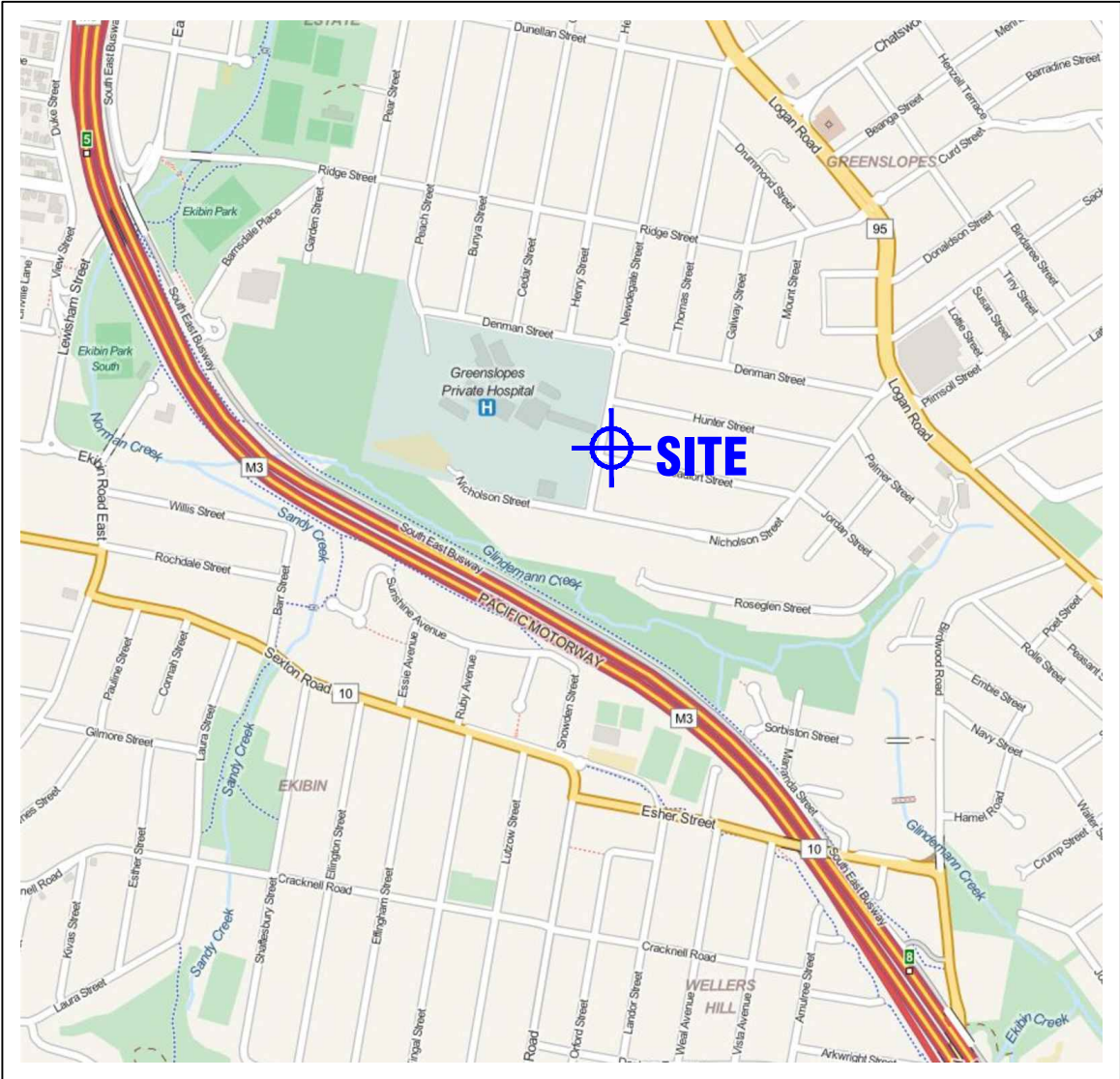
APPENDIX A: FIGURES



GENERAL AREA MAP

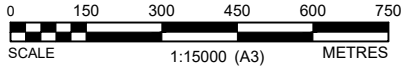



REGIONAL AREA MAP



LOCAL AREA MAP

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revision	no.	description	drawn	approved	date	drawn	SMW / AW		client: DEPARTMENT OF VETERAN AFFAIRS			
	A	ORIGINAL ISSUE					approved		-	project: DVA GREENSLOPES 114 NEWDEGATE STREET, GREENSLOPES, QLD		
							date		10-11-2021	title: SITE LOCATION PLAN		
							scale		AS SHOWN	project no: 754-BNEEN282781 figure no: FIGURE 1 rev: A		
							original size		A3			

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LEGEND

2013 SAMPLE LOCATION

2019 SAMPLE LOCATION

2021 SAMPLE LOCATION

GROUNDWATER MONITORING WELL LOCATION

AREA SEALED WITH CONCRETE

SITE BOUNDARY

revision	no.	description			drawn	approved	date
	A	ORIGINAL ISSUE					

5

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5

10

15

Scale (metres) 1:300

SOURCE: NEARMAP IMAGE - 9/08/2019

drawn

SMW / AW

approved

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date

07-12-2021

scale

AS SHOWN

original size

A3

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TETRA TECH

COFFEY

client:

DEPARTMENT OF VETERAN AFFAIRS

project:

DVA GREENSLOPES
114 NEWDEGATE STREET, GREENSLOPES, QLD

title:

SAMPLE LOCATION PLAN

project no:

754-BNEEN282781

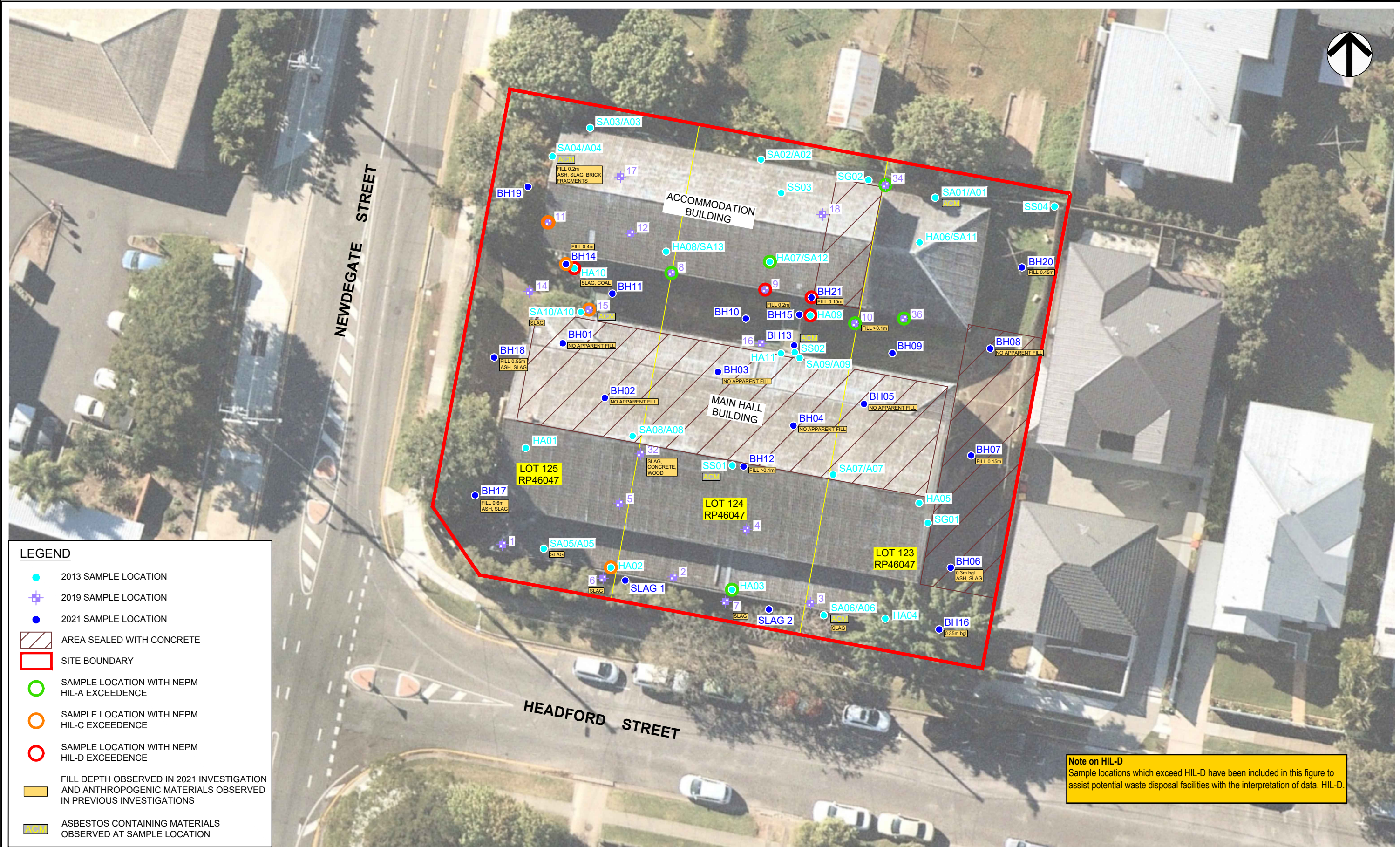
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FIGURE 2

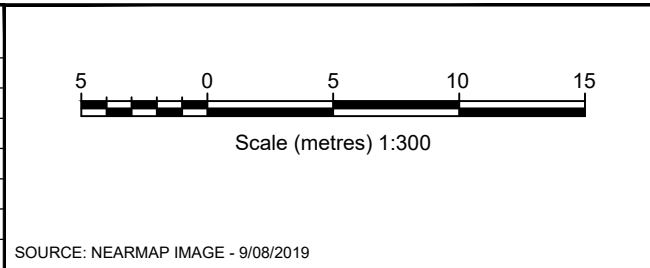
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	A	ORIGINAL ISSUE					



drawn	SMW / AW
approved	-
date	10-11-2021
scale	AS SHOWN
original size	A3

TETRA TECH
COFFEY

client:	DEPARTMENT OF VETERAN AFFAIRS		
project:	DVA GREENSLOPES 114 NEWDEGATE STREET, GREENSLOPES, QLD		
title:	SUMMARY OF HUMAN HEALTH EXCEEDANCES AND FILL DEPTH		
project no:	754-BNEEN282781	figure no:	FIGURE 3
		rev:	A

APPENDIX B: BORELOGS

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **01**

sheet: 1 of 1

project no. **754-BNEEN282781**




date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance			
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
		E: Sample						CONCRETE.	
		E: Sample						Silty CLAY: well graded, brown. colour change to yellow / brown. firming.	D S and MD F and MD
		E: Sample			0.5			Borehole 01 terminated at 0.60 m	

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense

* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

water
10-Oct-12 water level on date shown
water inflow
water outflow

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **02**

sheet: 1 of 1

project no. **754-BNEEN282781**

date started: **03 Sep 2021**

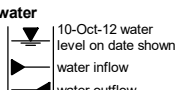
date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance			
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
								CONCRETE.	
		E: Sample						Silty CLAY: well graded, low plasticity, brown.	D F and MD
		E: Sample			0.5			as above. orange / brown. firming with depth. low-medium plasticity	D to M St and MD
								Borehole 02 terminated at 0.60 m	

method AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore * bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	support M mud C casing N nill water 	samples & field tests ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	soil group symbol & soil description based on AS 1726:2017 moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **03**

sheet: 1 of 1

project no. **754-BNEEN282781**


date started: **03 Sep 2021**


date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
		E: Sample						CONCRETE.	
		E: Sample						Silty CLAY: well graded, low plasticity, red / brown. yellow / brown. low-medium plastic	D D to M
		E: Sample			0.5			stiffening	St and MD
								Borehole 03 terminated at 0.60 m	

method AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore * bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	support M mud C casing N nill water  10-Oct-12 water level on date shown water inflow water outflow	samples & field tests ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	soil group symbol & soil description based on AS 1726:2017 moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **04**

sheet: 1 of 1

project no. **754-BNEEN282781**



date started: **03 Sep 2021**




date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
		E: Sample						CONCRETE.	
		E: Sample						Silty CLAY: low plasticity, Brown, occasional gravel / rock (50-60mm). colour change to red / brown. firming with depth. medium plasticity	D D to M F and MD
		E: Sample			0.5			Borehole 04 terminated at 0.60 m	

method AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore * bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	support M mud C casing N nill water  10-Oct-12 water level on date shown  water inflow  water outflow	samples & field tests ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	soil group symbol & soil description based on AS 1726:2017 moisture condition D dry M moist W wet Wp plastic limit Wi liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **05**

sheet: 1 of 1

project no. **754-BNEEN282781**



date started: **03 Sep 2021**




date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
		E: Sample						CONCRETE.			
		E: Sample						Silty CLAY: sub-angular, low plasticity, brown, occasional rocks (60 - 70mm).	D	F and MD	
		E: Sample			0.5			red / brown. Well sorted. Low to medium plasticity	D to M		
								Borehole 05 terminated at 0.60 m			

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nil	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water  10-Oct-12 water level on date shown  water inflow  water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **06**

sheet: 1 of 1

project no. **754-BNEEN282781**




date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
		E: Sample						CONCRETE.	
		E: Sample						FILL: coarse grained, yellow / brown, bedding sands. band of dark grey / black ash and slag fragments in yellow/brown bedding sands	D S and L
		E: Sample						Silty CLAY: well graded, low plasticity, red/ brown, firming with depth.	D to M F and MD
		E: Sample			0.5			Borehole 06 terminated at 0.50 m	

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense

* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

water
10-Oct-12 water level on date shown
water inflow
water outflow

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **07**

sheet: 1 of 1

project no. **754-BNEEN282781**




date started: **03 Sep 2021**




date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
		E: Sample						CONCRETE.	
								FILL: coarse grained, to 5 mm, well graded, bedding sands.	D S and L
		E: Sample						Silty CLAY: low plasticity, brown, occasional patches of orange. orange / brown. well sorted. low-medium plasticity	F and MD
		E: Sample			0.5			Borehole 07 terminated at 0.50 m	

method AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore * bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	support M mud C casing N nil water  10-Oct-12 water level on date shown  water inflow  water outflow	samples & field tests ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	soil group symbol & soil description based on AS 1726:2017 moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L medium dense MD dense D very dense
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Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **08**

sheet: 1 of 1

project no. **754-BNEEN282781**

date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
		E: Sample						CONCRETE.			
		E: Sample						Silty CLAY: sub-angular, low plasticity, red/brown, occasional rock fragments (sub-angular, 10-15mm).	D	F and MD	
		E: Sample						well sorted. orange/brown. low-medium plasticity	D to M		
		E: Sample			0.5			Borehole 08 terminated at 0.50 m			

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nil	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L medium dense MD dense D very dense

* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

water
10-Oct-12 water level on date shown
water inflow
water outflow

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **09**

sheet: 1 of 1

project no. **754-BNEEN282781**


date started: **03 Sep 2021**


date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
HA								CONCRETE.			Concrete slab sample - used jackhammer to get chunk of pavement. Slab was approx 100mm thick. Placed into heavy duty sample bags. Each slab sample was collected from interface with underlying soils.
		E: Sample						Borehole 09 terminated at 0.10 m			
					0.5						

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water  10-Oct-12 water level on date shown water inflow water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **10**

sheet: 1 of 1

project no. **754-BNEEN282781**






date started: **03 Sep 2021**


date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
HA						    		CONCRETE.			Concrete slab sample - used jackhammer to get chunk of pavement. Slab was approx 100mm thick. Placed into heavy duty sample bags. Each slab sample was collected from interface with underlying soils.
		E: Sample						Borehole 10 terminated at 0.10 m			
					0.5						

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water  10-Oct-12 water level on date shown water inflow water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **11**

sheet: 1 of 1

project no. **754-BNEEN282781**


date started: **03 Sep 2021**


date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
HA								CONCRETE.			Concrete slab sample - used jackhammer to get chunk of pavement. Slab was approx 100mm thick. Placed into heavy duty sample bags. Each slab sample was collected from interface with underlying soils.
		E: Sample						Borehole 11 terminated at 0.10 m			
					0.5						

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water  10-Oct-12 water level on date shown water inflow water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **12**

sheet: 1 of 1

project no. **754-BNEEN282781**


date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
HA								FILL: grey, loose silty sand, adjacent to slab at approximately the centre of the building basement.	
		E: Sample						Borehole 12 terminated at 0.10 m	
					0.5				

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nil	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water 10-Oct-12 water level on date shown water inflow water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **13**

sheet: 1 of 1

project no. **754-BNEEN282781**


date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
HA		E: Sample						FILL: brown / grey, Silty sand topsoil. Adjacent to staircase..	
					0.5			Borehole 13 terminated at 0.10 m	

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nil	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L medium dense MD dense VD very dense

* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

water
10-Oct-12 water level on date shown
water inflow
water outflow

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **14**

sheet: 1 of 1

project no. **754-BNEEN282781**

date started: **03 Sep 2021**

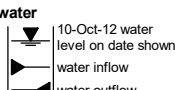
date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
		E: Sample						FILL: Gravelly Silty CLAY: poorly graded, grey / brown. Dark grey / brown	D F and L
		E: Sample							
		E: Sample			0.5			Silty CLAY. Yellow / brown. Some gravel patches.	S and MD
								Refusal @ 0.65m Borehole 14 terminated at 0.65 m	

method AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore * bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	support M mud C casing N nill water 	samples & field tests ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	soil group symbol & soil description based on AS 1726:2017 moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L medium dense MD dense D very dense
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Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **15**

sheet: 1 of 1

project no. **754-BNEEN282781**

date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
<div>HA</div>		E: Sample				<div></div>		FILL: Gravelly Silty CLAY: grey/brown.		S and MD	
		E: Sample				<div></div>		Silty CLAY: low plasticity, red/brown, occasional sub-rounded gravel. orange/brown. Well sorted. Medium plasticity		F and MD	
		E: Sample			0.5			EoH @ 0.5 - Natural Borehole 15 terminated at 0.50 m			

method	support	samples & field tests	soil group symbol & soil description	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	based on AS 1726:2017 moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L medium dense MD dense D very dense

* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

water
10-Oct-12 water level on date shown
water inflow
water outflow

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **16**

sheet: 1 of 1

project no. **754-BNEEN282781**


date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
HA		E: Sample						FILL: Gravelly Silty CLAY: poorly graded, grey / brown.	D S and MD
		E: Sample						Silty CLAY: well graded, low plasticity, red / brown.	F and MD
		E: Sample			0.5			as above with orange / brown particles. Low to medium plasticity	D to M
								Natural @ 0.5 Borehole 16 terminated at 0.50 m	

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nil	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense

* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

water
10-Oct-12 water level on date shown
water inflow
water outflow

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **17**

sheet: 1 of 1

project no. **754-BNEEN282781**

date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
HA		E: Sample						FILL: Gravely Silty CLAY: poorly graded, grey / brown.	D S and MD
		E: Sample						Firmer. Less gravel	F and MD
		E: Sample						FILL: Ash and slag in silty clay matrix.	St and L
		E: Sample			0.5			Silty CLAY: Yellow / brown..	
								End of fill @ approximately 0.60 m Borehole 17 terminated at 0.65 m	

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water 10-Oct-12 water level on date shown water inflow water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **18**

sheet: 1 of 1

project no. **754-BNEEN282781**


date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
<div>HA</div>		E: Sample						FILL: Gravelly Silty CLAY: poorly graded, brown.			QC05/06 @ 0.5m
		E: Sample					FILL: poorly graded, Pale grey / black, Ash and slag in silty clay matrix.				
		E: Sample		0.5			Silty CLAY: well graded, yellow/orange/brown.				
								End of fill @ approximately 0.6m Borehole 18 terminated at 0.60 m			

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nil	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L medium dense MD dense D very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water 10-Oct-12 water level on date shown water inflow water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **19**

sheet: 1 of 1

project no. **754-BNEEN282781**



date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information						material substance					
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	structure and additional observations
<div>HA</div>		E: Sample						FILL: Gravelly SILTY SAND: Grey / brown.	D	S and L	QC01/02 @0.3
								FILL: Gravelly CLAY: dark grey / black, slag in gravelly clay matrix.		St and L	
		E: Sample			0.5			Gravelly CLAY: poorly graded, yellow / brown, weathered bedrock.		F and MD	
		E: Sample									
								Borehole 19 terminated at 0.65 m			

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
* bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	water 10-Oct-12 water level on date shown water inflow water outflow			

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **20**

sheet: 1 of 1

project no. **754-BNEEN282781**

date started: **03 Sep 2021**

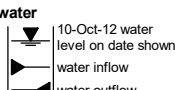
date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
↑ HA ↓		E: Sample						FILL: Gravelly Silty CLAY: poorly graded, grey / brown.	D F and MD
		E: Sample							
		E: Sample			0.5			Silty CLAY: well graded, medium plasticity, orange/brown.	D to M
								EoH @0.5 - natural Borehole 20 terminated at 0.50 m	

method AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore * bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	support M mud C casing N nil water 	samples & field tests ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	soil group symbol & soil description based on AS 1726:2017 moisture condition D dry M moist W wet Wp plastic limit Wi liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L medium dense MD dense D very dense
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Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **21**

sheet: 1 of 1

project no. **754-BNEEN282781**




date started: **03 Sep 2021**

date completed: **03 Sep 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: drilling fluid: hole diameter :

drilling information					material substance				
method & support	water	samples & field tests	photoionization detector (ppmv)	RL (m)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition consistency / relative density
		E: Sample						CONCRETE.	
								FILL: low plasticity, brown, gravelly, silty clay and bedding sands.	D S and MD
		E: Sample						Silty CLAY: well graded, low to medium plasticity, red / brown.	D to M F and MD
								colour change to orange / brown particles in red / brown silty clay	
		E: Sample			0.5			Borehole 21 terminated at 0.50 m	

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore	M mud C casing N nill	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense

* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

water
10-Oct-12 water level on date shown
water inflow
water outflow

Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **MW01**

sheet: 1 of 2

project no. **754-BNEEN282781**

date started: **17 Sep 2021**

date completed: **17 Sep 2021**

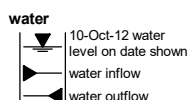
logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: Geoprobe 66200DT, Track mounted drilling fluid: casing diameter : PVC

drilling information			well details	material substance							structure and additional observations
method & support	water	samples & field tests	photoionization detector (ppmv)	MW01	depth (m)	graphic log	soil group symbol	material description	moisture condition	consistency / relative density	
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">NDD</div> <div style="margin-bottom: 10px;">PVC casing</div> <div>PT</div> </div>	Not Encountered	E						TOPSOIL: uniform, low plasticity, dark grey.	D	L	minor light grey clay content
		E						FILL: CLAYEY SAND: fine to medium grained, poorly graded, low plasticity, dark grey.	D	L	
		E			0.5			dark grey/black ash throughout	D	L	
		E						FILL: CLAYEY SAND: fine to coarse grained, poorly graded, low plasticity, brown.	D	F	
		E			1.0			Silty CLAY: well graded, medium plasticity, brown.			
		E			1.5			Silty CLAY: well graded, low plasticity, brown.	D	St	
		E			2.0			harder with sub angular gravels			
		E			2.5			WEATHERED MUDSTONE: poorly graded, low plasticity, brown.	D	St	
		E			3.0			sub angular gravels			
		E			3.5			Silty CLAY: poorly graded, low plasticity, brown.	D	St	
								occasional red/brown patches			
								WEATHERED MUDSTONE: poorly graded, low plasticity, yellow/brown.	D	St	
								transition to weathered bedrock			

method	support	samples & field tests	soil group symbol & soil description	consistency / relative density
AD auger drilling*	M mud	ALT air lift test	based on AS 1726:2017	VS very soft
AS auger screwing*	C casing	B bulk disturbed sample		S soft
HA hand auger	N nil	D disturbed sample		F firm
MR mud rotary		E environmental sample		St stiff
W washbore		SS split spoon sample		VSt very stiff
NDD hand auger push tube		U## undisturbed sample ##mm diameter		H hard
PT non destructive drilling		WS water sample	moisture condition	Fb friable
		HB hammer bouncing		VL very loose
* bit shown by suffix		N standard penetration test (SPT)		L loose
e.g. AD/T		N* SPT - sample recovered		MD medium dense
B blank bit		Nc SPT with solid cone		D dense
T TC bit		PID photoionization detector		VD very dense
V V bit		R refusal		



Environmental Log - Borehole

client: **Department of Veteran Affairs**

principal: **Jeremy Wicks**

project: **DVA Greenslopes Remediation**

location: **114 Newdegate Street, Greenslopes QLD 4120**

Hole ID. **MW01**

sheet: 2 of 2

project no. **754-BNEEN282781**

date started: **17 Nov 2021**

date completed: **17 Nov 2021**

logged by: **MP**

checked by: **JW**

position: Not Specified surface elevation: Not Specified angle from horizontal: 90°
equipment type: Geoprobe 66200DT, Track mounted drilling fluid: casing diameter : PVC

drilling information			well details	material substance							structure and additional observations
method & support	water	samples & field tests	photoionization detector (ppmv)	depth (m)	graphic log	soil group symbol	material description SOIL NAME: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density		
PT PVC casing Not Encountered		E		4.5			WEATHERED MUDSTONE: poorly graded, low plasticity, yellow/brown. (continued)	D	St		
		E		5.0			WEATHERED MUDSTONE: poorly graded, low plasticity, yellow/brown. firming with depth	D	VD		
		E		5.5			WEATHERED MUDSTONE: poorly graded, low plasticity, grey/brown.	D	H		
		E		6.0			Borehole MW01 terminated at 6.00 m Target depth				
				6.5							
				7.0							
				7.5							

method	support	samples & field tests	soil group symbol & soil description based on AS 1726:2017	consistency / relative density
AD auger drilling* AS auger screwing* HA hand auger MR mud rotary W washbore NDD hand auger PT non destructive drilling push tube * bit shown by suffix e.g. AD/T B blank bit T TC bit V V bit	M mud C casing N nil water 10-Oct-12 water level on date shown water inflow water outflow	ALT air lift test B bulk disturbed sample D disturbed sample E environmental sample SS split spoon sample U## undisturbed sample ##mm diameter WS water sample HB hammer bouncing N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone PID photoionization detector R refusal	moisture condition D dry M moist W wet Wp plastic limit WI liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL loose L very loose MD medium dense D dense VD very dense

APPENDIX C: DATA TABLES

DVA Greenslopes Soil Data Table

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Asbestos			Organochlorine Pesticides																											
					Asbestos (ID) (ND - not detected)	ACM (w/w)	Asbestos Fines (w/w)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	chlordane	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endrin aldehyde	Endrin ketone	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Hepachlor	Hepachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Total OCP				
Units	-	-	-	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
EIL - Res/Open Space			-	-	-	-	-								180																				
HIL-A Residential			-	-	0.01%	0.001%					6		50				240				270			10		6			10	300	20				
HIL-C Recreational			-	-	0.02%	0.001%					10		70				400				340			20		10			10	400	30				
SS01	0	0.1	Area 2B	16/07/2013	Chrysotile		0.007% (*)	1.3	<0.05	<0.05	<0.12	<0.05	0.9	<0.05	1.7	3.7	6.7	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	7.67				
SS02	0	0.1	Area 1	16/07/2013	Chrysotile		0.022% (*)	<0.05	<0.05	<0.05	<0.25	<0.05	20	<0.05	<0.05	0.12	<0.22	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.26	<0.05	<0.05	<0.1	20.58			
SS03	0	0.1	Area 2A	16/07/2013	ND		ND	0.09	<0.05	0.11	1.81	<0.05	0.3	<0.05	<0.05	0.13	<0.27	1.7	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	2.4				
SS04	0	0.1	Area 2A	16/07/2013	ND		ND	<0.05	<0.05	<0.05	1.15	<0.05	8.2	<0.05	<0.05	<0.05	<0.15	1.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	<0.05	<0.05	<0.1	9.54				
SA01/A01	0	0.1	Area 2A	25/09/2013	Chrysotile		0.0005%																												
SA02/A02	0	0.1	Area 2A	25/09/2013																															
SA03/A03	0	0.1	Area 2A	25/09/2013																															
SA04/A04	0	0.1	Area 2A	25/09/2013	ND		ND																												
SA05/A05	0	0.1	Area 2B	25/09/2013																															
SA06/A06	0	0.1	Area 2B	25/09/2013	ND		ND																												
SA06/A06	0.3	0.4	Area 2B	25/09/2013	ND		ND																												
SA07/A07	0	0.1	Area 2B	25/09/2013	ND		ND																												
SA08/A08	0	0.1	Area 2B	25/09/2013	ND		ND																												
SA09/A09	0	0.1	Area 1	25/09/2013	ND		ND																												
SA10/A10	0	0.1	Area 1	25/09/2013	ND		ND																												
SA11/A11	0	0.1	Area 1	25/09/2013	ND		ND																												
SA13/A13	0	0.1	Area 1	25/09/2013	ND		ND																												
Main Hall (under building)	0	0	Area 2B	25/09/2013		0.0149%																													
Accommodation Building (under building)	0	0	Area 1	25/09/2013		0.0303%																													
Unsealed External Areas	0	0.01		25/09/2013		0.0084%																													
A01, A04, A10	0.15	0.15		25/09/2013		0.0090%																													
A06, A10	0.15	0.15		25/09/2013		0.0038%																													
HA01	0	0.1	Area 2B	25/09/2013				0.27	-	0.07	0.21	< 0.05	31	< 0.05	0.08	1.1	1.45	0.14	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.13	< 0.05	< 0.05	< 0.05	< 1	32.79			
HA02	0	0.1	Area 3	25/09/2013				0.23	-	< 0.05	<0.1	< 0.05	51	< 0.05	0.09	0.73	1.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	0.23	< 0.05	< 0.05	< 1	52.36				
HA03	0	0.1	Area 3	25/09/2013				0.57	-	< 0.05	<0.11	< 0.05	140	< 0.05	0.18	1.6	2.35	0.06	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.14	0.51	< 0.05	< 0.05	< 1	143.06				
HA04	0	0.1	Area 2B	25/09/2013				< 0.05	-	< 0.05	<0.1	< 0.05	4.7	< 0.05	< 0.05	0.41	<0.51	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05	< 1	5.18				
HA05	0	0.1	Area 2B	25/09/2013				< 0.05	-	< 0.05	<0.1	< 0.05	< 0.1	< 0.05	< 0.05	0.12	<0.22	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	0.12				
QC01 (DUP HA05)	0	0.1	Area 2B	26/09/2013				< 0.05	-	< 0.05	<0.1	< 0.05	< 0.1	< 0.05	< 0.05	0.06	<0.22	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	0.06				
QC01A (TRIP HA05)	0	0.1	Area 2B	26/09/2013				<0.1	<0.1	<0.1	<0.2	<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	<0.1	<0.1	<0.1				
HA06/SA11	0	0.1	Area 2A	25/09/2013	ND			0.49	-	< 0.05	<0.87	< 0.05	< 0.1	< 0.05	0.27	4.2	4.96	0.82	< 0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	5.83				
HA07/SA12	0	0.1	Area 1	25/09/2013				0.05	-	0.26	28.26	< 0.05	0.3	< 0.05	< 0.05	0.26	<0.36	28	< 0.05	0.96	< 0.05	< 0.05	< 0.05	0.7	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	30.53				
HA08/SA13	0	0.1	Area 1	25/09/2013	ND			< 0.05	-	< 0.05	<0.13	< 0.05	< 0.1	< 0.05	< 0.05	0.13	<0.23	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	0.21				
HA09	0	0.2	Area 1	25/09/2013				0.07	-	0.06	55.06	< 0.05	0.3	< 0.05	< 0.05	0.22	<0.34	55	< 0.05	0.58	< 0.05	< 0.05	< 0.05	0.93	< 0.05	< 0.05	0.06	< 0.05	< 0.05	< 1	57.22				
HA10	0	0.2	Area 1	25/09/2013				< 0.5	-	86	506	< 0.05	5.4	< 0.05	< 0.05	< 0.05	<0.55	420	< 0.05	8.5	< 0.05	< 0.05	< 0.05	6.5	< 0.05	0.87	0.11	< 0.05	< 0.05	< 1	527.38				
HA11	0	0.1	Area 2B	25/09/2013				0.13	-	< 0.05	<0.44	< 0.05	42	< 0.05	0.06	0.16	0.35	0.39	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.2	1	< 0.05	< 0.05	< 1	43.94				
1-0.0	0	0.1	Area 2B	1/10/2019				0.82	<0.05	<0.05	<0.05	<0.05	0.3	<0.05	0.13	0.9	1.85	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	2.15				
1-0.3	0.3	0.3	Area 2B	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1				
2-0.0	0	0.1	Area 3	1/10/2019				0.09	<0.05	<0.05	0.06	<0.05	5.2	<0.05	<0.05	0.33	0.42	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	5.68				
QC01 (DUP 2-0.0)	0	0.1	Area 3	1/10/2019				0.11	<0.05	<0.05	<0.05	<0.05	2.1	<0.05	0.36	0.06	0.53	<0.05	0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	2.73				
QC02 (TRIP 2-0.0)	0	0.1	Area 3	1/10/2019				0.14	<0.05	<0.05	<0.05	<0.05	5.84	<0.05	<0.05	0.9	1.04	<0.05	<0.05	<0.05	<1.02	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.2	-	6.94					
2-0.3	0.3	0.3	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	0.2				
QC03 (DUP 2-0.3)	0.3	0.3	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1				
QC04 (TRIP 2-0.3)	0.3	0.3	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.23	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	0.23				

DVA Greenslopes Soil Data Table

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Asbestos			Organochlorine Pesticides																							
					Asbestos (ID) (ND - not detected)	ACM (w/w)	Asbestos Fines (w/w)	4,4-DDE	α-BHC	Aldrin	Aldrin + Dieldrin	β-BHC	chlordane	δ-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endrin aldehyde	Endrin ketone	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Total OCP
Units	-	-	-	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EIL - Res/Open Space			-		-	-	-								180																
HIL-A Residential			-		-	0.01%	0.001%				6		50				240				270			10		6		10	300	20	
HIL-C Recreational			-		-	0.02%	0.001%				10		70				400				340			20		10		10	400	30	
BH21_0.3	0.3	0.3	Area 1	3/09/2021				0.07	<0.05	0.98	1.41	<0.05	<0.1	<0.05	<0.05	<0.05	0.07	0.43	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	1.48
BH21_0.5	0.5	0.5	Area 1	3/09/2021				<0.05	<0.05	0.12	0.12	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.12
MW01 - 0.1	0.1	0.1	Area 2A	17/11/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
MW01 - 0.25	0.25	0.25	Area 2A	17/11/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
MW01 - 0.50	0.5	0.5	Area 2A	17/11/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
MW01_0.75	0.75	0.75	Area 2A	17/11/2021																											
MW01_1.0	1	1	Area 2A	17/11/2021																											
SLAG-1	SLAG-1	SLAG-1	SLAG	3/09/2021																											
SLAG-2	SLAG-2	SLAG-2	SLAG	3/09/2021																											
BH01_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH03_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH05_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021				1.6	<0.05	<0.05	0.13	<0.05	<0.1	<0.05	0.28	0.33	2.21	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	2.34
BH06_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH07_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH08_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH09_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH10_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH11_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1
BH21_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021				<0.05	<0.05	0.38	0.73	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.73

DVA Greenslopes Soil Data Table

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Organophosphate Pesticides																																
					Azinophos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Counaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Ethyl parathion	Fenitrothion	Fensulfotion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Priniphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Trichloronate
Units	-	-	-	-	mg/kg	mg/kg		mg/kg			mg/kg		mg/kg	mg/kg		mg/kg		mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg			mg/kg	mg/kg
EIL - Res/Open Space					-																																
HIL-A Residential					-																																
HIL-C Recreational					-																																
SS01	0	0.1	Area 2B	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SS02	0	0.1	Area 1	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SS03	0	0.1	Area 2A	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SS04	0	0.1	Area 2A	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SA01/A01	0	0.1	Area 2A	25/09/2013																																	
SA02/A02	0	0.1	Area 2A	25/09/2013																																	
SA03/A03	0	0.1	Area 2A	25/09/2013																																	
SA04/A04	0	0.1	Area 2A	25/09/2013																																	
SA05/A05	0	0.1	Area 2B	25/09/2013																																	
SA06/A06	0	0.1	Area 2B	25/09/2013																																	
SA06/A06	0.3	0.4	Area 2B	25/09/2013																																	
SA07/A07	0	0.1	Area 2B	25/09/2013																																	
SA08/A08	0	0.1	Area 2B	25/09/2013																																	
SA09/A09	0	0.1	Area 1	25/09/2013																																	
SA10/A10	0	0.1	Area 1	25/09/2013																																	
SA11/A11	0	0.1	Area 1	25/09/2013																																	
SA13/A13	0	0.1	Area 1	25/09/2013																																	
Main Hall (under building)	0	0	Area 2B	25/09/2013																																	
Accomodation Building (under building)	0	0	Area 1	25/09/2013																																	
Unsealed External Areas	0	0.01		25/09/2013																																	
A01, A04, A10	0.15	0.15		25/09/2013																																	
A06, A10	0.15	0.15		25/09/2013																																	
HA01	0	0.1	Area 2B	25/09/2013																																	
HA02	0	0.1	Area 3	25/09/2013																																	
HA03	0	0.1	Area 3	25/09/2013																																	
HA04	0	0.1	Area 2B	25/09/2013																																	
HA05	0	0.1	Area 2B	25/09/2013																																	
QC01 (DUP HA05)	0	0.1	Area 2B	26/09/2013																																	
QC01A (TRIP HA05)	0	0.1	Area 2B	26/09/2013																																	
HA06/SA11	0	0.1	Area 2A	25/09/2013																																	
HA07/SA12	0	0.1	Area 1	25/09/2013																																	
HA08/SA13	0	0.1	Area 1	25/09/2013																																	
HA09	0	0.2	Area 1	25/09/2013																																	
HA10	0	0.2	Area 1	25/09/2013																																	
HA11	0	0.1	Area 2B	25/09/2013																																	
1-0.0	0	0.1	Area 2B	1/10/2019																																	
1-0.3	0.3	0.3	Area 2B	1/10/2019																																	
2-0.0	0	0.1	Area 3	1/10/2019																																	
QC01 (DUP 2-0.0)	0	0.1	Area 3	1/10/2019																																	
QC02 (TRIP 2-0.0)	0	0.1	Area 3	1/10/2019																																	
2-0.3	0.3	0.3	Area 3	1/10/2019																																	
QC03 (DUP 2-0.3)	0.3	0.3	Area 3	1/10/2019																																	
QC04 (TRIP 2-0.3)	0.3	0.3	Area 3	1/10/2019																																	

DVA Greenslopes Soil Data Table

[illegible]

DVA Greenslopes Soil Data Table

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Organophosphate Pesticides																																	
					Azinphos methyl	Bostar (Suprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Counaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Ethyl parathion	Fenitrothion	Fensulfthion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pririmphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Trichloronate	Tokuthon
Units	-	-	-	-	mg/kg	mg/kg		mg/kg			mg/kg		mg/kg	mg/kg		mg/kg		mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg		mg/kg			mg/kg			mg/kg	mg/kg
EIL - Res/Open Space																																						
HIL-A Residential																																						
HIL-C Recreational																																						
32-0.0	0	0.1	Area 2B	1/10/2019																																		
34-0.0	0	0.1	Area 2B	1/10/2019																																		
36-0.0	0	0.1	Area 2B	1/10/2019																																		
BH01_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH02_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH03_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH04_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH05_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH06_0.1	0.1	0.1	Area 4B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH06_0.3	0.3	0.3	Area 4B	3/09/2021																																		
BH06_0.5	0.5	0.5	Area 4B	3/09/2021																																		
BH07_0.1	0.1	0.1	Area 4B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH07_0.3	0.3	0.3	Area 4B	3/09/2021																																		
BH08_0.1	0.1	0.1	Area 4B	3/09/2021																																		
BH08_0.3	0.3	0.3	Area 1	3/09/2021																																		
BH12_0.1	0.1	0.1	Area 2B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH13_0.1	0.1	0.1	Area 1	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH14_0.1	0.1	0.1	Area 1	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH14_0.3	0.3	0.3	Area 1	3/09/2021																																		
BH14_0.5	0.5	0.5	Area 1	3/09/2021																																		
BH15_0.1	0.1	0.1	Area 1	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH15_0.3	0.3	0.3	Area 1	3/09/2021																																		
BH15_0.5	0.5	0.5	Area 1	3/09/2021																																		
BH16_0.1	0.1	0.1	Area 4B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
BH16_0.3	0.3	0.3	Area 4B	3/09/2021																																		
BH16_0.5	0.5	0.5	Area 4B	3/09/2021																																		
BH17_0.1	0.1	0.1	Area 2B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2					

DVA Greenslopes Soil Data Table

SAMPLE ID		Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Organophosphate Pesticides																														
						Azinophos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Counaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Ethyl parathion	Fenitrothion	Fensulfotion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Primiphos-methyl	Pyrazophos	Ronnel	Terbufos
Units		-	-	-	-	mg/kg	mg/kg			mg/kg		mg/kg	mg/kg		mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg		mg/kg		mg/kg			mg/kg	mg/kg
EIL - Res/Open Space					-																															
HIL-A Residential					-																															
HIL-C Recreational					-																															
BH21_0.3	0.3	0.3	Area 1	3/09/2021																																
BH21_0.5	0.5	0.5	Area 1	3/09/2021																																
MW01 - 0.1	0.1	0.1	Area 2A	17/11/2021																																
MW01 - 0.25	0.25	0.25	Area 2A	17/11/2021																																
MW01 - 0.50	0.5	0.5	Area 2A	17/11/2021																																
MW01_0.75	0.75	0.75	Area 2A	17/11/2021																																
MW01_1.0	1	1	Area 2A	17/11/2021																																
SLAG-1	SLAG-1	SLAG-1	SLAG	3/09/2021																																
SLAG-2	SLAG-2	SLAG-2	SLAG	3/09/2021																																
BH01_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																																
BH03_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																																
BH05_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																																
BH06_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																																
BH07_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																																
BH08_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																																
BH09_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																
BH10_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																
BH11_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																
BH21_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																

DVA Greenslopes Soil Data Table

[illegible]

DVA Greenslopes Soil Data Table

[illegible]

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Asbestos			Organochlorine Pesticides																											
					Asbestos (ID)	ACM (w/w)	Asbestos Fines (w/w)	4,4-DDE	α-BHC	Aldrin	Aldrin + Dieldrin	β-BHC	chlordane	γ-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endrin aldehyde	Endrin ketone	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Total OCP				
Units	-	-	-	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																																	50		
SS01	0	0.1	Area 2B	16/07/2013	Chrysotile		0.007% (*)	1.3	<0.05	<0.05	<0.12	<0.05	0.9	<0.05	1.7	3.7	6.7	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	7.67			
SS02	0	0.1	Area 1	16/07/2013	Chrysotile		0.022% (*)	<0.05	<0.05	<0.05	<0.25	<0.05	20	<0.05	<0.05	0.12	<0.22	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.26	<0.05	<0.05	<0.1	20.58				
SS03	0	0.1	Area 2A	16/07/2013	ND		ND	0.09	<0.05	0.11	1.81	<0.05	0.3	<0.05	<0.05	0.13	<0.27	1.7	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	2.4				
SS04	0	0.1	Area 2A	16/07/2013	ND		ND	<0.05	<0.05	<0.05	1.15	<0.05	8.2	<0.05	<0.05	<0.05	<0.15	1.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	<0.05	<0.05	<0.1	9.54				
SA01/A01	0	0.1	Area 2A	25/09/2013	Chrysotile		0.0005%																												
SA02/A02	0	0.1	Area 2A	25/09/2013																															
SA03/A03	0	0.1	Area 2A	25/09/2013																															
SA04/A04	0	0.1	Area 2A	25/09/2013	ND		ND																												
SA05/A05	0	0.1	Area 2B	25/09/2013																															
SA06/A06	0	0.1	Area 2B	25/09/2013	ND		ND																												
SA06/A06	0.3	0.4	Area 2B	25/09/2013	ND		ND																												
SA07/A07	0	0.1	Area 2B	25/09/2013	ND		ND																												
SA08/A08	0	0.1	Area 2B	25/09/2013	ND		ND																												
SA09/A09	0	0.1	Area 1	25/09/2013	ND		ND																												
SA10/A10	0	0.1	Area 1	25/09/2013	ND		ND																												
SA11/A11	0	0.1	Area 1	25/09/2013	ND		ND																												
SA13/A13	0	0.1	Area 1	25/09/2013	ND		ND																												
Main Hall (under building)	0	0	Area 2B	25/09/2013		0.0149%																													
Accommodation Building (under building)	0	0	Area 1	25/09/2013		0.0303%																													
Unsealed External Areas	0	0.01		25/09/2013		0.0084%																													
A01, A04, A10	0.15	0.15		25/09/2013		0.0090%																													
A06, A10	0.15	0.15		25/09/2013		0.0038%																													
HA01	0	0.1	Area 2B	25/09/2013				0.27	-	0.07	0.21	< 0.05	31	< 0.05	0.08	1.1	1.45	0.14	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.13	< 0.05	< 0.05	< 0.05	< 1	32.79				
HA02	0	0.1	Area 3	25/09/2013				0.23	-	< 0.05	<0.1	< 0.05	51	< 0.05	0.09	0.73	1.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	0.23	< 0.05	< 0.05	< 1	52.36					
HA03	0	0.1	Area 3	25/09/2013				0.57	-	< 0.05	<0.11	< 0.05	140	< 0.05	0.18	1.6	2.35	0.06	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.14	0.51	< 0.05	< 0.05	< 1	143.06					
HA04	0	0.1	Area 2B	25/09/2013				< 0.05	-	< 0.05	<0.1	< 0.05	4.7	< 0.05	< 0.05	0.41	<0.51	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05	< 1	5.18					
HA05	0	0.1	Area 2B	25/09/2013				< 0.05	-	< 0.05	<0.1	< 0.05	< 0.1	< 0.05	< 0.05	0.12	<0.22	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	0.12				
QC01 (DUP HA05)	0	0.1	Area 2B	26/09/2013				< 0.05	-	< 0.05	<0.1	< 0.05	< 0.1	< 0.05	< 0.05	0.06	<0.22	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	0.06				
QC01A (TRIP HA05)	0	0.1	Area 2B	26/09/2013				<0.1	<0.1	<0.1	<0.2	<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	<0.1	<0.1	<0.1	<0.1				
HA06/SA11	0	0.1	Area 2A	25/09/2013	ND			0.49	-	< 0.05	<0.87	< 0.05	< 0.1	< 0.05	0.27	4.2	4.96	0.82	< 0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	5.83				
HA07/SA12	0	0.1	Area 1	25/09/2013				0.05	-	0.26	28.26	< 0.05	0.3	< 0.05	< 0.05	0.26	<0.36	28	< 0.05	0.96	< 0.05	< 0.05	< 0.05	0.7	< 0.05	< 0.05	< 0.05	< 0.05	< 1	30.53					
HA08/SA13	0	0.1	Area 1	25/09/2013	ND			< 0.05	-	< 0.05	<0.13	< 0.05	< 0.1	< 0.05	< 0.05	0.13	<0.23	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	0.21					
HA09	0	0.2	Area 1	25/09/2013				0.07	-	0.06	55.06	< 0.05	0.3	< 0.05	< 0.05	0.22	<0.34	55	< 0.05	0.58	< 0.05	< 0.05	< 0.05	0.93	< 0.05	< 0.05	0.06	< 0.05	< 1	57.22					
HA10	0	0.2	Area 1	25/09/2013				< 0.5	-	86	506	< 0.05	5.4	< 0.05	< 0.05	< 0.05	<0.55	420	< 0.05	8.5	< 0.05	< 0.05	< 0.05	6.5	< 0.05	0.87	0.11	< 0.05	< 0.05	< 1	527.38				
HA11	0	0.1	Area 2B	25/09/2013				0.13	-	< 0.05	<0.44	< 0.05	42	< 0.05	0.06	0.16	0.35	0.39	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.2	1	< 0.05	< 0.05	< 1	43.94					
1-0.0	0	0.1	Area 2B	1/10/2019				0.82	<0.05	<0.05	<0.05	<0.05	0.3	<0.05	0.13	0.9	1.85	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	2.15					
1-0.3	0.3	0.3	Area 2B	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1					

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Asbestos			Organochlorine Pesticides																											
					Asbestos (ID)	ACM (w/w)	Asbestos Fines (w/w)	4,4-DDE	α-BHC	Aldrin	Aldrin + Dieldrin	β-BHC	chlordan	δ-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endrin aldehyde	Endrin ketone	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Total OCP				
Units	-	-	-	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																																	50		
2-0.0	0	0.1	Area 3	1/10/2019				0.09	<0.05	<0.05	0.06	<0.05	5.2	<0.05	<0.05	0.33	0.42	0.06	<0.05	<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	<1	5.68	
QC01 (DUP 2-0.0)	0	0.1	Area 3	1/10/2019				0.11	<0.05	<0.05	<0.05	<0.05	2.1	<0.05	0.36	0.06	0.53	<0.05	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	<1	2.73	
QC02 (TRIP 2-0.0)	0	0.1	Area 3	1/10/2019				0.14	<0.05	<0.05	<0.05	<0.05	5.84	<0.05	<0.05	0.9	1.04	<0.05	<0.05	<0.05	<1.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.2	-	6.94	
2-0.3	0.3	0.3	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	0.2	
QC03 (DUP 2-0.3)	0.3	0.3	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1	
QC04 (TRIP 2-0.3)	0.3	0.3	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.23	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	0.23	
3-0.0	0	0.1	Area 2B	1/10/2019				0.05	<0.05	<0.05	<0.05	<0.05	1.9	<0.05	0.27	0.59	0.91	<0.05	<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	<1	2.81	
3-0.35	0.35	0.35	Area 2B	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1	
4-0.0	0	0.1	Area 2B	1/10/2019				0.31	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	4.1	4.41	<0.05	<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	<1	4.41	
4-0.35	0.35	0.35	Area 2B	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1	
5-0.0	0	0.1	Area 2B	1/10/2019				1.3	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	1.5	5.4	8.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	8.2	
5-0.35	0.35	0.35	Area 2B	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1	
6-0.0	0	0.1	Area 3	1/10/2019				0.17	<0.05	<0.05	0.08	<0.05	5.5	<0.05	0.06	<0.05	0.23	0.08	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.26	0.89	<0.05	<0.05	<1	7.08
6-0.45	0.45	0.45	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.26	<0.05	<0.05	<1	0.76	
6P-0.0 (HA02)	0	0.1	Area 2B	1/10/2019				0.19	<0.05	<0.05	<0.05	<0.05	4.2	<0.05	0.06	0.33	0.58	<0.05	<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	<1	4.78	
6P-0.3 (HA02)	0.3	0.3	Area 2B	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.3	<0.05	<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	<1	0.3	
7-0.0	0	0.1	Area 3	1/10/2019				0.26	<0.05	<0.05	<0.05	<0.05	16	<0.05	0.08	<0.05	0.34	<0.05	0.24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	1	3.4	<0.05	<0.05	<1	21.1
7-0.45	0.45	0.45	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.4	<0.05	<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	0.18	<0.05	<0.05	<1	0.58
7P-0.0 (HA03)	0	0.1	Area 3	1/10/2019				0.15	<0.05	<0.05	<0.05	<0.05	2.3	<0.05	0.05	0.17	0.37	<0.05	<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	<1	2.76	
7P-0.25 (HA03)	0.25	0.25	Area 3	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	0.4	<0.05	<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	<1	0.4	
8-0.0	0	0	Area 1	1/10/2019				0.1	<0.05	0.56	23.56	<0.05	<0.1	<0.05	<0.05	<0.05	0.1	23	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<1	24.01	
8-0.42	0.42	0.42	Area 1	1/10/2019				<0.05	<0.05	<0.05	1.3	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	1.3	<0.05	<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	<1	1.3	
9-0.0	0	0.1	Area 1	1/10/2019				0.2	<0.05	0.08	60.08	<0.05	0.2	<0.05	<0.05	<0.05	0.2	60	<0.05	0.36	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.83	<0.05	<0.05	0.06	<0.05	<0.05	<1	61.73	
9-0.42	0.42	0.42	Area 1	1/10/2019				<0.05	<0.05	<0.05	0.36	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	0.36	<0.05	<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	<1	0.36	
9P-0.0 (HA09)	0	0.1	Area 1	1/10/2019				0.1	<0.05	<0.05	18	<0.05	<0.1	<0.05	<0.05	<0.05	0.1	18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<1	18.26	
9P-0.45 (HA09)	0.45	0.45	Area 1	1/10/2019				<0.05	<0.05	<0.05	0.13	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<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	<1	0.13	
10-0.0	0	0.1	Area 1	1/10/2019				0.11	<0.05	0.1	28.1	<0.05	<0.1	<0.05	<0.05	<0.05	0.11	28	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	<0.05	<0.05	<0.05	<0.05	<0.05	<1	28.55	
10-0.45	0.45	0.45	Area 1	1/10/2019				0.14	<0.05	0.21	9.51	<0.05	<0.1	<0.05	<0.05	<0.05	0.14	9.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<1	9.71		
11-0.0	0	0.1	Area 1	1/10/2019				0.34	<0.05	0.06	36.06	<0.05	0.1	<0.05	0.18	<0.05	0.52	36	<0.05	0.31	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.73	<0.05	<0.05	0.18	<0.05	<0.05	<1	37.9	
11-0.45	0.45	0.45	Area 1	1/10/2019				0.22	<0.05	<0.05	14	<0.05	<0.1	<0.05	0.15	<0.05	0.37	14	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<1	14.52	
12-0.0	0	0.1	Area 1	1/10/2019				0.15	<0.05	0.81	4.31	<0.05	<0.1	<0.05	0.15	0.21	0.51	3.5	<0.05	0.28	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<1	5.18	
12-0.25	0.25	0.25	Area 1	1/10/2019				<0.05	<0.05	0.11	0.47	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	0.36	<0.05	<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	<1	0.47	
13P-0.0 (HA07)	0	0.1	Area 1	1/10/2019				0.13	<0.05	<0.05	7.5	<0.05	<0.1	<0.05	0.11	0.08	0.32	7.5	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	7.99	
13P-0.2 (HA07)	0.2	0.2	Area 1	1/10/2019				<0.05	<0.05	<0.																									

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Asbestos			Organochlorine Pesticides																											
					Asbestos (ID)	ACM (w/w)	Asbestos Fines (w/w)	4,4-DDE	p-BHC	Aldrin	Aldrin + Dieldrin	o-BHC	chlordane	p-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endrin aldehyde	Endrin ketone	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	p-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Total OCP				
Units	-	-	-	-	-	-		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																																50			
QC07 (DUP 14P-0.0)	0	0.1	Area 1	1/10/2019				0.24	<0.05	1.9	75.9	<0.05	0.3	<0.05	0.05	<0.05	0.29	74	<0.05	1.2	<0.05	<0.05	<0.05	<0.05	1.2	<0.05	0.06	0.22	<0.05	<0.05	<1	79.17			
QC08 (TRIP 14P-0.0)	0	0.1	Area 1	1/10/2019				<0.05	<0.05	2.32	109	<0.05	0.37	<0.05	<0.05	<0.2	<0.05	107	<0.05	1.4	<0.05	<0.05	<0.05	1.47	<0.05	0.16	0.22	<0.05	<0.2	-	112.94				
14P-0.42 (HA10)	0.42	0.42	Area 1	1/10/2019				<0.05	<0.05	0.06	3.86	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	3.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	3.86				
QC09 (DUP 14P-0.42)	0	0.1	Area 2B	1/10/2019				<0.05	<0.05	0.06	5.06	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	5.06			
QC10 (TRIP 14P-0.42)	0	0.1	Area 2B	1/10/2019				<0.05	<0.05	<0.05	3.08	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	3.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	3.08			
15-0.0	0	0.1	Area 1	1/10/2019				<0.05	<0.05	0.09	8.29	<0.05	7.4	<0.05	<0.05	<0.05	<0.05	8.2	0.13	0.09	0.26	<0.05	<0.05	0.09	<0.05	0.19	0.38	<0.05	<0.05	<1	16.83				
16-0.0	0	0.1	Area 1	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	<1	1.41				
16-0.45	0.45	0.45	Area 1	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1				
17-0.0	0	0.1	Area 2B	1/10/2019				0.18	<0.05	<0.05	0.62	<0.05	<0.1	<0.05	<0.05	0.18	0.36	0.62	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	0.98				
17-0.25	0.25	0.25	Area 2B	1/10/2019				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.1				
18-0.0	0	0.1	Area 2B	1/10/2019				2.2	<0.05	<0.05	0.61	<0.05	<0.1	<0.05	0.35	3.8	6.35	0.61	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	6.96				
18-0.2	0.2	0.2	Area 2B	1/10/2019				0.11	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.07	0.18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	0.18				
32-0.0	0	0.1	Area 2B	1/10/2019				1.4	<0.05	<0.05	0.3	<0.05	0.1	<0.05	2.1	23	26.5	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	26.9				
34-0.0	0	0.1	Area 2B	1/10/2019				1	<0.05	0.49	17.49	<0.05	<0.1	<0.05	0.15	0.51	1.66	17	<0.05	0.22	<0.05	<0.05	<0.05	0.18	<0.05	<0.05	<0.05	<0.05	<0.05	<1	19.55				
36-0.0	0	0.1	Area 2B	1/10/2019				0.07	<0.05	<0.05	20	<0.05	<0.1	<0.05	<0.05	<0.05	0.07	20	<0.05	0.12	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<1	20.3				
BH01_0.1	0.1	0.1	Area 4A	3/09/2021				0.16	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.16				
BH02_0.1	0.1	0.1	Area 4A	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH03_0.1	0.1	0.1	Area 4A	3/09/2021				0.39	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	0.06	0.31	0.76	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.76				
BH04_0.1	0.1	0.1	Area 4A	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH05_0.1	0.1	0.1	Area 4A	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH06_0.1	0.1	0.1	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH06_0.3	0.3	0.3	Area 4B	3/09/2021	ND			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH06_0.5	0.5	0.5	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH07_0.1	0.1	0.1	Area 4B	3/09/2021	ND			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH07_0.3	0.3	0.3	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH08_0.1	0.1	0.1	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH08_0.3	0.3	0.3	Area 1	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH12_0.1	0.1	0.1	Area 2B	3/09/2021	ND			0.47	<0.05	<0.05	0.21	<0.05	0.2	<0.05	0.34	18	18.81	0.21	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	19.22				
BH13_0.1	0.1	0.1	Area 1	3/09/2021	ND			<0.05	<0.05	<0.05	0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.1				
BH14_0.1	0.1	0.1	Area 1	3/09/2021	ND			<0.05	<0.05	0.15	9.15	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	9.15				
BH14_0.3	0.3	0.3	Area 1	3/09/2021				<0.05	<0.05	<0.05	0.91	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	0.91	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.91				
BH14_0.5	0.5	0.5	Area 1	3/09/2021				<0.05	<0.05	<0.05	0.24	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	0.24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.24				
BH15_0.1	0.1	0.1	Area 1	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.05	0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	0.1				
BH15_0.3	0.3	0.3	Area 1	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH15_0.5	0.5	0.5	Area 1	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH16_0.1	0.1	0.1	Area 4B	3/09/2021	ND			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1				
BH16_0.3	0.3	0.3	Area 4B	3/09/2021				<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<																					

DVA Greenslopes Soil Data

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DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Organophosphate Pesticides																															
					Azinophos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Counaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Ethyl parathion	Fenitrothion	Fensulfotion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Onethoate	Phorate	Pyrimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																																				
SS01	0	0.1	Area 2B	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SS02	0	0.1	Area 1	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SS03	0	0.1	Area 2A	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SS04	0	0.1	Area 2A	16/07/2013	<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		<0.5		<0.2			<0.2			<0.2	<0.2	
SA01/A01	0	0.1	Area 2A	25/09/2013																																
SA02/A02	0	0.1	Area 2A	25/09/2013																																
SA03/A03	0	0.1	Area 2A	25/09/2013																																
SA04/A04	0	0.1	Area 2A	25/09/2013																																
SA05/A05	0	0.1	Area 2B	25/09/2013																																
SA06/A06	0	0.1	Area 2B	25/09/2013																																
SA06/A06	0.3	0.4	Area 2B	25/09/2013																																
SA07/A07	0	0.1	Area 2B	25/09/2013																																
SA08/A08	0	0.1	Area 2B	25/09/2013																																
SA09/A09	0	0.1	Area 1	25/09/2013																																
SA10/A10	0	0.1	Area 1	25/09/2013																																
SA11/A11	0	0.1	Area 1	25/09/2013																																
SA13/A13	0	0.1	Area 1	25/09/2013																																
Main Hall (under building)	0	0	Area 2B	25/09/2013																																
Accommodation Building (under building)	0	0	Area 1	25/09/2013																																
Unsealed External Areas	0	0.01		25/09/2013																																
A01, A04, A10	0.15	0.15		25/09/2013																																
A06, A10	0.15	0.15		25/09/2013																																
HA01	0	0.1	Area 2B	25/09/2013																																
HA02	0	0.1	Area 3	25/09/2013																																
HA03	0	0.1	Area 3	25/09/2013																																
HA04	0	0.1	Area 2B	25/09/2013																																
HA05	0	0.1	Area 2B	25/09/2013																																
QC01 (DUP HA05)	0	0.1	Area 2B	26/09/2013																																
QC01A (TRIP HA05)	0	0.1	Area 2B	26/09/2013																																
HA06/SA11	0	0.1	Area 2A	25/09/2013																																
HA07/SA12	0	0.1	Area 1	25/09/2013																																
HA08/SA13	0	0.1	Area 1	25/09/2013																																
HA09	0	0.2	Area 1	25/09/2013																																
HA10	0	0.2	Area 1	25/09/2013																																
HA11	0	0.1	Area 2B	25/09/2013																																
1-0.0	0	0.1	Area 2B	1/10/2019																																
1-0.3	0.3	0.3	Area 2B	1/10/2019																																

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Organophosphate Pesticides																																
					Azinophos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Ethyl parathion	Fenitrothion	Fensulfthion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Trichloronate
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																																					
2-0.0	0	0.1	Area 3	1/10/2019																																	
QC01 (DUP 2-0.0)	0	0.1	Area 3	1/10/2019																																	
QC02 (TRIP 2-0.0)	0	0.1	Area 3	1/10/2019																																	
2-0.3	0.3	0.3	Area 3	1/10/2019																																	
QC03 (DUP 2-0.3)	0.3	0.3	Area 3	1/10/2019																																	
QC04 (TRIP 2-0.3)	0.3	0.3	Area 3	1/10/2019																																	
3-0.0	0	0.1	Area 2B	1/10/2019																																	
3-0.35	0.35	0.35	Area 2B	1/10/2019																																	
4-0.0	0	0.1	Area 2B	1/10/2019																																	
4-0.35	0.35	0.35	Area 2B	1/10/2019																																	
5-0.0	0	0.1	Area 2B	1/10/2019																																	
5-0.35	0.35	0.35	Area 2B	1/10/2019																																	
6-0.0	0	0.1	Area 3	1/10/2019																																	
6-0.45	0.45	0.45	Area 3	1/10/2019																																	
6P-0.0 (HA02)	0	0.1	Area 2B	1/10/2019																																	
6P-0.3 (HA02)	0.3	0.3	Area 2B	1/10/2019																																	
7-0.0	0	0.1	Area 3	1/10/2019																																	
7-0.45	0.45	0.45	Area 3	1/10/2019																																	
7P-0.0 (HA03)	0	0.1	Area 3	1/10/2019																																	
7P-0.25 (HA03)	0.25	0.25	Area 3	1/10/2019																																	
8-0.0	0	0	Area 1	1/10/2019																																	
8-0.42	0.42	0.42	Area 1	1/10/2019																																	
9-0.0	0	0.1	Area 1	1/10/2019																																	
9-0.42	0.42	0.42	Area 1	1/10/2019																																	
9P-0.0 (HA09)	0	0.1	Area 1	1/10/2019																																	
9P-0.45 (HA09)	0.45	0.45	Area 1	1/10/2019																																	
10-0.0	0	0.1	Area 1	1/10/2019																																	
10-0.45	0.45	0.45	Area 1	1/10/2019																																	
11-0.0	0	0.1	Area 1	1/10/2019																																	
11-0.45	0.45	0.45	Area 1	1/10/2019																																	
12-0.0	0	0.1	Area 1	1/10/2019																																	
12-0.25	0.25	0.25	Area 1	1/10/2019																																	
13P-0.0 (HA07)	0	0.1	Area 1	1/10/2019																																	
13P-0.2 (HA07)	0.2	0.2	Area 1	1/10/2019																																	
14-0.0	0	0.1	Area 1	1/10/2019																																	
14-0.45	0.45	0.45	Area 1	1/10/2019																																	
14P-0.0 (HA10)	0	0.1	Area 1	1/10/2019																																	

DVA Greenslopes Soil Data

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					Azinophos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Ethyl parathion	Fenitrothion	Fensulfthion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Trichloronate	Tokuthion	
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																																							
QC07 (DUP 14P-0.0)	0	0.1	Area 1	1/10/2019																																			
QC08 (TRIP 14P-0.0)	0	0.1	Area 1	1/10/2019																																			
14P-0.42 (HA10)	0.42	0.42	Area 1	1/10/2019																																			
QC09 (DUP 14P-0.42)	0	0.1	Area 2B	1/10/2019																																			
QC10 (TRIP 14P-0.42)	0	0.1	Area 2B	1/10/2019																																			
15-0.0	0	0.1	Area 1	1/10/2019																																			
16-0.0	0	0.1	Area 1	1/10/2019																																			
16-0.45	0.45	0.45	Area 1	1/10/2019																																			
17-0.0	0	0.1	Area 2B	1/10/2019																																			
17-0.25	0.25	0.25	Area 2B	1/10/2019																																			
18-0.0	0	0.1	Area 2B	1/10/2019																																			
18-0.2	0.2	0.2	Area 2B	1/10/2019																																			
32-0.0	0	0.1	Area 2B	1/10/2019																																			
34-0.0	0	0.1	Area 2B	1/10/2019																																			
36-0.0	0	0.1	Area 2B	1/10/2019																																			
BH01_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH02_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH03_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH04_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH05_0.1	0.1	0.1	Area 4A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH06_0.1	0.1	0.1	Area 4B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BH06_0.3	0.3	0.3	Area 4B	3/09/2021																																			
BH06_0.5	0.5	0.5	Area 4B	3/09/2021																																			
BH07_0.1	0.1	0.1	Area 4B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH07_0.3	0.3	0.3	Area 4B	3/09/2021																																			
BH08_0.1	0.1	0.1	Area 4B	3/09/2021																																			
BH08_0.3	0.3	0.3	Area 1	3/09/2021																																			
BH12_0.1	0.1	0.1	Area 2B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH13_0.1	0.1	0.1	Area 1	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH14_0.1	0.1	0.1	Area 1	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
BH14_0.3	0.3	0.3	Area 1	3/09/2021																																			

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Organophosphate Pesticides																																					
					Azinophos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Ethyl parathion	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pririmphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Trichloronate	Tokuthion				
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																																										
BH16_0.5	0.5	0.5	Area 4B	3/09/2021																																						
BH17_0.1	0.1	0.1	Area 2B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<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
BH17_0.3	0.3	0.3	Area 2B	3/09/2021																																						
QC09_210903 (DUP BH17_0.3)	0.3	0.3	Area 2B	3/09/2021																																						
QC10_210903 (TRIP BH17_0.3)	0.3	0.3	Area 2B	3/09/2021																																						
BH17_0.5	0.5	0.5	Area 2B	3/09/2021																																						
BH18_0.1	0.1	0.1	Area 2B	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<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
BH18_0.3	0.3	0.3	Area 2B	3/09/2021																																						
BH18_0.5	0.5	0.5	Area 2B	3/09/2021																																						
BH19_0.1	0.1	0.1	Area 2B	3/09/2021																																						
BH19_0.3	0.3	0.3	Area 2B	3/09/2021																																						
QC01_210903 (DUP BH19_0.3)	0.3	0.3	Area 2B	3/09/2021																																						
QC02_210903 (TRIP BH19_0.3)	0.3	0.3	Area 2B	3/09/2021																																						
BH19_0.5	0.5	0.5	Area 2B	3/09/2021																																						
BH20_0.1	0.1	0.1	Area 2A	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<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
BH20_0.3	0.3	0.3	Area 2A	3/09/2021																																						
BH20_0.5	0.5	0.5	Area 2A	3/09/2021																																						
BH21_0.1	0.1	0.1	Area 1	3/09/2021	<0.2	<0.2	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<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
BH21_0.3	0.3	0.3	Area 1	3/09/2021																																						
BH21_0.5	0.5	0.5	Area 1	3/09/2021																																						
SLAG-1	SLAG-1	SLAG-1	SLAG	3/09/2021																																						
SLAG-2	SLAG-2	SLAG-2	SLAG	3/09/2021																																						
BH01_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																																						
BH03_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																																						
BH05_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																																						
BH06_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																																						
BH07_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																																						
BH08_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																																						
BH09_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																						
BH10_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																						
BH11_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																						
BH21_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																																						

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Polyaromatic Hydrocarbons (PAH)																	Metals									
					Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	PAHs (Sum of total)	Phenanthrene	Pyrene	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																							100	10	100	4000	100		100	10000	
SS01	0	0.1	Area 2B	16/07/2013	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	32	0.7	54	21	39	<0.1	35	760
SS02	0	0.1	Area 1	16/07/2013	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10	1.4	12	27	100	<0.1	8.4	2000
SS03	0	0.1	Area 2A	16/07/2013	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	16	0.4	42	20	75	<0.1	18	190
SS04	0	0.1	Area 2A	16/07/2013	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10	0.6	22	33	72	<0.1	11	250
SA01/A01	0	0.1	Area 2A	25/09/2013																											
SA02/A02	0	0.1	Area 2A	25/09/2013																											
SA03/A03	0	0.1	Area 2A	25/09/2013																											
SA04/A04	0	0.1	Area 2A	25/09/2013																											
SA05/A05	0	0.1	Area 2B	25/09/2013																											
SA06/A06	0	0.1	Area 2B	25/09/2013																											
SA06/A06	0.3	0.4	Area 2B	25/09/2013																											
SA07/A07	0	0.1	Area 2B	25/09/2013																											
SA08/A08	0	0.1	Area 2B	25/09/2013																											
SA09/A09	0	0.1	Area 1	25/09/2013																											
SA10/A10	0	0.1	Area 1	25/09/2013																											
SA11/A11	0	0.1	Area 1	25/09/2013																											
SA13/A13	0	0.1	Area 1	25/09/2013																											
Main Hall (under building)	0	0	Area 2B	25/09/2013																											
Accomodation Building (under building)	0	0	Area 1	25/09/2013																											
Unsealed External Areas	0	0.01		25/09/2013																											
A01, A04, A10	0.15	0.15		25/09/2013																											
A06, A10	0.15	0.15		25/09/2013																											
HA01	0	0.1	Area 2B	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	< 0.4	39	8.1	7.3	< 0.1	20	64
HA02	0	0.1	Area 3	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	< 0.4	44	6.4	15	< 0.1	24	44
HA03	0	0.1	Area 3	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	< 0.4	69	12	27	< 0.1	25	92
HA04	0	0.1	Area 2B	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	< 0.4	54	11	14	< 0.1	16	26
HA05	0	0.1	Area 2B	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	< 0.4	66	9.2	10	< 0.1	19	45
QC01 (DUP HA05)	0	0.1	Area 2B	26/09/2013																				21	< 0.4	73	10	16	< 0.1	20	54
QC01A (TRIP HA05)	0	0.1	Area 2B	26/09/2013																				11	< 0.4	90	12	20	< 0.1	27	74
HA06/SA11	0	0.1	Area 2A	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	< 0.4	88	9.3	13	< 0.1	19	41
HA07/SA12	0	0.1	Area 1	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	< 0.4	43	13	63	< 0.1	15	140
HA08/SA13	0	0.1	Area 1	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	< 0.4	39	14	50	< 0.1	11	72
HA09	0	0.2	Area 1	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	< 0.4	25	24	120	0.1	8.8	380
HA10	0	0.2	Area 1	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	< 0.4	22	19	120	< 0.1	8.7	330
HA11	0	0.1	Area 2B	25/09/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	< 0.4	50	15	140	< 0.1	13	450
1-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-0.3	0.3	0.3	Area 2B	1/10/2019																											

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Polyaromatic Hydrocarbons (PAH)																		Metals								
					Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	PAHs (Sum of total)	Phenanthrene	Pyrene	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																							100	10	100	4000	100		100	10000	
2-0.0	0	0.1	Area 3	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01 (DUP 2-0.0)	0	0.1	Area 3	1/10/2019																											
QC02 (TRIP 2-0.0)	0	0.1	Area 3	1/10/2019																											
2-0.3	0.3	0.3	Area 3	1/10/2019																											
QC03 (DUP 2-0.3)	0.3	0.3	Area 3	1/10/2019																											
QC04 (TRIP 2-0.3)	0.3	0.3	Area 3	1/10/2019																											
3-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-0.35	0.35	0.35	Area 2B	1/10/2019																											
4-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-0.35	0.35	0.35	Area 2B	1/10/2019																											
5-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5-0.35	0.35	0.35	Area 2B	1/10/2019																											
6-0.0	0	0.1	Area 3	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6-0.45	0.45	0.45	Area 3	1/10/2019	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.1	<0.4	<5	11	32	<0.1	5.8	72
6P-0.0 (HA02)	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6P-0.3 (HA02)	0.3	0.3	Area 2B	1/10/2019																											
7-0.0	0	0.1	Area 3	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7-0.45	0.45	0.45	Area 3	1/10/2019	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.6	<0.4	<5	12	19	<0.1	5.8	51
7P-0.0 (HA03)	0	0.1	Area 3	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7P-0.25 (HA03)	0.25	0.25	Area 3	1/10/2019																											
8-0.0	0	0	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8-0.42	0.42	0.42	Area 1	1/10/2019																											
9-0.0	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9-0.42	0.42	0.42	Area 1	1/10/2019																											
9P-0.0 (HA09)	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9P-0.45 (HA09)	0.45	0.45	Area 1	1/10/2019																											
10-0.0	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-0.45	0.45	0.45	Area 1	1/10/2019																											
11-0.0	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-0.45	0.45	0.45	Area 1	1/10/2019																											
12-0.0	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-0.25	0.25	0.25	Area 1	1/10/2019																											
13P-0.0 (HA07)	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13P-0.2 (HA07)	0.2	0.2	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-0.0	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-0.45	0.45	0.45	Area 1	1/10/2019																											
14P-0.0 (HA10)	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Polyaromatic Hydrocarbons (PAH)																	Metals										
					Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+g)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	PAHs (Sum of total)	Phenanthrene	Pyrene	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																							100	10	100	4000	100		100	10000		
QC07 (DUP 14P-0.0)	0	0.1	Area 1	1/10/2019																												
QC08 (TRIP 14P-0.0)	0	0.1	Area 1	1/10/2019																												
14P-0.42 (HA10)	0.42	0.42	Area 1	1/10/2019																												
QC09 (DUP 14P-0.42)	0	0.1	Area 2B	1/10/2019																												
QC10 (TRIP 14P-0.42)	0	0.1	Area 2B	1/10/2019																												
15-0.0	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16-0.0	0	0.1	Area 1	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16-0.45	0.45	0.45	Area 1	1/10/2019																												
17-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17-0.25	0.25	0.25	Area 2B	1/10/2019																												
18-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18-0.2	0.2	0.2	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36-0.0	0	0.1	Area 2B	1/10/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH01_0.1	0.1	0.1	Area 4A	3/09/2021																				<2	<0.4	45	6.1	5.6	<0.1	22	22	
BH02_0.1	0.1	0.1	Area 4A	3/09/2021																				<2	<0.4	37	<5	<5	<0.1	18	16	
BH03_0.1	0.1	0.1	Area 4A	3/09/2021																				6.5	<0.4	70	6.6	40	<0.1	22	29	
BH04_0.1	0.1	0.1	Area 4A	3/09/2021																				3.4	<0.4	49	<5	<5	<0.1	9.2	16	
BH05_0.1	0.1	0.1	Area 4A	3/09/2021																				12	<0.4	75	7.1	5.5	<0.1	14	19	
BH06_0.1	0.1	0.1	Area 4B	3/09/2021																				4.6	<0.4	5.6	6.4	6.6	<0.1	<5	19	
BH06_0.3	0.3	0.3	Area 4B	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.7	<0.4	13	5.9	11	<0.1	<5	24	
BH06_0.5	0.5	0.5	Area 4B	3/09/2021																				8.8	<0.4	150	21	<5	<0.1	45	27	
BH07_0.1	0.1	0.1	Area 4B	3/09/2021																				7	<0.4	5.6	7.4	6.6	<0.1	<5	19	
BH07_0.3	0.3	0.3	Area 4B	3/09/2021																				8.7	<0.4	170	10	6.7	<0.1	30	32	
BH08_0.1	0.1	0.1	Area 4B	3/09/2021																				4.6	<0.4	100	6.7	<5	<0.1	15	14	
BH08_0.3	0.3	0.3	Area 1	3/09/2021																				3.7	<0.4	110	11	<5	<0.1	26	20	
BH12_0.1	0.1	0.1	Area 2B	3/09/2021																				6.4	0.9	79	21	54	<0.1	66	160	
BH13_0.1	0.1	0.1	Area 1	3/09/2021																				10	0.5	73	30	110	<0.1	25	250	
BH14_0.1	0.1	0.1	Area 1	3/09/2021																				7.7	<0.4	16	13	120	<0.1	6.9	210	
BH14_0.3	0.3	0.3	Area 1	3/09/2021																				6.1	<0.4	6.7	7.8	33	<0.1	<5	48	
BH14_0.5	0.5	0.5	Area 1	3/09/2021																				2.1	<0.4	59	6.7	6.7	<0.1	17	20	
BH15_0.1	0.1	0.1	Area 1	3/09/2021																				7.3	<0.4	32	25	160	<0.1	13	250	
BH15_0.3	0.3	0.3	Area 1	3/09/2021																				6.7	<0.4	67	8.6	9.8	<0.1	14	26	
BH15_0.5	0.5	0.5	Area 1	3/09/2021																				6.8	<0.4	66	11	<5	<0.1	15	18	
BH16_0.1	0.1	0.1	Area 4B	3/09/2021																				19	<0.4	30	20	160	<0.1	9.5	320	
BH16_0.3	0.3	0.3	Area 4B	3/09/2021																				11	<0.4	79	12	47	<0.1	21	53	

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	Polyaromatic Hydrocarbons (PAH)																		Metals									
					Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	PAHs (Sum of total)	Phenanthrene	Pyrene	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																							100	10	100	4000	100		100	10000		
BH16_0.5	0.5	0.5	Area 4B	3/09/2021																					12	<0.4	150	20	9.7	<0.1	45	43
BH17_0.1	0.1	0.1	Area 2B	3/09/2021																					4.1	<0.4	45	20	65	<0.1	21	75
BH17_0.3	0.3	0.3	Area 2B	3/09/2021																					3.1	<0.4	8.9	23	75	<0.1	5.1	130
QC09_210903 (DUP BH17_0.3)	0.3	0.3	Area 2B	3/09/2021																					4	<0.4	8.9	15	78	<0.1	<5	120
QC10_210903 (TRIP BH17_0.3)	0.3	0.3	Area 2B	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	6	74	87	<0.1	9	131	
BH17_0.5	0.5	0.5	Area 2B	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.4	<5	16	8	<0.1	<5	14	
BH18_0.1	0.1	0.1	Area 2B	3/09/2021																					5	<0.4	51	18	37	<0.1	25	79
BH18_0.3	0.3	0.3	Area 2B	3/09/2021																					<2	<0.4	24	22	29	<0.1	15	39
BH18_0.5	0.5	0.5	Area 2B	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	23	<0.4	39	14	27	<0.1	14	31	
BH19_0.1	0.1	0.1	Area 2B	3/09/2021																					5.5	<0.4	21	19	76	<0.1	9.4	97
BH19_0.3	0.3	0.3	Area 2B	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.5	<0.4	53	25	110	<0.1	20	100	
QC01_210903 (DUP BH19_0.3)	0.3	0.3	Area 2B	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.6	<0.4	39	15	65	<0.1	9.7	62	
QC02_210903 (TRIP BH19_0.3)	0.3	0.3	Area 2B	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	16	14	86	<0.1	8	64		
BH19_0.5	0.5	0.5	Area 2B	3/09/2021																					2.2	<0.4	73	7.6	11	<0.1	14	21
BH20_0.1	0.1	0.1	Area 2A	3/09/2021																					3.3	<0.4	48	32	68	<0.1	9.9	88
BH20_0.3	0.3	0.3	Area 2A	3/09/2021																					3.4	<0.4	72	20	20	<0.1	22	39
BH20_0.5	0.5	0.5	Area 2A	3/09/2021																					3.2	<0.4	100	18	<5	<0.1	41	27
BH21_0.1	0.1	0.1	Area 1	3/09/2021																					<2	<0.4	7.8	<5	8.5	<0.1	<5	31
BH21_0.3	0.3	0.3	Area 1	3/09/2021																					12	<0.4	170	30	120	<0.1	61	160
BH21_0.5	0.5	0.5	Area 1	3/09/2021																					11	<0.4	180	28	<5	<0.1	84	34
SLAG-1	SLAG-1	SLAG-1	SLAG	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.4	<5	<5	10	<0.1	<5	19	
SLAG-2	SLAG-2	SLAG-2	SLAG	3/09/2021	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.4	<5	<5	<5	<0.1	<5	<5	
BH01_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																												
BH03_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																												
BH05_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021																												
BH06_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																												
BH07_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																												
BH08_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021																												
BH09_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																												
BH10_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																												
BH11_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																												
BH21_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021																												

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	TRH				BTEX							Other	
					C6-C10	C10-C16	C16-C34	C34-C40	Benzene	Toluene	Ethyl benzene	Xylene (m & p)	Xylene (o)	Xylenes	Total BTEX	CEC	pH
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																	
SS01	0	0.1	Area 2B	16/07/2013	<20	<50	<100	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3			
SS02	0	0.1	Area 1	16/07/2013	<20	<50	<100	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3			
SS03	0	0.1	Area 2A	16/07/2013	<20	<50	<100	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3			
SS04	0	0.1	Area 2A	16/07/2013	<20	<50	260	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3			
SA01/A01	0	0.1	Area 2A	25/09/2013													
SA02/A02	0	0.1	Area 2A	25/09/2013													
SA03/A03	0	0.1	Area 2A	25/09/2013													
SA04/A04	0	0.1	Area 2A	25/09/2013													
SA05/A05	0	0.1	Area 2B	25/09/2013													
SA06/A06	0	0.1	Area 2B	25/09/2013													
SA06/A06	0.3	0.4	Area 2B	25/09/2013													
SA07/A07	0	0.1	Area 2B	25/09/2013													
SA08/A08	0	0.1	Area 2B	25/09/2013													
SA09/A09	0	0.1	Area 1	25/09/2013													
SA10/A10	0	0.1	Area 1	25/09/2013													
SA11/A11	0	0.1	Area 1	25/09/2013													
SA13/A13	0	0.1	Area 1	25/09/2013													
Main Hall (under building)	0	0	Area 2B	25/09/2013													
Accommodation Building (under building)	0	0	Area 1	25/09/2013													
Unsealed External Areas	0	0.01		25/09/2013													
A01, A04, A10	0.15	0.15		25/09/2013													
A06, A10	0.15	0.15		25/09/2013													
HA01	0	0.1	Area 2B	25/09/2013													
HA02	0	0.1	Area 3	25/09/2013													
HA03	0	0.1	Area 3	25/09/2013													
HA04	0	0.1	Area 2B	25/09/2013													
HA05	0	0.1	Area 2B	25/09/2013													
QC01 (DUP HA05)	0	0.1	Area 2B	26/09/2013													
QC01A (TRIP HA05)	0	0.1	Area 2B	26/09/2013													
HA06/SA11	0	0.1	Area 2A	25/09/2013													
HA07/SA12	0	0.1	Area 1	25/09/2013												30	5.8
HA08/SA13	0	0.1	Area 1	25/09/2013													
HA09	0	0.2	Area 1	25/09/2013													
HA10	0	0.2	Area 1	25/09/2013													
HA11	0	0.1	Area 2B	25/09/2013												25	6.3
1-0.0	0	0.1	Area 2B	1/10/2019													
1-0.3	0.3	0.3	Area 2B	1/10/2019													

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	TRH				BTEX							Other	
					C6-C10	C10-C16	C16-C34	C34-C40	Benzene	Toluene	Ethyl benzene	Xylene (m & p)	Xylene (o)	Xylenes	Total BTEX	CEC	pH
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																	
2-0.0	0	0.1	Area 3	1/10/2019													
QC01 (DUP 2-0.0)	0	0.1	Area 3	1/10/2019													
QC02 (TRIP 2-0.0)	0	0.1	Area 3	1/10/2019													
2-0.3	0.3	0.3	Area 3	1/10/2019													
QC03 (DUP 2-0.3)	0.3	0.3	Area 3	1/10/2019													
QC04 (TRIP 2-0.3)	0.3	0.3	Area 3	1/10/2019													
3-0.0	0	0.1	Area 2B	1/10/2019													
3-0.35	0.35	0.35	Area 2B	1/10/2019													
4-0.0	0	0.1	Area 2B	1/10/2019													
4-0.35	0.35	0.35	Area 2B	1/10/2019													
5-0.0	0	0.1	Area 2B	1/10/2019													
5-0.35	0.35	0.35	Area 2B	1/10/2019													
6-0.0	0	0.1	Area 3	1/10/2019													
6-0.45	0.45	0.45	Area 3	1/10/2019													
6P-0.0 (HA02)	0	0.1	Area 2B	1/10/2019													
6P-0.3 (HA02)	0.3	0.3	Area 2B	1/10/2019													
7-0.0	0	0.1	Area 3	1/10/2019													
7-0.45	0.45	0.45	Area 3	1/10/2019													
7P-0.0 (HA03)	0	0.1	Area 3	1/10/2019													
7P-0.25 (HA03)	0.25	0.25	Area 3	1/10/2019													
8-0.0	0	0	Area 1	1/10/2019													
8-0.42	0.42	0.42	Area 1	1/10/2019													
9-0.0	0	0.1	Area 1	1/10/2019													
9-0.42	0.42	0.42	Area 1	1/10/2019													
9P-0.0 (HA09)	0	0.1	Area 1	1/10/2019													
9P-0.45 (HA09)	0.45	0.45	Area 1	1/10/2019													
10-0.0	0	0.1	Area 1	1/10/2019													
10-0.45	0.45	0.45	Area 1	1/10/2019													
11-0.0	0	0.1	Area 1	1/10/2019													
11-0.45	0.45	0.45	Area 1	1/10/2019													
12-0.0	0	0.1	Area 1	1/10/2019													
12-0.25	0.25	0.25	Area 1	1/10/2019													
13P-0.0 (HA07)	0	0.1	Area 1	1/10/2019													
13P-0.2 (HA07)	0.2	0.2	Area 1	1/10/2019													
14-0.0	0	0.1	Area 1	1/10/2019													
14-0.45	0.45	0.45	Area 1	1/10/2019													
14P-0.0 (HA10)	0	0.1	Area 1	1/10/2019													

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	TRH				BTEX							Other	
					C6-C10	C10-C16	C16-C34	C34-C40	Benzene	Toluene	Ethyl benzene	Xylene (m & p)	Xylene (o)	Xylenes	Total BTEX	CEC	pH
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																	
QC07 (DUP 14P-0.0)	0	0.1	Area 1	1/10/2019													
QC08 (TRIP 14P-0.0)	0	0.1	Area 1	1/10/2019													
14P-0.42 (HA10)	0.42	0.42	Area 1	1/10/2019													
QC09 (DUP 14P-0.42)	0	0.1	Area 2B	1/10/2019													
QC10 (TRIP 14P-0.42)	0	0.1	Area 2B	1/10/2019													
15-0.0	0	0.1	Area 1	1/10/2019													
16-0.0	0	0.1	Area 1	1/10/2019													
16-0.45	0.45	0.45	Area 1	1/10/2019													
17-0.0	0	0.1	Area 2B	1/10/2019													
17-0.25	0.25	0.25	Area 2B	1/10/2019													
18-0.0	0	0.1	Area 2B	1/10/2019													
18-0.2	0.2	0.2	Area 2B	1/10/2019													
32-0.0	0	0.1	Area 2B	1/10/2019													
34-0.0	0	0.1	Area 2B	1/10/2019													
36-0.0	0	0.1	Area 2B	1/10/2019													
BH01_0.1	0.1	0.1	Area 4A	3/09/2021													
BH02_0.1	0.1	0.1	Area 4A	3/09/2021													
BH03_0.1	0.1	0.1	Area 4A	3/09/2021													
BH04_0.1	0.1	0.1	Area 4A	3/09/2021													
BH05_0.1	0.1	0.1	Area 4A	3/09/2021													
BH06_0.1	0.1	0.1	Area 4B	3/09/2021													
BH06_0.3	0.3	0.3	Area 4B	3/09/2021													
BH06_0.5	0.5	0.5	Area 4B	3/09/2021													
BH07_0.1	0.1	0.1	Area 4B	3/09/2021													
BH07_0.3	0.3	0.3	Area 4B	3/09/2021													
BH08_0.1	0.1	0.1	Area 4B	3/09/2021													
BH08_0.3	0.3	0.3	Area 1	3/09/2021													
BH12_0.1	0.1	0.1	Area 2B	3/09/2021													
BH13_0.1	0.1	0.1	Area 1	3/09/2021													
BH14_0.1	0.1	0.1	Area 1	3/09/2021													
BH14_0.3	0.3	0.3	Area 1	3/09/2021													
BH14_0.5	0.5	0.5	Area 1	3/09/2021													
BH15_0.1	0.1	0.1	Area 1	3/09/2021													
BH15_0.3	0.3	0.3	Area 1	3/09/2021													
BH15_0.5	0.5	0.5	Area 1	3/09/2021													
BH16_0.1	0.1	0.1	Area 4B	3/09/2021													
BH16_0.3	0.3	0.3	Area 4B	3/09/2021													

DVA Greenslopes Soil Data

SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Area	Sampled_Date	TRH				BTEX							Other	
					C6-C10	C10-C16	C16-C34	C34-C40	Benzene	Toluene	Ethyl benzene	Xylene (m & p)	Xylene (o)	Xylenes	Total BTEX	CEC	pH
Units	-	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA																	
BH16_0.5	0.5	0.5	Area 4B	3/09/2021													
BH17_0.1	0.1	0.1	Area 2B	3/09/2021													
BH17_0.3	0.3	0.3	Area 2B	3/09/2021													
QC09_210903 (DUP BH17_0.3)	0.3	0.3	Area 2B	3/09/2021													
QC10_210903 (TRIP BH17_0.3)	0.3	0.3	Area 2B	3/09/2021													
BH17_0.5	0.5	0.5	Area 2B	3/09/2021													
BH18_0.1	0.1	0.1	Area 2B	3/09/2021													
BH18_0.3	0.3	0.3	Area 2B	3/09/2021													
BH18_0.5	0.5	0.5	Area 2B	3/09/2021													
BH19_0.1	0.1	0.1	Area 2B	3/09/2021													
BH19_0.3	0.3	0.3	Area 2B	3/09/2021													
QC01_210903 (DUP BH19_0.3)	0.3	0.3	Area 2B	3/09/2021													
QC02_210903 (TRIP BH19_0.3)	0.3	0.3	Area 2B	3/09/2021													
BH19_0.5	0.5	0.5	Area 2B	3/09/2021													
BH20_0.1	0.1	0.1	Area 2A	3/09/2021													
BH20_0.3	0.3	0.3	Area 2A	3/09/2021													
BH20_0.5	0.5	0.5	Area 2A	3/09/2021													
BH21_0.1	0.1	0.1	Area 1	3/09/2021													
BH21_0.3	0.3	0.3	Area 1	3/09/2021													
BH21_0.5	0.5	0.5	Area 1	3/09/2021													
SLAG-1	SLAG-1	SLAG-1	SLAG	3/09/2021													
SLAG-2	SLAG-2	SLAG-2	SLAG	3/09/2021													
BH01_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021													
BH03_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021													
BH05_CONCRETE	CONCRETE	CONCRETE	Area 4A	3/09/2021													
BH06_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021													
BH07_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021													
BH08_CONCRETE	CONCRETE	CONCRETE	Area 4B	3/09/2021													
BH09_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021													
BH10_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021													
BH11_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021													
BH21_CONCRETE	CONCRETE	CONCRETE	Area 1	3/09/2021													

DVA Greenslopes Soil Data - TCLP


SAMPLE ID	Sample Depth (m)	Sample Depth (m)	Sampled_Date	Organochlorine Pesticides																					Metals						
				4,4'-DDD	4,4'-DDE	4,4'-DDT	a-HCH	Aldrin	Aldrin + Dieldrin	b-HCH	Chlordane - Total	DDT + DDE + DDD	d-HCH	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-HCH (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Vic EPA IWRG 621 OCP (Total)*	Vic EPA IWRG 621 Other OCP (Total)*	Chromium	Lead	Zinc
Units	-	-	-	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
SYNTHETICALLY LINED LANDFILL DISPOSAL CRITERIA						2		0.03			0.1			0.03				0.03		2	0.03			30	0.05			5	5	500	
BH06_0.5	0.5																										< 0.01				
BH07_0.3	0.3																										< 0.01				
BH08_0.3	0.3																										< 0.01				
BH13_0.1	0.1																											0.11	0.9		
BH14_0.1	0.1			<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.005	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005		0.1	1.1	
BH14_0.3	0.3			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005				
BH15_0.1	0.1																											0.07	0.66		
BH16_0.1	0.1																											0.12	0.84		
BH16_0.5	0.5																										< 0.01				
BH19_0.3	0.3																											0.03	0.25		
BH21_0.1	0.1			<0.001	<0.001	<0.001	<0.001	0.002	0.006	<0.001	<0.005	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.005	0.006	<0.005				
BH21_0.3	0.3			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	< 0.01	< 0.01	0.06	
BH21_0.5	0.5																										< 0.01				
BH21_CONCRETE	CONCRETE			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005				
6P-0.0 (HA02)	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
7P-0.0 (HA03)	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
8-0.0	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.005	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
9-0.0	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001	<0.005	<0.001	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	0.01	<0.005			
9P-0.0 (HA09)	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.005	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
10-0.0	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.005	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
11-0.0	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.02	<0.001	<0.005	<0.001	<0.001	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	0.02	<0.005			
13P-0.0 (HA07)	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
14P-0.0 (HA10)	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.005	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
15-0.0	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.005	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			
34-0.0	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.012	<0.001	<0.005	<0.001	<0.001	0.012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	0.012	<0.005			
36-0.0	0	0	1/10/2019	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.005	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005			

APPENDIX D: LABORATORY REPORTS

Project ID: 754-BNEEN282781 DVA Greenslopes
Site: 114 Newdegate Street Greenslopes

Contact: Jeremy Wicks	Quote No: Coffey	Comments:
Office: 12 Creek Street Brisbane QLD 4000	Results Required: 9/13/2021	QC02_210903 and QC10_210903 to be sent to ALS for Analysis.
Email: jeremy.wicks@coffey.com	Report Format: Email	Wash soil material from concrete core prior to crushing/analysis
Phone: 0435 956 733	Turn Around: Standard turnaround	

SAMPLE INFORMATION					CONTAINER					ANALYTICAL REQUIREMENTS															
LAB ID	Sample ID	Matrix Type S: Soil W: Water	Date	Time	Type / Code	Total Bottles	US 8-Metals As, Cd, Cr, Cu, Pb, Ni, Zn	OC	PAH	Asbestos ID in Soil (presence/absence)	Asbestos ID in Soil (NEPM WA Guidelines)	Concrete Crush / Preparation													
	BH01_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH01_0.3	Soil	03-Sep-21		jar/ash bag	2																			
	BH01_0.5	Soil	03-Sep-21		jar/ash bag	2																			
	BH02_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH02_0.3	Soil	03-Sep-21		jar/ash bag	2																			
	BH02_0.5	Soil	03-Sep-21		jar/ash bag	2																			
	BH03_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH03_0.3	Soil	03-Sep-21		jar/ash bag	2																			
	BH03_0.5	Soil	03-Sep-21		jar/ash bag	2																			
	BH04_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH04_0.3	Soil	03-Sep-21		jar/ash bag	2																			
	BH04_0.5	Soil	03-Sep-21		jar/ash bag	2																			
	BH05_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH05_0.3	Soil	03-Sep-21		jar/ash bag	2																			
	BH05_0.5	Soil	03-Sep-21		jar/ash bag	2																			
	BH06_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH06_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x	x	x															
	BH06_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH07_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH07_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH07_0.5	Soil	03-Sep-21		jar/ash bag	2																			
	BH08_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH08_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH08_0.5	Soil	03-Sep-21		jar/ash bag	2																			
	BH12_0.1	Soil	08-Sep-21		jar/ash bag	2	x	x		x															
	BH13_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH14_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH14_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH14_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH15_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH15_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH15_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH16_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH16_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH16_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH17_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH17_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH17_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x	x																
	BH18_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH18_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH18_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x	x																
	BH19_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH19_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x	x																
	BH19_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH20_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x		x															
	BH20_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH20_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH21_0.1	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH21_0.3	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	BH21_0.5	Soil	03-Sep-21		jar/ash bag	2	x	x																	
	Slag-1	Soil	03-Sep-21		jar	1	x		x																
	Slag-2	Soil	03-Sep-21		jar	1	x		x																
	BH01_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH02_Concrete	Concrete	03-Sep-21		Bag	1																			
	BH03_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH04_Concrete	Concrete	03-Sep-21		Bag	1																			
	BH05_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH06_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH07_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH08_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH09_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH10_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH11_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	BH21_Concrete	Concrete	03-Sep-21		Bag	1		x				x													
	QC01_210903	Soil	03-Sep-21		Jar	1	x	x	x																
	QC02_210903	Soil	03-Sep-21		Jar	1	x	x	x																
	QC03_210903	Soil	03-Sep-21		Jar	1																			
	QC04_210903	Soil	03-Sep-21		Jar	1																			
	QC05_210903	Soil	03-Sep-21		Jar	1																			
	QC06_210903	Soil	03-Sep-21		Jar	1																			
	QC07_210903	Soil	03-Sep-21		Jar	1																			
	QC08_210903	Soil	03-Sep-21		Jar	1																			
	QC09_210903	Soil	03-Sep-21		Jar	1	x	x																	
	QC10_210903	Soil	03-Sep-21		Jar	1	x	x																	
	QC11_210903	Soil	03-Sep-21		Jar	1																			
	QC12_210903	Soil	03-Sep-21		Jar	1																			
	QC13_210903	Water	03-Sep-21		VIAG/P	4	x	x	x																
	QC14_210903	Water	03-Sep-21		VIAG/P	4	x	x	x																
	trip blank	Soil			Jar	1	x	x	x																
TOTAL SAMPLES							47		11	10	10														

6/9/21 3:51pm
Sarah K 

822 538

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
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Sample Receipt Advice

Company name:	Coffey Environments Pty Ltd QLD
Contact name:	Jeremy Wicks
Project name:	754-BNEEN282781 DVA GREENSLOPES
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Sep 6, 2021 3:51 PM
Eurofins reference	822538

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : .2 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✓ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

QC02 and QC10 will be sent to ALS. The sample BH02_0.3 was received labelled on the jar as BH02_1.3. The sample ID from the COC was used - please advise if this is incorrect. Additional sample "Spike 1" was received and has been placed on hold - please advise if testing is required.

Contact

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

Alana Wadsworth on phone : or by email: alanawadsworth@eurofins.com

Results will be delivered electronically via email to Jeremy Wicks - Jeremy.Wicks@coffey.com.

Note: A copy of these results will also be delivered to the general Coffey Environments Pty Ltd QLD email address.



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

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

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

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: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 822538
Phone: 07 3503 7192
Fax:

Received: Sep 6, 2021 3:51 PM
Due: Sep 13, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID									
1	BH01_0.1	Sep 03, 2021		Soil	B21-Se11788					X	X	X	X	
2	BH02_0.1	Sep 03, 2021		Soil	B21-Se11789					X	X	X	X	
3	BH03_0.1	Sep 03, 2021		Soil	B21-Se11790					X	X	X	X	
4	BH04_0.1	Sep 03, 2021		Soil	B21-Se11791					X	X	X	X	
5	BH05_0.1	Sep 03, 2021		Soil	B21-Se11792					X	X	X	X	
6	BH06_0.1	Sep 03, 2021		Soil	B21-Se11793					X	X	X	X	
7	BH06_0.3	Sep 03, 2021		Soil	B21-Se11794	X			X	X	X	X	X	
8	BH06_0.5	Sep 03, 2021		Soil	B21-Se11795					X	X	X	X	
9	BH07_0.1	Sep 03, 2021		Soil	B21-Se11796	X				X	X	X	X	
10	BH07_0.3	Sep 03, 2021		Soil	B21-Se11797					X	X	X	X	



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne
6 Monterey Road
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NATA # 1261 Site # 1254

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NATA # 1261 Site # 25079

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Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 822538
Phone: 07 3503 7192
Fax:

Received: Sep 6, 2021 3:51 PM
Due: Sep 13, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
11	BH08_0.1	Sep 03, 2021		Soil	B21-Se11798					X	X	X	X	
12	BH08_0.3	Sep 03, 2021		Soil	B21-Se11799					X	X	X	X	
13	BH12_0.1	Sep 03, 2021		Soil	B21-Se11800	X				X	X	X	X	
14	BH13_0.1	Sep 03, 2021		Soil	B21-Se11801	X				X	X	X	X	
15	BH14_0.1	Sep 03, 2021		Soil	B21-Se11802	X				X	X	X	X	
16	BH14_0.3	Sep 03, 2021		Soil	B21-Se11803					X	X	X	X	
17	BH14_0.5	Sep 03, 2021		Soil	B21-Se11804					X	X	X	X	
18	BH15_0.1	Sep 03, 2021		Soil	B21-Se11805					X	X	X	X	
19	BH15_0.3	Sep 03, 2021		Soil	B21-Se11806					X	X	X	X	
20	BH15_0.5	Sep 03, 2021		Soil	B21-Se11807					X	X	X	X	
21	BH16_0.1	Sep 03, 2021		Soil	B21-Se11808	X				X	X	X	X	



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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
22	BH16_0.3	Sep 03, 2021		Soil	B21-Se11809					X	X	X	X	
23	BH16_0.5	Sep 03, 2021		Soil	B21-Se11810					X	X	X	X	
24	BH17_0.1	Sep 03, 2021		Soil	B21-Se11811	X				X	X	X	X	
25	BH17_0.3	Sep 03, 2021		Soil	B21-Se11812					X	X	X	X	
26	BH17_0.5	Sep 03, 2021		Soil	B21-Se11813				X	X	X	X	X	
27	BH18_0.1	Sep 03, 2021		Soil	B21-Se11814	X				X	X	X	X	
28	BH18_0.3	Sep 03, 2021		Soil	B21-Se11815					X	X	X	X	
29	BH18_0.5	Sep 03, 2021		Soil	B21-Se11816				X	X	X	X	X	
30	BH19_0.1	Sep 03, 2021		Soil	B21-Se11817	X				X	X	X	X	
31	BH19_0.3	Sep 03, 2021		Soil	B21-Se11818				X	X	X	X	X	
32	BH19_0.5	Sep 03, 2021		Soil	B21-Se11819					X	X	X	X	



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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
33	BH20_0.1	Sep 03, 2021		Soil	B21-Se11820	X				X	X	X	X	
34	BH20_0.3	Sep 03, 2021		Soil	B21-Se11821					X	X	X	X	
35	BH20_0.5	Sep 03, 2021		Soil	B21-Se11822					X	X	X	X	
36	BH21_0.1	Sep 03, 2021		Soil	B21-Se11823					X	X	X	X	
37	BH21_0.3	Sep 03, 2021		Soil	B21-Se11824					X	X	X	X	
38	BH21_0.5	Sep 03, 2021		Soil	B21-Se11825					X	X	X	X	
39	SLAG-1	Sep 03, 2021		Soil	B21-Se11826				X		X	X	X	
40	SLAG-2	Sep 03, 2021		Soil	B21-Se11827				X		X	X	X	
41	BH01_CONCR ETE	Sep 03, 2021		Soil	B21-Se11828			X		X	X		X	
42	BH03_CONCR ETE	Sep 03, 2021		Soil	B21-Se11829			X		X	X		X	



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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
43	BH05_CONCR ETE	Sep 03, 2021		Soil	B21-Se11830			X		X	X		X	
44	BH06_CONCR ETE	Sep 03, 2021		Soil	B21-Se11831			X		X	X		X	
45	BH07_CONCR ETE	Sep 03, 2021		Soil	B21-Se11832			X		X	X		X	
46	BH08_CONCR ETE	Sep 03, 2021		Soil	B21-Se11833			X		X	X		X	
47	BH09_CONCR ETE	Sep 03, 2021		Soil	B21-Se11834			X		X	X		X	
48	BH10_CONCR ETE	Sep 03, 2021		Soil	B21-Se11835			X		X	X		X	
49	BH11_CONCR ETE	Sep 03, 2021		Soil	B21-Se11836			X		X	X		X	



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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
50	BH21_CONCR ETE	Sep 03, 2021		Soil	B21-Se11837			X		X	X		X	
51	QC01_210903	Sep 03, 2021		Soil	B21-Se11838				X	X	X	X	X	
52	QC09_210903	Sep 03, 2021		Soil	B21-Se11840					X	X	X	X	
53	QC13_210903	Sep 03, 2021		Water	B21-Se11842					X	X	X		
54	QC14_210903	Sep 03, 2021		Water	B21-Se11843				X	X	X	X		
55	TRIP BLANK	Sep 03, 2021		Trip Blank (solid)	B21-Se11844									X
56	BH01_0.3	Sep 03, 2021		Soil	B21-Se11845		X							
57	BH01_0.5	Sep 03, 2021		Soil	B21-Se11846		X							
58	BH02_0.3	Sep 03, 2021		Soil	B21-Se11847		X							
59	BH02_0.5	Sep 03, 2021		Soil	B21-Se11848		X							



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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
60	BH03_0.3	Sep 03, 2021		Soil	B21-Se11849		X							
61	BH03_0.5	Sep 03, 2021		Soil	B21-Se11850		X							
62	BH04_0.3	Sep 03, 2021		Soil	B21-Se11851		X							
63	BH04_0.5	Sep 03, 2021		Soil	B21-Se11852		X							
64	BH05_0.3	Sep 03, 2021		Soil	B21-Se11853		X							
65	BH05_0.5	Sep 03, 2021		Soil	B21-Se11854		X							
66	BH07_0.5	Sep 03, 2021		Soil	B21-Se11855		X							
67	BH08_0.5	Sep 03, 2021		Soil	B21-Se11856		X							
68	QC03_21093	Sep 03, 2021		Soil	B21-Se11857		X							
69	QC04_21093	Sep 03, 2021		Soil	B21-Se11858		X							
70	QC05_21093	Sep 03, 2021		Soil	B21-Se11859		X							



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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
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External Laboratory														
71	QC06_21093	Sep 03, 2021		Soil	B21-Se11860		X							
72	QC07_21093	Sep 03, 2021		Soil	B21-Se11861		X							
73	QC08_21093	Sep 03, 2021		Soil	B21-Se11862		X							
74	QC11_21093	Sep 03, 2021		Soil	B21-Se11863		X							
75	QC12_21093	Sep 03, 2021		Soil	B21-Se11864		X							
76	Spike 1	Sep 03, 2021		Soil	B21-Se12715		X							
77	BH02_CONCR ETE	Sep 03, 2021		Soil	B21-Se12727		X							
78	BH04_CONCR ETE	Sep 03, 2021		Soil	B21-Se12728		X							
Test Counts						10	23	10	8	52	54	44	52	1

Coffey Environments Pty Ltd QLD
Level 5, 12 Creek Street
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QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025—Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: Jeremy Wicks
Report 822538-AID-V2
Project Name 754-BNEEN282781 DVA GREENSLOPES
Received Date Sep 06, 2021
Date Reported Dec 20, 2021

Methodology:

Asbestos Fibre
 Identification

Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques.
NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.

Unknown Mineral
 Fibres

Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity.
NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.

Subsampling Soil
 Samples

The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed.
NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.

Bonded asbestos-
 containing material
 (ACM)

The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 4964 - 2004.
NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.

Limit of Reporting

The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w).
 The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk).
NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.

Project Name 754-BNEEN282781 DVA GREENSLOPES
Project ID
Date Sampled Sep 03, 2021
Report 822538-AID-V2

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH06_0.3	21-Se11794	Sep 03, 2021	Approximate Sample 96g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH07_0.1	21-Se11796	Sep 03, 2021	Approximate Sample 94g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH12_0.1	21-Se11800	Sep 03, 2021	Approximate Sample 59g Sample consisted of: Brown coarse-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH13_0.1	21-Se11801	Sep 03, 2021	Approximate Sample 85g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH14_0.1	21-Se11802	Sep 03, 2021	Approximate Sample 76g Sample consisted of: Brown coarse-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH16_0.1	21-Se11808	Sep 03, 2021	Approximate Sample 43g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH17_0.1	21-Se11811	Sep 03, 2021	Approximate Sample 59g Sample consisted of: Brown coarse-grained clayey sandy soil, bitumen, organic debris and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH18_0.1	21-Se11814	Sep 03, 2021	Approximate Sample 81g Sample consisted of: Brown coarse-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH19_0.1	21-Se11817	Sep 03, 2021	Approximate Sample 49g Sample consisted of: Brown coarse-grained clayey sandy soil, plaster like material, organic debris and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH20_0.1	21-Se11820	Sep 03, 2021	Approximate Sample 88g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

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
Asbestos - LTM-ASB-8020	Melbourne	Sep 07, 2021	Indefinite

Company Name:	Coffey Environments Pty Ltd QLD	Order No.:		Received:	Sep 6, 2021 3:51 PM
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		Phone:	07 3503 7192	Priority:	5 Day
		Fax:		Contact Name:	Jeremy Wicks
Project Name:	754-BNEEN282781 DVA GREENSLOPES				
Eurofins Analytical Services Manager : Alana Wadsworth					

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID									
1	BH01_0.1	Sep 03, 2021		Soil	B21-Se11788					X	X	X	X	
2	BH02_0.1	Sep 03, 2021		Soil	B21-Se11789					X	X	X	X	
3	BH03_0.1	Sep 03, 2021		Soil	B21-Se11790					X	X	X	X	
4	BH04_0.1	Sep 03, 2021		Soil	B21-Se11791					X	X	X	X	
5	BH05_0.1	Sep 03, 2021		Soil	B21-Se11792					X	X	X	X	
6	BH06_0.1	Sep 03, 2021		Soil	B21-Se11793					X	X	X	X	
7	BH06_0.3	Sep 03, 2021		Soil	B21-Se11794	X			X	X		X	X	
8	BH06_0.5	Sep 03, 2021		Soil	B21-Se11795					X		X	X	
9	BH07_0.1	Sep 03, 2021		Soil	B21-Se11796	X				X	X	X	X	
10	BH07_0.3	Sep 03, 2021		Soil	B21-Se11797					X		X	X	

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
11	BH08_0.1	Sep 03, 2021		Soil	B21-Se11798					X		X	X	
12	BH08_0.3	Sep 03, 2021		Soil	B21-Se11799					X		X	X	
13	BH12_0.1	Sep 03, 2021		Soil	B21-Se11800	X				X	X	X	X	
14	BH13_0.1	Sep 03, 2021		Soil	B21-Se11801	X				X	X	X	X	
15	BH14_0.1	Sep 03, 2021		Soil	B21-Se11802	X				X	X	X	X	
16	BH14_0.3	Sep 03, 2021		Soil	B21-Se11803					X		X	X	
17	BH14_0.5	Sep 03, 2021		Soil	B21-Se11804					X		X	X	
18	BH15_0.1	Sep 03, 2021		Soil	B21-Se11805					X	X	X	X	
19	BH15_0.3	Sep 03, 2021		Soil	B21-Se11806					X		X	X	
20	BH15_0.5	Sep 03, 2021		Soil	B21-Se11807					X		X	X	
21	BH16_0.1	Sep 03, 2021		Soil	B21-Se11808	X				X	X	X	X	

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
22	BH16_0.3	Sep 03, 2021		Soil	B21-Se11809					X		X	X	
23	BH16_0.5	Sep 03, 2021		Soil	B21-Se11810					X		X	X	
24	BH17_0.1	Sep 03, 2021		Soil	B21-Se11811	X				X	X	X	X	
25	BH17_0.3	Sep 03, 2021		Soil	B21-Se11812					X		X	X	
26	BH17_0.5	Sep 03, 2021		Soil	B21-Se11813				X	X		X	X	
27	BH18_0.1	Sep 03, 2021		Soil	B21-Se11814	X				X	X	X	X	
28	BH18_0.3	Sep 03, 2021		Soil	B21-Se11815					X		X	X	
29	BH18_0.5	Sep 03, 2021		Soil	B21-Se11816				X	X		X	X	
30	BH19_0.1	Sep 03, 2021		Soil	B21-Se11817	X				X		X	X	
31	BH19_0.3	Sep 03, 2021		Soil	B21-Se11818				X	X		X	X	
32	BH19_0.5	Sep 03, 2021		Soil	B21-Se11819					X		X	X	

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Poly cyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
33	BH20_0.1	Sep 03, 2021		Soil	B21-Se11820	X				X	X	X	X	
34	BH20_0.3	Sep 03, 2021		Soil	B21-Se11821					X		X	X	
35	BH20_0.5	Sep 03, 2021		Soil	B21-Se11822					X		X	X	
36	BH21_0.1	Sep 03, 2021		Soil	B21-Se11823					X	X	X	X	
37	BH21_0.3	Sep 03, 2021		Soil	B21-Se11824					X		X	X	
38	BH21_0.5	Sep 03, 2021		Soil	B21-Se11825					X		X	X	
39	SLAG-1	Sep 03, 2021		Soil	B21-Se11826				X			X	X	
40	SLAG-2	Sep 03, 2021		Soil	B21-Se11827				X			X	X	
41	BH01_CONCR ETE	Sep 03, 2021		Soil	B21-Se11828			X		X			X	
42	BH03_CONCR ETE	Sep 03, 2021		Soil	B21-Se11829			X		X			X	

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
43	BH05_CONCR ETE	Sep 03, 2021		Soil	B21-Se11830			X		X			X	
44	BH06_CONCR ETE	Sep 03, 2021		Soil	B21-Se11831			X		X			X	
45	BH07_CONCR ETE	Sep 03, 2021		Soil	B21-Se11832			X		X			X	
46	BH08_CONCR ETE	Sep 03, 2021		Soil	B21-Se11833			X		X			X	
47	BH09_CONCR ETE	Sep 03, 2021		Soil	B21-Se11834			X		X			X	
48	BH10_CONCR ETE	Sep 03, 2021		Soil	B21-Se11835			X		X			X	
49	BH11_CONCR ETE	Sep 03, 2021		Soil	B21-Se11836			X		X			X	

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Project Name:	754-BNEEN282781 DVA GREENSLOPES				
Eurofins Analytical Services Manager : Alana Wadsworth					

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Poly cyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
50	BH21_CONCR ETE	Sep 03, 2021		Soil	B21-Se11837			X		X			X	
51	QC01_210903	Sep 03, 2021		Soil	B21-Se11838				X	X		X	X	
52	QC09_210903	Sep 03, 2021		Soil	B21-Se11840					X		X	X	
53	QC13_210903	Sep 03, 2021		Water	B21-Se11842					X		X		
54	QC14_210903	Sep 03, 2021		Water	B21-Se11843				X	X		X		
55	TRIP BLANK	Sep 03, 2021		Trip Blank (solid)	B21-Se11844									X
56	BH01_0.3	Sep 03, 2021		Soil	B21-Se11845		X							
57	BH01_0.5	Sep 03, 2021		Soil	B21-Se11846		X							
58	BH02_0.3	Sep 03, 2021		Soil	B21-Se11847		X							
59	BH02_0.5	Sep 03, 2021		Soil	B21-Se11848		X							

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Poly cyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
60	BH03_0.3	Sep 03, 2021		Soil	B21-Se11849		X							
61	BH03_0.5	Sep 03, 2021		Soil	B21-Se11850		X							
62	BH04_0.3	Sep 03, 2021		Soil	B21-Se11851		X							
63	BH04_0.5	Sep 03, 2021		Soil	B21-Se11852		X							
64	BH05_0.3	Sep 03, 2021		Soil	B21-Se11853		X							
65	BH05_0.5	Sep 03, 2021		Soil	B21-Se11854		X							
66	BH07_0.5	Sep 03, 2021		Soil	B21-Se11855		X							
67	BH08_0.5	Sep 03, 2021		Soil	B21-Se11856		X							
68	QC03_21093	Sep 03, 2021		Soil	B21-Se11857		X							
69	QC04_21093	Sep 03, 2021		Soil	B21-Se11858		X							
70	QC05_21093	Sep 03, 2021		Soil	B21-Se11859		X							

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
71	QC06_21093	Sep 03, 2021		Soil	B21-Se11860		X							
72	QC07_21093	Sep 03, 2021		Soil	B21-Se11861		X							
73	QC08_21093	Sep 03, 2021		Soil	B21-Se11862		X							
74	QC11_21093	Sep 03, 2021		Soil	B21-Se11863		X							
75	QC12_21093	Sep 03, 2021		Soil	B21-Se11864		X							
76	Spike 1	Sep 03, 2021		Soil	B21-Se12715		X							
77	BH02_CONCR ETE	Sep 03, 2021		Soil	B21-Se12727		X							
78	BH04_CONCR ETE	Sep 03, 2021		Soil	B21-Se12728		X							
Test Counts						10	23	10	8	52	16	44	52	1

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

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

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.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (% w/w)
F/field	Airborne fibre filter loading as Fibres (N) per Fields counted (n)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (C)
g, kg	Mass, e.g. of whole sample (M) or asbestos-containing find within the sample (m)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (V = r x t)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (r)
min	Time (t), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration:
$$C = \frac{F}{V} \times \frac{t}{r} \times \frac{1}{n} \times \frac{1}{M} = K \times \frac{F}{n} \times \frac{1}{V}$$

Asbestos Content (as asbestos):
$$\% w/w = \frac{(m \times PA)}{M}$$

Weighted Average (of asbestos):
$$\% w = \frac{\sum (m \times PA)_x}{x}$$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 <i>Appendix 2</i> , else assumed to be 15% in accordance with WA DOH <i>Appendix 2 (PA)</i> .
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (% w/w).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Compliant	Indicates the item has been assessed against the relevant criteria, e.g. NATA SAC_07.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, <i>Asbestos: The Analysts Guide</i> , 2nd Edition (2021).
HSG264	UK HSE HSG264, <i>Asbestos: The Survey Guide</i> (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (K) as derived from the effective filter area of the given AFM membrane used for collecting the sample (A) and the projected eyepiece graticule area of the specific microscope used for the analysis (a).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, <i>Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres</i> , 2nd Edition [NOHSC:3003(2005)].
N/A	Not Applicable. Indicates a result or assessment is not required or applicable to that item.
NATA	National Association of Testing Authorities, Australia.
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SAC_07	Specific Accreditation Criteria: ISO/IEC 17025 Application Document, Life Sciences – Annex, Asbestos sampling and testing.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according to the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, <i>Guidelines for the Assessment, Remediation and Management of Asbestos- Contaminated Sites in Western Australia</i> (updated 2021), including Appendix Four: <i>Laboratory analysis</i>
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (%w _A).

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

Asbestos Counter/Identifier:

Sayed Abu Senior Analyst-Asbestos (NSW)

Authorised by:

Chamath JHM Annakkage Senior Analyst-Asbestos (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](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Coffey Environments Pty Ltd QLD
Level 5, 12 Creek Street
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: **Jeremy Wicks**

Report **822538-S-V2**
Project name **754-BNEEN282781 DVA GREENSLOPES**
Received Date **Sep 06, 2021**

Client Sample ID			BH01_0.1	BH02_0.1	BH03_0.1	BH04_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11788	B21-Se11789	B21-Se11790	B21-Se11791
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	0.06	< 0.05
4,4'-DDE	0.05	mg/kg	0.16	< 0.05	0.39	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	0.31	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.16	< 0.05	0.76	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	0.16	< 0.1	0.76	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	98	102	89	93
Tetrachloro-m-xylene (surr.)	1	%	112	87	57	78
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

Client Sample ID			BH01_0.1	BH02_0.1	BH03_0.1	BH04_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11788	B21-Se11789	B21-Se11790	B21-Se11791
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dimethoate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
EPN	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	99	83	86	91
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	6.5	3.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	45	37	70	49
Copper	5	mg/kg	6.1	< 5	6.6	< 5
Lead	5	mg/kg	5.6	< 5	40	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	22	18	22	9.2
Zinc	5	mg/kg	22	16	29	16
% Moisture	1	%	11	12	12	13

Client Sample ID			BH05_0.1	BH06_0.1	BH06_0.3	BH06_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11792	B21-Se11793	B21-Se11794	B21-Se11795
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	124	56	63	83
Tetrachloro-m-xylene (surr.)	1	%	109	102	142	56
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	-	-
Bolstar	0.2	mg/kg	< 0.2	< 0.2	-	-
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	-	-
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	-	-
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	-	-
Coumaphos	2	mg/kg	< 2	< 2	-	-
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	-	-
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	-	-
Diazinon	0.2	mg/kg	< 0.2	< 0.2	-	-
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	-	-
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	-	-

Client Sample ID			BH05_0.1	BH06_0.1	BH06_0.3	BH06_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11792	B21-Se11793	B21-Se11794	B21-Se11795
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
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	%	114	94	-	-
Heavy Metals						
Arsenic	2	mg/kg	12	4.6	5.7	8.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	75	5.6	13	150
Copper	5	mg/kg	7.1	6.4	5.9	21
Lead	5	mg/kg	5.5	6.6	11	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	14	< 5	< 5	45
Zinc	5	mg/kg	19	19	24	27
% Moisture	1	%	7.8	4.2	5.3	18
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	1.2	-
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	-	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	< 0.5	-
Total PAH*	0.5	mg/kg	-	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	-	-	60	-
p-Terphenyl-d14 (surr.)	1	%	-	-	106	-

Client Sample ID			BH07_01	BH07_03	BH08_01	BH08_03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11796	B21-Se11797	B21-Se11798	B21-Se11799
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	81	105	92	91
Tetrachloro-m-xylene (surr.)	1	%	112	112	90	113
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	-	-	-
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	-	-	-

Client Sample ID			BH07_0.1	BH07_0.3	BH08_0.1	BH08_0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11796	B21-Se11797	B21-Se11798	B21-Se11799
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
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	%	79	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	7.0	8.7	4.6	3.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	5.6	170	100	110
Copper	5	mg/kg	7.4	10	6.7	11
Lead	5	mg/kg	6.6	6.7	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	30	15	26
Zinc	5	mg/kg	19	32	14	20
% Moisture	1	%	8.7	16	14	13

Client Sample ID			BH12_0.1	BH13_0.1	BH14_0.1	BH14_0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11800	B21-Se11801	B21-Se11802	B21-Se11803
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	0.34	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	0.47	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	18	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	0.15	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	0.21	0.10	9.0	0.91
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			BH12_01	BH13_01	BH14_01	BH14_03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11800	B21-Se11801	B21-Se11802	B21-Se11803
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	0.21	0.1	9.15	0.91
DDT + DDE + DDD (Total)*	0.05	mg/kg	18.81	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	19.22	0.1	9.15	0.91
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	90	97	111	101
Tetrachloro-m-xylene (surr.)	1	%	90	103	82	74
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Coumaphos	2	mg/kg	< 2	< 2	< 2	-
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Dimethoate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
EPN	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Malathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Monocrotophos	2	mg/kg	< 2	< 2	< 2	-
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Omethoate	2	mg/kg	< 2	< 2	< 2	-
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Terbufos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Triphenylphosphate (surr.)	1	%	112	101	103	-

Client Sample ID			BH12_0.1	BH13_0.1	BH14_0.1	BH14_0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11800	B21-Se11801	B21-Se11802	B21-Se11803
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	6.4	10	7.7	6.1
Cadmium	0.4	mg/kg	0.9	0.5	< 0.4	< 0.4
Chromium	5	mg/kg	79	73	16	6.7
Copper	5	mg/kg	21	30	13	7.8
Lead	5	mg/kg	54	110	120	33
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	66	25	6.9	< 5
Zinc	5	mg/kg	160	250	210	48
% Moisture	1	%	4.9	14	4.4	7.7

Client Sample ID			BH14_0.5	BH15_0.1	BH15_0.3	BH15_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11804	B21-Se11805	B21-Se11806	B21-Se11807
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	0.24	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	0.24	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	0.24	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	91	88	95	96
Tetrachloro-m-xylene (surr.)	1	%	90	80	77	89

Client Sample ID			BH14_0.5	BH15_0.1	BH15_0.3	BH15_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11804	B21-Se11805	B21-Se11806	B21-Se11807
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
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	-	-
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	%	-	94	-	-
Heavy Metals						
Arsenic	2	mg/kg	2.1	7.3	6.7	6.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	59	32	67	66
Copper	5	mg/kg	6.7	25	8.6	11
Lead	5	mg/kg	6.7	160	9.8	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	17	13	14	15
Zinc	5	mg/kg	20	250	26	18
% Moisture	1	%	9.1	4.9	15	20

Client Sample ID			BH16_01	BH16_03	BH16_05	BH17_01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11808	B21-Se11809	B21-Se11810	B21-Se11811
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	99	93	118	77
Tetrachloro-m-xylene (surr.)	1	%	93	131	112	124
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	-	-	< 0.2
Bolstar	0.2	mg/kg	< 0.2	-	-	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	-	-	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	-	-	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	-	-	< 0.2
Coumaphos	2	mg/kg	< 2	-	-	< 2
Demeton-S	0.2	mg/kg	< 0.2	-	-	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	-	-	< 0.2
Diazinon	0.2	mg/kg	< 0.2	-	-	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	-	-	< 0.2
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

Client Sample ID			BH16_01	BH16_03	BH16_05	BH17_01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11808	B21-Se11809	B21-Se11810	B21-Se11811
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
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	%	115	-	-	67
Heavy Metals						
Arsenic	2	mg/kg	19	11	12	4.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	30	79	150	45
Copper	5	mg/kg	20	12	20	20
Lead	5	mg/kg	160	47	9.7	65
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	9.5	21	45	21
Zinc	5	mg/kg	320	53	43	75
% Moisture	1	%	15	15	17	7.4

Client Sample ID			BH17_03	BH17_05	BH18_01	BH18_03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11812	B21-Se11813	B21-Se11814	B21-Se11815
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			BH17_03	BH17_05	BH18_01	BH18_03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11812	B21-Se11813	B21-Se11814	B21-Se11815
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	69	64	89	93
Tetrachloro-m-xylene (surr.)	1	%	143	126	109	80
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	-
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	%	-	-	92	-

Client Sample ID			BH17_03	BH17_05	BH18_01	BH18_03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11812	B21-Se11813	B21-Se11814	B21-Se11815
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.1	< 2	5.0	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.9	< 5	51	24
Copper	5	mg/kg	23	16	18	22
Lead	5	mg/kg	75	8.0	37	29
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	5.1	< 5	25	15
Zinc	5	mg/kg	130	14	79	39
% Moisture	1	%	4.1	5.1	8.2	5.2
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	-	-
Acenaphthene	0.5	mg/kg	-	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	-
Anthracene	0.5	mg/kg	-	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	-
Chrysene	0.5	mg/kg	-	< 0.5	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	-
Fluoranthene	0.5	mg/kg	-	< 0.5	-	-
Fluorene	0.5	mg/kg	-	< 0.5	-	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	-
Naphthalene	0.5	mg/kg	-	< 0.5	-	-
Phenanthrene	0.5	mg/kg	-	< 0.5	-	-
Pyrene	0.5	mg/kg	-	< 0.5	-	-
Total PAH*	0.5	mg/kg	-	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	-	56	-	-
p-Terphenyl-d14 (surr.)	1	%	-	88	-	-

Client Sample ID			BH18_05	BH19_01	BH19_03	BH19_05
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11816	B21-Se11817	B21-Se11818	B21-Se11819
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			BH18_0.5	BH19_0.1	BH19_0.3	BH19_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11816	B21-Se11817	B21-Se11818	B21-Se11819
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	103	99	101	107
Tetrachloro-m-xylene (surr.)	1	%	99	90	70	90
Heavy Metals						
Arsenic	2	mg/kg	23	5.5	3.5	2.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	39	21	53	73
Copper	5	mg/kg	14	19	25	7.6
Lead	5	mg/kg	27	76	110	11
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	14	9.4	20	14
Zinc	5	mg/kg	31	97	100	21
% Moisture	1	%	4.6	6.7	9.6	5.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID			BH18_0.5	BH19_0.1	BH19_0.3	BH19_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11816	B21-Se11817	B21-Se11818	B21-Se11819
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	113	-	70	-
p-Terphenyl-d14 (surr.)	1	%	114	-	52	-

Client Sample ID			BH20_0.1	BH20_0.3	BH20_0.5	BH21_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11820	B21-Se11821	B21-Se11822	B21-Se11823
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	98
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	5.2
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	103.2
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	103.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	105	87	110	134
Tetrachloro-m-xylene (surr.)	1	%	117	108	88	90
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	-	-	< 0.2
Bolstar	0.2	mg/kg	< 0.2	-	-	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	-	-	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	-	-	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	-	-	< 0.2
Coumaphos	2	mg/kg	< 2	-	-	< 2
Demeton-S	0.2	mg/kg	< 0.2	-	-	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	-	-	< 0.2
Diazinon	0.2	mg/kg	< 0.2	-	-	< 0.2

Client Sample ID			BH20_0.1	BH20_0.3	BH20_0.5	BH21_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11820	B21-Se11821	B21-Se11822	B21-Se11823
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
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	%	112	-	-	116
Heavy Metals						
Arsenic	2	mg/kg	3.3	3.4	3.2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	48	72	100	7.8
Copper	5	mg/kg	32	20	18	< 5
Lead	5	mg/kg	68	20	< 5	8.5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	9.9	22	41	< 5
Zinc	5	mg/kg	88	39	27	31
% Moisture	1	%	11	11	19	6.9

Client Sample ID			BH21_03	BH21_05	SLAG-1	SLAG-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11824	B21-Se11825	B21-Se11826	B21-Se11827
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 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	0.07	< 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	0.98	0.12	-	-
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	0.43	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	1.41	0.12	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.07	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	1.48	0.12	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	-
Dibutylchloroendate (surr.)	1	%	114	131	-	-
Tetrachloro-m-xylene (surr.)	1	%	112	150	-	-
Heavy Metals						
Arsenic	2	mg/kg	12	11	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	170	180	< 5	< 5
Copper	5	mg/kg	30	28	< 5	< 5
Lead	5	mg/kg	120	< 5	10	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	61	84	< 5	< 5
Zinc	5	mg/kg	160	34	19	< 5
% Moisture	1	%	18	18	< 1	< 1
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	1.2	1.2
Acenaphthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	< 0.5	< 0.5

Client Sample ID			BH21_03	BH21_05	SLAG-1	SLAG-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11824	B21-Se11825	B21-Se11826	B21-Se11827
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	-	121	112
p-Terphenyl-d14 (surr.)	1	%	-	-	92	112

Client Sample ID			BH01_CONCR	BH03_CONCR	BH05_CONCR	BH06_CONCR
Sample Matrix			ETE	ETE	ETE	ETE
Eurofins Sample No.			Soil	Soil	Soil	Soil
Date Sampled			B21-Se11828	B21-Se11829	B21-Se11830	B21-Se11831
Test/Reference	LOR	Unit	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	0.28	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	1.6	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	0.33	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	0.13	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	0.13	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	2.21	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	2.34	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	144	104	113	110
Tetrachloro-m-xylene (surr.)	1	%	93	78	57	86
% Moisture	1	%	5.2	3.0	7.5	4.9

Client Sample ID			BH07_CONCR ETE	BH08_CONCR ETE	BH09_CONCR ETE	BH10_CONCR ETE
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11832	B21-Se11833	B21-Se11834	B21-Se11835
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	110	144	74	78
Tetrachloro-m-xylene (surr.)	1	%	58	106	77	82
% Moisture	1	%	5.1	5.3	6.7	6.8

Client Sample ID			BH11_CONCR ETE	BH21_CONCR ETE	QC01_210903	QC09_210903
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11836	B21-Se11837	B21-Se11838	B21-Se11840
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	0.38	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	0.35	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			BH11_CONCR ETE	BH21_CONCR ETE	QC01_210903	QC09_210903
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			B21-Se11836	B21-Se11837	B21-Se11838	B21-Se11840
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	0.73	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	0.73	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	54	54	80	95
Tetrachloro-m-xylene (surr.)	1	%	62	67	51	103
Heavy Metals						
Arsenic	2	mg/kg	-	-	2.6	4.0
Cadmium	0.4	mg/kg	-	-	< 0.4	< 0.4
Chromium	5	mg/kg	-	-	39	8.9
Copper	5	mg/kg	-	-	15	15
Lead	5	mg/kg	-	-	65	78
Mercury	0.1	mg/kg	-	-	< 0.1	< 0.1
Nickel	5	mg/kg	-	-	9.7	< 5
Zinc	5	mg/kg	-	-	62	120
% Moisture	1	%	6.0	4.8	9.5	5.6
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	1.2	-
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	-	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	< 0.5	-
Total PAH*	0.5	mg/kg	-	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	-	-	52	-
p-Terphenyl-d14 (surr.)	1	%	-	-	94	-

Client Sample ID			TRIP BLANK
Sample Matrix			Trip Blank (solid)
Eurofins Sample No.			B21-Se11844
Date Sampled			Sep 03, 2021
Test/Reference	LOR	Unit	
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	77
Total Recoverable Hydrocarbons			
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20

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 - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Sep 22, 2021	14 Days
Organophosphorus Pesticides - Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS (USEPA 8270)	Melbourne	Dec 16, 2021	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Sep 10, 2021	28 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Sep 10, 2021	14 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Sep 07, 2021	14 Days
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Sep 09, 2021	14 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Sep 09, 2021	14 Days
Total Recoverable Hydrocarbons - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Sep 09, 2021	14 Days

Company Name:	Coffey Environments Pty Ltd QLD	Order No.:		Received:	Sep 6, 2021 3:51 PM
Address:	Level 5, 12 Creek Street Brisbane QLD 4000	Report #:	822538	Due:	Sep 13, 2021
		Phone:	07 3503 7192	Priority:	5 Day
		Fax:		Contact Name:	Jeremy Wicks
Project Name:	754-BNEEN282781 DVA GREENSLOPES				
Eurofins Analytical Services Manager : Alana Wadsworth					

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID									
1	BH01_0.1	Sep 03, 2021		Soil	B21-Se11788					X	X	X	X	
2	BH02_0.1	Sep 03, 2021		Soil	B21-Se11789					X	X	X	X	
3	BH03_0.1	Sep 03, 2021		Soil	B21-Se11790					X	X	X	X	
4	BH04_0.1	Sep 03, 2021		Soil	B21-Se11791					X	X	X	X	
5	BH05_0.1	Sep 03, 2021		Soil	B21-Se11792					X	X	X	X	
6	BH06_0.1	Sep 03, 2021		Soil	B21-Se11793					X	X	X	X	
7	BH06_0.3	Sep 03, 2021		Soil	B21-Se11794	X			X	X	X	X	X	
8	BH06_0.5	Sep 03, 2021		Soil	B21-Se11795					X	X	X	X	
9	BH07_0.1	Sep 03, 2021		Soil	B21-Se11796	X				X	X	X	X	
10	BH07_0.3	Sep 03, 2021		Soil	B21-Se11797					X	X	X	X	

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 822538
Phone: 07 3503 7192
Fax:

Received: Sep 6, 2021 3:51 PM
Due: Sep 13, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Poly cyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
11	BH08_0.1	Sep 03, 2021		Soil	B21-Se11798					X	X	X	X	
12	BH08_0.3	Sep 03, 2021		Soil	B21-Se11799					X	X	X	X	
13	BH12_0.1	Sep 03, 2021		Soil	B21-Se11800	X				X	X	X	X	
14	BH13_0.1	Sep 03, 2021		Soil	B21-Se11801	X				X	X	X	X	
15	BH14_0.1	Sep 03, 2021		Soil	B21-Se11802	X				X	X	X	X	
16	BH14_0.3	Sep 03, 2021		Soil	B21-Se11803					X	X	X	X	
17	BH14_0.5	Sep 03, 2021		Soil	B21-Se11804					X	X	X	X	
18	BH15_0.1	Sep 03, 2021		Soil	B21-Se11805					X	X	X	X	
19	BH15_0.3	Sep 03, 2021		Soil	B21-Se11806					X	X	X	X	
20	BH15_0.5	Sep 03, 2021		Soil	B21-Se11807					X	X	X	X	
21	BH16_0.1	Sep 03, 2021		Soil	B21-Se11808	X				X	X	X	X	

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 822538
Phone: 07 3503 7192
Fax:

Received: Sep 6, 2021 3:51 PM
Due: Sep 13, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Poly cyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
22	BH16_0.3	Sep 03, 2021		Soil	B21-Se11809					X	X	X	X	
23	BH16_0.5	Sep 03, 2021		Soil	B21-Se11810					X	X	X	X	
24	BH17_0.1	Sep 03, 2021		Soil	B21-Se11811	X				X	X	X	X	
25	BH17_0.3	Sep 03, 2021		Soil	B21-Se11812					X	X	X	X	
26	BH17_0.5	Sep 03, 2021		Soil	B21-Se11813				X	X	X	X	X	
27	BH18_0.1	Sep 03, 2021		Soil	B21-Se11814	X				X	X	X	X	
28	BH18_0.3	Sep 03, 2021		Soil	B21-Se11815					X	X	X	X	
29	BH18_0.5	Sep 03, 2021		Soil	B21-Se11816				X	X	X	X	X	
30	BH19_0.1	Sep 03, 2021		Soil	B21-Se11817	X				X	X	X	X	
31	BH19_0.3	Sep 03, 2021		Soil	B21-Se11818				X	X	X	X	X	
32	BH19_0.5	Sep 03, 2021		Soil	B21-Se11819					X	X	X	X	

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 822538
Phone: 07 3503 7192
Fax:

Received: Sep 6, 2021 3:51 PM
Due: Sep 13, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
33	BH20_0.1	Sep 03, 2021		Soil	B21-Se11820	X				X	X	X	X	
34	BH20_0.3	Sep 03, 2021		Soil	B21-Se11821					X	X	X	X	
35	BH20_0.5	Sep 03, 2021		Soil	B21-Se11822					X	X	X	X	
36	BH21_0.1	Sep 03, 2021		Soil	B21-Se11823					X	X	X	X	
37	BH21_0.3	Sep 03, 2021		Soil	B21-Se11824					X	X	X	X	
38	BH21_0.5	Sep 03, 2021		Soil	B21-Se11825					X	X	X	X	
39	SLAG-1	Sep 03, 2021		Soil	B21-Se11826				X		X	X	X	
40	SLAG-2	Sep 03, 2021		Soil	B21-Se11827				X		X	X	X	
41	BH01_CONCR ETE	Sep 03, 2021		Soil	B21-Se11828			X		X	X		X	
42	BH03_CONCR ETE	Sep 03, 2021		Soil	B21-Se11829			X		X	X		X	

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 822538
Phone: 07 3503 7192
Fax:

Received: Sep 6, 2021 3:51 PM
Due: Sep 13, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
43	BH05_CONCR ETE	Sep 03, 2021		Soil	B21-Se11830			X		X	X		X	
44	BH06_CONCR ETE	Sep 03, 2021		Soil	B21-Se11831			X		X	X		X	
45	BH07_CONCR ETE	Sep 03, 2021		Soil	B21-Se11832			X		X	X		X	
46	BH08_CONCR ETE	Sep 03, 2021		Soil	B21-Se11833			X		X	X		X	
47	BH09_CONCR ETE	Sep 03, 2021		Soil	B21-Se11834			X		X	X		X	
48	BH10_CONCR ETE	Sep 03, 2021		Soil	B21-Se11835			X		X	X		X	
49	BH11_CONCR ETE	Sep 03, 2021		Soil	B21-Se11836			X		X	X		X	

Company Name:	Coffey Environments Pty Ltd QLD	Order No.:		Received:	Sep 6, 2021 3:51 PM
Address:	Level 5, 12 Creek Street Brisbane QLD 4000	Report #:	822538	Due:	Sep 13, 2021
		Phone:	07 3503 7192	Priority:	5 Day
		Fax:		Contact Name:	Jeremy Wicks
Project Name:	754-BNEEN282781 DVA GREENSLOPES				
Eurofins Analytical Services Manager : Alana Wadsworth					

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
50	BH21_CONCR ETE	Sep 03, 2021		Soil	B21-Se11837			X		X	X		X	
51	QC01_210903	Sep 03, 2021		Soil	B21-Se11838				X	X	X	X	X	
52	QC09_210903	Sep 03, 2021		Soil	B21-Se11840					X	X	X	X	
53	QC13_210903	Sep 03, 2021		Water	B21-Se11842					X	X	X		
54	QC14_210903	Sep 03, 2021		Water	B21-Se11843				X	X	X	X		
55	TRIP BLANK	Sep 03, 2021		Trip Blank (solid)	B21-Se11844									X
56	BH01_0.3	Sep 03, 2021		Soil	B21-Se11845		X							
57	BH01_0.5	Sep 03, 2021		Soil	B21-Se11846		X							
58	BH02_0.3	Sep 03, 2021		Soil	B21-Se11847		X							
59	BH02_0.5	Sep 03, 2021		Soil	B21-Se11848		X							

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Poly cyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
60	BH03_0.3	Sep 03, 2021		Soil	B21-Se11849		X							
61	BH03_0.5	Sep 03, 2021		Soil	B21-Se11850		X							
62	BH04_0.3	Sep 03, 2021		Soil	B21-Se11851		X							
63	BH04_0.5	Sep 03, 2021		Soil	B21-Se11852		X							
64	BH05_0.3	Sep 03, 2021		Soil	B21-Se11853		X							
65	BH05_0.5	Sep 03, 2021		Soil	B21-Se11854		X							
66	BH07_0.5	Sep 03, 2021		Soil	B21-Se11855		X							
67	BH08_0.5	Sep 03, 2021		Soil	B21-Se11856		X							
68	QC03_21093	Sep 03, 2021		Soil	B21-Se11857		X							
69	QC04_21093	Sep 03, 2021		Soil	B21-Se11858		X							
70	QC05_21093	Sep 03, 2021		Soil	B21-Se11859		X							

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Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
71	QC06_21093	Sep 03, 2021		Soil	B21-Se11860		X							
72	QC07_21093	Sep 03, 2021		Soil	B21-Se11861		X							
73	QC08_21093	Sep 03, 2021		Soil	B21-Se11862		X							
74	QC11_21093	Sep 03, 2021		Soil	B21-Se11863		X							
75	QC12_21093	Sep 03, 2021		Soil	B21-Se11864		X							
76	Spike 1	Sep 03, 2021		Soil	B21-Se12715		X							
77	BH02_CONCR ETE	Sep 03, 2021		Soil	B21-Se12727		X							
78	BH04_CONCR ETE	Sep 03, 2021		Soil	B21-Se12728		X							
Test Counts						10	23	10	8	52	54	44	52	1

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	µg/L: micrograms per litre
ppm: parts per million	ppb: parts per billion	%: Percentage
org/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 5.4
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

- 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.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
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	< 0.5			0.5	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	

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	
Method Blank							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C10	mg/kg	< 20			20	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	100			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDD	%	120			70-130	Pass	
4.4'-DDE	%	119			70-130	Pass	
4.4'-DDT	%	108			70-130	Pass	
a-HCH	%	110			70-130	Pass	
Aldrin	%	127			70-130	Pass	
b-HCH	%	128			70-130	Pass	
d-HCH	%	120			70-130	Pass	
Dieldrin	%	109			70-130	Pass	
Endosulfan I	%	114			70-130	Pass	
Endosulfan II	%	125			70-130	Pass	
Endosulfan sulphate	%	112			70-130	Pass	
Endrin	%	110			70-130	Pass	
Endrin aldehyde	%	91			70-130	Pass	
Endrin ketone	%	99			70-130	Pass	
g-HCH (Lindane)	%	112			70-130	Pass	
Heptachlor	%	97			70-130	Pass	
Heptachlor epoxide	%	100			70-130	Pass	
Hexachlorobenzene	%	99			70-130	Pass	
Methoxychlor	%	110			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	127			70-130	Pass	
Dimethoate	%	126			70-130	Pass	
Ethion	%	100			70-130	Pass	
Fenitrothion	%	102			70-130	Pass	
Methyl parathion	%	113			70-130	Pass	
Mevinphos	%	85			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	108			80-120	Pass	
Cadmium	%	110			80-120	Pass	
Chromium	%	110			80-120	Pass	
Copper	%	117			80-120	Pass	
Lead	%	117			80-120	Pass	
Mercury	%	112			80-120	Pass	
Nickel	%	108			80-120	Pass	
Zinc	%	111			80-120	Pass	
LCS - % Recovery							
Naphthalene	%	125			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	95			70-130	Pass	
Acenaphthylene	%	120			70-130	Pass	
Anthracene	%	116			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	97			70-130	Pass	
Benzo(b&j)fluoranthene	%	115			70-130	Pass	
Benzo(g,h,i)perylene	%	113			70-130	Pass	
Benzo(k)fluoranthene	%	99			70-130	Pass	
Chrysene	%	99			70-130	Pass	
Dibenz(a,h)anthracene	%	99			70-130	Pass	
Fluoranthene	%	128			70-130	Pass	
Fluorene	%	99			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	95			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene			%	97			70-130	Pass	
Phenanthrene			%	129			70-130	Pass	
Pyrene			%	88			70-130	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions									
TRH C6-C9			%	115			70-130	Pass	
LCS - % Recovery									
BTEX									
Benzene			%	91			70-130	Pass	
Toluene			%	94			70-130	Pass	
Ethylbenzene			%	95			70-130	Pass	
m&p-Xylenes			%	94			70-130	Pass	
Xylenes - Total*			%	93			70-130	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons									
TRH C6-C10			%	110			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M21-Se24245	NCP	%	93			70-130	Pass	
4,4'-DDD	M21-Se24245	NCP	%	117			70-130	Pass	
4,4'-DDE	M21-Se24245	NCP	%	88			70-130	Pass	
4,4'-DDT	M21-Se24245	NCP	%	93			70-130	Pass	
a-HCH	M21-Se24245	NCP	%	118			70-130	Pass	
Aldrin	M21-Se24245	NCP	%	122			70-130	Pass	
b-HCH	M21-Se24245	NCP	%	94			70-130	Pass	
d-HCH	M21-Se24245	NCP	%	78			70-130	Pass	
Dieldrin	M21-Se24245	NCP	%	110			70-130	Pass	
Endosulfan I	M21-Se24245	NCP	%	119			70-130	Pass	
Endosulfan II	M21-Se24245	NCP	%	85			70-130	Pass	
Endosulfan sulphate	M21-Se24245	NCP	%	78			70-130	Pass	
Endrin	M21-Se24245	NCP	%	109			70-130	Pass	
Endrin aldehyde	M21-Se24245	NCP	%	90			70-130	Pass	
Endrin ketone	M21-Se24245	NCP	%	86			70-130	Pass	
g-HCH (Lindane)	M21-Se24245	NCP	%	85			70-130	Pass	
Heptachlor	M21-Se24245	NCP	%	89			70-130	Pass	
Heptachlor epoxide	M21-Se24245	NCP	%	93			70-130	Pass	
Hexachlorobenzene	M21-Se24245	NCP	%	106			70-130	Pass	
Methoxychlor	M21-Se24245	NCP	%	96			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Se12406	NCP	%	82			75-125	Pass	
Cadmium	M21-Se12406	NCP	%	109			75-125	Pass	
Chromium	M21-Se12406	NCP	%	85			75-125	Pass	
Copper	M21-Se12406	NCP	%	88			75-125	Pass	
Lead	M21-Se12406	NCP	%	88			75-125	Pass	
Mercury	M21-Se12406	NCP	%	109			75-125	Pass	
Nickel	M21-Se12406	NCP	%	84			75-125	Pass	
Zinc	M21-Se12406	NCP	%	109			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M21-Se12548	NCP	%	92			70-130	Pass	
Acenaphthylene	M21-Se12548	NCP	%	95			70-130	Pass	
Anthracene	M21-Se12548	NCP	%	108			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benz(a)anthracene	M21-Se12548	NCP	%	73			70-130	Pass	
Benzo(a)pyrene	M21-Se12548	NCP	%	102			70-130	Pass	
Benzo(b&j)fluoranthene	M21-Se12548	NCP	%	89			70-130	Pass	
Benzo(g,h,i)perylene	M21-Se12548	NCP	%	81			70-130	Pass	
Benzo(k)fluoranthene	M21-Se12548	NCP	%	84			70-130	Pass	
Chrysene	M21-Se12548	NCP	%	88			70-130	Pass	
Dibenz(a,h)anthracene	M21-Se12548	NCP	%	77			70-130	Pass	
Fluoranthene	M21-Se12548	NCP	%	92			70-130	Pass	
Fluorene	M21-Se12548	NCP	%	72			70-130	Pass	
Indeno(1,2,3-cd)pyrene	M21-Se12548	NCP	%	74			70-130	Pass	
Naphthalene	M21-Se12548	NCP	%	111			70-130	Pass	
Phenanthrene	M21-Se12548	NCP	%	83			70-130	Pass	
Pyrene	M21-Se12548	NCP	%	88			70-130	Pass	
Spike - % Recovery									
				Result 1					
Naphthalene	M21-Se10259	NCP	%	93			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions									
TRH C6-C9	M21-Se10259	NCP	%	85			70-130	Pass	
Spike - % Recovery									
				Result 1					
BTEX									
Benzene	M21-Se10259	NCP	%	85			70-130	Pass	
Toluene	M21-Se10259	NCP	%	89			70-130	Pass	
Ethylbenzene	M21-Se10259	NCP	%	88			70-130	Pass	
m&p-Xylenes	M21-Se10259	NCP	%	87			70-130	Pass	
o-Xylene	M21-Se10259	NCP	%	87			70-130	Pass	
Xylenes - Total*	M21-Se10259	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons									
TRH C6-C10	M21-Se10259	NCP	%	71			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals									
				Result 1	Result 2	RPD			
Arsenic	M21-Se12406	NCP	mg/kg	4.9	5.0	2.0	30%	Pass	
Cadmium	M21-Se12406	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Se12406	NCP	mg/kg	16	17	6.0	30%	Pass	
Copper	M21-Se12406	NCP	mg/kg	21	22	1.0	30%	Pass	
Lead	M21-Se12406	NCP	mg/kg	23	23	<1	30%	Pass	
Mercury	M21-Se12406	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M21-Se12406	NCP	mg/kg	19	19	<1	30%	Pass	
Zinc	M21-Se12406	NCP	mg/kg	140	140	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	B21-Se11788	CP	%	11	10	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides									
				Result 1	Result 2	RPD			
Chlordanes - Total	B21-Se11794	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4,4'-DDD	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Dieldrin	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	B21-Se11794	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	B21-Se11794	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	B21-Se11798	CP	%	14	14	2.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	B21-Se11808	CP	%	15	14	9.0	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	B21-Se11811	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
g-HCH (Lindane)	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	B21-Se11811	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organophosphorus Pesticides				Result 1	Result 2	RPD		
Azinphos-methyl	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Bolstar	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorfenvinphos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos-methyl	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Coumaphos	B21-Se11811	CP	mg/kg	< 2	< 2	<1	30%	Pass
Demeton-S	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Demeton-O	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Diazinon	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dichlorvos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dimethoate	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Disulfoton	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
EPN	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethoprop	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethyl parathion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenitrothion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fensulfthion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenthion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Malathion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Merphos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methyl parathion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Mevinphos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Monocrotophos	B21-Se11811	CP	mg/kg	< 2	< 2	<1	30%	Pass
Naled	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Omethoate	B21-Se11811	CP	mg/kg	< 2	< 2	<1	30%	Pass
Phorate	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pirimiphos-methyl	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pyrazophos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ronnel	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Terbufos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tetrachlorvinphos	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tokuthion	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Trichloronate	B21-Se11811	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Fluoranthene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	B21-Se11811	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	B21-Se11818	CP	%	9.6	10	5.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	B21-Se11838	CP	%	9.5	8.4	13	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Naphthalene	M21-Se14926	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	M21-Se14926	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	M21-Se14926	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	M21-Se14926	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	M21-Se14926	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	M21-Se14926	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	M21-Se14926	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	M21-Se14926	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C10	M21-Se14926	NCP	mg/kg	< 20	< 20	<1	30%	Pass

Comments

Report has been revised to V2 to include OPP for samples BH01_0.1, BH02_0.1, BH03_0.1, BH04_0.1, BH05_0.1, BH06_0.1, BH07_0.1, BH12_0.1, BH13_0.1, BH14_0.1, BH15_0.1, BH16_0.1, BH17_0.1, BH18_0.1, BH19_0.1, BH20_0.1, BH21_0.1.

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
G01	The LORs have been raised due to matrix interference Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N02	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N04	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N07	

Authorised by:

James McCann	Analytical Services Manager
Vivian Wang	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Sophie Bush	Senior Analyst-Asbestos (VIC)



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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Coffey Environments Pty Ltd QLD
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Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: **Jeremy Wicks**

Report **822538-W-V2**
Project name **754-BNEEN282781 DVA GREENSLOPES**
Received Date **Sep 06, 2021**

Client Sample ID			QC13_210903	QC14_210903
Sample Matrix			Water	Water
Eurofins Sample No.			B21-Se11842	B21-Se11843
Date Sampled			Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Chlordanes - Total	0.002	mg/L	< 0.002	< 0.002
4,4'-DDD	0.0002	mg/L	< 0.0002	< 0.0002
4,4'-DDE	0.0002	mg/L	< 0.0002	< 0.0002
4,4'-DDT	0.0002	mg/L	< 0.0002	< 0.0002
a-HCH	0.0002	mg/L	< 0.0002	< 0.0002
Aldrin	0.0002	mg/L	< 0.0002	< 0.0002
b-HCH	0.0002	mg/L	< 0.0002	< 0.0002
d-HCH	0.0002	mg/L	< 0.0002	< 0.0002
Dieldrin	0.0002	mg/L	< 0.0002	< 0.0002
Endosulfan I	0.0002	mg/L	< 0.0002	< 0.0002
Endosulfan II	0.0002	mg/L	< 0.0002	< 0.0002
Endosulfan sulphate	0.0002	mg/L	< 0.0002	< 0.0002
Endrin	0.0002	mg/L	< 0.0002	< 0.0002
Endrin aldehyde	0.0002	mg/L	< 0.0002	< 0.0002
Endrin ketone	0.0002	mg/L	< 0.0002	< 0.0002
g-HCH (Lindane)	0.0002	mg/L	< 0.0002	< 0.0002
Heptachlor	0.0002	mg/L	< 0.0002	< 0.0002
Heptachlor epoxide	0.0002	mg/L	< 0.0002	< 0.0002
Hexachlorobenzene	0.0002	mg/L	< 0.0002	< 0.0002
Methoxychlor	0.0002	mg/L	< 0.0002	< 0.0002
Toxaphene	0.005	mg/L	< 0.005	< 0.005
Aldrin and Dieldrin (Total)*	0.0002	mg/L	< 0.0002	< 0.0002
DDT + DDE + DDD (Total)*	0.0002	mg/L	< 0.0002	< 0.0002
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	< 0.002	< 0.002
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	< 0.002	< 0.002
Dibutylchloroendate (surr.)	1	%	65	75
Tetrachloro-m-xylene (surr.)	1	%	111	86
Heavy Metals				
Arsenic	0.001	mg/L	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001
Copper	0.001	mg/L	< 0.001	< 0.001
Lead	0.001	mg/L	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001
Zinc	0.005	mg/L	< 0.005	< 0.005

Client Sample ID			QC13_210903	QC14_210903
Sample Matrix			Water	Water
Eurofins Sample No.			B21-Se11842	B21-Se11843
Date Sampled			Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.001	mg/L	-	< 0.001
Acenaphthylene	0.001	mg/L	-	< 0.001
Anthracene	0.001	mg/L	-	< 0.001
Benz(a)anthracene	0.001	mg/L	-	< 0.001
Benzo(a)pyrene	0.001	mg/L	-	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	-	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	-	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	-	< 0.001
Chrysene	0.001	mg/L	-	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	-	< 0.001
Fluoranthene	0.001	mg/L	-	< 0.001
Fluorene	0.001	mg/L	-	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	-	< 0.001
Naphthalene	0.001	mg/L	-	< 0.001
Phenanthrene	0.001	mg/L	-	< 0.001
Pyrene	0.001	mg/L	-	< 0.001
Total PAH*	0.001	mg/L	-	< 0.001
2-Fluorobiphenyl (surr.)	1	%	-	94
p-Terphenyl-d14 (surr.)	1	%	-	69

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 - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Sep 14, 2021	7 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Sep 07, 2021	28 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Sep 14, 2021	7 Days

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Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 822538
Phone: 07 3503 7192
Fax:

Received: Sep 6, 2021 3:51 PM
Due: Sep 13, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Poly cyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID									
1	BH01_0.1	Sep 03, 2021		Soil	B21-Se11788					X	X	X	X	
2	BH02_0.1	Sep 03, 2021		Soil	B21-Se11789					X	X	X	X	
3	BH03_0.1	Sep 03, 2021		Soil	B21-Se11790					X	X	X	X	
4	BH04_0.1	Sep 03, 2021		Soil	B21-Se11791					X	X	X	X	
5	BH05_0.1	Sep 03, 2021		Soil	B21-Se11792					X	X	X	X	
6	BH06_0.1	Sep 03, 2021		Soil	B21-Se11793					X	X	X	X	
7	BH06_0.3	Sep 03, 2021		Soil	B21-Se11794	X			X	X	X	X	X	
8	BH06_0.5	Sep 03, 2021		Soil	B21-Se11795					X	X	X	X	
9	BH07_0.1	Sep 03, 2021		Soil	B21-Se11796	X				X	X	X	X	
10	BH07_0.3	Sep 03, 2021		Soil	B21-Se11797					X	X	X	X	

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		Fax:		Contact Name:	Jeremy Wicks
Project Name:	754-BNEEN282781 DVA GREENSLOPES				
Eurofins Analytical Services Manager : Alana Wadsworth					

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
11	BH08_0.1	Sep 03, 2021		Soil	B21-Se11798					X	X	X	X	
12	BH08_0.3	Sep 03, 2021		Soil	B21-Se11799					X	X	X	X	
13	BH12_0.1	Sep 03, 2021		Soil	B21-Se11800	X				X	X	X	X	
14	BH13_0.1	Sep 03, 2021		Soil	B21-Se11801	X				X	X	X	X	
15	BH14_0.1	Sep 03, 2021		Soil	B21-Se11802	X				X	X	X	X	
16	BH14_0.3	Sep 03, 2021		Soil	B21-Se11803					X	X	X	X	
17	BH14_0.5	Sep 03, 2021		Soil	B21-Se11804					X	X	X	X	
18	BH15_0.1	Sep 03, 2021		Soil	B21-Se11805					X	X	X	X	
19	BH15_0.3	Sep 03, 2021		Soil	B21-Se11806					X	X	X	X	
20	BH15_0.5	Sep 03, 2021		Soil	B21-Se11807					X	X	X	X	
21	BH16_0.1	Sep 03, 2021		Soil	B21-Se11808	X				X	X	X	X	

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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
22	BH16_0.3	Sep 03, 2021		Soil	B21-Se11809					X	X	X	X	
23	BH16_0.5	Sep 03, 2021		Soil	B21-Se11810					X	X	X	X	
24	BH17_0.1	Sep 03, 2021		Soil	B21-Se11811	X				X	X	X	X	
25	BH17_0.3	Sep 03, 2021		Soil	B21-Se11812					X	X	X	X	
26	BH17_0.5	Sep 03, 2021		Soil	B21-Se11813				X	X	X	X	X	
27	BH18_0.1	Sep 03, 2021		Soil	B21-Se11814	X				X	X	X	X	
28	BH18_0.3	Sep 03, 2021		Soil	B21-Se11815					X	X	X	X	
29	BH18_0.5	Sep 03, 2021		Soil	B21-Se11816				X	X	X	X	X	
30	BH19_0.1	Sep 03, 2021		Soil	B21-Se11817	X				X	X	X	X	
31	BH19_0.3	Sep 03, 2021		Soil	B21-Se11818				X	X	X	X	X	
32	BH19_0.5	Sep 03, 2021		Soil	B21-Se11819					X	X	X	X	

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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
33	BH20_0.1	Sep 03, 2021		Soil	B21-Se11820	X				X	X	X	X	
34	BH20_0.3	Sep 03, 2021		Soil	B21-Se11821					X	X	X	X	
35	BH20_0.5	Sep 03, 2021		Soil	B21-Se11822					X	X	X	X	
36	BH21_0.1	Sep 03, 2021		Soil	B21-Se11823					X	X	X	X	
37	BH21_0.3	Sep 03, 2021		Soil	B21-Se11824					X	X	X	X	
38	BH21_0.5	Sep 03, 2021		Soil	B21-Se11825					X	X	X	X	
39	SLAG-1	Sep 03, 2021		Soil	B21-Se11826				X		X	X	X	
40	SLAG-2	Sep 03, 2021		Soil	B21-Se11827				X		X	X	X	
41	BH01_CONCR ETE	Sep 03, 2021		Soil	B21-Se11828			X		X	X		X	
42	BH03_CONCR ETE	Sep 03, 2021		Soil	B21-Se11829			X		X	X		X	

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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
43	BH05_CONCR ETE	Sep 03, 2021		Soil	B21-Se11830			X		X	X		X	
44	BH06_CONCR ETE	Sep 03, 2021		Soil	B21-Se11831			X		X	X		X	
45	BH07_CONCR ETE	Sep 03, 2021		Soil	B21-Se11832			X		X	X		X	
46	BH08_CONCR ETE	Sep 03, 2021		Soil	B21-Se11833			X		X	X		X	
47	BH09_CONCR ETE	Sep 03, 2021		Soil	B21-Se11834			X		X	X		X	
48	BH10_CONCR ETE	Sep 03, 2021		Soil	B21-Se11835			X		X	X		X	
49	BH11_CONCR ETE	Sep 03, 2021		Soil	B21-Se11836			X		X	X		X	

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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
50	BH21_CONCR ETE	Sep 03, 2021		Soil	B21-Se11837			X		X	X		X	
51	QC01_210903	Sep 03, 2021		Soil	B21-Se11838				X	X	X	X	X	
52	QC09_210903	Sep 03, 2021		Soil	B21-Se11840					X	X	X	X	
53	QC13_210903	Sep 03, 2021		Water	B21-Se11842					X	X	X		
54	QC14_210903	Sep 03, 2021		Water	B21-Se11843				X	X	X	X		
55	TRIP BLANK	Sep 03, 2021		Trip Blank (solid)	B21-Se11844									X
56	BH01_0.3	Sep 03, 2021		Soil	B21-Se11845		X							
57	BH01_0.5	Sep 03, 2021		Soil	B21-Se11846		X							
58	BH02_0.3	Sep 03, 2021		Soil	B21-Se11847		X							
59	BH02_0.5	Sep 03, 2021		Soil	B21-Se11848		X							

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		Fax:		Contact Name:	Jeremy Wicks
Project Name:	754-BNEEN282781 DVA GREENSLOPES				
Eurofins Analytical Services Manager : Alana Wadsworth					

Sample Detail						Asbestos - AS4964	HOLD	Sample preparation - crushing	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	BTEX and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
60	BH03_0.3	Sep 03, 2021		Soil	B21-Se11849		X							
61	BH03_0.5	Sep 03, 2021		Soil	B21-Se11850		X							
62	BH04_0.3	Sep 03, 2021		Soil	B21-Se11851		X							
63	BH04_0.5	Sep 03, 2021		Soil	B21-Se11852		X							
64	BH05_0.3	Sep 03, 2021		Soil	B21-Se11853		X							
65	BH05_0.5	Sep 03, 2021		Soil	B21-Se11854		X							
66	BH07_0.5	Sep 03, 2021		Soil	B21-Se11855		X							
67	BH08_0.5	Sep 03, 2021		Soil	B21-Se11856		X							
68	QC03_21093	Sep 03, 2021		Soil	B21-Se11857		X							
69	QC04_21093	Sep 03, 2021		Soil	B21-Se11858		X							
70	QC05_21093	Sep 03, 2021		Soil	B21-Se11859		X							

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Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217														
Brisbane Laboratory - NATA # 1261 Site # 20794														
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
71	QC06_21093	Sep 03, 2021		Soil	B21-Se11860		X							
72	QC07_21093	Sep 03, 2021		Soil	B21-Se11861		X							
73	QC08_21093	Sep 03, 2021		Soil	B21-Se11862		X							
74	QC11_21093	Sep 03, 2021		Soil	B21-Se11863		X							
75	QC12_21093	Sep 03, 2021		Soil	B21-Se11864		X							
76	Spike 1	Sep 03, 2021		Soil	B21-Se12715		X							
77	BH02_CONCR ETE	Sep 03, 2021		Soil	B21-Se12727		X							
78	BH04_CONCR ETE	Sep 03, 2021		Soil	B21-Se12728		X							
Test Counts						10	23	10	8	52	54	44	52	1

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	µg/L: micrograms per litre
ppm: parts per million	ppb: parts per billion	%: Percentage
org/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 5.4
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

- 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.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.002			0.002	Pass	
4,4'-DDD	mg/L	< 0.0002			0.0002	Pass	
4,4'-DDE	mg/L	< 0.0002			0.0002	Pass	
4,4'-DDT	mg/L	< 0.0002			0.0002	Pass	
a-HCH	mg/L	< 0.0002			0.0002	Pass	
Aldrin	mg/L	< 0.0002			0.0002	Pass	
b-HCH	mg/L	< 0.0002			0.0002	Pass	
d-HCH	mg/L	< 0.0002			0.0002	Pass	
Dieldrin	mg/L	< 0.0002			0.0002	Pass	
Endosulfan I	mg/L	< 0.0002			0.0002	Pass	
Endosulfan II	mg/L	< 0.0002			0.0002	Pass	
Endosulfan sulphate	mg/L	< 0.0002			0.0002	Pass	
Endrin	mg/L	< 0.0002			0.0002	Pass	
Endrin aldehyde	mg/L	< 0.0002			0.0002	Pass	
Endrin ketone	mg/L	< 0.0002			0.0002	Pass	
g-HCH (Lindane)	mg/L	< 0.0002			0.0002	Pass	
Heptachlor	mg/L	< 0.0002			0.0002	Pass	
Heptachlor epoxide	mg/L	< 0.0002			0.0002	Pass	
Hexachlorobenzene	mg/L	< 0.0002			0.0002	Pass	
Methoxychlor	mg/L	< 0.0002			0.0002	Pass	
Toxaphene	mg/L	< 0.005			0.005	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
LCS - % Recovery							

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Organochlorine Pesticides									
Chlordanes - Total			%	109			70-130	Pass	
4.4'-DDD			%	73			70-130	Pass	
4.4'-DDE			%	101			70-130	Pass	
4.4'-DDT			%	83			70-130	Pass	
a-HCH			%	91			70-130	Pass	
Aldrin			%	92			70-130	Pass	
b-HCH			%	120			70-130	Pass	
d-HCH			%	98			70-130	Pass	
Dieldrin			%	113			70-130	Pass	
Endosulfan I			%	95			70-130	Pass	
Endosulfan II			%	112			70-130	Pass	
Endosulfan sulphate			%	93			70-130	Pass	
Endrin			%	95			70-130	Pass	
Endrin aldehyde			%	83			70-130	Pass	
Endrin ketone			%	108			70-130	Pass	
g-HCH (Lindane)			%	125			70-130	Pass	
Heptachlor epoxide			%	97			70-130	Pass	
Hexachlorobenzene			%	109			70-130	Pass	
Methoxychlor			%	76			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	97			80-120	Pass	
Cadmium			%	103			80-120	Pass	
Chromium			%	103			80-120	Pass	
Copper			%	107			80-120	Pass	
Lead			%	105			80-120	Pass	
Mercury			%	114			80-120	Pass	
Nickel			%	108			80-120	Pass	
Zinc			%	100			80-120	Pass	
LCS - % Recovery									
Polycyclic Aromatic Hydrocarbons									
Acenaphthene			%	100			70-130	Pass	
Acenaphthylene			%	77			70-130	Pass	
Anthracene			%	84			70-130	Pass	
Benz(a)anthracene			%	92			70-130	Pass	
Benzo(a)pyrene			%	76			70-130	Pass	
Benzo(b&j)fluoranthene			%	107			70-130	Pass	
Benzo(g,h,i)perylene			%	115			70-130	Pass	
Benzo(k)fluoranthene			%	99			70-130	Pass	
Chrysene			%	73			70-130	Pass	
Dibenz(a,h)anthracene			%	79			70-130	Pass	
Fluoranthene			%	92			70-130	Pass	
Fluorene			%	76			70-130	Pass	
Indeno(1,2,3-cd)pyrene			%	85			70-130	Pass	
Naphthalene			%	86			70-130	Pass	
Phenanthrene			%	73			70-130	Pass	
Pyrene			%	101			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	B21-Se14119	NCP	%	91			70-130	Pass	
4.4'-DDD	B21-Se14119	NCP	%	81			70-130	Pass	
4.4'-DDE	B21-Se14119	NCP	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4,4'-DDT	B21-Se14119	NCP	%	83			70-130	Pass	
a-HCH	B21-Se14119	NCP	%	96			70-130	Pass	
Aldrin	B21-Se14119	NCP	%	94			70-130	Pass	
b-HCH	B21-Se14119	NCP	%	94			70-130	Pass	
d-HCH	B21-Se14119	NCP	%	94			70-130	Pass	
Dieldrin	B21-Se14119	NCP	%	98			70-130	Pass	
Endosulfan I	B21-Se14119	NCP	%	108			70-130	Pass	
Endosulfan II	B21-Se14119	NCP	%	114			70-130	Pass	
Endosulfan sulphate	B21-Se14119	NCP	%	108			70-130	Pass	
Endrin	B21-Se14119	NCP	%	88			70-130	Pass	
Endrin ketone	B21-Se14119	NCP	%	128			70-130	Pass	
g-HCH (Lindane)	B21-Se14119	NCP	%	127			70-130	Pass	
Heptachlor	B21-Se14119	NCP	%	105			70-130	Pass	
Heptachlor epoxide	B21-Se14119	NCP	%	114			70-130	Pass	
Methoxychlor	B21-Se14119	NCP	%	88			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Se13778	NCP	%	91			75-125	Pass	
Cadmium	M21-Se13778	NCP	%	94			75-125	Pass	
Chromium	M21-Se13778	NCP	%	95			75-125	Pass	
Copper	M21-Se13778	NCP	%	95			75-125	Pass	
Lead	M21-Se13778	NCP	%	94			75-125	Pass	
Mercury	M21-Se13778	NCP	%	108			75-125	Pass	
Nickel	M21-Se13778	NCP	%	98			75-125	Pass	
Zinc	M21-Se13778	NCP	%	113			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	B21-Se25588	NCP	%	100			70-130	Pass	
Acenaphthylene	B21-Se25588	NCP	%	87			70-130	Pass	
Anthracene	M21-Se19086	NCP	%	88			70-130	Pass	
Benz(a)anthracene	B21-Se25588	NCP	%	84			70-130	Pass	
Benzo(a)pyrene	M21-Se19086	NCP	%	72			70-130	Pass	
Benzo(b&j)fluoranthene	B21-Se25588	NCP	%	84			70-130	Pass	
Benzo(g,h,i)perylene	B21-Se25588	NCP	%	83			70-130	Pass	
Benzo(k)fluoranthene	B21-Se25588	NCP	%	94			70-130	Pass	
Chrysene	B21-Se25588	NCP	%	93			70-130	Pass	
Dibenz(a,h)anthracene	B21-Se25588	NCP	%	81			70-130	Pass	
Fluoranthene	B21-Se25588	NCP	%	94			70-130	Pass	
Fluorene	B21-Se25588	NCP	%	93			70-130	Pass	
Indeno(1,2,3-cd)pyrene	B21-Se25588	NCP	%	105			70-130	Pass	
Naphthalene	B21-Se25588	NCP	%	95			70-130	Pass	
Phenanthrene	B21-Se25588	NCP	%	99			70-130	Pass	
Pyrene	B21-Se25588	NCP	%	79			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Se13778	NCP	mg/L	0.005	0.005	5.0	30%	Pass	
Cadmium	M21-Se13778	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	M21-Se13778	NCP	mg/L	0.002	0.002	4.0	30%	Pass	
Copper	M21-Se13778	NCP	mg/L	0.010	0.009	1.0	30%	Pass	
Lead	M21-Se13778	NCP	mg/L	0.002	0.002	1.0	30%	Pass	
Mercury	M21-Se13778	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	M21-Se13778	NCP	mg/L	0.004	0.004	5.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

James McCann	Analytical Services Manager
Joseph Edouard	Senior Analyst-Organic (VIC)
Emily Rosenberg	Senior Analyst-Metal (VIC)



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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Fw: Eurofins Test Results, Invoice - 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - TCLP Analytical Request

#AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>

Mon 11/10/2021 1:33 PM

To: #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>

Cc: Alana Wadsworth <AlanaWadsworth@eurofins.com>

Hi team,

The client has now sent an update for the additional request on a 5 day TAT - please use this COC instead.

Warm Regards,
Sarah Koutsiofis

Eurofins Brisbane
Eurofins
1/21 Smallwood Place
MURARRIE QLD 4172
AUSTRALIA
Phone : +61 7 3902 4611

Email : EnviroSampleBris@Eurofins.com

Website : www.eurofins.com.au/environmental-testing

From: Wicks, Jeremy <Jeremy.Wicks@coffey.com>

Sent: Monday, October 11, 2021 12:26 PM

To: Alana Wadsworth <AlanaWadsworth@eurofins.com>

Cc: #AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>

Subject: RE: Eurofins Test Results, Invoice - 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - TCLP Analytical Request

EXTERNAL EMAIL*

Hi Alana

I have added some additional TCLP tests to the attached. Can you please disregard the schedule in my previous email today and use the attached.

Best regards

Jeremy Wicks | Environments Team Leader - Queensland

Direct +61 7 3239 9357 | Business +61 7 3239 9300 | Mobile +61 435 956 733 | jeremy.wicks@tetrattech.com

Tetra Tech Coffey | *Leading with Science®*

Level 5, 12 Creek Street | Brisbane QLD 4000 Australia | tetrattech.com | tetrattechcoffey.com

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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

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PO Box 60 Wickham 2293
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NATA # 2377 Site # 2370

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IANZ # 1327

Christchurch

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

Sample Receipt Advice

Company name: Coffey Environments Pty Ltd QLD
Contact name: Jeremy Wicks
Project name: 754-BNEEN282781 DVA GREENSLOPES
Project ID: Not provided
Turnaround time: 5 Day
Date/Time received: Oct 11, 2021 12:26 PM
Eurofins reference: 831137

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

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

James McCann on phone : or by email: JamesMcCann@eurofins.com

Results will be delivered electronically via email to Jeremy Wicks - Jeremy.Wicks@coffey.com.

Note: A copy of these results will also be delivered to the general Coffey Environments Pty Ltd QLD email address.

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 831137
Phone: 07 3503 7192
Fax:

Received: Oct 11, 2021 12:26 PM
Due: Oct 18, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : James McCann

Sample Detail						Chromium	Lead	Zinc	Organochlorine Pesticides	USA Leaching Procedure
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	BH06_0.5	Sep 03, 2021		US Leachate	M21-Oc20732	X				X
2	BH07_0.3	Sep 03, 2021		US Leachate	M21-Oc20733	X				X
3	BH08_0.3	Sep 03, 2021		US Leachate	M21-Oc20734	X				X
4	BH13_0.1	Sep 03, 2021		US Leachate	M21-Oc20735		X	X		X
5	BH14_0.1	Sep 03, 2021		US Leachate	M21-Oc20736		X	X	X	X
6	BH14_0.3	Sep 03, 2021		US Leachate	M21-Oc20737				X	X
7	BH15_0.1	Sep 03, 2021		US Leachate	M21-Oc20738		X	X		X
8	BH16_0.1	Sep 03, 2021		US Leachate	M21-Oc20739		X	X		X
9	BH16_0.5	Sep 03, 2021		US Leachate	M21-Oc20740	X				X
10	BH19_0.3	Sep 03, 2021		US Leachate	M21-Oc20741		X	X		X



Environment Testing

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Lane Cove West NSW 2066
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NATA # 1261 Site # 18217

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

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PO Box 60 Wickham 2293
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NATA # 2377 Site # 2370

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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: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 831137
Phone: 07 3503 7192
Fax:

Received: Oct 11, 2021 12:26 PM
Due: Oct 18, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : James McCann

Sample Detail						Chromium	Lead	Zinc	Organochlorine Pesticides	USA Leaching Procedure
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
11	BH21_0.1	Sep 03, 2021		US Leachate	M21-Oc20742				X	X
12	BH21_0.3	Sep 03, 2021		US Leachate	M21-Oc20743	X	X	X	X	X
13	BH21_0.5	Sep 03, 2021		US Leachate	M21-Oc20744	X				X
14	BH21_CONCR ETE	Sep 03, 2021		US Leachate	M21-Oc20745				X	X
Test Counts						6	6	6	5	14

Coffey Environments Pty Ltd QLD
Level 5, 12 Creek Street
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: **Jeremy Wicks**

Report **831137-L**
Project name **754-BNEEN282781 DVA GREENSLOPES**
Received Date **Oct 11, 2021**

Client Sample ID			BH06_0.5	BH07_0.3	BH08_0.3	BH13_0.1
Sample Matrix			US Leachate	US Leachate	US Leachate	US Leachate
Eurofins Sample No.			M21-Oc20732	M21-Oc20733	M21-Oc20734	M21-Oc20735
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Chromium	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
Lead	0.01	mg/L	-	-	-	0.11
Zinc	0.01	mg/L	-	-	-	0.90
USA Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	5.6	5.7	5.5	5.4
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.2	5.1	5.1	5.1
pH (USA HCl addition)	0.1	pH Units	1.3	1.3	1.3	1.3

Client Sample ID			BH14_0.1	BH14_0.3	BH15_0.1	BH16_0.1
Sample Matrix			US Leachate	US Leachate	US Leachate	US Leachate
Eurofins Sample No.			M21-Oc20736	M21-Oc20737	M21-Oc20738	M21-Oc20739
Date Sampled			Sep 03, 2021	Sep 03, 2021	Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Lead	0.01	mg/L	0.10	-	0.07	0.12
Zinc	0.01	mg/L	1.1	-	0.66	0.84
USA Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	5.3	5.5	5.2	5.2
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.2	5.1	5.2	5.2
pH (USA HCl addition)	0.1	pH Units	1.3	1.3	1.2	1.2
Organochlorine Pesticides						
Chlordanes - Total	0.005	mg/L	< 0.005	< 0.005	-	-
4,4'-DDD	0.001	mg/L	< 0.001	< 0.001	-	-
4,4'-DDE	0.001	mg/L	< 0.001	< 0.001	-	-
4,4'-DDT	0.001	mg/L	< 0.001	< 0.001	-	-
a-HCH	0.001	mg/L	< 0.001	< 0.001	-	-
Aldrin	0.001	mg/L	< 0.001	< 0.001	-	-
b-HCH	0.001	mg/L	< 0.001	< 0.001	-	-
d-HCH	0.001	mg/L	< 0.001	< 0.001	-	-
Dieldrin	0.001	mg/L	0.001	< 0.001	-	-
Endosulfan I	0.001	mg/L	< 0.001	< 0.001	-	-

Client Sample ID			BH14_0.1 US Leachate M21-Oc20736 Sep 03, 2021	BH14_0.3 US Leachate M21-Oc20737 Sep 03, 2021	BH15_0.1 US Leachate M21-Oc20738 Sep 03, 2021	BH16_0.1 US Leachate M21-Oc20739 Sep 03, 2021
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan II	0.001	mg/L	< 0.001	< 0.001	-	-
Endosulfan sulphate	0.001	mg/L	< 0.001	< 0.001	-	-
Endrin	0.001	mg/L	< 0.001	< 0.001	-	-
Endrin aldehyde	0.001	mg/L	< 0.001	< 0.001	-	-
Endrin ketone	0.001	mg/L	< 0.001	< 0.001	-	-
g-HCH (Lindane)	0.001	mg/L	< 0.001	< 0.001	-	-
Heptachlor	0.001	mg/L	< 0.001	< 0.001	-	-
Heptachlor epoxide	0.001	mg/L	< 0.001	< 0.001	-	-
Hexachlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Methoxychlor	0.001	mg/L	< 0.001	< 0.001	-	-
Toxaphene	0.005	mg/L	< 0.005	< 0.005	-	-
Aldrin and Dieldrin (Total)*	0.0002	mg/L	0.001	< 0.001	-	-
DDT + DDE + DDD (Total)*	0.0002	mg/L	< 0.001	< 0.001	-	-
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	< 0.005	< 0.005	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	< 0.005	< 0.005	-	-
Dibutylchloroendate (surr.)	1	%	75	76	-	-
Tetrachloro-m-xylene (surr.)	1	%	81	90	-	-

Client Sample ID			BH16_0.5 US Leachate M21-Oc20740 Sep 03, 2021	BH19_0.3 US Leachate M21-Oc20741 Sep 03, 2021	BH21_0.1 US Leachate M21-Oc20742 Sep 03, 2021	BH21_0.3 US Leachate M21-Oc20743 Sep 03, 2021
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Heavy Metals						
Chromium	0.01	mg/L	< 0.01	-	-	< 0.01
Lead	0.01	mg/L	-	0.03	-	< 0.01
Zinc	0.01	mg/L	-	0.25	-	0.06
USA Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	5.2	5.4	5.5	5.6
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.2	5.1	5.1	5.1
pH (USA HCl addition)	0.1	pH Units	1.3	1.3	1.3	1.3
Organochlorine Pesticides						
Chlordanes - Total	0.005	mg/L	-	-	< 0.005	< 0.005
4,4'-DDD	0.001	mg/L	-	-	< 0.001	< 0.001
4,4'-DDE	0.001	mg/L	-	-	< 0.001	< 0.001
4,4'-DDT	0.001	mg/L	-	-	< 0.001	< 0.001
a-HCH	0.001	mg/L	-	-	< 0.001	< 0.001
Aldrin	0.001	mg/L	-	-	0.002	< 0.001
b-HCH	0.001	mg/L	-	-	< 0.001	< 0.001
d-HCH	0.001	mg/L	-	-	< 0.001	< 0.001
Dieldrin	0.001	mg/L	-	-	0.004	< 0.001
Endosulfan I	0.001	mg/L	-	-	< 0.001	< 0.001
Endosulfan II	0.001	mg/L	-	-	< 0.001	< 0.001
Endosulfan sulphate	0.001	mg/L	-	-	< 0.001	< 0.001
Endrin	0.001	mg/L	-	-	< 0.001	< 0.001
Endrin aldehyde	0.001	mg/L	-	-	< 0.001	< 0.001

Client Sample ID			BH16_0.5 US Leachate M21-Oc20740 Sep 03, 2021	BH19_0.3 US Leachate M21-Oc20741 Sep 03, 2021	BH21_0.1 US Leachate M21-Oc20742 Sep 03, 2021	BH21_0.3 US Leachate M21-Oc20743 Sep 03, 2021
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin ketone	0.001	mg/L	-	-	0.001	< 0.001
g-HCH (Lindane)	0.001	mg/L	-	-	< 0.001	< 0.001
Heptachlor	0.001	mg/L	-	-	< 0.001	< 0.001
Heptachlor epoxide	0.001	mg/L	-	-	< 0.001	< 0.001
Hexachlorobenzene	0.001	mg/L	-	-	< 0.001	< 0.001
Methoxychlor	0.001	mg/L	-	-	< 0.001	< 0.001
Toxaphene	0.005	mg/L	-	-	< 0.005	< 0.005
Aldrin and Dieldrin (Total)*	0.0002	mg/L	-	-	0.006	< 0.001
DDT + DDE + DDD (Total)*	0.0002	mg/L	-	-	< 0.001	< 0.001
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	-	-	0.006	< 0.005
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	-	-	< 0.005	< 0.005
Dibutylchloroendate (surr.)	1	%	-	-	76	56
Tetrachloro-m-xylene (surr.)	1	%	-	-	81	65

Client Sample ID			BH21_0.5 US Leachate M21-Oc20744 Sep 03, 2021	BH21_CONCR ETE US Leachate M21-Oc20745 Sep 03, 2021
Sample Matrix				
Eurofins Sample No.				
Date Sampled				
Test/Reference	LOR	Unit		
Heavy Metals				
Chromium	0.01	mg/L	< 0.01	-
USA Leaching Procedure				
Leachate Fluid ^{C01}		comment	1.0	1.0
pH (initial)	0.1	pH Units	5.6	9.1
pH (Leachate fluid)	0.1	pH Units	5.1	5.1
pH (off)	0.1	pH Units	5.2	10
pH (USA HCl addition)	0.1	pH Units	1.4	1.8
Organochlorine Pesticides				
Chlordanes - Total	0.005	mg/L	-	< 0.005
4,4'-DDD	0.001	mg/L	-	< 0.001
4,4'-DDE	0.001	mg/L	-	< 0.001
4,4'-DDT	0.001	mg/L	-	< 0.001
a-HCH	0.001	mg/L	-	< 0.001
Aldrin	0.001	mg/L	-	< 0.001
b-HCH	0.001	mg/L	-	< 0.001
d-HCH	0.001	mg/L	-	< 0.001
Dieldrin	0.001	mg/L	-	< 0.001
Endosulfan I	0.001	mg/L	-	< 0.001
Endosulfan II	0.001	mg/L	-	< 0.001
Endosulfan sulphate	0.001	mg/L	-	< 0.001
Endrin	0.001	mg/L	-	< 0.001
Endrin aldehyde	0.001	mg/L	-	< 0.001
Endrin ketone	0.001	mg/L	-	< 0.001
g-HCH (Lindane)	0.001	mg/L	-	< 0.001
Heptachlor	0.001	mg/L	-	< 0.001
Heptachlor epoxide	0.001	mg/L	-	< 0.001
Hexachlorobenzene	0.001	mg/L	-	< 0.001

Client Sample ID			BH21_0.5	BH21_CONCR
Sample Matrix			US Leachate	ETE
Eurofins Sample No.			M21-Oc20744	M21-Oc20745
Date Sampled			Sep 03, 2021	Sep 03, 2021
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Methoxychlor	0.001	mg/L	-	< 0.001
Toxaphene	0.005	mg/L	-	< 0.005
Aldrin and Dieldrin (Total)*	0.0002	mg/L	-	< 0.001
DDT + DDE + DDD (Total)*	0.0002	mg/L	-	< 0.001
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	-	< 0.005
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	-	< 0.005
Dibutylchlorodate (surr.)	1	%	-	76
Tetrachloro-m-xylene (surr.)	1	%	-	83

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**Heavy Metals**

- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS

Organochlorine Pesticides

- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)

Testing Site

Melbourne

Melbourne

Extracted

Oct 11, 2021

Oct 12, 2021

Holding Time

28 Days

7 Days

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
Report #: 831137
Phone: 07 3503 7192
Fax:

Received: Oct 11, 2021 12:26 PM
Due: Oct 18, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : James McCann

Sample Detail						Chromium	Lead	Zinc	Organochlorine Pesticides	USA Leaching Procedure
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	BH06_0.5	Sep 03, 2021		US Leachate	M21-Oc20732	X				X
2	BH07_0.3	Sep 03, 2021		US Leachate	M21-Oc20733	X				X
3	BH08_0.3	Sep 03, 2021		US Leachate	M21-Oc20734	X				X
4	BH13_0.1	Sep 03, 2021		US Leachate	M21-Oc20735		X	X		X
5	BH14_0.1	Sep 03, 2021		US Leachate	M21-Oc20736		X	X	X	X
6	BH14_0.3	Sep 03, 2021		US Leachate	M21-Oc20737				X	X
7	BH15_0.1	Sep 03, 2021		US Leachate	M21-Oc20738		X	X		X
8	BH16_0.1	Sep 03, 2021		US Leachate	M21-Oc20739		X	X		X
9	BH16_0.5	Sep 03, 2021		US Leachate	M21-Oc20740	X				X
10	BH19_0.3	Sep 03, 2021		US Leachate	M21-Oc20741		X	X		X

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: 754-BNEEN282781 DVA GREENSLOPES

Order No.:
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Phone: 07 3503 7192
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Sample Detail						Chromium	Lead	Zinc	Organochlorine Pesticides	USA Leaching Procedure
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
11	BH21_0.1	Sep 03, 2021		US Leachate	M21-Oc20742				X	X
12	BH21_0.3	Sep 03, 2021		US Leachate	M21-Oc20743	X	X	X	X	X
13	BH21_0.5	Sep 03, 2021		US Leachate	M21-Oc20744	X				X
14	BH21_CONCR ETE	Sep 03, 2021		US Leachate	M21-Oc20745				X	X
Test Counts						6	6	6	5	14

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

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
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR : No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

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

QC Data General Comments

- 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.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Chromium			mg/L	< 0.01			0.01	Pass	
Lead			mg/L	< 0.01			0.01	Pass	
Zinc			mg/L	< 0.01			0.01	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Chromium	M21-Oc19632	NCP	%	100			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	M21-Oc19632	NCP	%	100			75-125	Pass	
Zinc	M21-Oc19632	NCP	%	109			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Chromium	M21-Oc19632	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	M21-Oc19632	NCP	mg/L	0.11	0.11	<1	30%	Pass	
Zinc	M21-Oc19632	NCP	mg/L	3.2	3.1	2.0	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Hexachlorobenzene	M21-Oc04244	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toxaphene	M21-Oc04244	NCP	mg/L	< 0.005	< 0.005	<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
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Alana Wadsworth	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)



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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Ergebnis: Abnahme

Brisbane Laboratory
Unit 1, 21 Smalwood Pl.,

Perth Laboratory
Unit 2, 91 Leach Hig

Melbourne Laboratory
2 Kingston Town Close, Okehampton, Devon PL20 9JL

Melbourne Laboratory
2 Kingston Town Close, Oakleigh, VIC 3166

IC 3166

Company						Coffee Services							Project No			754-6181M 224351							Project Manager			Jeremy Weiss						
Address						Level 5, Creek Street Brisbane Qld 4000							Project Name			DNA CASEWORKS							Report Format			ESDAT						
Contact Name						Michael Page																										
Phone No						0406 384 431																										
Special Direction						*QCOZ TO ALS FOR ANALYSIS PLEASE																										
Purchase Order																																
Quote ID No																																
No						Client Sample ID							Date			Matrix							Analysis <small>(Note: Where metals are requested, please specify "Total" or "Free")</small>									
1						MW01 - 4.0							17/11/21			S										OCP's HOLD						
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
						Total Counts																										
Method of Shipment						<input type="checkbox"/> Courier (#) <input checked="" type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal							Name			Signature							Date			Time						
Laboratory Use Only						Received By							SYD BNE MEL PER ADL NEW DAR			Signature							Date			Temperature						
						Received By							SYD BNE MEL PER ADL NEW DAR			Signature							Date			Report No						



CHAIN OF CUSTODY RECORD

ABN 50 005 005 521

☐ Sydney Laboratory
Unit F3 Bld F, 16 Mars Rd, Lane Cove West, NSW 2066
02 9900 9400 EnviroSampleNSW@envirofns.com

☐ Brisbane Laboratory
Unit 1, 21 Shawwood Pl, Muramba, QLD 4172
07 3902 4600 EnviroSampleQLD@envirofns.com

☐ Perth Laboratory
Unit 2, 91 Leach Highway, Kewdale WA 6105
08 9251 9800 EnviroSampleWA@envirofns.com

☐ Melbourne Laboratory
2 Kingston Town Close, Clayton VIC 3168
03 9554 5000 EnviroSampleVIC@envirofns.com

2/2

Company		Coffey Services		Project No		754-ANSEN 234351		Project Manager		Jeremy Wicks	
Address		Level 5, Creek Street Brisbane Qld 4000		Project Name		DFA CIRCUSLOPES		Report Format		ESDAT	
Contact Name		Michael Page		Analysis		(Note: Where metals are requested, please specify 'Total' or 'Filtered')					
Phone No		0406 384 431		OCP ⁵		MOLD					
Special Direction											
Purchase Order											
Quote ID No											
Client Sample ID		Date		Matrix							
1 MW01-0.1		17/11/21		S							
2 "		0-25		X							
3 "		0-50		X							
4 "		0-75		X							
5 "		1.0		X							
6 "		1-5		X							
7 "		2.0		X							
8 "		2-5		X							
9 "		3-0		X							
10 "		3-5		X							
Total Counts		17/11/21		S							
Method of Shipment		<input type="checkbox"/> Courier #		<input type="checkbox"/> Hand Delivered		<input type="checkbox"/> Postal		Name		Signature	
Laboratory Use Only		Received By		SYD BNE MEL PER ADL NEW DAR		Signature		Date		Time	
Received By		SYD BNE MEL PER ADL NEW DAR		Signature		Date		Time		Temperature	
Report No		Report No		Report No		Report No		Report No		Report No	

Containers

1L Plastic
250mL Plastic
125mL Plastic
200mL Amber Glass
40mL vial
125mL Amber Glass
Jar
Other ()

Turn Around Requirements

☐ Overnight (9am)*
☐ 1 Day*
☐ 3 Day*
☒ 5 Day
☐ Other ()

Sample Comments / DG Hazard Warning

*Schedules apply

Requisitioned by

Email for Results

Date

Time

Report No

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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

Newcastle

4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth

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

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

Auckland

35 O'Rourke 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

Sample Receipt Advice

Company name: Coffey Environments Pty Ltd QLD
Contact name: Jeremy Wicks
Project name: DVA GREENSLOPES
Project ID: 754-BNEEN 234351
Turnaround time: 5 Day
Date/Time received: Nov 17, 2021 12:25 PM
Eurofins reference: 842197

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : .1 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- N/A Sample containers for volatile analysis received with zero headspace.
- ✓ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

The sample QC02 will be forwarded to ALS.

Contact

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

James McCann on phone : or by email: JamesMcCann@eurofins.com

Results will be delivered electronically via email to Jeremy Wicks - Jeremy.Wicks@coffey.com.

Note: A copy of these results will also be delivered to the general Coffey Environments Pty Ltd QLD email address.



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

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

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

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

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
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web: www.eurofins.com.au
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Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: DVA GREENSLOPES
Project ID: 754-BNEEN 234351

Order No.:
Report #: 842197
Phone: 07 3503 7192
Fax:

Received: Nov 17, 2021 12:25 PM
Due: Nov 24, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : James McCann

Sample Detail						HOLD	Organochlorine Pesticides	Moisture Set	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254							X	X	
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794						X			X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	QC01	Nov 17, 2021		Soil	B21-No42012		X	X	
2	QC03	Nov 17, 2021		Water	B21-No42013		X		
3	QC04	Nov 17, 2021		Water	B21-No42014		X		
4	TRIP BLANK	Nov 17, 2021		Trip Blank (solid)	B21-No42015				X
5	MW01 - 0.1	Nov 17, 2021		Soil	B21-No42016		X	X	
6	MW01 - 0.25	Nov 17, 2021		Soil	B21-No42017		X	X	
7	MW01 - 0.50	Nov 17, 2021		Soil	B21-No42018		X	X	
8	MW01 - 4.0	Nov 17, 2021		Soil	B21-No42019	X			



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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

Newcastle

4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth

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

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

Auckland

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Melbourne Laboratory - NATA # 1261 Site # 1254							X	X	
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794						X			X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
9	MW01 - 4.5	Nov 17, 2021		Soil	B21-No42020	X			
10	MW01 - 5.0	Nov 17, 2021		Soil	B21-No42021	X			
11	MW01 - 5.5	Nov 17, 2021		Soil	B21-No42022	X			
12	MW01 - 6.0	Nov 17, 2021		Soil	B21-No42023	X			
13	MW01 - 0.75	Nov 17, 2021		Soil	B21-No42024	X			
14	MW01 - 1.0	Nov 17, 2021		Soil	B21-No42025	X			
15	MW01 - 1.5	Nov 17, 2021		Soil	B21-No42026	X			
16	MW01 - 2.0	Nov 17, 2021		Soil	B21-No42027	X			
17	MW01 - 2.5	Nov 17, 2021		Soil	B21-No42028	X			
18	MW01 - 3.0	Nov 17, 2021		Soil	B21-No42029	X			
19	MW01 - 3.5	Nov 17, 2021		Soil	B21-No42030	X			



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Project Name: DVA GREENSLOPES
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Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : James McCann

Sample Detail	HOLD	Organochlorine Pesticides	Moisture Set	BTEXN and Volatile TRH
		X	X	
	X			X
Melbourne Laboratory - NATA # 1261 Site # 1254		X	X	
Sydney Laboratory - NATA # 1261 Site # 18217				
Brisbane Laboratory - NATA # 1261 Site # 20794	X			X
Mayfield Laboratory - NATA # 1261 Site # 25079				
Perth Laboratory - NATA # 2377 Site # 2370				
External Laboratory				
Test Counts	12	6	4	1

Coffey Environments Pty Ltd QLD
Level 5, 12 Creek Street
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: **Jeremy Wicks**

Report **842197-S**
Project name **DVA GREENSLOPES**
Project ID **754-BNEEN 234351**
Received Date **Nov 17, 2021**

Client Sample ID			QC01	TRIP BLANK	MW01 - 0.1	MW01 - 0.25
Sample Matrix			Soil	Trip Blank (solid)	Soil	Soil
Eurofins Sample No.			B21-No42012	B21-No42015	B21-No42016	B21-No42017
Date Sampled			Nov 17, 2021	Nov 17, 2021	Nov 17, 2021	Nov 17, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	123	-	111	129
Tetrachloro-m-xylene (surr.)	1	%	118	-	150	114
% Moisture	1	%	20	-	18	21
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	-

Client Sample ID			QC01	TRIP BLANK	MW01 - 0.1	MW01 - 0.25
Sample Matrix			Soil	Trip Blank (solid)	Soil	Soil
Eurofins Sample No.			B21-No42012	B21-No42015	B21-No42016	B21-No42017
Date Sampled			Nov 17, 2021	Nov 17, 2021	Nov 17, 2021	Nov 17, 2021
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	-
Toluene	0.1	mg/kg	-	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	-
o-Xylene	0.1	mg/kg	-	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	-	150	-	-
Total Recoverable Hydrocarbons						
TRH C6-C10	20	mg/kg	-	< 20	-	-
TRH C6-C9	20	mg/kg	-	< 20	-	-

Client Sample ID			MW01 - 0.50
Sample Matrix			Soil
Eurofins Sample No.			B21-No42018
Date Sampled			Nov 17, 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-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-HCH	0.05	mg/kg	< 0.05
d-HCH	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-HCH (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	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
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	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1
Dibutylchloroendate (surr.)	1	%	111
Tetrachloro-m-xylene (surr.)	1	%	121
% Moisture	1	%	23

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 - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Nov 20, 2021	14 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Nov 18, 2021	14 Days
Naphthalene - Method: USEPA 8260B - MGT 350A Volatile Organics by GCMS	Brisbane	Nov 19, 2021	14 Days
BTEX - Method: USEPA SW846 8260	Brisbane	Nov 19, 2021	14 Days
Total Recoverable Hydrocarbons - Method: LTM-ORG-2010 TRH C6-C40	Brisbane	Nov 19, 2021	14 Days

Company Name:	Coffey Environments Pty Ltd QLD	Order No.:		Received:	Nov 17, 2021 12:25 PM
Address:	Level 5, 12 Creek Street Brisbane QLD 4000	Report #:	842197	Due:	Nov 24, 2021
		Phone:	07 3503 7192	Priority:	5 Day
		Fax:		Contact Name:	Jeremy Wicks
Project Name:	DVA GREENSLOPES				
Project ID:	754-BNEEN 234351				

Eurofins Analytical Services Manager : James McCann

Sample Detail						HOLD	Organochlorine Pesticides	Moisture Set	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254							X	X	
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794						X			X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	QC01	Nov 17, 2021		Soil	B21-No42012		X	X	
2	QC03	Nov 17, 2021		Water	B21-No42013		X		
3	QC04	Nov 17, 2021		Water	B21-No42014		X		
4	TRIP BLANK	Nov 17, 2021		Trip Blank (solid)	B21-No42015				X
5	MW01 - 0.1	Nov 17, 2021		Soil	B21-No42016		X	X	
6	MW01 - 0.25	Nov 17, 2021		Soil	B21-No42017		X	X	
7	MW01 - 0.50	Nov 17, 2021		Soil	B21-No42018		X	X	
8	MW01 - 4.0	Nov 17, 2021		Soil	B21-No42019	X			

Company Name: Coffey Environments Pty Ltd QLD
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Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794						X			X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
9	MW01 - 4.5	Nov 17, 2021		Soil	B21-No42020	X			
10	MW01 - 5.0	Nov 17, 2021		Soil	B21-No42021	X			
11	MW01 - 5.5	Nov 17, 2021		Soil	B21-No42022	X			
12	MW01 - 6.0	Nov 17, 2021		Soil	B21-No42023	X			
13	MW01 - 0.75	Nov 17, 2021		Soil	B21-No42024	X			
14	MW01 - 1.0	Nov 17, 2021		Soil	B21-No42025	X			
15	MW01 - 1.5	Nov 17, 2021		Soil	B21-No42026	X			
16	MW01 - 2.0	Nov 17, 2021		Soil	B21-No42027	X			
17	MW01 - 2.5	Nov 17, 2021		Soil	B21-No42028	X			
18	MW01 - 3.0	Nov 17, 2021		Soil	B21-No42029	X			
19	MW01 - 3.5	Nov 17, 2021		Soil	B21-No42030	X			

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Sydney Laboratory - NATA # 1261 Site # 18217				
Brisbane Laboratory - NATA # 1261 Site # 20794	X			X
Mayfield Laboratory - NATA # 1261 Site # 25079				
Perth Laboratory - NATA # 2377 Site # 2370				
External Laboratory				
Test Counts	12	6	4	1

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

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
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR : No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

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

QC Data General Comments

- 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.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
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	< 0.5			0.5	Pass	
Method Blank							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C9	mg/kg	< 20			20	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	99			70-130	Pass	
4,4'-DDD	%	123			70-130	Pass	
4,4'-DDE	%	89			70-130	Pass	
4,4'-DDT	%	112			70-130	Pass	
a-HCH	%	94			70-130	Pass	
Aldrin	%	98			70-130	Pass	
b-HCH	%	92			70-130	Pass	
d-HCH	%	73			70-130	Pass	
Dieldrin	%	94			70-130	Pass	
Endosulfan I	%	110			70-130	Pass	
Endosulfan II	%	103			70-130	Pass	
Endosulfan sulphate	%	81			70-130	Pass	
Endrin	%	79			70-130	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde				%	110			70-130	Pass	
Endrin ketone				%	96			70-130	Pass	
g-HCH (Lindane)				%	80			70-130	Pass	
Heptachlor				%	78			70-130	Pass	
Heptachlor epoxide				%	79			70-130	Pass	
Hexachlorobenzene				%	73			70-130	Pass	
Methoxychlor				%	123			70-130	Pass	
LCS - % Recovery										
BTEX										
Benzene				%	99			70-130	Pass	
Toluene				%	106			70-130	Pass	
Ethylbenzene				%	116			70-130	Pass	
m&p-Xylenes				%	115			70-130	Pass	
Xylenes - Total*				%	118			70-130	Pass	
LCS - % Recovery										
Total Recoverable Hydrocarbons										
TRH C6-C10				%	119			70-130	Pass	
TRH C6-C9				%	117			70-130	Pass	
Test	Lab Sample ID	QA Source		Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Organochlorine Pesticides					Result 1					
Chlordanes - Total	M21-No45037	NCP		%	96			70-130	Pass	
4,4'-DDD	M21-No45037	NCP		%	106			70-130	Pass	
4,4'-DDE	M21-No45037	NCP		%	96			70-130	Pass	
4,4'-DDT	M21-No45037	NCP		%	71			70-130	Pass	
a-HCH	M21-No45037	NCP		%	81			70-130	Pass	
Aldrin	M21-No45037	NCP		%	97			70-130	Pass	
b-HCH	M21-No45037	NCP		%	88			70-130	Pass	
d-HCH	M21-No45037	NCP		%	94			70-130	Pass	
Dieldrin	M21-No45037	NCP		%	97			70-130	Pass	
Endosulfan I	M21-No45037	NCP		%	114			70-130	Pass	
Endosulfan II	M21-No45037	NCP		%	98			70-130	Pass	
Endosulfan sulphate	M21-No45037	NCP		%	85			70-130	Pass	
Endrin	M21-No45037	NCP		%	91			70-130	Pass	
Endrin aldehyde	M21-No45037	NCP		%	86			70-130	Pass	
Endrin ketone	M21-No45037	NCP		%	112			70-130	Pass	
g-HCH (Lindane)	M21-No45037	NCP		%	111			70-130	Pass	
Heptachlor	M21-No45037	NCP		%	101			70-130	Pass	
Heptachlor epoxide	M21-No45037	NCP		%	128			70-130	Pass	
Hexachlorobenzene	M21-No45037	NCP		%	106			70-130	Pass	
Methoxychlor	M21-No45037	NCP		%	86			70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene	B21-No40405	NCP		%	104			70-130	Pass	
Toluene	B21-No40405	NCP		%	112			70-130	Pass	
Ethylbenzene	B21-No40405	NCP		%	119			70-130	Pass	
m&p-Xylenes	B21-No40405	NCP		%	127			70-130	Pass	
o-Xylene	B21-No40405	NCP		%	128			70-130	Pass	
Xylenes - Total*	B21-No40405	NCP		%	127			70-130	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons					Result 1					
TRH C6-C10	B21-No40405	NCP		%	106			70-130	Pass	
TRH C6-C9	B21-No40405	NCP		%	108			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M21-No45037	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	L21-No36627	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M21-No45037	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M21-No45037	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M21-No43390	NCP	%	25	25	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Naphthalene	B21-No40404	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	B21-No40404	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	B21-No40404	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	B21-No40404	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	B21-No40404	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	B21-No40404	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	B21-No40404	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C10	B21-No40404	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C9	B21-No40404	NCP	mg/kg	< 20	< 20	<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	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

James McCann	Analytical Services Manager
Jonathon Angell	Senior Analyst-Volatile (QLD)
Joseph Edouard	Senior Analyst-Organic (VIC)



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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Coffey Environments Pty Ltd QLD
Level 5, 12 Creek Street
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: **Jeremy Wicks**

Report **842197-W**
Project name **DVA GREENSLOPES**
Project ID **754-BNEEN 234351**
Received Date **Nov 17, 2021**

Client Sample ID			QC03	QC04
Sample Matrix			Water	Water
Eurofins Sample No.			B21-No42013	B21-No42014
Date Sampled			Nov 17, 2021	Nov 17, 2021
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Chlordanes - Total	0.002	mg/L	< 0.002	< 0.002
4,4'-DDD	0.0002	mg/L	< 0.0002	< 0.0002
4,4'-DDE	0.0002	mg/L	< 0.0002	< 0.0002
4,4'-DDT	0.0002	mg/L	< 0.0002	< 0.0002
a-HCH	0.0002	mg/L	< 0.0002	< 0.0002
Aldrin	0.0002	mg/L	< 0.0002	< 0.0002
b-HCH	0.0002	mg/L	< 0.0002	< 0.0002
d-HCH	0.0002	mg/L	< 0.0002	< 0.0002
Dieldrin	0.0002	mg/L	< 0.0002	< 0.0002
Endosulfan I	0.0002	mg/L	< 0.0002	< 0.0002
Endosulfan II	0.0002	mg/L	< 0.0002	< 0.0002
Endosulfan sulphate	0.0002	mg/L	< 0.0002	< 0.0002
Endrin	0.0002	mg/L	< 0.0002	< 0.0002
Endrin aldehyde	0.0002	mg/L	< 0.0002	< 0.0002
Endrin ketone	0.0002	mg/L	< 0.0002	< 0.0002
g-HCH (Lindane)	0.0002	mg/L	< 0.0002	< 0.0002
Heptachlor	0.0002	mg/L	< 0.0002	< 0.0002
Heptachlor epoxide	0.0002	mg/L	< 0.0002	< 0.0002
Hexachlorobenzene	0.0002	mg/L	< 0.0002	< 0.0002
Methoxychlor	0.0002	mg/L	< 0.0002	< 0.0002
Toxaphene	0.005	mg/L	< 0.005	< 0.005
Aldrin and Dieldrin (Total)*	0.0002	mg/L	< 0.0002	< 0.0002
DDT + DDE + DDD (Total)*	0.0002	mg/L	< 0.0002	< 0.0002
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	< 0.002	< 0.002
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	< 0.002	< 0.002
Dibutylchlorobenzene (surr.)	1	%	53	136
Tetrachloro-m-xylene (surr.)	1	%	78	129

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

Organochlorine Pesticides

Testing Site

Melbourne

Extracted

Nov 19, 2021

Holding Time

7 Days

- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: DVA GREENSLOPES
Project ID: 754-BNEEN 234351

Order No.:
Report #: 842197
Phone: 07 3503 7192
Fax:

Received: Nov 17, 2021 12:25 PM
Due: Nov 24, 2021
Priority: 5 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : James McCann

Sample Detail						HOLD	Organochlorine Pesticides	Moisture Set	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254							X	X	
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794						X			X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	QC01	Nov 17, 2021		Soil	B21-No42012		X	X	
2	QC03	Nov 17, 2021		Water	B21-No42013		X		
3	QC04	Nov 17, 2021		Water	B21-No42014		X		
4	TRIP BLANK	Nov 17, 2021		Trip Blank (solid)	B21-No42015				X
5	MW01 - 0.1	Nov 17, 2021		Soil	B21-No42016		X	X	
6	MW01 - 0.25	Nov 17, 2021		Soil	B21-No42017		X	X	
7	MW01 - 0.50	Nov 17, 2021		Soil	B21-No42018		X	X	
8	MW01 - 4.0	Nov 17, 2021		Soil	B21-No42019	X			

Company Name:	Coffey Environments Pty Ltd QLD	Order No.:		Received:	Nov 17, 2021 12:25 PM
Address:	Level 5, 12 Creek Street Brisbane QLD 4000	Report #:	842197	Due:	Nov 24, 2021
		Phone:	07 3503 7192	Priority:	5 Day
		Fax:		Contact Name:	Jeremy Wicks
Project Name:	DVA GREENSLOPES				
Project ID:	754-BNEEN 234351				

Eurofins Analytical Services Manager : James McCann

Sample Detail						HOLD	Organochlorine Pesticides	Moisture Set	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254							X	X	
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794						X			X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
9	MW01 - 4.5	Nov 17, 2021		Soil	B21-No42020	X			
10	MW01 - 5.0	Nov 17, 2021		Soil	B21-No42021	X			
11	MW01 - 5.5	Nov 17, 2021		Soil	B21-No42022	X			
12	MW01 - 6.0	Nov 17, 2021		Soil	B21-No42023	X			
13	MW01 - 0.75	Nov 17, 2021		Soil	B21-No42024	X			
14	MW01 - 1.0	Nov 17, 2021		Soil	B21-No42025	X			
15	MW01 - 1.5	Nov 17, 2021		Soil	B21-No42026	X			
16	MW01 - 2.0	Nov 17, 2021		Soil	B21-No42027	X			
17	MW01 - 2.5	Nov 17, 2021		Soil	B21-No42028	X			
18	MW01 - 3.0	Nov 17, 2021		Soil	B21-No42029	X			
19	MW01 - 3.5	Nov 17, 2021		Soil	B21-No42030	X			

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
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Melbourne Laboratory - NATA # 1261 Site # 1254		X	X	
Sydney Laboratory - NATA # 1261 Site # 18217				
Brisbane Laboratory - NATA # 1261 Site # 20794	X			X
Mayfield Laboratory - NATA # 1261 Site # 25079				
Perth Laboratory - NATA # 2377 Site # 2370				
External Laboratory				
Test Counts	12	6	4	1

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

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
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR : No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

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

QC Data General Comments

- 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.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Organochlorine Pesticides									
Chlordanes - Total			mg/L	< 0.002			0.002	Pass	
4,4'-DDD			mg/L	< 0.0002			0.0002	Pass	
4,4'-DDE			mg/L	< 0.0002			0.0002	Pass	
4,4'-DDT			mg/L	< 0.0002			0.0002	Pass	
a-HCH			mg/L	< 0.0002			0.0002	Pass	
Aldrin			mg/L	< 0.0002			0.0002	Pass	
b-HCH			mg/L	< 0.0002			0.0002	Pass	
d-HCH			mg/L	< 0.0002			0.0002	Pass	
Dieldrin			mg/L	< 0.0002			0.0002	Pass	
Endosulfan I			mg/L	< 0.0002			0.0002	Pass	
Endosulfan II			mg/L	< 0.0002			0.0002	Pass	
Endosulfan sulphate			mg/L	< 0.0002			0.0002	Pass	
Endrin			mg/L	< 0.0002			0.0002	Pass	
Endrin aldehyde			mg/L	< 0.0002			0.0002	Pass	
Endrin ketone			mg/L	< 0.0002			0.0002	Pass	
g-HCH (Lindane)			mg/L	< 0.0002			0.0002	Pass	
Heptachlor			mg/L	< 0.0002			0.0002	Pass	
Heptachlor epoxide			mg/L	< 0.0002			0.0002	Pass	
Hexachlorobenzene			mg/L	< 0.0002			0.0002	Pass	
Methoxychlor			mg/L	< 0.0002			0.0002	Pass	
Toxaphene			mg/L	< 0.005			0.005	Pass	
LCS - % Recovery									
Organochlorine Pesticides									
Chlordanes - Total			%	105			70-130	Pass	
4,4'-DDD			%	93			70-130	Pass	
4,4'-DDE			%	93			70-130	Pass	
4,4'-DDT			%	100			70-130	Pass	
a-HCH			%	86			70-130	Pass	
Aldrin			%	99			70-130	Pass	
b-HCH			%	91			70-130	Pass	
d-HCH			%	114			70-130	Pass	
Dieldrin			%	91			70-130	Pass	
Endosulfan I			%	128			70-130	Pass	
Endosulfan II			%	92			70-130	Pass	
Endosulfan sulphate			%	110			70-130	Pass	
Endrin			%	91			70-130	Pass	
Endrin aldehyde			%	100			70-130	Pass	
Endrin ketone			%	108			70-130	Pass	
g-HCH (Lindane)			%	124			70-130	Pass	
Heptachlor			%	84			70-130	Pass	
Heptachlor epoxide			%	123			70-130	Pass	
Hexachlorobenzene			%	110			70-130	Pass	
Methoxychlor			%	124			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M21-No60586	NCP	%	116			70-130	Pass	
4,4'-DDD	M21-No60586	NCP	%	124			70-130	Pass	
4,4'-DDE	M21-No60586	NCP	%	115			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDT	M21-No60586	NCP	%	98			70-130	Pass	
a-HCH	M21-No60586	NCP	%	122			70-130	Pass	
Aldrin	M21-No60586	NCP	%	119			70-130	Pass	
b-HCH	M21-No60586	NCP	%	90			70-130	Pass	
d-HCH	M21-No60586	NCP	%	114			70-130	Pass	
Dieldrin	M21-No60586	NCP	%	103			70-130	Pass	
Endosulfan I	M21-No60586	NCP	%	129			70-130	Pass	
Endosulfan II	M21-No60586	NCP	%	100			70-130	Pass	
Endosulfan sulphate	M21-No60586	NCP	%	126			70-130	Pass	
Endrin	M21-No60586	NCP	%	93			70-130	Pass	
Endrin aldehyde	M21-No60586	NCP	%	108			70-130	Pass	
Endrin ketone	M21-No60586	NCP	%	87			70-130	Pass	
g-HCH (Lindane)	M21-No60586	NCP	%	123			70-130	Pass	
Heptachlor	M21-No60586	NCP	%	108			70-130	Pass	
Heptachlor epoxide	M21-No60586	NCP	%	95			70-130	Pass	
Hexachlorobenzene	M21-No60586	NCP	%	104			70-130	Pass	
Methoxychlor	M21-No60586	NCP	%	101			70-130	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	M21-No60585	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
4.4'-DDD	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
4.4'-DDE	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
4.4'-DDT	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
a-HCH	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Aldrin	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
b-HCH	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
d-HCH	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Dieldrin	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan I	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan II	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan sulphate	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin aldehyde	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin ketone	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
g-HCH (Lindane)	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Heptachlor	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Heptachlor epoxide	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Hexachlorobenzene	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Methoxychlor	M21-No60585	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Toxaphene	M21-No60585	NCP	mg/L	< 0.005	< 0.005	<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	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

James McCann	Analytical Services Manager
Joseph Edouard	Senior Analyst-Organic (VIC)



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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2 day TAT Additional Report 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - URGENT

James McCann <JamesMcCann@eurofins.com>

Thu 12/2/2021 1:54 PM

To: #AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>

Cc: #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>; Alana Wadsworth <AlanaWadsworth@eurofins.com>

Hey Sarah,

Can you please log in the below for NEPM soil classification on a 2-day TAT.

MW01_0.25- No42017 (in Melb) please ask Melbourne to sticker and add subsample codee to Brisbane

MW01_0.75- No42024 (in Bris BSNO228) please subsample to Melbourne

Kind Regards,

James McCann

Analytical Service Manager – QLD

Mobile : 0499 572 666

BSNO207
228

From: Wicks, Jeremy <Jeremy.Wicks@coffey.com>

Sent: Thursday, 2 December 2021 1:47 PM

To: James McCann <JamesMcCann@eurofins.com>; Alana Wadsworth <AlanaWadsworth@eurofins.com>

Cc: #AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>

Subject: RE: Eurofins Test Results, Invoice - Report 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - URGENT

EXTERNAL EMAIL*

Hi James

846389

Can you please run the following samples from Batch 842197 instead.

MW01_0.25

MW01_0.75

Jeremy Wicks | Environments Team Leader - Queensland

Direct +61 7 3239 9357 | Business +61 7 3239 9300 | Mobile +61 435 956 733 | jeremy.wicks@tetratech.com

Tetra Tech Coffey | *Leading with Science*®

Level 5, 12 Creek Street | Brisbane QLD 4000 Australia | tetratech.com | tetratechcoffey.com

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Please consider the environment before printing [Read more](#)



From: James McCann <JamesMcCann@eurofins.com>
Sent: Thursday, 2 December 2021 1:42 PM
To: Wicks, Jeremy <Jeremy.Wicks@coffey.com>; Alana Wadsworth <AlanaWadsworth@eurofins.com>
Cc: #AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>
Subject: RE: Eurofins Test Results, Invoice - Report 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - URGENT

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Hi Jeremy,

Unfortunately, I've just got feedback from the lab that these samples have reached expiry and has since been discarded so we won't be able to run those tests for you.

Kind Regards,

James McCann
Analytical Service Manager – QLD

Mobile : 0499 572 666

From: Wicks, Jeremy <Jeremy.Wicks@coffey.com>
Sent: Thursday, 2 December 2021 1:12 PM
To: Alana Wadsworth <AlanaWadsworth@eurofins.com>
Cc: #AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>; James McCann <JamesMcCann@eurofins.com>
Subject: Eurofins Test Results, Invoice - Report 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - URGENT
Importance: High

EXTERNAL EMAIL*

Alana

Can you please schedule the following samples on a fast 24 hr TAT for NEPM Screen for Soil Classification for DVA Greenslopes from Batch 822538.

BH01_0.3
BH07_0.5

Best regards

Jeremy Wicks | Environments Team Leader - Queensland
Direct +61 7 3239 9357 | Business +61 7 3239 9300 | Mobile +61 435 956 733 | jeremy.wicks@tetratech.com

Tetra Tech Coffey | *Leading with Science*®
Level 5, 12 Creek Street | Brisbane QLD 4000 Australia | tetratech.com | tetratechcoffey.com

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Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne

6 Monterey Road
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NATA # 1261 Site # 1254

Sydney

Unit F3, Building F
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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane

1/21 Smallwood Place
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

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4/52 Industrial Drive
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PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
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ABN: 91 05 0159 898

Perth

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

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

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35 O'Rourke 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

Sample Receipt Advice

Company name: Coffey Environments Pty Ltd QLD
Contact name: Jeremy Wicks
Project name: DVA GREENSLOPES
Project ID: 754-BNEEN 234351
Turnaround time: 2 Day
Date/Time received: Dec 2, 2021 1:54 PM
Eurofins reference: 846389

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : .1 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- N/A Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

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

Alana Wadsworth on phone : or by email: alanawadsworth@eurofins.com

Results will be delivered electronically via email to Jeremy Wicks - Jeremy.Wicks@coffey.com.

Note: A copy of these results will also be delivered to the general Coffey Environments Pty Ltd QLD email address.



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

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

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

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35 O'Rorke Road
Penrose, Auckland 1061
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IANZ # 1327

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

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

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000

Project Name: DVA GREENSLOPES
Project ID: 754-BNEEN 234351

Order No.:
Report #: 846389
Phone: 07 3503 7192
Fax:

Received: Dec 2, 2021 1:54 PM
Due: Dec 6, 2021
Priority: 2 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Chromium (hexavalent)	Metals M8	Moisture Set	NEPM Screen for Soil Classification
Melbourne Laboratory - NATA # 1261 Site # 1254						X		X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794							X	X	X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	MW01 - 0.25	Nov 17, 2021		Soil	B21-De05649			X	X
2	MW01 - 0.75	Nov 17, 2021		Soil	B21-De05650	X	X	X	X
Test Counts						1	1	2	2

Coffey Environments Pty Ltd QLD
Level 5, 12 Creek Street
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 20794

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: **Jeremy Wicks**

Report **846389-S**
Project name **DVA GREENSLOPES**
Project ID **754-BNEEN 234351**
Received Date **Dec 02, 2021**

Client Sample ID			MW01 - 0.25	MW01 - 0.75
Sample Matrix			Soil	Soil
Eurofins Sample No.			B21-De05649	B21-De05650
Date Sampled			Nov 17, 2021	Nov 17, 2021
Test/Reference	LOR	Unit		
% Clay	1	%	I/S	24
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	36	200
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	5.5	6.6
Total Organic Carbon	0.1	%	22	0.6
% Moisture	1	%	20	21
Chromium (hexavalent)	1	mg/kg	-	< 1
Heavy Metals				
Arsenic	2	mg/kg	-	3.5
Cadmium	0.5	mg/kg	-	< 0.5
Chromium	5	mg/kg	-	120
Copper	5	mg/kg	-	24
Iron	20	mg/kg	10000	47000
Lead	5	mg/kg	-	< 5
Mercury	0.1	mg/kg	-	< 0.1
Nickel	5	mg/kg	-	52
Zinc	5	mg/kg	-	30
Heavy Metals				
Iron (%)	0.01	%	1.0	4.7
Cation Exchange Capacity				
Cation Exchange Capacity	0.05	meq/100g	17	33

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
NEPM Screen for Soil Classification			
% Clay - Method: LTM-GEN-7040	Brisbane	Dec 06, 2021	14 Days
Conductivity (1:5 aqueous extract at 25°C as rec.) - Method: LTM-INO-4030 Conductivity	Melbourne	Dec 03, 2021	7 Days
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	Dec 03, 2021	7 Days
Total Organic Carbon - Method: LTM-INO-4060 Total Organic Carbon in water and soil	Melbourne	Dec 03, 2021	28 Days
Heavy Metals - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Brisbane	Dec 06, 2021	28 Days
Cation Exchange Capacity - Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage	Melbourne	Dec 03, 2021	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Brisbane	Dec 02, 2021	14 Days
Chromium (hexavalent) - Method: APHA 3500-Cr Hexavalent Chromium- (Extraction:- USEPA3060)	Melbourne	Dec 03, 2021	28 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Brisbane	Dec 02, 2021	28 Days

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: DVA GREENSLOPES
Project ID: 754-BNEEN 234351

Order No.:
Report #: 846389
Phone: 07 3503 7192
Fax:

Received: Dec 2, 2021 1:54 PM
Due: Dec 6, 2021
Priority: 2 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : Alana Wadsworth

Sample Detail						Chromium (hexavalent)	Metals M8	Moisture Set	NEPM Screen for Soil Classification
Melbourne Laboratory - NATA # 1261 Site # 1254						X		X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794							X	X	X
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	MW01 - 0.25	Nov 17, 2021		Soil	B21-De05649			X	X
2	MW01 - 0.75	Nov 17, 2021		Soil	B21-De05650	X	X	X	X
Test Counts						1	1	2	2

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

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
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR : No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

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

QC Data General Comments

- 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.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank								
Conductivity (1:5 aqueous extract at 25°C as rec.)			uS/cm	< 10		10	Pass	
Chromium (hexavalent)			mg/kg	< 1		1	Pass	
Method Blank								
Heavy Metals								
Arsenic			mg/kg	< 2		2	Pass	
Cadmium			mg/kg	< 0.5		0.5	Pass	
Chromium			mg/kg	< 5		5	Pass	
Copper			mg/kg	< 5		5	Pass	
Iron			mg/kg	< 20		20	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	
Method Blank								
Cation Exchange Capacity								
Cation Exchange Capacity			meq/100g	< 0.05		0.05	Pass	
LCS - % Recovery								
% Clay			%	95		70-130	Pass	
Total Organic Carbon			%	100		70-130	Pass	
Chromium (hexavalent)			%	117		70-130	Pass	
LCS - % Recovery								
Heavy Metals								
Arsenic			%	99		80-120	Pass	
Cadmium			%	100		80-120	Pass	
Chromium			%	104		80-120	Pass	
Copper			%	107		80-120	Pass	
Iron			%	104		80-120	Pass	
Lead			%	105		80-120	Pass	
Mercury			%	108		80-120	Pass	
Nickel			%	101		80-120	Pass	
Zinc			%	101		80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M21-De08181	NCP	%	119		70-130	Pass	
Spike - % Recovery								
				Result 1				
Arsenic	B21-No69376	NCP	%	96		75-125	Pass	
Cadmium	B21-No69376	NCP	%	103		75-125	Pass	
Chromium	B21-No69376	NCP	%	103		75-125	Pass	
Copper	B21-No69376	NCP	%	109		75-125	Pass	
Lead	B21-No69376	NCP	%	106		75-125	Pass	
Mercury	B21-No69376	NCP	%	101		75-125	Pass	
Nickel	B21-No69376	NCP	%	104		75-125	Pass	
Zinc	B21-No69376	NCP	%	105		75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	M21-Oc00876	NCP	uS/cm	260	240	7.1	30%	Pass	
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	M21-Oc00876	NCP	pH Units	7.4	7.6	pass	30%	Pass	
Total Organic Carbon	N21-My59441	NCP	%	1.1	1.0	11	30%	Pass	
% Moisture	S21-De00951	NCP	%	16	18	7.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Iron	B21-No66833	NCP	mg/kg	6300	6600	5.0	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	M21-No71771	NCP	meq/100g	10	12	13	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M21-No71776	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	B21-No69390	NCP	mg/kg	4.2	5.1	20	30%	Pass	
Cadmium	B21-No69390	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chromium	B21-No69390	NCP	mg/kg	16	15	11	30%	Pass	
Lead	B21-No69390	NCP	mg/kg	5.4	6.9	25	30%	Pass	
Mercury	B21-No69390	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	B21-No69390	NCP	mg/kg	7.1	6.1	14	30%	Pass	
Zinc	B21-No69390	NCP	mg/kg	30	32	9.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

James McCann	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Steven Trout	Senior Analyst-Metal (QLD)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

CERTIFICATE OF ANALYSIS

Work Order : **EB2125660**
Client : **TETRA TECH COFFEY PTY LTD**
Contact : MR JEREMY WICKS
Address : LEVEL 5 12 CREEK STREET
 BRISBANE QLD, AUSTRALIA 4000
Telephone : ----
Project : 754-BNEEN28781 DVA Greenslopes
Order number : ----
C-O-C number : ----
Sampler : ----
Site : 114 Newdegate Street Greenslopes
Quote number : EN/222
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 6
Laboratory : Environmental Division Brisbane
Contact : Khaleda Ataei
Address : 2 Byth Street Stafford QLD Australia 4053
Telephone : + 61 2 8784 8555
Date Samples Received : 09-Sep-2021 15:04
Date Analysis Commenced : 14-Sep-2021
Issue Date : 17-Sep-2021 12:56



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Inorganics, Stafford, QLD
Mark Hallas	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Thomas Donovan	Senior Organic Chemist - PFAS	Brisbane Organics, Stafford, QLD



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EG005T-Total Metals by ICP-AES: Sample EB2123170-005 shows poor matrix spike recovery due to sample heterogeneity. Confirmed by visual inspection.



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				QC02_210903	QC10_210903	----	----	----
Sampling date / time				03-Sep-2021 00:00	03-Sep-2021 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EB2125660-001	EB2125660-002	-----	-----	-----
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	6.0	10.9	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Chromium	7440-47-3	2	mg/kg	16	6	----	----	----
Copper	7440-50-8	5	mg/kg	14	74	----	----	----
Lead	7439-92-1	5	mg/kg	86	87	----	----	----
Nickel	7440-02-0	2	mg/kg	8	9	----	----	----
Zinc	7440-66-6	5	mg/kg	64	131	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	----	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	----	----	----
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	----	----	----

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QC02_210903	QC10_210903	----	----	----
Sampling date / time					03-Sep-2021 00:00	03-Sep-2021 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EB2125660-001	EB2125660-002	-----	-----	-----
					Result	Result	----	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5	0.05	mg/kg		<0.05	<0.05	----	----	----
	0-2								
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5		----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5		----	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5		----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5		----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5		----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5		----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5		----	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5		----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5		----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5		----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5		----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5		----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5		----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5		----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5		----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5		----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5		----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5		----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		0.6		----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		1.2		----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		116	115	----	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		108	88.5	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		67.6		----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		65.7		----	----	----
2,4,6-Tribromophenol	118-79-6	0.5	%		48.1		----	----	----
EP075(SIM)T: PAH Surrogates									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QC02_210903	QC10_210903	----	----	----
				Sampling date / time	03-Sep-2021 00:00	03-Sep-2021 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EB2125660-001	EB2125660-002	-----	-----	-----
					Result	Result	----	----	----
EP075(SIM)T: PAH Surrogates - Continued									
2-Fluorobiphenyl	321-60-8	0.5	%		105	----	----	----	----
Anthracene-d10	1719-06-8	0.5	%		66.7	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		101	----	----	----	----



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	138
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	23	134
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	35	154
2-Chlorophenol-D4	93951-73-6	42	153
2,4,6-Tribromophenol	118-79-6	26	157
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	34	156
Anthracene-d10	1719-06-8	37	153
4-Terphenyl-d14	1718-51-0	42	172

QUALITY CONTROL REPORT

Work Order	: EB2125660	Page	: 1 of 7
Client	: TETRA TECH COFFEY PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MR JEREMY WICKS	Contact	: Khaleda Ataei
Address	: LEVEL 5 12 CREEK STREET BRISBANE QLD, AUSTRALIA 4000	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: + 61 2 8784 8555
Project	: 754-BNEEN28781 DVA Greenslopes	Date Samples Received	: 09-Sep-2021
Order number	: ----	Date Analysis Commenced	: 14-Sep-2021
C-O-C number	: ----	Issue Date	: 17-Sep-2021
Sampler	: ----		
Site	: 114 Newdegate Street Greenslopes		
Quote number	: EN/222		
No. of samples received	: 2		
No. of samples analysed	: 2		



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

This Quality Control Report contains the following information:

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Inorganics, Stafford, QLD
Mark Hallas	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Thomas Donovan	Senior Organic Chemist - PFAS	Brisbane Organics, Stafford, QLD



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The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :
 Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
 CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
 LOR = Limit of reporting
 RPD = Relative Percentage Difference
 # = Indicates failed QC

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 3900037)									
EB2123170-004	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	2	2	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	14	16	15.5	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	20	22	10.6	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	53	66	21.0	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	61	76	21.4	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	262	270	2.9	0% - 20%
EB2125698-004	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	14	22	43.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	11	14	26.6	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	11	16	38.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	13	19	42.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	40	54	31.0	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3900746)									
EB2125660-001	QC02_210903	EA055: Moisture Content	----	0.1	%	6.0	5.9	2.8	No Limit
EB2125912-002	Anonymous	EA055: Moisture Content	----	0.1	%	15.1	15.7	4.2	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3900038)									
EB2123170-004	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EB2125698-004	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 3900123)									
EB2125660-001	QC02_210903	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 3900123) - continued									
EB2125660-001	QC02_210903	EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3900121)									
EB2125627-041	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

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 Work Order : EB2125660
 Client : TETRA TECH COFFEY PTY LTD
 Project : 754-BNEEN28781 DVA Greenslopes



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3900121) - continued									
EB2125627-041	Anonymous	EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EB2125627-051	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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

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

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3900037)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	83.4 mg/kg	103	84.0	123
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----
EG005T: Chromium	7440-47-3	2	mg/kg	<2	14.1 mg/kg	92.4	83.0	125
EG005T: Copper	7440-50-8	5	mg/kg	<5	50 mg/kg	88.9	86.0	122
EG005T: Lead	7439-92-1	5	mg/kg	<5	55.4 mg/kg	97.2	84.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	11.8 mg/kg	92.6	81.5	118
EG005T: Zinc	7440-66-6	5	mg/kg	<5	148.7 mg/kg	92.8	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3900038)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	97.5	70.0	125
EP068A: Organochlorine Pesticides (OC) (QCLot: 3900123)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	110	72.8	127
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	110	71.0	127
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	106	67.5	126
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	109	72.7	127
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	109	70.6	122
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	112	64.8	127
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	110	72.4	122
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	109	67.4	125
EP068: Total Chlordane (sum)	----	0.05	mg/kg	<0.05	----	----	----	----
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	110	65.6	124
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	100	70.4	122
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	110	65.6	125
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	108	69.1	124
EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	106	72.4	125
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	112	63.2	127
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.7	120
EP068: Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	----	----	----	----
EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	61.2	124
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	102	55.5	125
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	105	57.1	117
EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	110	51.9	125
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	99.5	46.5	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	101	34.0	130



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 3900123) - continued								
EP068: Sum of DDD + DDE + DDT	72-54-8/72-5 5-9/50-2	0.05	mg/kg	<0.05	----	----	----	----
EP068: Sum of Aldrin + Dieldrin	309-00-2/60- 57-1	0.05	mg/kg	<0.05	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3900121)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	1.5 mg/kg	103	72.6	133
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	1.5 mg/kg	111	63.2	144
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	1.5 mg/kg	112	73.0	117
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	1.5 mg/kg	121	76.2	134
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	1.5 mg/kg	107	71.8	137
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	1.5 mg/kg	98.4	77.1	143
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	1.5 mg/kg	102	74.1	140
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	1.5 mg/kg	101	72.0	139
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	1.5 mg/kg	109	58.0	145
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	1.5 mg/kg	96.5	63.0	147
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	1.5 mg/kg	95.7	70.5	142
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	1.5 mg/kg	111	75.5	138
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	1.5 mg/kg	108	68.5	140
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	1.5 mg/kg	87.1	58.4	143
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	1.5 mg/kg	86.4	52.1	149
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	1.5 mg/kg	85.5	64.6	140

Matrix Spike (MS) Report

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

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number			Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3900037)							
EB2123170-005	Anonymous	EG005T: Arsenic	7440-38-2	100 mg/kg	# 66.1	70.0	130
		EG005T: Cadmium	7440-43-9	25 mg/kg	87.6	70.0	130
		EG005T: Chromium	7440-47-3	100 mg/kg	84.4	70.0	130
		EG005T: Copper	7440-50-8	100 mg/kg	86.0	70.0	130
		EG005T: Lead	7439-92-1	100 mg/kg	70.4	70.0	130
		EG005T: Nickel	7440-02-0	100 mg/kg	88.2	70.0	130
		EG005T: Zinc	7440-66-6	100 mg/kg	70.2	70.0	130

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 Work Order : EB2125660
 Client : TETRA TECH COFFEY PTY LTD
 Project : 754-BNEEN28781 DVA Greenslopes



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3900038)							
EB2123170-005	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	98.9	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 3900123)							
EB2125660-002	QC10_210903	EP068: gamma-BHC	58-89-9	0.5 mg/kg	115	70.0	136
		EP068: Heptachlor	76-44-8	0.5 mg/kg	118	65.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	115	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	112	67.0	129
		EP068: Endrin	72-20-8	0.5 mg/kg	113	60.0	137
		EP068: 4,4`-DDT	50-29-3	0.5 mg/kg	124	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3900121)							
EB2125627-042	Anonymous	EP075(SIM): Acenaphthene	83-32-9	1.5 mg/kg	116	70.0	130
		EP075(SIM): Pyrene	129-00-0	1.5 mg/kg	103	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EB2125660	Page	: 1 of 4
Client	: TETRA TECH COFFEY PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MR JEREMY WICKS	Telephone	: + 61 2 8784 8555
Project	: 754-BNEEN28781 DVA Greenslopes	Date Samples Received	: 09-Sep-2021
Site	: 114 Newdegate Street Greenslopes	Issue Date	: 17-Sep-2021
Sampler	: ----	No. of samples received	: 2
Order number	: ----	No. of samples analysed	: 2

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- Matrix Spike outliers exist - please see following pages for full details.
- For all regular sample matrices, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EG005(ED093)T: Total Metals by ICP-AES	EB2123170--005	Anonymous	Arsenic	7440-38-2	66.1 %	70.0-130%	Recovery less than lower data quality objective

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) QC02_210903, QC10_210903	03-Sep-2021	----	----	----	14-Sep-2021	17-Sep-2021	✓	
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) QC02_210903, QC10_210903	03-Sep-2021	14-Sep-2021	02-Mar-2022	✓	16-Sep-2021	02-Mar-2022	✓	
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) QC02_210903, QC10_210903	03-Sep-2021	14-Sep-2021	01-Oct-2021	✓	16-Sep-2021	01-Oct-2021	✓	
EP068A: Organochlorine Pesticides (OC)								
Soil Glass Jar - Unpreserved (EP068) QC02_210903, QC10_210903	03-Sep-2021	14-Sep-2021	17-Sep-2021	✓	15-Sep-2021	24-Oct-2021	✓	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM)) QC02_210903	03-Sep-2021	14-Sep-2021	17-Sep-2021	✓	15-Sep-2021	24-Oct-2021	✓	



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	2	50.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl ₂) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : EB2125660

<p>Client : TETRA TECH COFFEY PTY LTD</p> <p>Contact : MR JEREMY WICKS</p> <p>Address : LEVEL 5 12 CREEK STREET BRISBANE QLD, AUSTRALIA 4000</p> <p>E-mail : Jeremy.Wicks@coffey.com</p> <p>Telephone : ----</p> <p>Facsimile : ----</p> <p>Project : 754-BNEEN28781 DVA Greenslopes</p> <p>Order number : ----</p> <p>C-O-C number : ----</p> <p>Site : 114 Newdegate Street Greenslopes</p> <p>Sampler :</p>	<p>Laboratory : Environmental Division Brisbane</p> <p>Contact : Khaleda Ataei</p> <p>Address : 2 Byth Street Stafford QLD Australia 4053</p> <p>E-mail : khaleda.ataei@alsglobal.com</p> <p>Telephone : + 61 2 8784 8555</p> <p>Facsimile : +61-7-3243 7218</p> <p>Page : 1 of 2</p> <p>Quote number : ES2018COFENV0007 (EN/222)</p> <p>QC Level : NEPM 2013 B3 & ALS QC Standard</p>
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Dates

Date Samples Received : 09-Sep-2021 15:04	Issue Date : 09-Sep-2021
Client Requested Due : 17-Sep-2021	Scheduled Reporting Date : 17-Sep-2021
Date	

Delivery Details

Mode of Delivery : Carrier	Security Seal : Intact.
No. of coolers/boxes : 1	Temperature : 14.6°C - Ice Bricks present
Receipt Detail : MEDIUM HARD ESKY	No. of samples received / analysed : 2 / 2

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 - Requested Deliverables
- Discounted Package Prices apply only when specific ALS Group Codes ('W', 'S', 'NT' suites) are referenced on COCs.
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Analysis will be conducted by ALS Environmental, Brisbane, NATA accreditation no. 825, Site No. 818 (Micro site no. 18958).
- **Breaches in recommended extraction / analysis holding times (if any) are displayed overleaf in the Proactive Holding Time Report table.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**



Sample Container(s)/Preservation Non-Compliances

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

- No sample container / preservation non-compliance exists.

Summary of Sample(s) and Requested Analysis

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

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

Matrix: SOIL

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP068A (solids) Organochlorine Pesticides by GC/MS	SOIL - EP075 SIM PAH only	SOIL - S-02 8 Metals (incl. Digestion)
EB2125660-001	03-Sep-2021 00:00	QC02_210903	✓	✓	✓	✓
EB2125660-002	03-Sep-2021 00:00	QC10_210903	✓	✓		✓

Proactive Holding Time Report

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

Requested Deliverables

JEREMY WICKS

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

MICHELLE MORRISON

- A4 - AU Tax Invoice (INV)	Email	michelle.morrison@coffey.com
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Project ID: 754-BNEEN202781 DVA Greenstrokes
Site: 114 Newgate Street Greenstrokes

Rec: ZH 9/9/21 1504

Contact: Jeremy Wicks	Quote No:	Coffey	Comments:
Office: 12 Creek Street Brisbane QLD 4000	Results Required:	9/13/2021	QC02_210903 and QC10_210903 to be sent to ALS for Analysis.
Email: jeremy.wicks@coffey.com	Report Format:	Email	Wash soil material from concrete core prior to crushing/analysis
Phone: 0435 353 733	Turn Around:	Standard turnaround	

SAMPLE INFORMATION				CONTAINER				ANALYTICAL REQUIREMENTS											
LAB ID	Sample ID	Matrix Type S Soil W Water	Date	Time	Type / Code	Total Bottles	As Recd As Cd Cl Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn	As Cd Cr Cu Pb M Zn
	BH01_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH01_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH01_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH02_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH02_0.3	Soil	03-Sep-21		jar/ash bag	2													
	BH02_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH03_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH03_0.3	Soil	03-Sep-21		jar/ash bag	2													
	BH03_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH04_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH04_0.3	Soil	03-Sep-21		jar/ash bag	2													
	BH04_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH05_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH05_0.3	Soil	03-Sep-21		jar/ash bag	2													
	BH05_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH06_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH06_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH06_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH07_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH07_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH07_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH08_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH08_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH08_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH12_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH13_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH14_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH14_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH14_0.5	Soil	03-Sep-21		jar/ash bag	2													
	BH15_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH15_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH15_0.5	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH16_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH16_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH16_0.5	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH17_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH17_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH17_0.5	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH18_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH18_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH18_0.5	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH19_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH19_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH19_0.5	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH20_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH20_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH20_0.5	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH21_0.1	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH21_0.3	Soil	03-Sep-21		jar/ash bag	2		x	x										
	BH21_0.5	Soil	03-Sep-21		jar/ash bag	2		x	x										
	Slag-1	Soil	03-Sep-21		jar	1		x											
	Slag-2	Soil	03-Sep-21		jar	1		x											
	BH01_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH02_Concrete	Concrete	03-Sep-21		Bag	1													
	BH03_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH04_Concrete	Concrete	03-Sep-21		Bag	1													
	BH05_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH06_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH07_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH08_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH09_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH10_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH11_Concrete	Concrete	03-Sep-21		Bag	1			x										
	BH21_Concrete	Concrete	03-Sep-21		Bag	1			x										
	QC01_210903	Soil	03-Sep-21		Jar	1		x	x	x									
	QC02_210903	Soil	03-Sep-21		Jar	1		x	x	x									
	QC03_210903	Soil	03-Sep-21		Jar	1													
	QC04_210903	Soil	03-Sep-21		Jar	1													
	QC05_210903	Soil	03-Sep-21		Jar	1													
	QC06_210903	Soil	03-Sep-21		Jar	1													
	QC07_210903	Soil	03-Sep-21		Jar	1													
	QC08_210903	Soil	03-Sep-21		Jar	1													
	QC09_210903	Soil	03-Sep-21		Jar	1		x	x										
	QC10_210903	Soil	03-Sep-21		Jar	1		x	x										
	QC11_210903	Soil	03-Sep-21		Jar	1													
	QC12_210903	Soil	03-Sep-21		Jar	1													
	QC13_210903	Water	03-Sep-21		VIAG/P	4		x	x	x									
	QC14_210903	Water	03-Sep-21		VIAG/P	4		x	x	x									
	trip blank	Soil	03-Sep-21		Jar	1		x	x	x									

Environmental Division
Brisbane
Work Order Reference
EB2125660



Telephone - 61-7-3243 7222

6/9/21 3:51pm

Sarah K

822 538

CERTIFICATE OF ANALYSIS

Work Order : **EB2133163**
Client : **TETRA TECH COFFEY PTY LTD**
Contact : **MR MICHAEL PAGE**
Address : **LEVEL 5 12 CREEK STREET**
BRISBANE QLD, AUSTRALIA 4000
Telephone : **+61 07 3239 9500**
Project : **754-BNEEN 234351 DVA GREENSLOPES**
Order number : **----**
C-O-C number : **----**
Sampler : **----**
Site : **----**
Quote number : **EN/222**
No. of samples received : **1**
No. of samples analysed : **1**

Page : 1 of 4
Laboratory : Environmental Division Brisbane
Contact : Khaleda Ataei
Address : 2 Byth Street Stafford QLD Australia 4053
Telephone : + 61 2 8784 8555
Date Samples Received : 17-Nov-2021 16:05
Date Analysis Commenced : 18-Nov-2021
Issue Date : 23-Nov-2021 17:02



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Matt Frost	Assistant Laboratory Manager	Brisbane Inorganics, Stafford, QLD
Matt Frost	Assistant Laboratory Manager	Brisbane Organics, Stafford, QLD



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QC02	----	----	----	----
Sampling date / time				17-Nov-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EB2133163-001	-----	-----	-----	-----
Result				----	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	19.1	----	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	----	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	----	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	----	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	----	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	----	----	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	----	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	----	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	----	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	----	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	----	----	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	----	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	----	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	----	----	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	----	----	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	----	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	----	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	----	----	----
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	----	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	----	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	----	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	----	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	102	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	102	----	----	----	----



Surrogate Control Limits

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	138
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	23	134

QUALITY CONTROL REPORT

Work Order	: EB2133163	Page	: 1 of 4
Client	: TETRA TECH COFFEY PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MR MICHAEL PAGE	Contact	: Khaleda Ataei
Address	: LEVEL 5 12 CREEK STREET BRISBANE QLD, AUSTRALIA 4000	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: +61 07 3239 9500	Telephone	: + 61 2 8784 8555
Project	: 754-BNEEN 234351 DVA GREENSLOPES	Date Samples Received	: 17-Nov-2021
Order number	: ----	Date Analysis Commenced	: 18-Nov-2021
C-O-C number	: ----	Issue Date	: 23-Nov-2021
Sampler	: ----		
Site	:		
Quote number	: EN/222		
No. of samples received	: 1		
No. of samples analysed	: 1		



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

This Quality Control Report contains the following information:

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Matt Frost	Assistant Laboratory Manager	Brisbane Inorganics, Stafford, QLD
Matt Frost	Assistant Laboratory Manager	Brisbane Organics, Stafford, QLD



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :
 Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
 CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
 LOR = Limit of reporting
 RPD = Relative Percentage Difference
 # = Indicates failed QC

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4022053)									
EB2132420-021	Anonymous	EA055: Moisture Content	----	0.1	%	20.8	20.3	2.1	0% - 20%
EP068A: Organochlorine Pesticides (OC) (QC Lot: 4022005)									
EB2133163-001	QC02	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 4022005) - continued									
EB2133163-001	QC02	EP068: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit



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

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

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit		Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)
				LCS			Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 4022005)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	105	72.8	127
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	99.4	71.0	127
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	103	67.5	126
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	72.7	127
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	107	70.6	122
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	64.8	127
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	107	72.4	122
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	108	67.4	125
EP068: Total Chlordane (sum)	----	0.05	mg/kg	<0.05	----	----	----	----
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	107	65.6	124
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	114	70.4	122
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	107	65.6	125
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	107	69.1	124
EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	106	72.4	125
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	109	63.2	127
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	109	69.7	120
EP068: Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	----	----	----	----
EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	109	61.2	124
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	104	55.5	125
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.5	57.1	117
EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	111	51.9	125
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	102	46.5	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	103	34.0	130
EP068: Sum of DDD + DDE + DDT	72-54-8/72-5 5-9/50-2	0.05	mg/kg	<0.05	----	----	----	----
EP068: Sum of Aldrin + Dieldrin	309-00-2/60- 57-1	0.05	mg/kg	<0.05	----	----	----	----

Matrix Spike (MS) Report

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

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

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EB2133163	Page	: 1 of 4
Client	: TETRA TECH COFFEY PTY LTD	Laboratory	: Environmental Division Brisbane
Contact	: MR MICHAEL PAGE	Telephone	: + 61 2 8784 8555
Project	: 754-BNEEN 234351 DVA GREENSLOPES	Date Samples Received	: 17-Nov-2021
Site	:	Issue Date	: 23-Nov-2021
Sampler	: ----	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- **NO** Laboratory Control outliers occur.
- **NO** Matrix Spike outliers occur.
- For all regular sample matrices, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
	QC	Regular	Actual	Expected	
Method					
Matrix Spikes (MS)					
Pesticides by GCMS	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055) QC02	17-Nov-2021	----	----	----	18-Nov-2021	01-Dec-2021	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068) QC02	17-Nov-2021	19-Nov-2021	01-Dec-2021	✓	22-Nov-2021	29-Dec-2021	✓



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	1	100.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Pesticides by GCMS	EP068	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Pesticides by GCMS	EP068	1	1	100.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Pesticides by GCMS	EP068	0	1	0.00	5.00	✗	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).

Preparation Methods	Method	Matrix	Method Descriptions
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : EB2133163

<p>Client : TETRA TECH COFFEY PTY LTD</p> <p>Contact : MR MICHAEL PAGE</p> <p>Address : LEVEL 5 12 CREEK STREET BRISBANE QLD, AUSTRALIA 4000</p> <p>E-mail : Michael.Page@coffey.com</p> <p>Telephone : +61 07 3239 9500</p> <p>Facsimile : ----</p> <p>Project : 754-BNEEN 234351 DVA GREENSLOPES</p> <p>Order number : ----</p> <p>C-O-C number : ----</p> <p>Site : Sampler :</p>	<p>Laboratory : Environmental Division Brisbane</p> <p>Contact : Khaleda Ataei</p> <p>Address : 2 Byth Street Stafford QLD Australia 4053</p> <p>E-mail : khaleda.ataei@alsglobal.com</p> <p>Telephone : + 61 2 8784 8555</p> <p>Facsimile : +61-7-3243 7218</p> <p>Page : 1 of 2</p> <p>Quote number : ES2018COFENV0007 (EN/222)</p> <p>QC Level : NEPM 2013 B3 & ALS QC Standard</p>
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Dates

Date Samples Received : 17-Nov-2021 16:05	Issue Date : 17-Nov-2021
Client Requested Due Date : 25-Nov-2021	Scheduled Reporting Date : 25-Nov-2021

Delivery Details

Mode of Delivery : Carrier	Security Seal : Intact.
No. of coolers/boxes : 1	Temperature : 15.3°C - Ice Bricks present
Receipt Detail : SMALL HARD ESKY	No. of samples received / analysed : 1 / 1

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 - Requested Deliverables
- Discounted Package Prices apply only when specific ALS Group Codes ('W', 'S', 'NT' suites) are referenced on COCs.
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Analysis will be conducted by ALS Environmental, Brisbane, NATA accreditation no. 825, Site No. 818 (Micro site no. 18958).
- **Breaches in recommended extraction / analysis holding times (if any) are displayed overleaf in the Proactive Holding Time Report table.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**



Sample Container(s)/Preservation Non-Compliances

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

- No sample container / preservation non-compliance exists.

Summary of Sample(s) and Requested Analysis

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

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

Matrix: SOIL

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP068A (solids) Organochlorine Pesticides by GC/MS
EB2133163-001	17-Nov-2021 00:00	QC02	✓	✓

Proactive Holding Time Report

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

Requested Deliverables

JEREMY WICKS

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

MICHAEL PAGE

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



ABN 50 005 085 521

☐ Sydney Laboratory

Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory

Unit 1, 21 Smallwood Pl., Murarie, QLD 4172

07 3902 4600 : EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory**

Unit 2, 91 Leach Highway, Kewdale WA 6105

08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory

2 Kingston Town Close, Oakleigh, VIC 3166

03 8564 5000 EnviroSampleVic@eurolins.com

(1/2)

Company		Coffey Services		Project No		754-BNBN 224351		Project Manager		Jeremy Wicks		Relinquished by		MICHAEL PAGE	
Address		Level 5, Creek Street Brisbane Qld 4000		Project Name		DVA GREENSPACES		Report Format		ESDAT		Email for Results		jeremy.wicks@coffey.com.au	
Contact Name		Michael Page		Analysis											
Phone No		0406 384 431													
Special Direction		*QCO2 TO ALS FOR ANALYSIS PLEASE													
Purchase Order															
Quote ID No															
No		Client Sample ID		Date		Matrix									
1		MW01 - 4.0		17/11/21		S		X							
2		4.5						X							
3		5.0						X							
4		5.5						X							
5		6.0						X							
6		QW1						X							
7		QCO2				S		X							
8		QCO3				W		X							
9		QCO4		17/11/21		W		X							
10		TMP Blank		"		S		X							
		Total Counts													
Method of Shipment		<input type="checkbox"/> Courier (#) <input checked="" type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		Name		MICHAEL PAGE		Signature				Date		17/11/21	
Laboratory Use Only		Received By Sarah Kondrachine		SYD MEL PER ADL NEW DAR		Signature				Date		17/11/21		Time 12:25PM	
		Received By Joshua Pearson		SYD MEL PER ADL NEW DAR		Signature				Date		17/11/21		Report No 1605	

RE: Eurofins Test Results, Invoice - Report 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - URGENT**James McCann** <JamesMcCann@eurofins.com>

Thu 12/2/2021 4:34 PM

To: #AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>

Cc: #AU_CA001_EnviroSampleVic <EnviroSampleVic@eurofins.com>

Hey guys,

Can you please log in below samples for 8-Metals and Hexavalent Chromium on a 24 hr TAT?

MW01_0.25 – No42017 (Melb)

MW01_0.5- No42018 (Melb)

MW01_0.75 - No42024 (Bris) subsamp to Melb for Hex chrom –

MW01_1 - No42025 (Bris) subsamp to Melb for Hex chrom –

BSN0228

Kind Regards,

James McCann

Analytical Service Manager – QLD

#846445

Mobile : 0499 572 666

From: Wicks, Jeremy <Jeremy.Wicks@coffey.com>**Sent:** Thursday, 2 December 2021 4:26 PM**To:** James McCann <JamesMcCann@eurofins.com>; Alana Wadsworth <AlanaWadsworth@eurofins.com>**Cc:** #AU03_EnviroSampleBris <EnviroSampleBris@eurofins.com>**Subject:** RE: Eurofins Test Results, Invoice - Report 822538 : Site 754-BNEEN282781 DVA GREENSLOPES - URGENT

EXTERNAL EMAIL*

Hi James

From this batch can you also please run the following for 8-Metals and Hexavalent Chromium on a 24 hr TAT.

MW01_0.25

MW01_0.5

MW01_0.75

MW01_1

Best regards

Jeremy Wicks | Environments Team Leader - QueenslandDirect +61 7 3239 9357 | Business +61 7 3239 9300 | Mobile +61 435 956 733 | jeremy.wicks@tetratech.com**Tetra Tech Coffey** | *Leading with Science*®Level 5, 12 Creek Street | Brisbane QLD 4000 Australia | tetratech.com | tetratechcoffey.com

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Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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	Newcastle 4/52 Industrial Drive Mayfield East NSW 2304 PO Box 60 Wickham 2293 Phone : +61 2 4968 8448 NATA # 1261 Site # 25079	Perth 46-48 Banksia Road Welshpool WA 6106 Phone : +61 8 6253 4444 NATA # 2377 Site # 2370	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
---	--	---	--	---	--	--

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

Sample Receipt Advice

Company name:	Coffey Environments Pty Ltd QLD
Contact name:	Jeremy Wicks
Project name:	DVA GREENSLOPES
Project ID:	754-BNEEN 234351
Turnaround time:	1 Day
Date/Time received	Dec 2, 2021 4:34 PM
Eurofins reference	846445

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

The sample "MW01_0.75" has had the requested testing added to report 846389.

Contact

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

James McCann on phone : or by email: JamesMcCann@eurofins.com

Results will be delivered electronically via email to Jeremy Wicks - Jeremy.Wicks@coffey.com.

Note: A copy of these results will also be delivered to the general Coffey Environments Pty Ltd QLD email address.



Environment Testing

Eurofins Environment Testing Australia Pty Ltd

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Melbourne
6 Monterey Road
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Phone : +61 3 8564 5000
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NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

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NATA # 1261 Site # 25079

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NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

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35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
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43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Coffey Environments Pty Ltd QLD
Address: Level 5, 12 Creek Street
Brisbane
QLD 4000
Project Name: DVA GREENSLOPES
Project ID: 754-BNEEN 234351

Order No.:
Report #: 846445
Phone: 07 3503 7192
Fax:

Received: Dec 2, 2021 4:34 PM
Due: Dec 3, 2021
Priority: 1 Day
Contact Name: Jeremy Wicks

Eurofins Analytical Services Manager : James McCann

Sample Detail						Chromium (hexavalent)	Metals M8	Metals M8	Moisture Set	Moisture Set
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X		X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794								X	X	X
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	MW01_1.0	Nov 17, 2021		Soil	B21-De06038	X		X		X
2	MW01_0.5	Nov 17, 2021		Soil	B21-De06068	X	X		X	
3	MW01_0.25	Nov 17, 2021		Soil	B21-De06069	X	X		X	
Test Counts						3	3	3	3	3

Coffey Environments Pty Ltd QLD
Level 5, 12 Creek Street
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: **Jeremy Wicks**

Report **846445-S**
Project name **DVA GREENSLOPES**
Project ID **754-BNEEN 234351**
Received Date **Dec 02, 2021**

Client Sample ID			MW01_0.25	MW01_0.5	MW01_1.0
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			B21-De05976	B21-De05977	B21-De06038
Date Sampled			Sep 03, 2021	Sep 03, 2021	Nov 17, 2021
Test/Reference	LOR	Unit			
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1
% Moisture	1	%	22	21	18
Heavy Metals					
Arsenic	2	mg/kg	9.9	< 2	3.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.5
Chromium	5	mg/kg	6.5	89	100
Copper	5	mg/kg	25	9.3	21
Lead	5	mg/kg	21	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	7.8	23	54
Zinc	5	mg/kg	80	19	25

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
Chromium (hexavalent) - Method: APHA 3500-Cr Hexavalent Chromium- (Extraction:- USEPA3060)	Melbourne	Dec 03, 2021	28 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Brisbane	Dec 02, 2021	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Brisbane	Dec 02, 2021	14 Days

Company Name: Coffey Environments Pty Ltd QLD
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Sample Detail						Chromium (hexavalent)	Metals M8	Metals M8	Moisture Set	Moisture Set
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X		X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794								X	X	X
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	MW01_1.0	Nov 17, 2021		Soil	B21-De06038	X		X		X
2	MW01_0.5	Nov 17, 2021		Soil	B21-De06068	X	X		X	
3	MW01_0.25	Nov 17, 2021		Soil	B21-De06069	X	X		X	
Test Counts						3	3	3	3	3

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	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
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR : No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

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

QC Data General Comments

- 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.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Chromium (hexavalent)			mg/kg	< 1			1	Pass	
Method Blank									
Heavy Metals									
Arsenic			mg/kg	< 2			2	Pass	
Cadmium			mg/kg	< 0.4			0.5	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									
Chromium (hexavalent)			%	101			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	111			80-120	Pass	
Cadmium			%	107			80-120	Pass	
Chromium			%	107			80-120	Pass	
Copper			%	109			80-120	Pass	
Lead			%	106			80-120	Pass	
Mercury			%	114			80-120	Pass	
Nickel			%	107			80-120	Pass	
Zinc			%	103			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
				Result 1					
Chromium (hexavalent)	M21-De05158	NCP	%	109			70-130	Pass	
Spike - % Recovery									
				Result 1					
Arsenic	B21-No72072	NCP	%	98			75-125	Pass	
Cadmium	B21-No72072	NCP	%	103			75-125	Pass	
Chromium	B21-No72072	NCP	%	104			75-125	Pass	
Copper	B21-No72072	NCP	%	106			75-125	Pass	
Lead	B21-No72072	NCP	%	104			75-125	Pass	
Mercury	B21-No72072	NCP	%	107			75-125	Pass	
Nickel	B21-No72072	NCP	%	105			75-125	Pass	
Zinc	B21-No72072	NCP	%	105			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M21-De05157	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	B21-De05977	CP	%	21	22	6.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Heavy Metals									
Arsenic	B21-No72081	NCP	mg/kg	4.5	4.7	4.0	30%	Pass	
Cadmium	B21-No72081	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chromium	B21-No72081	NCP	mg/kg	12	10	19	30%	Pass	
Copper	B21-No72081	NCP	mg/kg	< 5	< 5	<1	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Lead	B21-No72081	NCP	mg/kg	9.7	9.5	2.0	30%	Pass
Mercury	B21-No72081	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	B21-No72081	NCP	mg/kg	6.2	5.1	19	30%	Pass
Zinc	B21-No72081	NCP	mg/kg	22	22	1.0	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

James McCann	Analytical Services Manager
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Steven Trout	Senior Analyst-Metal (QLD)
Emily Rosenberg	Senior Analyst-Metal (VIC)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

APPENDIX E: EMR SEARCH RESULT



Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454, Brisbane QLD 4001, AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Jeremy Wicks
Level 5, 12 Creek Street, Brisbane
Brisbane QLD 4000

Transaction ID: 50650490 EMR Site Id: 148513 18 December 2020
Cheque Number:
Client Reference:

This response relates to a search request received for the site:
Lot: 124 Plan: RP46047

EMR RESULT

The above site IS included on the Environmental Management Register.
Lot: 124 Plan: RP46047
Address: 53 HEADFORT STREET
GREENSLOPES QLD 4120

The site has been subject to contamination from a hazardous contaminant as follows:
HAZARDOUS CONTAMINANT - This site has been subject to a hazardous contaminant. Refer to the summary given below.
Elevated concentrations of organochlorine pesticides (DDD/DDT/DDE and Aldrin/Dieldrin) identified on site above the nominated investigation levels.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DES has not been notified

If you have any queries in relation to this search please phone 13QGOV (13 74 68)

Administering Authority



Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454, Brisbane QLD 4001, AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Jeremy Wicks
Level 5, 12 Creek Street, Brisbane
Brisbane QLD 4000

Transaction ID: 50650489 EMR Site Id: 148512 18 December 2020
Cheque Number:
Client Reference:

This response relates to a search request received for the site:
Lot: 123 Plan: RP46047

EMR RESULT

The above site IS included on the Environmental Management Register.
Lot: 123 Plan: RP46047
Address: 51 HEADFORT STREET
GREENSLOPES QLD 4120

The site has been subject to contamination from a hazardous contaminant as follows:
HAZARDOUS CONTAMINANT - This site has been subject to a hazardous contaminant. Refer to the summary given below.
Elevated concentrations of organochlorine pesticides (DDD/DDT/DDE and Aldrin/Dieldrin) identified on site above the nominated investigation levels.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
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If you have any queries in relation to this search please phone 13QGOV (13 74 68)

Administering Authority



Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454, Brisbane QLD 4001, AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Jeremy Wicks
Level 5, 12 Creek Street, Brisbane
Brisbane QLD 4000

Transaction ID: 50650488 EMR Site Id: 148514 18 December 2020
Cheque Number:
Client Reference:

This response relates to a search request received for the site:
Lot: 125 Plan: RP46047

EMR RESULT

The above site IS included on the Environmental Management Register.
Lot: 125 Plan: RP46047
Address: 55 HEADFORT STREET
GREENSLOPES QLD 4120

The site has been subject to contamination from a hazardous contaminant as follows:
HAZARDOUS CONTAMINANT - This site has been subject to a hazardous contaminant. Refer to the summary given below.
Elevated concentrations of organochlorine pesticides (DDD/DDT/DDE and Aldrin/Dieldrin) identified on site above the nominated investigation levels.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DES has not been notified

If you have any queries in relation to this search please phone 13QGOV (13 74 68)

Administering Authority

APPENDIX F: SUMMARY OF PREVIOUS INVESTIGATIONS

Coffey, 2013a. *Department of Veteran Affairs Phase 1 Contaminated Land Assessment, 114 Newdegate Street, Greenslopes Queensland*

This investigation comprised a desk top review, site inspection and limited soil sampling program. The limited sampling program identified elevated concentrations of zinc and OCPs which were below the adopted health investigations levels (NEPM residential guidelines with accessible soils or HIL A). Zinc is potentially derived from metallic materials present on the Site.

Fragments of ACM were observed on the Site. Asbestos fines (AF) in soil exceed the nominated investigation levels in two samples collected (SS01 0.007% w/w and SS02 0.02% w/w).

Coffey, 2013b. *Department of Veteran Affairs Phase 2 Contaminated Land Assessment, 114 Newdegate Street, Greenslopes Queensland*

This investigation comprised a further soil sampling program to investigate the presence of contamination on the Site. Key findings of the investigation included:

- the presence of ACM in soil beneath the Main Hall Building and Accommodation Building which exceeded the nominated investigation levels (HIL-A).
- AF (chrysotile) detected in one soil sample with levels below the nominated investigation levels.
- Asbestos were not detected in nine of the ten samples collected. The report noted that the Phase 2 investigation adopted a methodology compliant with Australian Standards and was considered to supersede the findings of the Phase 1 Investigation.
- OCPs (aldrin + dieldrin) with concentrations which exceeded the nominated investigation levels (HIL-A) along the southern wall of the Main Hall, and beneath and along the southern wall of the Accommodation Building.
- the presence of anthropogenic materials including slag in soil material at sample sites located on the southern boundary of the Site (A05 and A06), sample locations to the west of the Accommodation Building (A04), and beneath and north of the Main Hall (A08 and A10).

Coffey, 2019. *Department of Veteran Affairs Delineation of Organochlorine Soil Impacts, 114 Newdegate Street, Greenslopes Queensland*

This investigation comprised a further soil sampling program to further delineate the extent of OCPs on the Site, and slag material found on the southern side of the Main Hall. The slag material was observed as being potentially used as drainage material on the Site.

The investigation found OCPs which exceeded the nominated investigations levels (HIL-A and HIL-C) primarily where building external walls intersected the ground. Leachability analysis of selected soil samples via the TCLP²¹ were undertaken for waste classification purposes.

This investigation observed the presence of ACM materials on the ground surface however no further investigation of ACM was undertaken.

²¹ Toxicity Characteristic Leaching Procedure

APPENDIX G: QUALITY ASSURANCE / QUALITY CONTROL

1. Quality Control

1.1 Introduction

The steps in the sampling and analysis process are subject to natural and inherent variability, and this can affect the results produced, and the overall quality of the data sets generated. In order to minimise the effect of this, standard procedures are used for works carried out in the field, and in the laboratory. The use of such procedures represents one aspect of the quality assurance process. To measure the effectiveness of the quality assurance process, quality control samples can be tested, and other quality control tests can be conducted during the analysis of samples taken in the field.

Quality control (QC) samples and tests can be used to assess both the accuracy and the precision of the results produced.

- Measures of **ACCURACY** provide information on how close to the true result is the reported result. For practical reasons, measures of accuracy are usually confined to the laboratory steps in the overall process.
- Measures of **PRECISION** provide information on the variability in the results. Precision can be assessed as:
 - “repeatability” or intra-laboratory variation – the degree of variation in a result when the same laboratory analyses a sample (or blind replicate) several times, and;
 - “reproducibility” or inter-laboratory variation – the degree of variation in a result when a different laboratory separately analyses a sample.

In addition, blank samples can be used to assess whether extraneous materials and factors have contributed to the results obtained from the sampling and analysis process.

QC testing can be conducted covering all steps of the process (referred to as Field QC in this report), or just one portion of the process, such as the laboratory steps (referred to as Laboratory QC in this report).

1.2 Field Quality Control

Precision of the sample collection, transport and analysis process is measured by the relative percent difference (RPD) between duplicate results. Acceptance targets for laboratory duplicates are dependent on matrix type, contaminant type and contaminant concentrations. Australian Standard AS 4482.1 – 2005 (*Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds*) provides the following guidance on the acceptable limits of precision for soil samples.

Typical relative percent difference is 30% – 50% of mean concentration of analyte. This variation can be expected to be higher for organic analysis than for inorganics, and for low concentration of analytes.

Noting this guidance, Coffey has adopted the following acceptance criteria for RPD results on replicate samples:

- 30% for concentrations more than 10 times the laboratory limit of reporting (LOR), and;
- 50% for concentrations less than 10 times the LOR.

For blanks, Coffey’s approach is that the concentration of any contaminant should be less than the LOR in all blank samples.

1.3 Laboratory Quality Control

Laboratories are accredited by the National Association of Testing Authorities (NATA) on the basis of their ability to provide quantitative evidence of their ability and competence to produce reliable results against recognised benchmarks. NATA accredited laboratories are able to demonstrate the ability to produce reliable, repeatable results for a range of parameters within a range of sample matrices. Each laboratory method used undergoes a validation process before it is adopted by the laboratory and accredited by NATA. As part of the validation process, the precision and accuracy of the method are established.

In addition, laboratories conduct their own quality control testing to indicate their performance on each reported batch of samples. The results of this testing are compared with the validated precision and accuracy.

Precision of results is measured by the Relative Percent Difference (RPD) between replicate samples selected within the laboratory. RPD is calculated in the same way as described above for Field QC.

Accuracy of results is assessed in a number of ways:

- **Reference materials**, with known concentrations of analytes are analysed with the batch of samples. The results of this analysis are compared with the established concentrations in the reference material.
- **Spike additions**. Known amounts of targeted analytes are added to the samples to be analysed, and the spiked samples are processed through the analytical process. The amount of spiked material is measured as the recovery of the added amount reported in the final result.
- **Surrogate spikes**. Known amounts of chemical compounds with similar properties to the targeted analytes are added to the samples to be analysed, and the spiked samples are processed through the analytical process. The amount of spiked material is measured as the recovery of the added amount reported in the final result.

Schedule B(3) of the National Environment Protection Measure (NEPM) for contaminated sites states that, in general, at least 70% recovery should be achievable from a reference method. Additionally, standard methods prepared by international agencies such as the US EPA and APHA, frequently have performance data such as expected spike recovery incorporated within the method. Where these vary from the 70% figure indicated in the NEPM Schedule, they are noted in the discussion of results which follows this introduction.

Based on the above, Coffey has adopted 70% - 130% as the default acceptable range for spike recovery and surrogates spike recovery results, and as the default acceptance limits for the difference between analysis results and the expected result for reference materials.

2. SAMPLING QC PROGRAMME

2.1 Precision / Accuracy

1. Was a NATA registered laboratory used?
2. Did the laboratory perform the requested tests?
3. Were the laboratory methods adopted NATA endorsed?
4. Were the appropriate test procedures followed?
5. Were the reporting limits satisfactory?
6. Was the NATA Seal on the reports?
7. Were the reports signed by an authorised person?

Yes	No (Comment below)
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments

Nil

Precision/Accuracy of the Laboratory Report	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory
	<input type="checkbox"/> Partially Satisfactory	

2.2 Sample Handling

Yes	No
-----	----

1. Were the sample **holding times** met?
2. Were the samples in **proper custody** between the field and reaching the laboratory?
3. Were the samples **properly and adequately** preserved?
This includes keeping the samples chilled, where applicable.
4. Were the samples received by the laboratory in good condition?

	(Comment below)
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sample Handling was: ☒ Satisfactory ☐ Unsatisfactory
☐ Partially Satisfactory

Comments:

Samples were submitted to Eurofins (Primary Laboratory) and received at <1 degrees Celsius. Eurofins submitted the QA/QC inter laboratory samples to ALS and these were received by ALS with a temperature of 14.6 and 15.3 degrees Celsius. A corrective action has been raised with Eurofins. The primary contaminants of concern (OCP) and other potential contaminants investigated (metals and PAH in slag) have low volatility. Accordingly this is considered to be minor breach and not have affected the laboratory results reported by ALS.

3. FIELD QA/QC

3.1 Field QC sample summary

	Soil
Number of Primary samples analysed	53
Number of days sampling	2
Field Duplicates / Triplicates (at least 1 in 20 samples)	3 / 3
Trip Blanks (at least 1/day or sampling event)	2
Trip Spikes (at least 1/day or sampling event)	0
Field Blanks (at least 1/day/site)	2
Rinsate Blanks (at least 1/day/matrix/equipment)	2

Comments:

Trip spikes were not required on the basis that the contaminants of concern have low volatility.

3.2 Field Duplicates

	Yes	No (Comment below)
A. Were an <u>Adequate Number</u> of field duplicates analysed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Were RPDs within Control Limits? (30 % if >20 x LOR, 50% if < 20 LOR, no limit if <10 LOR)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comment:

Primary sample	Duplicate / Triplicate sample	Analyte	Result
BH19_0.3	QC01_210903	Lead	51
	QC02_210903	Chromium (III+VI)	107
BH17_0.3	QC10_210903	Copper	105

For all RPD exceedances above, the primary result has reported a higher concentration for an analyte where both results are below the adopted criteria. As the presence of impact has been identified with other analytes the overall outcome is unchanged.

3.3 Trip Blanks

	Yes	No (Comment below)
A. Were an <u>Adequate Number</u> of trip blanks collected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Were the Trip Blanks free of contaminants? (If no, comment whether the contaminants present are also detected in the samples and whether they are common laboratory chemicals.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.4 Field Blanks

	Yes	No (Comment below)
A. Were an adequate number of Field Blanks collected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Were the Field Blanks free of contaminants? (If no, comment whether the contaminants present are also detected in the samples and whether they are common laboratory chemicals.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5 Equipment Rinsates

	Yes	No (Comment below)
A. Were an adequate number of Equipment Rinsates collected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Were the Equipment Rinsates free of contaminants? (If no, comment whether the contaminants present are also detected in the samples and whether they are common laboratory chemicals.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Field QA/QC was:	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory
	<input type="checkbox"/> Partially Satisfactory	

3.6 Laboratory Quality Control Procedures

As noted in Section 1.3, laboratories conduct their own quality control testing to indicate their performance on each reported batch of samples. The following section assesses the adequacy of these procedures.

2. Were the laboratory blanks/reagents blanks free of contamination?
3. Were the spike recoveries within control limits?
 - a. Organics (60% to 110%)
4. Were the RPDs of the laboratory duplicates within control limits?
5. Were the surrogate recoveries within control limits?

Yes	No (Comment below)
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

Batch 822538 contains 6 surrogate recoveries outside control limits. The recipient laboratory has advised that the surrogate recoveries have been considered in the reporting of the results and have not affected the validity of the results.

Batch EB2125660 from the secondary contains one matrix spike recovery below control limits. The matrix spike was for arsenic and had a recovery of 66.1% and was marginally outside the limits of 70 to 130%. Arsenic is not a contaminant of concern for the site and spike recoveries for the primary laboratory were within acceptable limits.

5. The laboratory internal QA/QC was:	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory
	<input type="checkbox"/> Partially Satisfactory	

4. DATA USABILITY

- | | |
|---|-------------------------------------|
| 1. Data Directly Usable | <input checked="" type="checkbox"/> |
| 2. Data Usable with the following corrections/modifications (see comment below) | <input type="checkbox"/> |
| 3. Data Not Usable. | <input type="checkbox"/> |

COMMENTS

Nil

QA/QC Report Prepared by

Michael Page

QA/QC Report Reviewed by:

Jeremy Wicks

(Reviewer)

Field Blanks (Water)

Filter: Lab_Report_Number in('822538')

Lab Report Number	822538	822538	822538
Field ID	QC14_210903	QC13_210903	TRIP BLANK
Matrix	Water	Water	Soil
Sampled_Date/Time	3/09/2021	3/09/2021	3/09/2021
Sample Type	Field_B	Rinsate	Trip_B

Chem_Group	ChemName	Units	EQL			
Metals	Arsenic	mg/l	0.001	<0.001	<0.001	
	Cadmium	mg/l	0.0002	<0.0002	<0.0002	
	Lead	mg/l	0.001	<0.001	<0.001	
	Mercury	mg/l	0.0001	<0.0001	<0.0001	
	Nickel	mg/l	0.001	<0.001	<0.001	
	Copper	mg/l	0.001	<0.001	<0.001	
	Zinc	mg/l	0.005	<0.005	<0.005	
	Chromium (III+VI)	mg/l	0.001	<0.001	<0.001	
Organochlorine Pesticides	4,4-DDE	µg/l	0.2	<0.2	<0.2	
	a-BHC	µg/l	0.2	<0.2	<0.2	
	Aldrin	µg/l	0.2	<0.2	<0.2	
	Aldrin + Dieldrin	µg/l	0.2	<0.2	<0.2	
	b-BHC	µg/l	0.2	<0.2	<0.2	
	chlordan	µg/l	2	<2	<2	
	d-BHC	µg/l	0.2	<0.2	<0.2	
	DDD	µg/l	0.2	<0.2	<0.2	
	DDT	µg/l	0.2	<0.2	<0.2	
	Dieldrin	µg/l	0.2	<0.2	<0.2	
	Endosulfan I	µg/l	0.2	<0.2	<0.2	
	Endosulfan II	µg/l	0.2	<0.2	<0.2	
	Endosulfan sulphate	µg/l	0.2	<0.2	<0.2	
	Endrin	µg/l	0.2	<0.2	<0.2	
	Endrin aldehyde	µg/l	0.2	<0.2	<0.2	
	Endrin ketone	µg/l	0.2	<0.2	<0.2	
	g-BHC (Lindane)	µg/l	0.2	<0.2	<0.2	
	Heptachlor	µg/l	0.2	<0.2	<0.2	
	Hexachlorobenzene	µg/l	0.2	<0.2	<0.2	
	Methoxychlor	µg/l	0.2	<0.2	<0.2	
	Toxaphene	mg/l	0.005	<0.005	<0.005	
	Organochlorine pesticides EPAVic	µg/l	2	<2	<2	
	Other organochlorine pesticides EPAVic	µg/l	2	<2	<2	
	DDT+DDE+DDD	µg/l	0.2	<0.2	<0.2	
	Heptachlor epoxide	µg/l	0.2	<0.2	<0.2	
Polycyclic Aromatic Hydrocarbons	Acenaphthene	µg/l	1	<1		
	Acenaphthylene	µg/l	1	<1		
	Anthracene	µg/l	1	<1		
	Benz(a)anthracene	µg/l	1	<1		
	Benzo(g,h,i)perylene	µg/l	1	<1		
	Benzo(k)fluoranthene	µg/l	1	<1		
	Chrysene	µg/l	1	<1		
	Benzo(b+j)fluoranthene	µg/l	1	<1		
	Dibenz(a,h)anthracene	µg/l	1	<1		
	Fluoranthene	µg/l	1	<1		
	Indeno(1,2,3-c,d)pyrene	µg/l	1	<1		
	Phenanthrene	µg/l	1	<1		
	Pyrene	µg/l	1	<1		
	PAHs (Sum of total)	µg/l	1	<1		
	Benzo(a) pyrene	µg/l	1	<1		
	Fluorene	µg/l	1	<1		
	Naphthalene-PAH	MG/KG	0.001	<0.001		
BTEX	Benzene	mg/kg	0.1			<0.1
	Toluene	mg/kg	0.1			<0.1
	Ethylbenzene	mg/kg	0.1			<0.1
	Xylene (o)	mg/kg	0.1			<0.1
	Xylene (m & p)	mg/kg	0.2			<0.2
	Xylene Total	mg/kg	0.3			<0.3
	Naphthalene-MAH	mg/kg	0.5			<0.5
Total Petroleum Hydrocarbons	C6 - C9	mg/kg	20			<20
Total Recoverable Hydrocarbons	F1 (C6 - C10)	mg/kg	20			<20
	F1 (C6 - C10) less BTEX	mg/kg	20			<20

Field Blanks (Water)

Filter: Lab_Report_Number in('822538')

Lab Report Number	842197	842197	842197
Field ID	QC03	QC04	TRIP BLANK
Matrix	Water	Water	Soil
Sampled_Date/Time	17/11/2021	17/11/2021	17/11/2021
Sample Type	Field_B	Rinsate	Trip_B

Chem_Group	ChemName	Units	EQL			
Metals	Arsenic	mg/l	0.001	<0.001	<0.001	
	Cadmium	mg/l	0.0002	<0.0002	<0.0002	
	Lead	mg/l	0.001	<0.001	<0.001	
	Mercury	mg/l	0.0001	<0.0001	<0.0001	
	Nickel	mg/l	0.001	<0.001	<0.001	
	Copper	mg/l	0.001	<0.001	<0.001	
	Zinc	mg/l	0.005	<0.005	<0.005	
	Chromium (III+VI)	mg/l	0.001	<0.001	<0.001	
Organochlorine Pesticides	4,4-DDE	µg/l	0.2	<0.2	<0.2	
	a-BHC	µg/l	0.2	<0.2	<0.2	
	Aldrin	µg/l	0.2	<0.2	<0.2	
	Aldrin + Dieldrin	µg/l	0.2	<0.2	<0.2	
	b-BHC	µg/l	0.2	<0.2	<0.2	
	chlordane	µg/l	2	<2	<2	
	d-BHC	µg/l	0.2	<0.2	<0.2	
	DDD	µg/l	0.2	<0.2	<0.2	
	DDT	µg/l	0.2	<0.2	<0.2	
	Dieldrin	µg/l	0.2	<0.2	<0.2	
	Endosulfan I	µg/l	0.2	<0.2	<0.2	
	Endosulfan II	µg/l	0.2	<0.2	<0.2	
	Endosulfan sulphate	µg/l	0.2	<0.2	<0.2	
	Endrin	µg/l	0.2	<0.2	<0.2	
	Endrin aldehyde	µg/l	0.2	<0.2	<0.2	
	Endrin ketone	µg/l	0.2	<0.2	<0.2	
	g-BHC (Lindane)	µg/l	0.2	<0.2	<0.2	
	Heptachlor	µg/l	0.2	<0.2	<0.2	
	Hexachlorobenzene	µg/l	0.2	<0.2	<0.2	
	Methoxychlor	µg/l	0.2	<0.2	<0.2	
	Toxaphene	mg/l	0.005	<0.005	<0.005	
	Organochlorine pesticides EPAVic	µg/l	2	<2	<2	
	Other organochlorine pesticides EPAVic	µg/l	2	<2	<2	
	DDT+DDE+DDD	µg/l	0.2	<0.2	<0.2	
	Heptachlor epoxide	µg/l	0.2	<0.2	<0.2	
Polycyclic Aromatic Hydrocarbons	Acenaphthene	µg/l	1	<1		
	Acenaphthylene	µg/l	1	<1		
	Anthracene	µg/l	1	<1		
	Benz(a)anthracene	µg/l	1	<1		
	Benzo(g,h,i)perylene	µg/l	1	<1		
	Benzo(k)fluoranthene	µg/l	1	<1		
	Chrysene	µg/l	1	<1		
	Benzo(b+j)fluoranthene	µg/l	1	<1		
	Dibenz(a,h)anthracene	µg/l	1	<1		
	Fluoranthene	µg/l	1	<1		
	Indeno(1,2,3-c,d)pyrene	µg/l	1	<1		
	Phenanthrene	µg/l	1	<1		
	Pyrene	µg/l	1	<1		
	PAHs (Sum of total)	µg/l	1	<1		
	Benzo(a) pyrene	µg/l	1	<1		
	Fluorene	µg/l	1	<1		
	Naphthalene-PAH	MG/KG	0.001	<0.001		
BTEX	Benzene	mg/kg	0.1			<0.1
	Toluene	mg/kg	0.1			<0.1
	Ethylbenzene	mg/kg	0.1			<0.1
	Xylene (o)	mg/kg	0.1			<0.1
	Xylene (m & p)	mg/kg	0.2			<0.2
	Xylene Total	mg/kg	0.3			<0.3
	Naphthalene-MAH	mg/kg	0.5			<0.5
Total Petroleum Hydrocarbons	C6 - C9	mg/kg	20			<20
Total Recoverable Hydrocarbons	F1 (C6 - C10)	mg/kg	20			<20
	F1 (C6 - C10) less BTEX	mg/kg	20			<20

Field Duplicates (Soil)
 Filter: Lab_Report_Number in('822538')

Lab Report Number	822538	822538		Interlab_D		822538	822538		Interlab_D		29-Oct-07	29-Oct-07		Interlab_D	
Field ID	BH19_0.3	QC01_210903	RPD	QC02_210903	RPD	BH17_0.3	QC09_210903	RPD	QC10_210903	RPD	MW01 - 0.50	QC01	RPD	QC02	RPD
Sampled Date/Time	3/09/2021	3/09/2021		3/09/2021		3/09/2021	3/09/2021		3/09/2021		17/11/2021	17/11/2021		17/11/2021	

Chem_Group	ChemName	Units	EQL															
Metals	Arsenic	mg/kg	2 : 5 (Interlab)	3.5	2.6	30	<5	0	3.1	4	25	<5	0					
	Cadmium	mg/kg	0.4 : 1 (Interlab)	<0.4	<0.4	0	<1	0	<0.4	<0.4	0	<1	0					
	Lead	mg/kg	5	110	65	51	86	24	75	78	4	87	15					
	Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	0	<0.1	<0.1	0	<0.1	0					
	Nickel	mg/kg	5 : 2 (Interlab)	20	9.7	69	8	86	5.1	<5	2	9	55					
	Copper	mg/kg	5	25	15	50	14	56	23	15	42	74	105					
	Zinc	mg/kg	5	100	62	47	64	44	130	120	8	131	1					
	Chromium (III+VI)	mg/kg	5 : 2 (Interlab)	53	39	30	16	107	8.9	8.9	0	6	39					
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	a-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Aldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Aldrin + Dieldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	b-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	chlordan	mg/kg	0.1 : 0.05 (Interlab)	<0.1	<0.1	0	<0.05	0	<0.1	<0.1	0	<0.05	0	<0.1	<0.1	0	<0.05	0
	d-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	DDD	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	DDT	mg/kg	0.05 : 0.2 (Interlab)	<0.05	<0.05	0	<0.2	0	<0.05	<0.05	0	<0.2	0	<0.05	<0.05	0	<0.2	0
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Endosulfan I	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Endosulfan II	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Endosulfan sulphate	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Endrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Endrin aldehyde	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	g-BHC (Lindane)	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Hexachlorobenzene	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Methoxychlor	mg/kg	0.05 : 0.2 (Interlab)	<0.05	<0.05	0	<0.2	0	<0.05	<0.05	0	<0.2	0	<0.05	<0.05	0	<0.2	0
	Toxaphene	mg/kg	0.5	<0.5	<0.5	0			<0.5	<0.5	0			<0.5	<0.5	0		
	Organochlorine pesticides EPAVic	mg/kg	0.1	<0.1	<0.1	0			<0.1	<0.1	0			<0.1	<0.1	0		
	Other organochlorine pesticides EPAVic	mg/kg	0.1	<0.1	<0.1	0			<0.1	<0.1	0			<0.1	<0.1	0		
	DDT+DDE+DDD	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
	Heptachlor epoxide	mg/kg	0.05	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0	<0.05	<0.05	0	<0.05	0
Physical Parameters	Moisture Content (dried @ 103°C)	%	1	9.6	9.5	1			4.1	5.6	31			23				

*RPDs have only been considered where a concentration is greater than 0 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 200 (0-10 x EQL); 50 (10-20 x EQL); 30 (> 20 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

APPENDIX H: CALIBRATION CERTIFICATES

Oil / Water Interface Meter

Instrument **Interface Meter (30M)**
 Serial No. **348741**



Air-Met Scientific Pty Ltd
 1300 137 067

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: _____ Siobhan Watts

Calibration date: 23/11/2021

Next calibration due: 22/01/2022

Oil / Water Interface Meter

Instrument **Interface Meter (30M)**
 Serial No. **483922**



airmet

Air-Met Scientific Pty Ltd
 1300 137 067

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: _____ **Braeden Curtis**

Calibration date: 3/11/2021

Next calibration due: 2/01/2022