LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Detailed Site Investigation

89-115 O'Connell Street
Caddens, NSW

13 October 2021

58500-139295 (Rev 0)

JBS&G Australia Pty Ltd

www.jbsg.com.au

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Abbreviations

Term	Definition
ABC	Average Background Concentrations
ACL	Added Contaminant Limit
ACM	Asbestos Containing Materials
AF/FA	Asbestos fines and fibrous asbestos
AEC	Areas of Potential Environmental Concern
AHD	Australian Height Datum
ASS	Acid Sulfate Soils
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CLM Act	Contaminated Land Management Act 1997
CEC	Cation Exchangeable Capacity
COC	Chain of Custody
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DA	Development Application
DCP	Development Control Plan
DP	Deposited Plan
DQI	Data Quality Indicators
DQO	Data Quality Objectives
DSI	Detailed Site Investigation
EC	Electrical Conductivity
EIL	Ecological Investigation Levels
EPA	NSW Environment Protection Authority
ESLs	Ecological Screening Levels
ha	Hectare
HILs	Health Investigation Levels
HSLs	Health Screening Levels
JBS&G	JBS&G Australia Pty Ltd
LEP	Local Environmental Plan
LOR	Limit of Reporting
MGA	Map Grid of Australia
NATA	National Accreditation Testing Authority
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
OCP	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PARCCS	Precision, Accuracy, Representativeness, Comparability, Completeness and Sensitivity
PCB	Polychlorinated Biphenyls
PID	Photoionisation Detector
POEO Act	Protection of Environment Operations Act 1997
PFAS	Per- and poly-fluorinated Alkyl Substances
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RAP	Remedial Action Plan
RPD	Relative Percentage Difference
TRH	Total Recoverable Hydrocarbons
UCL	Upper Confidence Limit
VOC	Volatile Organic Compounds

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust (the client) to conduct a Detailed Site Investigation (DSI) of a parcel of land at 89-115 O'Connell Street, Caddens, NSW (the site). The site is legally identified as Lot 37 Deposited Plan (DP) 1044732 and covers an area of approximately 7.8 hectares (ha). The site location and layout are presented in **Figures 1** and **2** respectively.

The site has historically been used for rural residential, as well as light industrial purposes. It is understood that the site is proposed to be redeveloped into a low-density residential housing estate and that a DSI is required to support the Development Application (DA).

This DSI report documents the findings of a desktop review and intrusive investigations, and has been developed in accordance with EPA (1995), NEPC (2013), EPA (2017, 2020a and 2020b) and SEPP 55 guidelines.

Based on the finding of this investigation, and subject to limitations in **Section 11**, the following conclusions are made:

- The majority of the site is made up of undeveloped pastoral land and former orchard/market gardens, with light commercial/industrial activities (distillery for food essences) located in the north-eastern portion of the site;
- A total of 50 soil locations have been advance within the site which identified filling in isolated areas of the site including beneath and adjacent to site structures, in the central portion of the site in a former inundated area, and associated with the imported fill to create accessways;
- All primary soil samples were below the adopted site criteria. One intra-lab triplicate sample reported an elevated concentration of copper marginally above the adopted ecological criteria. A review of the test pit log (TP29) indicated that the sample was collected from heterogeneous fill material. On the basis of the primary and inter-lab triplicate samples reporting results below the adopted site criteria, the anomaly between the samples is considered a result of the heterogeneity of the fill material sampled. JBS&G do not consider this single elevated concentration to represent gross or widespread contamination requiring remediation and/or management;
- Potential ACM was identified as two fragments and a pipe on the ground surface, located respectively to the south east of the large shed (≈2 m^2) and adjacent to the smaller sheds within the central portion of the site (≈2 m^2). These require management in accordance with WHS regulations; and
- Based on the findings of this investigations it is concluded that the site can be made suitable for the proposed residential land use subject to management of identified contamination.

The following recommendations are made:

- Undertake a Hazardous Building Materials Survey of site structures prior to demolition; and
- Develop an Asbestos Management Plan under the WHS Regulations to manage potential risks.

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust (the client) to conduct a Detailed Site Investigation (DSI) of a parcel of land at 89-115 O'Connell Street, Caddens, NSW (the site). The site is legally identified as Lot 37 Deposited Plan (DP) 1044732 and covers an area of approximately 7.8 hectares (ha). The site location and layout are presented in **Figures 1** and **2** respectively.

The site has historically been used for rural residential, as well as light industrial purposes. It is understood that the site is proposed to be redeveloped into a low-density residential housing estate and that a DSI is required to support the Development Application (DA).

This DSI report documents the findings of a desktop review and intrusive investigations, and has been developed in accordance with EPA (1995[1]), NEPC (2013[2]), EPA (2020a[3], 2020b[4] and 2017[5]) and SEPP 55[6] guidelines.

1.2 Objectives

The objectives of this DSI were to characterise potential contamination at the site, and to draw conclusions regarding the suitability of the site for residential land uses, or, to make recommendations to enable such conclusions to be made.

1.3 Scope of Works

The scope of works comprised:

- Review of historical information (aerial photography, land titles, EPA databases, etc);
- Development and documentation of a conceptual site model (CSM) based on the available information and identified potential AECs (**Figure 3**);
- A detailed site inspection on a 35 m grid basis as shown on **Figure 4**;
- Intrusive field works including advancement of 24 targeted and 26 systematic locations via a combination of test pit and boreholes as shown on **Figure 4**, and comprehensive soil sampling of contaminants of potential concern (COPCs) from locations across the site;
- Analysis of selected soil samples at a National Association of Testing Authority (NATA) accredited laboratory for a range of COPCs including, but not limited to, heavy metals, polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOCs), total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylene (BTEX), Organochloride Pesticides (OCPs), Polychlorinated biphenyls (PCBs) and asbestos;
- Assessment of soil physiochemical parameters (potential of hydrogen (pH), clay content (clay %) and cation exchange capacity (CEC) to enable appropriate consideration of potential ecological risk; and
- Preparation of a DSI report in accordance with relevant EPA made or endorsed guidelines.

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1 *Contaminated Sites: Sampling Design Guidelines*. NSW Environment Protection Authority 1995 (EPA 1995)
2 *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* National Environment Protection Council (NEPC 2013)
3 *Consultants Reporting on Contaminated Land – Contaminated Land Guidelines.* NSW EPA 2020 (EPA 2020a)
4 *Assessment and Management of Hazardous Ground Gases – Contaminated Land Guidelines.* NSW EPA 2020 (EPA 2020b)
5 *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition).* NSW EPA 2017 (EPA 2017)
6 *State Environment Planning Policy No. 55 – Remediation of Land* (SEPP 55)

2. Site Condition and Surrounding Environment

2.1 Site Identification

The location and current layout of the site are shown in **Figures 1** and **2** respectively. The site details are summarised in **Table 2.1** below.

Table 2.1: Summary of Site Details

Site Legal Identifier	Lot 37 DP 1044732
Site Address	89-115 O'Connell Street, Caddens, NSW
Site Area	7.8 ha
Local Government Authority	Penrith City Council (Council)
Site Geographic Coordinates (Map Grid of Australia (MGA) 56)	Refer to **Figure 2**
Registered Site Owner	Orchard Hills Enterprises Pty Limited (as at 5 February 2021)
Current Zoning Penrith Local Environmental Plan (LEP) 2010	R1: General Residential
Previous Land Uses	Rural residential and light industrial uses
Current Land Uses	Rural residential and light industrial uses
Proposed Land Uses	Low-density residential housing development

2.2 Site Condition

A detailed site inspection was undertaken on 3 August 2021 by Ryan Lill, one of JBS&G's trained and experienced environmental consultants. The following summarises the findings of the inspection, with the site features presented on **Figure 2** and photographs taken during the inspection and investigation presented in **Appendix A**.

The site consisted of a square parcel of land bound to the north and west by road reserves. A residential building and large commercial shed for distillation of food essences was situated within the north eastern portion of the site (Photographs 1 – 4). The residence was constructed of brick and was situated above a garage which was partially excavated into the hillslope. A raised lawn to the west contained fill material (assumed spoil from garage excavation, Photographs 5 – 6). An external inspection of the residence did not identify asbestos sheeting. A concrete hardstand driveway extended from O'Connell Street, past the residence into the paddock and to the lower portion of the shed.

The large shed was built over two levels and constructed of Besser blocks and steel sheeting. The upper level had several vehicles in differing states of repair, and appeared to have been for undertaking mechanics repairs (Photographs 7 – 10). Several isolated areas of hydrocarbon staining from vehicle maintenance was evident on the concrete hardstand. A large steel construction was present within the central portion of the upper shed, it appeared to have previously been used as part of commercial activities within the site. The lower level was situated beneath the southern third of the upper level, and appears to have been an addition following construction of the upper level. The lower level contained an operational distillery with vats, bottling equipment, boxes of product and chemicals throughout (Photographs 11 – 13). The distillery appeared to be producing food essences/flavouring and vodka.

An inspection of the ground surface to the south east of the shed identified two fragments of asbestos containing material (ACM) within some building and demolition waste (bricks, tile and wood ≈2 m^2, Photograph 16). ACM piping was also identified adjacent to the small sheds within the central portion of the site (≈2 m^2, Photograph 15). An inspection of the remainder of the site identified three dams (two dry), a drainage channel from the south eastern corner to the central western boundary, and an overgrown gravel track from the residence to the central western boundary. No indicators of gross contamination were identified during the inspection.

The surrounding land uses consisted of low density residential housing, Western Sydney University Campus and Caddens Corner (shopping centre). It is noted that Caddens Corner was constructed

between 2019 and 2020 and houses a laundromat (Eco Laundry Room). Given the age of the shopping centre and its position hydro geologically down-gradient of the site, the laundromat is not considered to present a risk to the site.

2.3 Surrounding Land Uses

The current land uses of adjacent properties or properties across adjacent roadways are summarised below.

- North – the site is bound to the north by O'Connell Street, over which lies Caddens Corner (a shopping centre) constructed between 2019 and 2020;
- East and South – the site is bound to the east and south by a low-density residential housing development;
- West – the site is bound to the west by O'Connell Lane, over which lies parkland, Werrington Creek and the Western Sydney University Campus.

2.4 Topography

A review of topographic information obtained from the Spatial Information Exchange Viewer (LPI 2021[7]) indicated the site is located within a gently undulating regional topography with a gentle slope towards Werrington Creek 70 m to the west of the site.

Ground levels of the site range from approximately 48 m Australian Height Datum (AHD) in the north western portion to 60 m AHD at the north eastern boundary.

2.5 Geology and Soils

Reference to the 1:100,000 Penrith geological map (Clarke N.R. and Jones D.C. 1991[8]), indicates that the study area is predominantly underlain by Bringelly Shale which forms the upper formation of the Wianamatta Group. Bringelly Shales are characterised by the presence of shales, carbonaceous clays, laminite and coal. Other units which may be encountered across the study area include Quaternary fluvial sand, silt and clay (around existing and old creeks and waterways), surficial topsoil and residual clays (derived from weathering of shale bedrock).

Reference to the eSPADE NSW Soil and Land Information database (OEH 2021[9]) indicates that the site is underlain by the Luddenham Soil Landscape. Details of the soil landscape is summarised in **Table 2.2.**

Table 2.2 – Soil Landscapes within the Investigation Area

Soil Landscape	Luddenham (lu)
Geology	Wianamatta Group Ashfield Shale and Bringelly Shale
Landscape Type	Erosional
Position	Undulating to rolling hills
Vegetation	Cleared Eucalypt woodland, tall open-forest (dry schlerophyll)
Soil Materia	Shallow dark podzolic soils on crests, moderately deep red podzolic soils on upper slopes, yellow podzolic and prairie soils on lower slopes and drainage lines
Limitations	Water erosion hazard, localised steep slopes, localised mass movement hazard, localised surface movement potential, moderately reactive, localised impermeable highly plastic subsoil

2.6 Hydrology

A review of LPI (2021) indicated that the closest down gradient surface water body is Werrington Creek, located approximately 70 m west of the site. Werrington Creek traverses northward

[7] *'Spatial Information Exchange Viewer'*, NSW Land and Property Information, accessed 15 July 2021, https://maps.six.nsw.gov.au/ (LPI 2021)

[8] *Clark N.R. and Jones D.C., 1991, Penrith 1:100 000 Geological Sheet 9030, 1st edition*. Geological Survey of New South Wales, Sydney

[9] 'eSPADE NSW Soil and Land Information', NSW Office of Environment and Heritage, accessed 15 July 2021, http://www.environment.nsw.gov.au/eSpade2Webapp

conferencing with South Creek approximately 3 km west of the site before discharging into the Hawksbury River located approximately 21 km to the north of the site.

The site is predominately surfaced with grass cover, whereby it is anticipated surface water generated during periods of rainfall is likely to result in infiltration into the ground surface at a rate reflective of the silty clay soil permeability. In periods of heavy or prolonged rainfall, excess water is likely to result in overland flow and traverse to the north west portion of the site and into stormwater swales along the road edges.

Water that falls within the north eastern portion of the site on the industrial and residential buildings, and concrete hardstand surrounding them, is anticipated to drain to stormwater infrastructure and drain to land.

During the site inspection, several dams were identified across the site and were predominately utilised for stock watering.

2.7 Hydrogeology

Registered bore information obtained from the Water NSW online resource (WNSW[10]) is included as **Appendix B**. The search identified five groundwater bores to be located within a 1.5 km radius of the site and are summarised below. JBS&G note that there are no groundwater bores used for domestic purposes located down gradient of the site.

Based on topography it is anticipated groundwater will flow north west towards Werrington Creek.

Table 2.3 Registered Groundwater Bore Details Summary

Bore Number (Year Installed)	Approximate Distance from Site	Intended Use	Drilled Depth (m bgs)	Standing Water Level (SWL)	Geological Material (m bgs)
GW019680 (1962)	1.3 km north	Waste disposal	53.30	10.90	Clay 0.00-11.27 m, clayey shale 11.27-16.15 m, shale bedrock 16.15--53.34 m
GW020069 (1962)	1.3 km north	Waste disposal	75.60	6.00	Clay 0.00-4.57 m, clayey shale 4.57-8.83 m, shale bedrock 8.83-72.54, shale dark orange with clay seams 72.54-75.60
GW020547 (1963)	1.3 km north	Waste disposal	91.40	9.10	Topsoil 0.00-0.91 m, yellow clay with gravel (pebbles) 0.91-9.14 m, grey shale bedrock 9.14-91.44 m
GW060794 (1985)	1.0 km south west	Stock & Domestic	78.10	-[1]	Clay 0.00- 6.20 m, shale bedrock 6.20-78.10 m
GW103764 (1995)	1.0 km south west	Irrigation	231.60	-[1]	Topsoil 0.00-0.60 m, clay 0.60-6.40 m, shale bedrock 6.40-123.40 m, sandstone bedrock 123.40-216.40 m, shale bedrock 216.40-217.30, sandstone bedrock 217.30-2.31.60 m

[1] No information presented

2.8 Acid Sulfate Soils

Acid sulfate soils (ASS) are generally associated with low-lying coastal areas, including estuarine flood plains, rivers and creeks. The location and elevation of the site (> 48 m AHD) are such that the likelihood of ASS within the study area is low.

[10] Water New South Wales, http://realtimedate.waternsw.com.au accessed 10 March 2021.

2.9 Meteorology

A review of long-term average climatic data collected at the nearest Bureau of Meteorology monitoring site, Penrith Lakes AWS[11], suggests the site experiences the following meteorological setting:

- Average maximum temperatures range from 18.0°C in July to 31.2°C in January;
- Average minimum temperatures range from 5.3°C in July to 18.7°C in January;
- Annual average rainfall is approximately 721.6 mm, with the average number of days receiving >1 mm falling approximately 71 days per year; and
- Monthly rainfall varies from 29.8 mm in August to 122.1 mm in February, with the wettest periods on average experienced from January through to March.

2.10 Salinity

The site is shown on the Salinity Potential Map for Western Sydney (DIPNR 2002[12]) to lie within an area of moderate salinity potential, with high salinity potential in the vicinity of creek and drainage lines. Areas of moderate salinity generally consist of areas susceptible to saline affectation if disturbed, particularly if saline groundwater / seepage is intercepted and / or if areas of water logging can occur.

During the investigation described herein there was no visible indication of saline soils evident at the ground surface i.e. there was no evidence of salt scarring identified around the dams or other areas of surface water pooled at the site.

[11] http://www.bom.gov.au/climate/averages/tables/cw_067113.shtml, Commonwealth of Australia, 2021 Bureau of Meteorology, Product IDCJCM0028 prepared on 15 July 2021 and accessed by JBS&G on 20 July 2021.

[12] Department of Infrastructure, Planning and Natural Resources. *Salinity Potential in Western Sydney 2002* (DIPNR 2002)

3. Site History

3.1 Aerial Photographs

Historical aerial photographs are presented in **Appendix C**. A summary of aerial photographs relevant to the broader site and the assessment area is included below:

- **1947**: The site appeared to comprise farmland with a residence in the north eastern portion of the site and several other structures (sheds) directly south of the residence. A vehicular track (unclear whether dirt or gravelled) appeared to run from the north eastern portion of the site to three site structures in the central portion of the site. An orchard was apparent directly to the west of the residence along the northern boundary. A drainage line running from the west to east through a dam in the central portion of the site was also apparent.

  The surrounding land comprised cleared paddocks utilised for pastoral and orchard land uses with a residence and sheds located directly to the south of the site. A small dam was noted east of the site boundary and feed the drainage line that ran through the site. O'Connell Street (gravelled) was present adjacent the northern boundary of the site. Werrington Creek was apparent running adjacent to the western boundary of the site.

- **1955**: Some changes have appeared to have occurred within the site including further development of the site structures within the north eastern portion of the site within the vicinity of the residence. An additional shed appeared to have been constructed within the central portion of the site.

  The surrounding land remained largely unchanged to the 1947 aerial photograph.

- **1961:** The site and surrounding land remained largely unchanged from the 1955 aerial photograph.

- **1970:** An additional shed appeared to have been constructed adjacent to the vehicular track between the residence and the sheds within the central portion of the site. Some improvements appeared to have occurred to the sheds south of the residence. Cultivation of orchard/market gardens appears west and south of the residence. The remainder of the site appeared relatively unchanged.

  The surrounding land use appeared relatively unchanged with the only noticeable addition being the construction of a residence to the east of the site and a drive in cinema across O'Connell Street, north of the site.

- **1982:** Additions appeared to be being undertaken to the sheds south of the residence. No other significant changes appear to have occurred at the site.

  Extensive development of a horticultural centre, directly adjacent to the eastern boundary had occurred. The development included a dam adjacent the central eastern portion of the site, large glasshouses and several garden beds. O'Connell Street appeared to have been paved with a paved road entering the Western Sydney University Campus apparent. An additional residence had been constructed to the south of the site.

- **1986:** Further improvements appeared to have occurred to the shed south of the residence. Excavation of two dams has occurred south of shed, adjacent to the eastern boundary in the central portion of the site. The shed adjacent the vehicular track (noted in the 1970 aerial), some small sheds adjacent to the residence, and the southern most shed within the central portion of the site had been demolished.

  No significant changes appeared to have occurred to the surrounding land.

- **1991:** Further additions to the shed south of the residence had occurred including extensions to the south western portion. Concrete hardstand appeared to have been laid from the entrance at O'Connell Street around the shed and residence. A shed had been demolished in the central portion of the site, with a smaller shed constructed in its place. The dam adjacent the eastern boundary had been enlarged to the south. An area of paddock west of the central dam appeared inundated with water.

  No material changes appeared to have occurred to the surrounding land use.

- **2002:** The area noted as inundated in the previous aerial appeared to be subject of filling. No other material changes appeared to have occurred to the site.

  A residence to the south of the site appeared to have been demolished.

- **2010:** The site and surrounding land remained largely unchanged from the 2002 aerial photograph.

- **2021:** The dam to the south of the shed, adjacent to the eastern boundary, appeared to have been backfilled. A gravelled vehicular track appeared to have been constructed from the residence to the western boundary of the site. No other significant changes appeared to have occurred on the site.

  Extensive low density residential development had occurred to the east and south of the site. O'Connell Lane had been constructed and paved along the western boundary of the site. Caddens Corner (shopping centre) had been constructed to the north of the site across O'Connell Street.

In summary the site has substantially been open paddocks and orchard/market garden, with the progressive construction of the large shed along the eastern boundary and the construction and demolition of several sheds in the central portion of the site. Backfilling of a dam in the central eastern portion, and an inundated area in the central portion of the site have occurred leading to the potential for deep fill of unknown origin. The unknown origin of material used during the construction of a gravelled roadway from the residence to the western boundary of the site is also of note.

The surrounding land has been rural residential with progressive development of a drive-in cinema, a horticulture centre, and later residential housing. The horticulture centre was situated upgradient of the site, with the potential for herbicides, pesticides and heavy metals used in horticulture to migrate onto the site. The most likely concentration of these, if present, would be along the drainage channel in the central portion of the site. Since 2010 significant development has occurred to all boundaries of the site including low density residential to the east and south (up/cross gradient), roading and a shopping centre to the west and north (down gradient).

3.2 Historical Land Title Records

The results of the historical land title search for the site are summarised in **Table 3.1**. Historical land titles are provided in **Appendix D**.

Table 3.1 – Summary of historical land titles and associated use of the site.

Date of Acquisition and Term Held	Registered Proprietor	Likely Use
Lot 37 DP 1044732		
24.04.1919 (1919 to 1937)	Catherine Isobel Burnett Macleod (Postmistress now Widow)	Pastoral/Orchard/Market Garden
25.08.1937 (1937 to 1939)	James Maze (Dairy Farmer, now Engineer)	Pastoral/Orchard/Market Garden
29.05.1939 (1939 to 1946)	Alexander Fulop (Chemist)	Pastoral/Orchard/Market Garden
26.06.1946 (1946 to 1979)	Kingswood Distillery Pty Limited	Light Industrial and Pastoral
06.04.1979 (1979 to date)	Orchard Hills Enterprises Pty Limited	Light Industrial and Pastoral

The historical land title search suggests the site has been used for a combination of pastoral/ orchard/market garden, rural residential, and light industrial activities.

3.3 EPA Records

A search of the NSW EPA's public register under the *Protection of the Environment Operations Act 1997 (POEO Act)* was undertaken (**Appendix C**). The search for the assessment area identified there were:

- No prevention, clean-up or prohibition notices; and
- No transfer, variation, suspension, surrender or revocation of an environmental protection licence.

A search was also undertaken through the EPA's public contaminated land register (**Appendix C**). The search identified that there have been no notices issued under the *Contaminated Land Management Act 1997 (CLM Act)* for the site.

The site has not been notified to the EPA under section 60 of the *CLM Act* with regards to contamination. The list of properties in the vicinity of the site that have licences and/or been notified to the EPA is included in **Appendix C**.

3.4 Dangerous Goods Search

Given the time constraints of this investigation, it was not within the scope of assessments to obtain historical records of stored Dangerous Goods held by SafeWork NSW.

3.5 Integrity Assessment

The information obtained from the historical review has been found to be in general agreement. It is therefore considered that the information provided in this historical assessment has an acceptable level of accuracy.

4. Conceptual Site Model

Based on the available site history information and site inspection, the various elements of a conceptual site model (CSM) are discussed below.

4.1 Overview

NEPC (2013) identifies a CSM as a representation of site related information regarding contamination sources, receptors, and exposure pathways between those sources and receptors. The development of a CSM is an essential part of all site assessment.

NEPC (2013) identified the essential elements of a CSM as including:

- Known and potential sources of contamination and contaminants of concern including the mechanism(s) of contamination;
- Potentially affected media (soil, groundwater, surface water etc.);
- Human and ecological receptors;
- Potential and complete exposure pathways; and
- Any potential preferential pathways.

4.2 Potential Areas and Substances of Environmental Concern

Based on the available site history information and with consideration to proposed end land use, AECs and associated COPCs have been identified as presented in **Table 4.1** and shown on **Figure 3** where appropriate.

Table 4.1: Areas of Environmental Concern and Associated Contaminants of Potential Concern.

AEC and Description	Potentially Effected Media	COPC
1. Current and Former Sheds within Central Site Extent	Surficial Fill Material	Heavy metals, TRH, BTEX, asbestos
2. Surrounds of Residence	Surficial Fill Material	Heavy metals, TRH, BTEX, asbestos
3. Former Accessway from Residence to Western Boundary	Fill Material	Heavy metals, TRH, BTEX, PAHs, asbestos
	Natural Material	Heavy metals, TRH, BTEX, PAHs
4. Fill Beneath Hardstand Areas Surrounding and within Large Commercial Sheds	Fill Material	Heavy metals, TRH, BTEX, PAHs, asbestos
	Natural Material	Heavy metals, TRH, BTEX, PAHs
5. Imported Fill used to Backfill Sodden Ground West of Central Dam	Fill Material	Heavy metals, TRH, BTEX, PAHs, asbestos
	Natural Material	Heavy metals, TRH, BTEX, PAHs
6. Former Orchard/Market Garden in North East Site Extent	Fill Material	Heavy metals, TRH, OCPs
	Natural Material	
7. Three Dams and Drainage Channel Running East to West	Sediment	Heavy metals, TRH, BTEX, asbestos
8. Site Soils	Reworked Natural Material	Heavy metals, TRH, BTEX

4.3 Potentially Contaminated Media, Exposure Pathways and Receptors

Potentially contaminated media that may be present at the site include:

- Fill materials;
- Natural soil/bedrock;
- Groundwater; and

- Surface water.

Table 4.2 below provides a breakdown of potentially contaminated media within identified AECs presented in **Table 4.1**.

Table 4.2: Potentially Contaminated Media

AEC and Description	Potentially Effected Media	Comments
1. Current and Former Sheds within Central Site Extent	Surficial Fill Material	Surficial Soils (Fill and Natural Material): Potential remains for contamination of surficial soils from building materials such as asbestos, lead based paints and zinc associated with corrugated iron sheeting.
2. Surrounds of Residence	Surficial Fill Material	
3. Former Accessway from Residence to Western Boundary	Fill Material	Fill material: Potential remains for contamination in fill material resultant from importation of fill materials of unknown origin to create existing site levels. Natural material: If contamination from imported materials is present the potential remains for migration of contamination to underlying natural material
	Natural Material	
4. Fill Beneath Hardstand Areas Surrounding and within Large Commercial Sheds	Fill Material	
	Natural Material	
5. Imported Fill Used to Backfill Sodden Ground West of Central Dam	Fill Material	
	Natural Material	
6. Former Orchard/Market Garden in North East Site Extent	Fill Material	Fill material: Potential remains for impact from orchard/market garden activities (i.e chemical and fertiliser application). Natural material: If contamination from market orchard/garden activities is present in fill material the potential remains for migration of contamination to underlying natural material
	Natural Material	
7. Three Dams and Drainage Channel running East to West	Sediment	Soil in ephemeral drainage lines and dams could be affected by contaminates carried by surface water over time.
8. Site Soils	Reworked Natural Material	Natural material could be affected by diffuse contaminant sources such as windblown contaminants, or rainfall runoff.

4.4 Potential for Migration

Contaminants generally migrate from site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);
- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- The site topography, geology, hydrology and hydrogeology.

The potential contaminants identified as part of the site history review are generally in either a solid form (e.g. heavy metals, asbestos, etc.) and liquid form (e.g. distillation raw and manufactured product, herbicides, etc.).

Most of the site is covered in grass which restricts the ability for aeolian migration of contaminants. Therefore, the potential for contamination migration via aeolian transport is considered low.

Given the nature of underlying natural material (predominately clays) migration from surface soils to groundwater of contamination identified in liquid form (distillation raw and manufactured product, herbicides, etc.) is not considered likely. Therefore, migration of contamination via groundwater movement is considered to present only a limited migration pathway.

The potential for contamination migration via surface water movement through ephemeral drainage lines to dams within the site is considered moderate given the extent of exposed vegetated areas at the site and the low permeability of underlying soils (predominately clays).

4.5 Potential Exposure Pathways

Based on the COPCs identified in various media, as discussed above, and site development activities, the exposure pathways for the site during and following development works include:

- Potential dermal and oral contact to impacted soil as present at shallow depths and/or accessible by future service excavations; and/or
- Potential dermal and oral contact with fill materials during excavation and foundation works; and/or
- Potential oral and dermal contact to surface water as accessible by potential future service excavations; and/or
- Potential contaminant uptake by vegetation within landscaped areas.

4.6 Receptors

Potential receptors of environmental impact present within the site to be addressed include:

- Future users of the proposed low-density residential development; and/or
- Future users of the non-paved areas of the site who may potentially be exposed to COPCs through direct contact with impacted soils and/or inhalation of dusts/fibres/vapours associated with impacted soils; and/or
- Excavation/construction/maintenance workers conducting activities at or in the vicinity of the site who may potentially be exposed to COPCs through direct contact with impacted soils/groundwater/surface water present within excavations and/or inhalation of dusts/fibres/vapours associated with impacted soils/groundwater; and/or
- Flora species to be established on the landscaped/vegetated areas of the site including potential large tree plantings.

4.7 Preferential Pathways

A range of preferential pathways currently exist at the site associated with the existing fill material and existing/former services trenches including irrigation and drainage lines. Generally higher permeability backfill, or the reduced compaction requirements overlying these services result in the services trenches becoming preferential pathways for contaminant migration and as such it is anticipated that contaminants in liquid form may be associated with these areas. Preferential pathways may also be created during development works as a result of installation of new services.

5. Sampling Analysis and Quality Plan

5.1 Data Quality Objectives

Data quality objectives (DQOs) are statements that define the confidence required in conclusions drawn for data produced for a project, and which must be set to realistically define and measure the quality of data needed.

DQOs have been developed for this DSI, as discussed in the following sections.

5.1.1 State the Problem

The site is proposed to be developed for low-density residential land use. To meet SEPP 55 requirements a DSI is required to sufficiently characterise the site to assess its suitability for the intended land use.

5.1.2 Identify the Decision

The decisions below generally follow the EPA (2017) decision making process for assessing urban redevelopment sites:

- Are there any unacceptable risks to likely onsite receptors?
- Are there any issues relating to the local area background concentrations that exceed appropriate criteria?
- Are there any chemical mixtures?
- Are there any unacceptable aesthetic issues?
- Is there any evidence of, or potential for, migration of contaminants from the site?
- Is a site management strategy required?

5.1.3 Identify Inputs to the Decision

Inputs to the decisions are:

- New environmental data collected by sampling, analysis and site observations made during the current investigation;
- Assessment criteria based on the intended land uses, preliminary design details and project objectives, as defined by assessment criteria nominated in **Section 6**; and
- Confirmation that data generated by sampling and analysis are of an acceptable quality to allow reliable comparison to assessment criteria as undertaken by assessment of quality assurance/quality control (QA/QC) as per the data quality indicators (DQIs) established in **Section 5.1.6**.

5.1.4 Define the Study Boundaries

The study boundary comprises the extent of the assessment area as shown on **Figure 2** and detailed in **Section 2.1**.

The vertical extent of the study was approximately 0.5 m into natural soils.

5.1.5 Develop a Decision Rule

Laboratory analytical data was assessed against EPA endorsed criteria as identified in **Section 6**.

The decision rules adopted to answer the decisions identified in **Section 5.1.2** are summarised in **Table 5.1**.

Table 5.1: Summary of Decision Rules

Decision Required to be Made	Decision Rule
1. Are there any unacceptable risks to likely onsite receptors?	Analytical data were compared against EPA endorsed criteria. Statistical analyses of the data in accordance with relevant guidance documents was undertaken, if appropriate, to facilitate the decisions. The following statistical criteria was adopted: Either: the reported concentrations are all below the site criteria; Or: the average[13] site concentration for each analyte must be below the adopted site criterion; no single analyte concentration exceeds 250% of the adopted site criterion; and the standard deviation of the results must be less than 50% of the site criteria. And: the 95% upper confidence limit (UCL) of the average concentration for each analyte must be below the adopted site criterion. If the statistical criteria stated above are satisfied, the decision is No. If the statistical criteria are not satisfied, the decision is Yes.
2. Are there any issues relating to the local area background concentrations that exceed appropriate criteria?	If the 95% UCL results exceed published background concentrations, the decision is Yes. Otherwise, the decision is No.
3. Are there any chemical mixtures?	Are there more than one group of contaminants present which increase the risk of harm? If there is, the decision is Yes. Otherwise, the decision is No.
4. Are there any unacceptable aesthetic issues?	If there are any unacceptable aesthetic issues, the decision is Yes. Otherwise, the decision is No.
5. Is there any evidence of, or potential for, migration of contaminants from the site?	Were contaminants present in soil, groundwater and/or surface water at concentrations exceeding the adopted criteria and which might potentially migrate from the site? If yes, the decision is Yes. Otherwise, the decision is No.
6. Is a site management strategy required?	Is the answer to any of the above decisions Yes? If yes, the site is not considered suitable without a site management strategy. If no, the site is not considered suitable.

5.1.6 Specify Limits of Decision Error

This step is to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this project must be appropriate to allow decisions to be made with confidence.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW EPA, NEPC (2013), DEC (2007[14]), appropriate indicators of data quality (DQIs used to assess QA/QC) and standard JBS&G procedures for field sampling and handling.

To assess the usability of the data prior to making decisions, the data will be assessed against pre-determined DQIs for completeness, comparability, representativeness, precision and accuracy.

The pre-determined Data Quality Indicators (DQIs) established for the project are discussed below in relation to precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS parameters), and are shown in **Table 5.2**.

- **Precision** - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.

[13] Statistical analysis will only be completed for samples with similar material types for soil.

[14] *Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination*. NSW Department of Environment and Conservation 2007 (DEC 2007)

- **Accuracy** - measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** –expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.
- **Sensitivity** – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted criteria.

If any of the DQIs are not met, further assessment of the data set is required in order to determine whether the non-conformance has significant effects on the usefulness of the data. Corrective action to address an adverse impact on the reliability of the dataset may include, but is not limited to, the request of further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

Table 5.2: Summary of Quality Assurance / Quality Control Program

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<50% RPD[1], asbestos in agreement
Blind duplicates (inter laboratory)	1 / 20 samples	<50% RPD[1], asbestos in agreement
Laboratory duplicates[4]	1 / 20 samples	<50% RPD[1], asbestos in agreement
Accuracy		
Surrogate spikes[1]	All organic samples	70-130%
Laboratory control samples[1]	1 per lab batch	70-130%
Matrix spikes[1]	1 per lab batch	70-130%
Representativeness		
Sampling appropriate for media and analytes		-[2]
Samples extracted and analysed within holding times.	-	Soil: organics (14 days), inorganics (6 months)
Trip spike	1 per sampling event	70-130% recovery
Storage blank	1 per sampling event	<LOR
Rinsate blank	1 per sampling data where reusable equipment is used	<LOR
Method blank (soil vapour only)	1 per lab batch	<LOR
Equipment blank (soil vapour only)	1 per lab batch	<LOR
Laboratory blanks[1]	1 per lab batch	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All samples[2]
Standard analytical methods used for all analyses	All Samples	All samples[2]
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples[2]
Limits of reporting appropriate and consistent	All Samples	All samples[2]
Completeness		
Sample description and COCs completed and appropriate	All Samples	All samples[2]
Appropriate documentation	All Samples	All samples[2]
Satisfactory frequency and result for QC samples	All QA/QC samples	-[2]
Data from critical samples is considered valid	-	Critical samples valid[2]
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All Samples	All samples

[1] If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

[2] A qualitative assessment of compliance with standard procedures and appropriate sample collection methods will be completed during the DQI compliance assessment.

5.1.7 Optimise the Design for Obtaining Data

Various strategies for developing a statistically based sampling plan are identified in EPA (1995[15]), including judgemental, random, systematic and stratified sampling patterns. Based on a review of historical site uses and identified AECs (**Table 4.1**), a combination of a systematic and targeted sampling design was considered most appropriate for the current investigation to provide sufficient characterisation data.

Soil Investigation

Systematic inspection followed by soil sampling was undertaken to obtain general site environmental data across the balance of the site, allowing for the assessment of potential contaminants and inspection of fill conditions (e.g. asbestos, aesthetic impacts). Targeted

[15] *Contaminated Sites: Sampling Design Guidelines*. NSW EPA 1995 (EPA 1995)

(judgemental) soil investigation locations were advanced to target identified potentially contaminated areas/media. Soil sample locations are shown on **Figure 4**.

5.2 Soil Sampling Methodology

During fieldworks completed from 3 August 2021 to 5 August 2021 JBS&G collected soil/sediment samples from 50 locations across the site. Samples were taken from 9 boreholes and 41 test pits as shown in **Figure 4**. Borehole and test pit logs are presented in **Appendix F**.

Sample locations were surveyed using a Trimble GPS with an accuracy of sub 1 m. GPS data was subsequently used to plot the locations on a site plan, as well as provided on the bore logs to enable investigation locations to be identified during subsequent remedial works (if required).

Boreholes were manually advanced via the use of hand tools (hand auger/shovel) and samples were collected at regular intervals from the surface soils (<0.1 m) to a maximum depth of 0.9 m bgs. Test pits were advanced utilising an excavator and soil samples were collected directly from the bucket at regular intervals from the surface soils (<0.1 m), 0.3 m, 0.5 m then at every metre interval to maximum depth of 4.2 m bgs.

During the collection of soil/sediment samples, features such as seepage, discolouration, staining, odours and other indicators of contamination, if present, were noted.

Collected samples were immediately transferred to laboratory supplied sample jars and 500 mL zip-lock bags. The sample jars were transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples to the testing laboratory. Preservation of the primary soil and QA/QC samples obtained during this investigation was completed in accordance with the protocols outlined in NEPC 2013.

5.3 Duplicate and Triplicate Sample Preparation

Soil duplicate and triplicate samples were obtained during sampling using the above sampling methods. The collected samples were divided into three samples with minimal disturbance to reduce the potential for loss of volatiles and placed in the appropriate container or sample bag. Each sample was then labelled with a primary, duplicate or triplicate sample identification before being placed in the same chilled esky for laboratory transport.

5.4 Decontamination

Prior to the commencement of sampling activities, non-disposable sampling equipment, including shovel/hand auger were cleaned with a water/detergent spray, rinsed with water and then air dried. The equipment was then inspected to ensure that no soil, oil, debris or other contaminants were apparent on the equipment prior to the commencement of works. Sampling equipment was subsequently decontaminated using the above process between each sampling location. Decontamination and calibration certificates for field works are provided in **Appendix G**. New nitrile gloves were utilised for the collection of each soil sample to avoid cross contamination between samples and locations.

5.5 Laboratory Analysis

JBS&G contracted Eurofins|MGT (Eurofins) as the primary laboratory all analyses. The secondary laboratory for the investigation was Envirolab Services Pty Ltd (Envirolab). Both laboratories are National Association of Testing Authorities (NATA) accredited for all analytes. In addition, the laboratories were required to meet JBS&G's internal QA/QC requirements. Copies of the laboratory reports are provided in **Appendix H.**

In addition to the above analyses, for QA/QC purposes field duplicates and triplicates were analysed at a rate of 1/20 for soil primary samples. Trip spike and trip blank samples accompanied the soil samples for each batch submitted to the laboratory.

6. Assessment Criteria

6.1 Regulatory Guidelines

The assessment of contaminant data for this investigation was undertaken with consideration to aspects of the following guidelines, as relevant:

- *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013),* National Environment Protection Council (NEPC 2013);
- *Contaminated Land Guidelines: Consultants Reporting on Contaminated Land,* NSW EPA, 2020 (EPA 2020a);
- *NSW EPA Sampling Design Guidelines,* September 1995 (EPA 1995);
- *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition). NSW EPA 2017 (EPA 2017); and*
- *Waste Classification Guidelines Part 1: Classifying Waste*. NSW EPA, November 2014 (EPA 2014a).

6.2 Soil Assessment Criteria

On the basis that the site is proposed to be developed into low-density residential housing, consistent with a residential with access to soils land use scenario, soil data has been compared against published guidelines made or endorsed by the NSW EPA, as outlined below and shown in **Table A**:

- NEPC (2013) Health Investigation Levels (HILs)/Health Screening Levels (HSLs): Residential with Access to Soils Land Uses (HIL- A);
- Ecological Investigation Levels (EILs), and Ecological Screening Levels (ESLs) including site-specific EILs where applicable, Residential with Access to Soils Land Use (fine grained soil texture), consistent with NEPC (2013);
- HSLs for petroleum hydrocarbons considering potential for vapour intrusion, fine grained soil texture as provided in NEPC (2013); and
- Management limits provided in NEPC (2013).

Where there are no NSW EPA endorsed thresholds for individual COPC the laboratory limit of reporting (LOR) was adopted as an initial screening value for the purpose of this assessment.

JBS&G note that consideration was given to different soil texture groups based on encountered lithology.

6.2.1 Derivation of Site-Specific Ecological Investigation Levels

Site specific EILs were calculated using the NEPC EIL Calculator[16]. Site-specific values for CEC (30 mg/kg), pH (7.5 pH) and Clay % (22.5) were derived from the laboratory analysis of two representative soil samples. Representative sample laboratory analysis used in the derivation of EILs is presented in **Table 6.1** and Site Specific EILs shown in **Table 6.2**.

[16] *Ecological Investigation Level Calculation Spreadsheet.* Developed by CSIRO for the National Environment Protection Council, 2010.

Table 6.1: Physical Parameters used for Derivations of EILs

Physical Parameters			
Sample	**CEC (meq/100g)**	**pH (pH units)**	**Clay %**
TP09_0.9-1.0	27	7.6	26
TP14_0.9-1.0	33	7.4	19
Average Result:	30	7.5	22.5

Table 6.2: Adopted Generic and Site Specific EILs

Adopted EILs		
Analyte	**NEPM 2013 - Generic Urban Residential and Public Open Space EILs (mg/kg)**	**Site Specific EILs (mg/kg)**
Arsenic	100	100
Chromium (III)	190	520
Copper	60	230
DDT	180	180
Lead	1100	1100
Naphthalene	170	170
Nickel	30	370
Zinc	70	980

7. Quality Assurance/Quality Control Assessment

Detailed discussion of the QAQC assessment of the data set is included in **Appendix I**.

The field sampling and handling procedures across the site produced QA/QC results which indicate that soil data collected is of an acceptable quality for the DSI objectives.

The NATA certified laboratory reports indicate that the project laboratories were achieving levels of performance within their recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program, the soil data is of an acceptable quality upon which to draw conclusions regarding the environmental condition of the site.

8. Results

The following section outlines observations and analytical results from the investigation undertaken by JBS&G in August 2021. Sample locations are presented in **Figure 4**. Analytical data is presented in **Table A**.

8.1 Soil Observations

The following section outlines soil observations observed by JBS&G during the current intrusive investigation. Borehole and test pit logs from the current investigation are presented in **Appendix F**.

Sub surface conditions as encountered during the intrusive investigations are summarised in the following:

- Fill material was encountered at isolated locations across the site, generally localised to imported material for accessway, filling beneath site structures and levelling around site structures. Fill material consisted of bedding sand, clayey sand, clay and silty clay.
- Reworked natural material was encountered across isolated areas of the site, generally within the former orchard area, and was generally constrained to the top 0.2 m bgs. Reworked natural soils consisted of brown silty clay, with inclusions of rootlets.
- Natural clays were encountered across the majority of the site (AEC 5a) and at depth beneath fill materials, and consisted of brown and reddish brown homogeneous clays.

During the site inspection (**Section 2.2**) two suspected ACM fragments were identified on the ground surface (FRAG01) adjacent to the south east corner of the large commercial sheds (≈2 m^2), and a suspected ACM pipe and pipe fittings were noted between the two smaller sheds in the central portion of the site (≈2 m^2, as indicated on **Figure 2**). No ACM was noted within sub surface fill material during the intrusive investigation, nor evidence of ACM underground pipework.

8.2 Soil Analytical Results

Soil analytical results are presented in **Table A**. All concentrations of COPC analysed in soil samples were reported below either the laboratory LOR or the adopted health and ecological site assessment criteria, with the exception of copper within QC20210803-02 (340 mg/kg) exceeding the site specific EIL of 230 mg/kg.

Asbestos fragment FRAG01, collected on the ground surface, was confirmed by the testing laboratory to contain chrysotile, amosite and crocidolite asbestos.

9. Site Characterisation

The following sections provide an evaluation of the site data set, which forms the DSI outlined herein. Sample locations are shown on **Figure 4**, exceedances of the adopted site criteria (as outlined in **Section 6**) are presented in analytical tables (**Appendix A**) and on **Figure 5**.

Based on the decision-making process for assessing urban redevelopment sites detailed in EPA (2017) and discussed in **Section 5.1.2**, the decisions required to be made are discussed below.

9.1 Are there any unacceptable risks to likely onsite receptors?

Soil - Chemical

All concentrations of COPC analysed in soil samples were reported below either the laboratory LOR or the adopted health and ecological site assessment criteria, with the exception of copper within one intra-lab triplicate sample (QC20210803-02 – 340 mg/kg). The parent sample (TP29_0-0.1 – 89 mg/kg) and inter-lab triplicate (QC20210803-02 – 99 mg/kg) both returned results below the site specific EIL criterion of 230 mg/kg. A review of the TP29 test pit log indicates that the primary and triplicate samples were taken from heterogeneous silty clay fill with inclusions of concrete, brick, glass, fencing material, steel pipe, burnt cans, tin and ash. On the basis that the exceedance was identified within the intra-lab triplicate and that the inter-lab triplicate reported a similar concentration to the primary sample, JBS&G consider that sampling methods to be consistent and that the elevated concentration is likely a result of the heterogeneity of the fill material sampled. Therefore, JBS&G do not consider this elevated concentration of copper to represent gross or widespread contamination requiring remediation and/or management.

Soil – Asbestos

As outlined in **Section 8.1**, two suspected ACM fragments were identified on the ground surface to the south east of the large shed (≈2 m^2) (see **Photograph 16**), and a pipe (≈2 m^2) adjacent to the smaller sheds within the central portion of the site (see **Photograph 15**). Locations of suspected ACM impact are presented in **Figure 5**.

The answer is '**Yes**'.

9.2 Are there any issues relating to the local area background concentrations that exceed appropriate criteria?

Issues relating to background soil contamination presenting an unacceptable risk to human and ecological receptors at the site were not identified.

The answer is 'No'.

9.3 Are there any chemical mixtures?

There were no potential chemical mixtures identified during the investigation that may pose an unacceptable contamination issue with respect to current and permissible land uses.

The answer is 'No'.

9.4 Are there any unacceptable aesthetic issues?

While no gross anthropogenic material was encountered within fill material across the site, the following areas represent an unacceptable aesthetic issue:

- Suspected ACM was identified on the ground surface to the south east of the large shed and within a pipe adjacent to the smaller sheds within the central portion of the site as shown on **Figure 5.**

The answer is '**Yes**'.

9.5 Is there any evidence of, or potential for, migration of contaminants from the site?

The potential for migration of contaminants from the site is low, based on the following:

- Site investigations did not identify any significant contamination in soil;
- Suspected ACM fragments (2) and a pipe was identified on the ground . Over time liberation of fibres from ACM could present a contamination issue with potential to migrate via windblown dust; and
- Groundwater was not assessed during the investigation described herein, however, on the basis of historical and current land use and laboratory results for soil/sediment not reporting gross contamination, it is not considered likely that groundwater is significantly impacted. Therefore, groundwater migration is not considered a contamination risk.

The answer is '**Yes**'.

9.6 Is a site management strategy required?

An Asbestos Management Plan (AMP) is required to manage the potential asbestos risks in accordance with WHS Regulation requirements.

Given the potential for ACM and other hazardous building materials to have been used within the site structures (residence, sheds etc) it is recommended that a Hazardous Building Materials Survey (HBMS) be undertaken prior to any demolition of existing site structures.

10. Conclusions and Recommendations

10.1 Conclusions

Based on the finding of this investigation, and subject to limitations in **Section 11**, the following conclusions are made:

- The majority of the site is made up of undeveloped pastoral land and former orchard/market gardens, with light commercial/industrial activities (distillery for food essences) located in the north-eastern portion of the site;
- A total of 50 soil locations have been advance within the site which identified filling in isolated areas of the site including beneath and adjacent to site structures, in the central portion of the site in a former inundated area, and associated with the imported fill to create accessways;
- All primary soil samples were below the adopted site criteria. One intra-lab triplicate sample reported an elevated concentration of copper marginally above the adopted ecological criteria. A review of the test pit log from TP29 indicated that the sample was collected from heterogeneous fill material. On the basis of the primary and inter-lab triplicate samples reporting results below the adopted site criteria, the anomaly between the samples is considered a result of the heterogeneity of the fill material sampled. JBS&G do not consider this single elevated concentration to represent gross or widespread contamination requiring remediation and/or management;
- Potential ACM was identified as two fragments and a pipe on the ground surface, located respectively to the south east of the large shed (≈2 m^2) and adjacent to the smaller sheds within the central portion of the site (≈2 m^2). These require management in accordance with WHS regulations; and
- Based on the findings of this investigations it is concluded that the site can be made suitable for the proposed residential land use subject to management of identified contamination.

10.2 Recommendations

Based on the site characterisation and conclusions above, the following recommendations are made:

- Undertake a Hazardous Building Materials Survey of site structures prior to demolition; and
- Develop an Asbestos Management Plan under the WHS Regulations to manage potential risks.

11. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

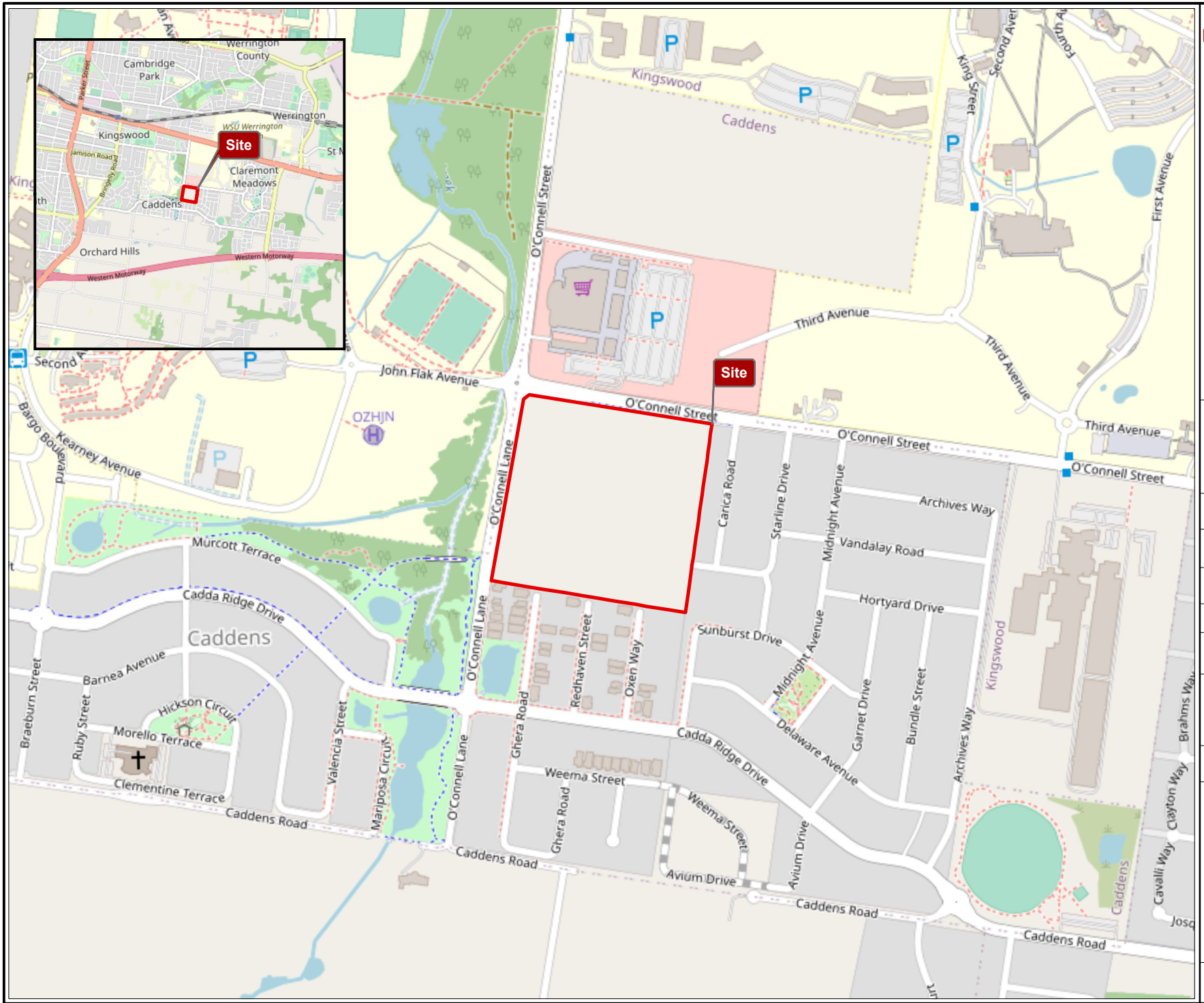
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Figures



Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: R01 Rev A	Date 19/08/2021
Drawn By: JA/RH	Checked By: KL

Scale 1:7,500

0 80 160

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

SITE LOCATION

FIGURE 1

G:\Shared Company Data\Projects\Legacy Properties\58500 Caddens DSI\GIS\Maps\R01 Rev A\58500_01_SiteLocation.mxd

Reference: © OpenStreetMap (and) contributors, CC-BY-SA

Legend

- Approximate Site Boundary
- Hydro Line
- NSW Cadastre (DFSI, 2021)

Site Features

- Backfilled Material
- Shed
- ACM

JBS&G

Job No: 58500	
Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust	
Version: R01 Rev A	Date 19/08/2021
Drawn By: JA/RH	Checked By: KL

Scale 1:2,000

0 20 40

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

SITE LAYOUT AND FEATURES

FIGURE 2

Data Source: Various (Company Data\Projects\Legacy Properties\58500 Caddens DSI\GIS\Maps\R01 Rev A\58500_02_SiteLayout.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 24/01/2020)

Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Areas of Environmental Concern

- 1. Current and Former Sheds within Central Site Extent
- 2. Surrounds of Residence
- 3. Former Accessway from Residence to Western Boundary
- 4. Fill Beneath Hardstand Areas Surrounding and within Large Commercial Sheds
- 5. Imported Fill used to backfill Sodden Ground West of Central Dam
- 6. Former Orchard in North East Site Extent
- 7. Three Dams and Drainage Channel running East to West

Note: AECs drawn from January 2021 Nearmap Image, except for 3a - Former Orchard (drawn from 1947 image).

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: R01 Rev A	Date 19/08/2021
Drawn By: JA/RH	Checked By: KL

Scale 1:2,250

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

AREAS OF ENVIRONMENTAL CONCERN

FIGURE 3

G:\Shared drives\Sydney Data\Projects\Legacy Properties\58500 Caddens DSI\GIS\Maps\R01 Rev A\58500_03_AreasofEnvironmentalConcern.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 24/01/2020)

Legend

- Approximate Site Boundary
- Grid
- Label
- NSW Cadastre (DFSI, 2021)

Sample Locations (JBS&G, 2021)

- Borehole
- Test Pit

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: R01 Rev A	Date 19/08/2021
Drawn By: JA/RH	Checked By: KL

Scale 1:2,250

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

SAMPLE LOCATIONS

FIGURE 4

Reference: Nearmap - www.nearmap.com.au (Capture Date: 24/01/2020)

Legend

- Approximate Site Boundary
- Hydro Line
- NSW Cadastre (DFSI, 2021)

Site Features

- ACM

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: R01 Rev A	Date 19/08/2021
Drawn By: JA/RH	Checked By: KL

Scale 1:2,000

0 20 40

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

EXTENTS OF ACM

FIGURE 5

G:\Shared drives\Newcastle Company Data\Projects\Legacy Properties\58500 Caddens DSI\GIS\Maps\R01 Rev A\58500_05_Remedial_MgmtExtents.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 24/01/2020)

Summary Analytical Table

Table A - Soil Analytical Results
Project Number: 58500
Project Name: Caddens DSI

					Metals & Metalloids									TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN								PAH																				
					Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (Sum of total)
					mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					2	0.4	5	5	20	5	0.1	5	5	20	20	50	50	50	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil					100	20	100	6000		300	40	400	7400																										3	3	3													300
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space					100		520	230		1100		370	980																			170	170																		170			
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																					1300	5600		180	120	65	105	125			45							0.7																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																			800	1000	3500	10000																																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)																								50	280	0.7	480	NL			110	5	5																		5			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)																								90	NL	1	NL	NL			310	NL	NL																		NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)																								150	NL	2	NL	NL			NL	NL	NL																		NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																																						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)																								45	110	0.5	160	55			40	3	3																		3			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)																								70	240	0.5	220	NL			60	NL	NL																		NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)																								110	440	0.5	310	NL			95	NL	NL																		NL			
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																																																					
Sample ID	**Sample Date/Primary**	**Lab Report**	**Sample Code**	**Type**																																																		
TP01_0.0-0.1	4/08/2021	815526	S21-Au14083	Systematic	7	<0.4	22	25	-	24	<0.1	11	36	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02-0.0-0.1	5/08/2021	815477	S21-Au13294	Systematic	6	<0.4	7	5.8	-	32	<0.1	<5	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	5/08/2021	815477	S21-Au13293	Systematic	13	<0.4	23	33	-	49	<0.1	23	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.4-0.5	4/08/2021	815526	S21-Au14082	Systematic	5.9	<0.4	18	22	-	12	<0.1	5.3	18	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05_0-0.1	3/08/2021	814505	S21-Au05008	Systematic	<2	<0.4	5.6	5.1	-	20	<0.1	<5	16	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC20210803-01	TP05_0-0.1	814505	S21-Au05011	Systematic	2.1	<0.4	6.5	5.5	-	31	<0.1	<5	26	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA20210803-01	TP05_0-0.1	275275	275275-1	Systematic	<4	<0.4	6	6	-	21	<0.1	1	28	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<3	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.06	<0.5	<0.5	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	-
TP06_0-0.1	3/08/2021	814505	S21-Au05009	Systematic	8.3	<0.4	17	18	-	18	<0.1	21	44	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07_0.0-0.1	4/08/2021	815526	S21-Au14086	Systematic	11	<0.4	21	100	-	29	<0.1	14	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08-0.0-0.1	5/08/2021	815477	S21-Au13295	Systematic	13	<0.4	23	33	-	49	<0.1	23	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP09_0.2-0.3	3/08/2021	814505	S21-Au05006	Systematic	14	<0.4	26	41	-	24	<0.1	20	80	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP09_0.9-1	3/08/2021	814505	S21-Au05007	Systematic	-	-	-	-	29,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10_0.2-0.3	3/08/2021	814505	S21-Au05010	Systematic	8.1	<0.4	27	19	-	19	<0.1	13	37	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11-0.3-0.4	5/08/2021	815477	S21-Au13291	Systematic	17	<0.4	22	78	-	20	<0.1	25	82	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP12_0.0-0.1	4/08/2021	815526	S21-Au14081	Systematic	8.3	<0.4	22	19	-	13	<0.1	13	32	<20	<20	71	130	201	<20	<50	160	<100	160	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0-0.1	3/08/2021	814505	S21-Au05012	Systematic	12	<0.4	27	33	-	66	<0.1	17	220	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.2-0.3	3/08/2021	816538	S21-Au21895	Systematic	15	<0.4	23	33	-	49	<0.1	23	100	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.9-1	3/08/2021	814505	S21-Au05003	Systematic	-	-	-	-	22,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0-0.1	3/08/2021	814505	S21-Au05002	Systematic	5.7	<0.4	31	41	-	16	<0.1	32	99	<20	<20	<50	89	89	<20	<50	120	<100	120	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15-0-0.1	5/08/2021	815477	S21-Au13290	Systematic	13	<0.4	23	33	-	49	<0.1	23	100	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP16_0.0-0.1	4/08/2021	815526	S21-Au14080	Systematic	4.3	<0.4	7	48	-	47	<0.1	<5	93	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17_0.0-0.1	4/08/2021	815526	S21-Au14079	Systematic	12	<0.4	23	20	-	18	<0.1	14	31	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18_0-0.1	3/08/2021	814505	S21-Au04999	Systematic	11	<0.4	21	45	-	29	<0.1	21	99	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19_0.0-0.1	4/08/2021	815526	S21-Au14078	Systematic	3.4	<0.4	8.9	15	-	9.3	<0.1	<5	37	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP20_0.0-0.1	4/08/2021	815526	S21-Au14077	Systematic	9.2	<0.4	20	26	-	32	<0.1	11	100	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP21_0.0-0.1	4/08/2021	815526	S21-Au14076	Systematic	7.9	<0.4	21	35	-	39	<0.1	18	150	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP22_0.3-0.4	4/08/2021	815526	S21-Au14075	Systematic	9	<0.4	23	29	-	18	<0.1	16	50	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP23_0.0-0.1	4/08/2021	815526	S21-Au14074	Systematic	13	<0.4	26	26	-	16	<0.1	26	54	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP24_0.0-0.1	4/08/2021	815526	S21-Au14072	Systematic	16	<0.4	22	46	-	32	<0.1	19	74	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP24_0.2-0.3	4/08/2021	815526	S21-Au14073	Systematic	15	<0.4	25	40	-	27	<0.1	22	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25_0.0-0.1	4/08/2021	815526	S21-Au14070	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25_0.2-0.3	4/08/2021	815526	S21-Au14071	Systematic	9.7	<0.4	26	44	-	44	<0.1	24	210	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26_0.0-0.1	4/08/2021	815526	S21-Au14079	Systematic	16	<0.4	22	46	-	32	<0.1	19	74	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP27_0.2-0.3	3/08/2021	814505	S21-Au05014	Targeted	7.8	<0.4	21	20	-	13	<0.1	15	40	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP27_0-0.1	3/08/2021	814505	S21-Au05013	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP28_0-0.1	3/08/2021	814505	S21-Au05015	Targeted	9.6	<0.4	22	36	-	39	<0.1	15	100	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP29_0.2-0.3	3/08/2021	816538	S21-Au21896	Targeted	7.7	<0.4	20	32	-	21	<0.1	16	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP29_0-0.1	3/08/2021	814505	S21-Au05017	Targeted	8.9	0.4	50	89	-	40	<0.1	35	230	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA20210803-02	TP29_0-0.1	275275	275275-2	Targeted	9	0.5	200	99	-	35	<0.1	120	140	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<3	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC20210803-02	TP29_0-0.1	814505	S21-Au05005	Targeted	14	1.6	390	340	-	350	<0.1	240	570	<20	<20	60	52	112	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP30_0-0.1	3/08/2021	814505	S21-Au05016	Targeted	14	<0.4	22	23	-	6.6	<0.1	11	33	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP31_0.2-0.3	3/08/2021	814505	S21-Au05001	Targeted	14	<0.4	32	32	-	16	<0.1	18	57	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP31_0-0.1	3/08/2021	814505	S21-Au05000	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP32-0.0-0.1	5/08/2021	815477	S21-Au13292	Targeted	12	<0.4	22	38	-	21	<0.1	20	61	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP33-0.0-0.1	5/08/2021	815477	S21-Au13294	Targeted	13	<0.4	26	28	-	14	<0.1	16	36	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP34-0-0.1	5/08/2021	815477	S21-Au13320	Targeted	11	<0.4	21	100	-	29	<0.1	14	130	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP35_0.0-0.1	4/08/2021	815526	S21-Au14069	Targeted	11	<0.4	24	20	-	22	<0.1	15	38	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH36_0.25-0.35	3/08/2021	814505	S21-Au04997	Targeted	9.8	<0.4	29	84	-	18	<0.1	43	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP37_0.0-0.1	4/08/2021	815526	S21-Au14068	Targeted	2.2	<0.4	15	11	-	8.4	<0.1	<5	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP38_0.0-0.1	4/08/2021	815526	S21-Au14067	Targeted	3.6	0.5	21	170	-	32	<0.1	14	270	<20	<20	<50	130	130	<20	<50	140	<100	140	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH39_0.8-1	3/08/2021	814505	S21-Au04996	Targeted	12	<0.4	31	47	-	14	<0.1	43	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP40_0.0-0.1	4/08/2021	815526	S21-Au14065	Targeted	8.4	<0.4	35	38	-	16	<0.1	37	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP41_0.0-0.1	4/08/2021	815526	S21-Au14066	Targeted	4.7	<0.4	19	60	-	14	<0.1	20	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH42_0.3-0.5	3/08/2021	814505	S21-Au04995	Targeted	7.1	<0.4	25	58	-	18	<0.1	39	120	<20	<20	53	53	106	<20	<50	100	<100	100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH42_0.6-0.8	3/08/2021	816538	S21-Au21894	Targeted	-	-	-	-	-	-	-	-	-	<20	<20	54	57	111	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP43_0-0.1	3/08/2021	814505	S21-Au05004	Targeted	8.1	<0.4	21	84	-	23	<0.1	25	140	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH44_0.15-0.3	3/08/2021	814505	S21-Au04994	Targeted	2	<0.4	8.3	8.8	-	<5	<0.1	6.8	24	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH45_0.2-0.4	3/08/2021	814505	S21-Au04993	Targeted	2.8	<0.4	11	11	-	5.4	<0.1	7.4	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP46_0.2-0.3	3/08/2021	814505	S21-Au05018	Targeted	9.9	<0.4	23	27	-	7.3	<0.1	21	65	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP47_0.2-0.36	3/08/2021	814505	S21-Au05019	Targeted	19	<0.4	30	77	-	25	<0.1	20	89	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH48_0.2-0.4	3/08/2021	814505	S21-Au04990	Targeted	<2	<0.4	8.9	<5	-	<5	<0.1	<5	19	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH49_0.2-0.35	3/08/2021	814505	S21-Au04991	Targeted	3	<0.4	18	8.1	-	7.9	<0.1	8.4	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH50_0.6-0.8	3/08/2021	814505	S21-Au04992	Targeted	7.7	<0.4	20	35	-	28	<0.1	26	100	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
FRAG01	21/08/2021	820743		Targeted																																																		

Table A - Soil Analytical Results
Project Number: 58500
Project Name: Caddens DSI

	Metals & Metalloids									TPHs (NEPC 1999)				
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)
	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	2	0.4	5	5	20	5	0.1	5	5	20	20	50	50	50
NEPM 2013 Table 1A(1) HILs Res A Soil	100	20	100	6000		300	40	400	7400					
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space	100		520	230		1100		370	980					
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil														
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)														
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil														

	TRHs (NEPC 2013)							BTEXN							
	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil															
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space														170	170
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil			1300	5600		180	120	65	105	125			45		
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil	800	1000	3500	10000											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)						50	280	0.7	480	NL			110	5	5
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)						90	NL	1	NL	NL			310	NL	NL
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)						150	NL	2	NL	NL			NL	NL	NL
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)						45	110	0.5	160	55			40	3	3
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)						70	240	0.5	220	NL			60	NL	NL
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)						110	440	0.5	310	NL			95	NL	NL
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil															

	PAH																				
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (Sum of total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil						3	3	3													300
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space																		170			
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil					0.7																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)																		5			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)																		NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)																		NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)																		3			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)																		NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)																		NL			
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																					

Sample ID **Sample Date/Primary** **Lab Report** **Sample Code** **Type**

Statistical Summary

	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)
Number of Results	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Detects	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Concentration	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Detect	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Concentration	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Detect	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Average Concentration	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Median Concentration	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Standard Deviation	#####	#####	#####	#####	######	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Guideline Exceedances	#####	#####	0	1	######	0	#####	0	0	#####	#####	#####	#####	#####
Number of Guideline Exceedances(Detects Only)	#####	#####	0	1	######	0	#####	0	0	#####	#####	#####	#####	#####

	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH
Number of Results	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Detects	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Average Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Median Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Standard Deviation	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Guideline Exceedances	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Guideline Exceedances(Detects Only)	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####

	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (Sum of total)
Number of Results	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Detects	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Average Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Median Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Standard Deviation	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Guideline Exceedances	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Guideline Exceedances(Detects Only)	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####

Table A - Soil Analytical Results
Project Number: 58500
Project Name: Caddens DSI

					Organochlorine Pesticides																								Chlorinated Alkanes																Chlorinated Alkenes										Solvents
					4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Acetone
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	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	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil												6	50					240				10			6		300	20																											
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space																180																																							
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																																																							
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																																																							
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)																																																							
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)																																																							
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)																																																							
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																																							
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)																																																							
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)																																																							
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)																																																							
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																																																							
Sample ID	**Sample Date/Primary**	**Lab Report**	**Sample Code**	**Type**																																																			
TP01_0.0-0.1	4/08/2021	815526	S21-Au14083	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02-0.0-0.1	5/08/2021	815477	S21-Au13294	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	5/08/2021	815477	S21-Au13293	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.4-0.5	4/08/2021	815526	S21-Au14082	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05_0-0.1	3/08/2021	814505	S21-Au05008	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC20210803-01	TP05_0-0.1	814505	S21-Au05011	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA20210803-01	TP05_0-0.1	275275	275275-1	Systematic	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06_0-0.1	3/08/2021	814505	S21-Au05009	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07_0.0-0.1	4/08/2021	815526	S21-Au14086	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08-0.0-0.1	5/08/2021	815477	S21-Au13295	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09_0.2-0.3	3/08/2021	814505	S21-Au05006	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09_0.9-1	3/08/2021	814505	S21-Au05007	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10_0.2-0.3	3/08/2021	814505	S21-Au05010	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11-0.3-0.4	5/08/2021	815477	S21-Au13291	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12_0.0-0.1	4/08/2021	815526	S21-Au14081	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0-0.1	3/08/2021	814505	S21-Au05012	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.2-0.3	3/08/2021	816538	S21-Au21895	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.9-1	3/08/2021	814505	S21-Au05003	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0-0.1	3/08/2021	814505	S21-Au05002	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15-0-0.1	5/08/2021	815477	S21-Au13290	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16_0.0-0.1	4/08/2021	815526	S21-Au14080	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17_0.0-0.1	4/08/2021	815526	S21-Au14079	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18_0-0.1	3/08/2021	814505	S21-Au04999	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19_0.0-0.1	4/08/2021	815526	S21-Au14078	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP20_0.0-0.1	4/08/2021	815526	S21-Au14077	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP21_0.0-0.1	4/08/2021	815526	S21-Au14076	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP22_0.3-0.4	4/08/2021	815526	S21-Au14075	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP23_0.0-0.1	4/08/2021	815526	S21-Au14074	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP24_0.0-0.1	4/08/2021	815526	S21-Au14072	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP24_0.2-0.3	4/08/2021	815526	S21-Au14073	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25_0.0-0.1	4/08/2021	815526	S21-Au14070	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25_0.2-0.3	4/08/2021	815526	S21-Au14071	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26_0.0-0.1	4/08/2021	815526	S21-Au14079	Systematic	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP27_0.2-0.3	3/08/2021	814505	S21-Au05014	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP27_0-0.1	3/08/2021	814505	S21-Au05013	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP28_0-0.1	3/08/2021	814505	S21-Au05015	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP29_0.2-0.3	3/08/2021	816538	S21-Au21896	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP29_0-0.1	3/08/2021	814505	S21-Au05017	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA20210803-02	TP29_0-0.1	275275	275275-2	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC20210803-02	TP29_0-0.1	814505	S21-Au05005	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP30_0-0.1	3/08/2021	814505	S21-Au05016	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP31_0.2-0.3	3/08/2021	814505	S21-Au05001	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP31_0-0.1	3/08/2021	814505	S21-Au05000	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP32-0.0-0.1	5/08/2021	815477	S21-Au13292	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP33-0.0-0.1	5/08/2021	815477	S21-Au13294	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP34-0-0.1	5/08/2021	815477	S21-Au13320	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP35_0.0-0.1	4/08/2021	815526	S21-Au14069	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH36_0.25-0.35	3/08/2021	814505	S21-Au04997	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP37_0.0-0.1	4/08/2021	815526	S21-Au14068	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP38_0.0-0.1	4/08/2021	815526	S21-Au14067	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH39_0.8-1	3/08/2021	814505	S21-Au04996	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP40_0.0-0.1	4/08/2021	815526	S21-Au14065	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP41_0.0-0.1	4/08/2021	815526	S21-Au14066	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH42_0.3-0.5	3/08/2021	814505	S21-Au04995	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH42_0.6-0.8	3/08/2021	816538	S21-Au21894	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP43_0-0.1	3/08/2021	814505	S21-Au05004	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH44_0.15-0.3	3/08/2021	814505	S21-Au04994	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH45_0.2-0.4	3/08/2021	814505	S21-Au04993	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP46_0.2-0.3	3/08/2021	814505	S21-Au05018	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP47_0.2-0.36	3/08/2021	814505	S21-Au05019	Targeted	<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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH48_0.2-0.4	3/08/2021	814505	S21-Au04990	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH49_0.2-0.35	3/08/2021	814505	S21-Au04991	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH50_0.6-0.8	3/08/2021	814505	S21-Au04992	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
FRAG01	21/08/2021	820743		Targeted																																																			

Table A - Soil Analytical Results
Project Number: 58500
Project Name: Caddens DSI

	Organochlorine Pesticides																							Chlorinated Alkanes																			Chlorinated Alkenes											Solvents
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Acetone
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	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	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil								6	50					240				10			6		300	20																													
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space												180																																							
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																																																		
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																																																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)																																																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)																																																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)																																																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)																																																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)																																																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)																																																		
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																																																		

Sample ID	Sample Date/Primary	Lab Report	Sample Code	Type
Statistical Summary				
Number of Results	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Number of Detects	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Minimum Concentration	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Minimum Detect	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Maximum Concentration	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Maximum Detect	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Average Concentration	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Median Concentration	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Standard Deviation	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Number of Guideline Exceedances	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######
Number of Guideline Exceedances(Detects Only)	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######	#######

Table A - Soil Analytical Results
Project Number: 58500
Project Name: Caddens DSI

	Polychlorinated Biphenyls								MAH							Miscellaneous Hydrocarbons						Chlorinated Benzenes					Trihalomethanes				Organic Sulfur Compounds	Ionic Balance			Particle Size	Asbestos - Eurofins										Other
	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Carbon disulfide	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	% Clay*	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	Moisture Content (dried @ 103°C)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MEQ/100G	US/CM	pH Units	%	g	g	g	% (w/w)	g	g	g	g	% (w/w)	g	%
EQL	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	0.5	0.5	0.5	0.5	0.05	10	0.1	1											1
NEPM 2013 Table 1A(1) HILs Res A Soil								1																	10																			
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space																																													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																																												
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)																																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)																																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)																																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)																																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)																																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)																																												
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																																						0.01					0.001		

Sample ID	Sample Date/Primary	Lab Report	Sample Code	Type																																									
TP01_0.0-0.1	4/08/2021	815526	S21-Au14083	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
TP02-0.0-0.1	5/08/2021	815477	S21-Au13294	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	601	0	0	0	0	0	0	0	0	0	-
TP03-0.0-0.1	5/08/2021	815477	S21-Au13293	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	521	0	0	0	0	0	0	0	0	0	-
TP04_0.4-0.5	4/08/2021	815526	S21-Au14082	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
TP05_0-0.1	3/08/2021	814505	S21-Au05008	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	577	0	0	0	0	0	0	0	0	0	10
QC20210803-01	TP05_0-0.1	814505	S21-Au05011	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	589	0	0	0	0	0	0	0	0	0	12
QA20210803-01	TP05_0-0.1	275275	275275-1	Systematic	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	612	0	0	0	0	0	0	0	0	0	-
TP06_0-0.1	3/08/2021	814505	S21-Au05009	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	510	0	0	0	0	0	0	0	0	0	15
TP07_0.0-0.1	4/08/2021	815526	S21-Au14086	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	581	0	0	0	0	0	0	0	0	0	-
TP08-0.0-0.1	5/08/2021	815477	S21-Au13295	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
TP09_0.2-0.3	3/08/2021	814505	S21-Au05006	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
TP09_0.9-1	3/08/2021	814505	S21-Au05007	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	81	7.6	26	-	-	-	-	-	-	-	-	21
TP10_0.2-0.3	3/08/2021	814505	S21-Au05010	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	505	0	0	0	0	0	0	0	0	0	20
TP11-0.3-0.4	5/08/2021	815477	S21-Au13291	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	368	0	0	0	0	0	0	0	0	0	9.8
TP12_0.0-0.1	4/08/2021	815526	S21-Au14081	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
TP13_0-0.1	3/08/2021	814505	S21-Au05012	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
TP14_0.2-0.3	3/08/2021	816538	S21-Au21895	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
TP14_0.9-1	3/08/2021	814505	S21-Au05003	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	140	7.4	19	-	-	-	-	-	-	-	-	19
TP14_0-0.1	3/08/2021	814505	S21-Au05002	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36
TP15-0-0.1	5/08/2021	815477	S21-Au13290	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	238	0	0	0	0	0	0	0	0	0	15
TP16_0.0-0.1	4/08/2021	815526	S21-Au14080	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6
TP17_0.0-0.1	4/08/2021	815526	S21-Au14079	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	540	0	0	0	0	0	0	0	0	0	15
TP18_0-0.1	3/08/2021	814505	S21-Au04999	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
TP19_0.0-0.1	4/08/2021	815526	S21-Au14078	Systematic	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	3.3
TP20_0.0-0.1	4/08/2021	815526	S21-Au14077	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	402	0	0	0	0	0	0	0	0	0	6.2
TP21_0.0-0.1	4/08/2021	815526	S21-Au14076	Systematic	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	21
TP22_0.3-0.4	4/08/2021	815526	S21-Au14075	Systematic	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
TP23_0.0-0.1	4/08/2021	815526	S21-Au14074	Systematic	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
TP24_0.0-0.1	4/08/2021	815526	S21-Au14072	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
TP24_0.2-0.3	4/08/2021	815526	S21-Au14073	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	464	0	0	0	0	0	0	0	0	0	16
TP25_0.0-0.1	4/08/2021	815526	S21-Au14070	Systematic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	573	0	0	0	0	0	0	0	0	0	-
TP25_0.2-0.3	4/08/2021	815526	S21-Au14071	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
TP26_0.0-0.1	4/08/2021	815526	S21-Au14079	Systematic	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
TP27_0.2-0.3	3/08/2021	814505	S21-Au05014	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
TP27_0-0.1	3/08/2021	814505	S21-Au05013	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	512	0	0	0	0	0	0	0	0	0	-
TP28_0-0.1	3/08/2021	814505	S21-Au05015	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	565	0	0	0	0	0	0	0	0	0	17
TP29_0.2-0.3	3/08/2021	816538	S21-Au21896	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
TP29_0-0.1	3/08/2021	814505	S21-Au05017	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	412	0	0	0	0	0	0	0	0	0	30
QA20210803-02	TP29_0-0.1	275275	275275-2	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC20210803-02	TP29_0-0.1	814505	S21-Au05005	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
TP30_0-0.1	3/08/2021	814505	S21-Au05016	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	335	0	0	0	0	0	0	0	0	0	18
TP31_0.2-0.3	3/08/2021	814505	S21-Au05001	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
TP31_0-0.1	3/08/2021	814505	S21-Au05000	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	343	0	0	0	0	0	0	0	0	0	-
TP32-0.0-0.1	5/08/2021	815477	S21-Au13292	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	20
TP33-0.0-0.1	5/08/2021	815477	S21-Au13294	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	0	0	0	0	0	0	0	0	0	16
TP34-0-0.1	5/08/2021	815477	S21-Au13320	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	29
TP35_0.0-0.1	4/08/2021	815526	S21-Au14069	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
BH36_0.25-0.35	3/08/2021	814505	S21-Au04997	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435	0	0	0	0	0	0	0	0	0	20
TP37_0.0-0.1	4/08/2021	815526	S21-Au14068	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	634	0	0	0	0	0	0	0	0	0	2.6
TP38_0.0-0.1	4/08/2021	815526	S21-Au14067	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	17
BH39_0.8-1	3/08/2021	814505	S21-Au04996	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	577	0	0	0	0	0	0	0	0	0	19
TP40_0.0-0.1	4/08/2021	815526	S21-Au14065	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	517	0	0	0	0	0	0	0	0	0	9
TP41_0.0-0.1	4/08/2021	815526	S21-Au14066	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	398	0	0	0	0	0	0	0	0	0	29
BH42_0.3-0.5	3/08/2021	814505	S21-Au04995	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
BH42_0.6-0.8	3/08/2021	816538	S21-Au21894	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
TP43_0-0.1	3/08/2021	814505	S21-Au05004	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	444	0	0	0	0	0	0	0	0	0	20
BH44_0.15-0.3	3/08/2021	814505	S21-Au04994	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	11
BH45_0.2-0.4	3/08/2021	814505	S21-Au04993	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	948	0	0	0	0	0	0	0	0	0	8.4
TP46_0.2-0.3	3/08/2021	814505	S21-Au05018	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	541	0	0	0	0	0	0	0	0	0	13
TP47_0.2-0.36	3/08/2021	814505	S21-Au05019	Targeted	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	386	0	0	0	0	0	0	0	0	0	17
BH48_0.2-0.4	3/08/2021	814505	S21-Au04990	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	3.2
BH49_0.2-0.35	3/08/2021	814505	S21-Au04991	Targeted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	612	0	0	0	0	0	0	0	0	0	4.8
BH50_0.6-0.8	3/08/2021	814505	S21-Au04992	Targeted	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
FRAG01	21/08/2021	820743		Targeted																																		16	16	Chrysotile, amosite and crocidolite asbestos detected								

Table A - Soil Analytical Results
Project Number: 58500
Project Name: Caddens DSI

	Polychlorinated Biphenyls								MAH					
	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil								1						
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space														
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil														
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)														
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil														

	Miscellaneous Hydrocarbons						Chlorinated Benzenes					Trihalomethanes			
	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil											10				
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil															
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)															
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil															

	Organic Sulfur Compounds	Ionic Balance			Particle Size	Asbestos - Eurofins											Other
	Carbon disulfide	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	% Clay*	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	Moisture Content (dried @ 103°C)
	mg/kg	MEQ/100G	US/CM	pH Units	%	g	g	g	% (w/w)	g	g	g	g	% (w/w)	g	%
EQL	0.5	0.05	10	0.1	1											1
NEPM 2013 Table 1A(1) HILs Res A Soil																
NEPM 2013 Table 1B(1-5) Generic EIL - Urban Residential and Public Open Space																
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (0-1m)																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (1-2m)																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay (2-4m)																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (0-1m)																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (1-2m)																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand (2-4m)																
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil					0.01					0.001		

Sample ID **Sample Date/Primary** **Lab Report** **Sample Code** **Type**

Statistical Summary	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene
Number of Results	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Detects	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Minimum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Maximum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Average Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Median Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Standard Deviation	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Guideline Exceedances	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Number of Guideline Exceedances(Detects Only)	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####

Statistical Summary	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane
Number of Results	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Number of Detects	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Minimum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Minimum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Maximum Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Maximum Detect	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Average Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Median Concentration	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Standard Deviation	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Number of Guideline Exceedances	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####
Number of Guideline Exceedances(Detects Only)	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	######	#####	#####	#####	#####

Statistical Summary	Carbon disulfide	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	% Clay*	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	Moisture Content (dried @ 103°C)
Number of Results	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Number of Detects	#NAME?	#NAME?	#####	#######	#NAME?	0	0	0	0	0	0	0	0	0	0	55
Minimum Concentration	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Minimum Detect	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Maximum Concentration	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Maximum Detect	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Average Concentration	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Median Concentration	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Standard Deviation	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Number of Guideline Exceedances	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####
Number of Guideline Exceedances(Detects Only)	#NAME?	#NAME?	#####	#######	#NAME?	######	###	####	#NAME?	###	###	###	###	######	####	####

Appendix A Photographic Log

PHOTOGRAPH 1: VIEW OF SITE WITH THE COMMERCIAL SHED AND RESIDENCE IN FRAME. FACING EAST

PHOTOGRAPH 2: VIEW OF SITE FROM THE SOUTH WESTERN CORNER FACING NORTH EAST

PHOTOGRAPH 3: VIEW OF THE COMMERCIAL SHEDS AND STORAGE. FACING SOUTH FROM NORTHERN BOUNDARY

PHOTOGRAPH 4: VIEW OF CENTRAL PORTION OF THE SITE FACING WEST. SMALL SHEDS IN CENTRAL PORTION OF SITE IN FRAME

JBS&G

Job No: 58500

Client: Legacy Property Ltd

Version: R01 Rev 0	Date: 18/08/2021
Drawn By: RL	Checked By: SM

Not to Scale

Coord. Sys n/a

89 O'Connell Street, Caddens, NSW

APPENDIX A: PHOTOGRAPH LOG

PHOTOGRAPH 5: VIEW OF HARDSTAND ACCESSWAY FROM O'CONNELL STREET TO THE COMMERCIAL SHEDS. FILLING FROM RESIDENTIAL GARAGE IN FOREGROUND.

PHOTOGRAPH 6: RESIDENCE AND GARAGE BENEATH RESIDENCE

PHOTOGRAPH 7: NORTHERN PORTION OF THE UPPER LEVEL OF THE COMMERCIAL SHED. SOME ISOLATED STAINING ON CONCRETE HARDSTAND

PHOTOGRAPH 8: 200 L DRUMS OF UNKNOWN LIQUID WITHIN NORTHER PORTION OF UPPER LEVEL OF COMMERCIAL SHED.

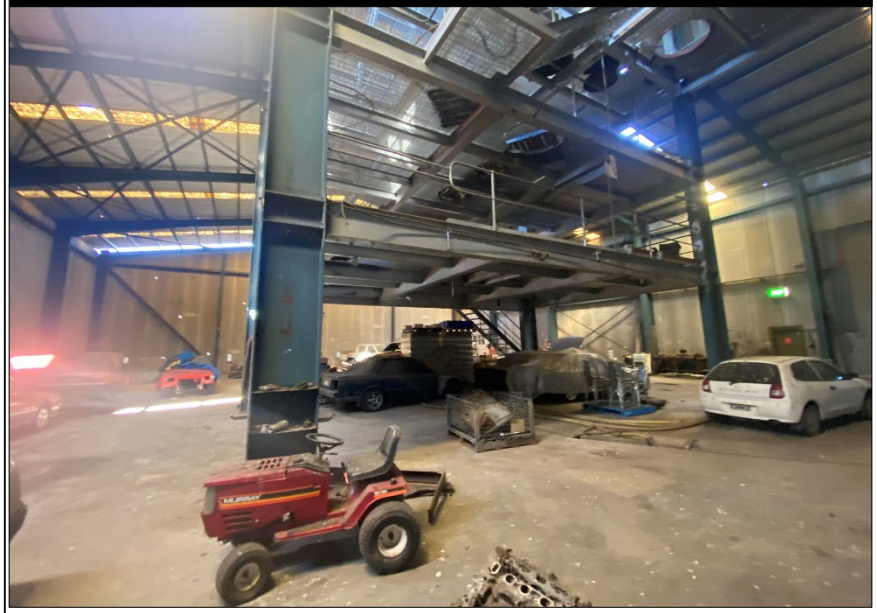
JBS&G

Job No: 58500	
Client: Legacy Property Ltd	
Version: R01 Rev 0	Date: 18/08/2021
Drawn By: RL	Checked By: SM
Not to Scale	
Coord. Sys n/a	

89 O'Connell Street, Caddens, NSW

APPENDIX A: PHOTOGRAPH LOG

PHOTOGRAPH 9: SOUTHERN PORTION OF UPPER LEVEL OF COMMERCIAL SHED. SEVERAL VEHICLES AND STEEL STRUCTURE PRESENT



PHOTOGRAPH 10: GENERAL STORAGE WITHIN SOUTHERN PORTION OF UPPER SHED. INCLUDING CARDBOARD BOXES AND CAR PARTS

PHOTOGRAPH 11: WESTERN PORTION OF LOWER SHED

PHOTOGRAPH 12: STORAGE WITHIN LOWER SHED. DRUMS USED IN DISTILLING PROCESSES PRESENT

JBS&G

Job No: 58500	
Client: Legacy Property Ltd	
Version: R01 Rev 0	Date: 18/08/2021
Drawn By: RL	Checked By: SM
Not to Scale	
Coord. Sys n/a	

89 O'Connell Street, Caddens, NSW

APPENDIX A: PHOTOGRAPH LOG

PHOTOGRAPH 13: VATS AND DRUMS WITHIN LOWER SHED.

PHOTOGRAPH 14: SMALLER SHED WITHIN CENTRAL SITE EXTENT

PHOTOGRAPH 15: ACM PIPES ADJACENT SMALLER SHEDS WITHIN CENTRAL PORTION OF SITE

PHOTOGRAPH 16: ACM FRAGMENT TO THE SOUTH EAST OF THE LARGE COMMERCIAL SHED

JBS&G

Job No: 58500	
Client: Legacy Property Ltd	
Version: R01 Rev 0	Date: 18/08/2021
Drawn By: RL	Checked By: SM
Not to Scale	
Coord. Sys n/a	

89 O'Connell Street, Caddens, NSW

APPENDIX A: PHOTOGRAPH LOG

PHOTOGRAPH 17: NATURAL CLAYS FROM TP23

PHOTOGRAPH 18: TP33 ADJACENT CENTRAL DAM

PHOTOGRAPH 19: SURFICIAL WASTE AT TP29 LOCATION

PHOTOGRAPH 20: TP45 ADJACENT SOUTH EASTERN CORNER OF COMMERCIAL SHED. ANTHROPOGENIC WASTE THAT ACM FRAGMENT WAS IDENTIFIED IN AT TOP OF FRAME

JBS&G

Job No: 58500

Client: Legacy Property Ltd

Version: R01 Rev 0	Date: 18/08/2021
Drawn By: RL	Checked By: SM

Not to Scale

Coord. Sys n/a

89 O'Connell Street, Caddens, NSW

APPENDIX A: PHOTOGRAPH LOG

Appendix B Registered Groundwater Wells

JBS&G **PSIW - Preliminary Site Investigation (PSI) Web Portal** NSW | June 2020

Find address or place

GW019680

GW112645

GW103764

GW060794

GW112906

Search by Location

Searches **Results**

Groundwater Bores (WaterNSW, 2021)*

Displayed features:8/8

Groundwater_Bores_waterNSW_2021

ZONE_	56.00
EASTING	290,432.00
NORTHING	6,262,298.00
LATITUDE	-33.76
LONGITUDE	150.74
DEPTHCOMPL	53.30
DEPTHDRILL	53.30
LICENSEID	10BL012376
HOLDERSURN	TEST BORE
Link__Form	More info
Water_NSW_	GW019680

Penrith
A44
A9
Defence Establishment Orchard

Maxar

Appendix C Historical Aerials

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1947

AERIAL 1947

Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1955

AERIAL 1955

Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1961

AERIAL 1961

Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1970

AERIAL 1970

Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1982

AERIAL 1982

Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 9/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1986

AERIAL 1986

Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1991

AERIAL 1991

Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500	
Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust	
Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL
Scale 1:2,500	

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2002

AERIAL 2002

Path: G:\Projects\58500 Caddens DSI\GIS\Maps\Aerials\58500_2002_Aerial.mxd
Reference: NSW DFSI

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2010

AERIAL 2010

Path: G:\Projects\58500 Caddens DSI\GIS\Maps\Aerials\58500_2010_Aerial.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 22/02/2010)

Legend

Approximate Site Boundary

JBS&G

Job No: 58500

Client: LegPro 74 Pty Ltd ATF LegPro 74 Unit Trust

Version: Aerials	Date 4/02/2021
Drawn By: JA	Checked By: KL

Scale 1:2,500

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

89-115 O'Connel Street, Caddens, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2021

AERIAL 2021

Path: C:\Projects\58500 Caddens DSI\GIS\Maps\Aerials\58500_2021_Aerial.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 24/01/2021)

Appendix D Historical Land Titles

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Address: - 89 to 115 O'Connell Street, Caddens

Description: - Lot 37 D.P. 1044732

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
24.04.1919 (1919 to 1937)	Catherine Isobel Burnett Macleod (Postmistress now Widow)	Book 1155 No. 127
25.08.1937 (1937 to 1939)	James Maze (Dairy Farmer, now Engineer)	Book 1791 No. 621
29.05.1939 (1939 to 1946)	Alexander Fulop (Chemist)	Book 1846 No. 416
26.06.1946 (1946 to 1979)	Kingswood Distillery Pty Limited	Book 1986 No. 861
06.04.1979 (1979 to date)	# Orchard Hills Enterprises Pty Limited	Book 3359 No. 468 Now 37/1044732

 # Denotes current registered proprietor

Leases: - NIL

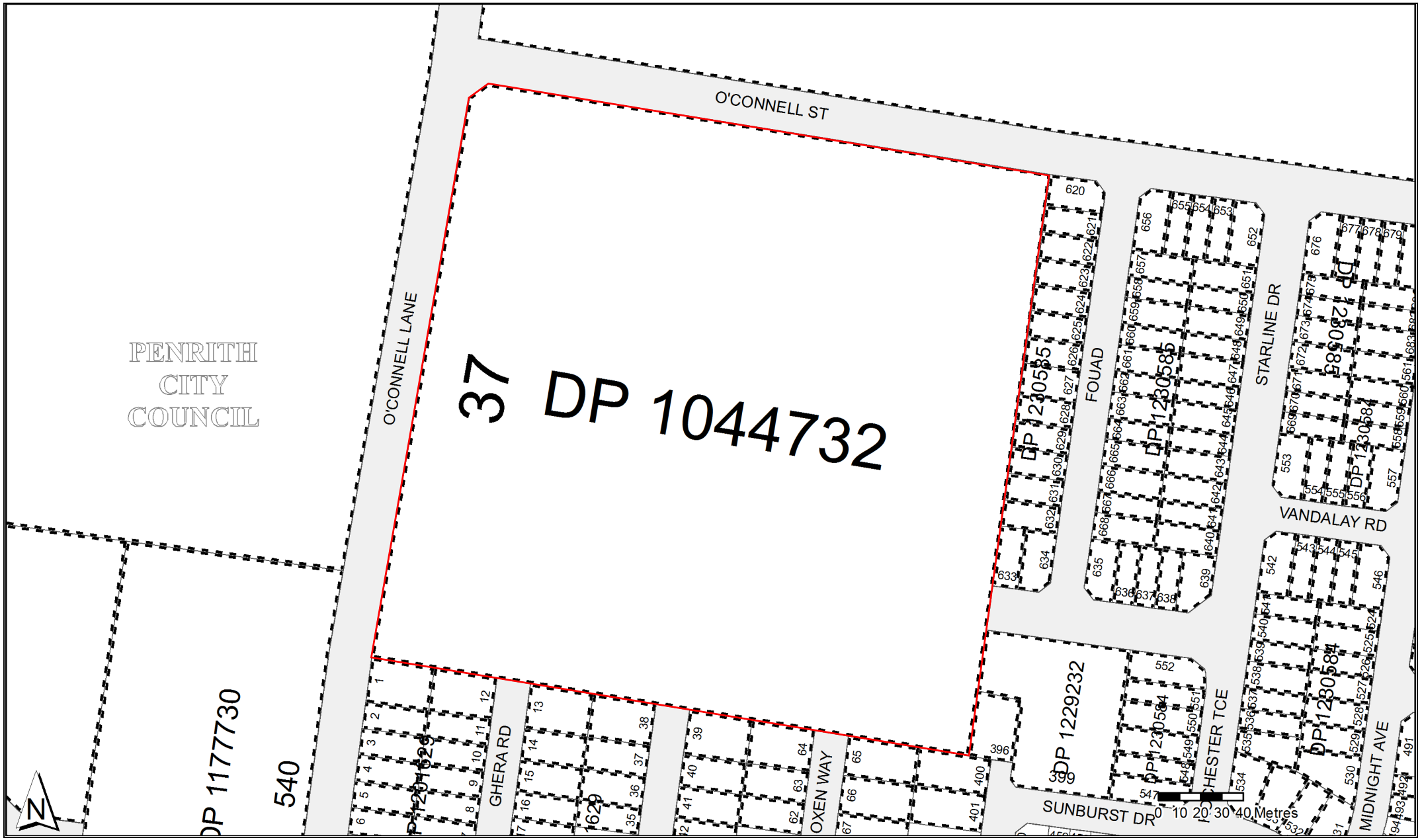
Easements: - NIL

Yours Sincerely
Mark Groll
5 February 2021

Cadastral Records Enquiry Report : Lot 37 DP 1044732

Ref : Caddens 89?115 O?Connell Street

Locality : CADDENS
Parish : CLAREMONT
LGA : PENRITH
County : CUMBERLAND



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

Document Set ID: 9819404
Version: 1, Version Date: 24/11/2021

PLANFORM 2

Plan Drawing only to appear in this space.

SIGNATURES AND SEALS ONLY

THE COMMON SEAL OF ORCHARD HILLS ENTERPRISES PTY. LTD. ACN 001 666 324

C Prestipino

CONNIE THERESE PRESTIPINO

DIRECTOR/SECRETARY

Crown Land Office Approval

PLAN APPROVED ..... Authorised Officer

Land District .....
Paper No .....
Field Book ..... pages .....

Subdivision Certificate

I certify that the provisions of s.109J of the Environmental Planning and Assessment Act 11979 have been satisfied in relation to the proposed

.....set out herein
(Insert 'subdivision' or 'new road')

..... † Authorised Person/General Manager/Accredited Certifier

Consent Authority: .....

Date of endorsement: .....

Accreditation No.: .....

Subdivision Certificate No.: .....

File No. .....

Note:
When the plan is to be lodged electronically in the Land Titles Office, it should include a signature in an electronic or digital format approved by the Registrar-General.

Delete whichever is inapplicable

SURVEYOR'S REFERENCE: 31375DP

SURVEY PRACTICE REGULATIONS 2001, CL. 32(2)				
MARK	M.G.A. CO-ORDINATES EASTING	M.G.A. CO-ORDINATES NORTHING	ZONE	CLASS
P.M. 20621	290530.966	6260921.596	56	B
P.M. 41913	290149.410	6261370.433	56	B
P.M. 41914	290120.366	6261001.640	56	B
COMBINED SCALE FACTOR: 1.000134				
SOURCE: S.C.I.M.S. DATED 29/8/2001				

P.M. 20621 ('A') TO P.M. 41914 ('B')
281° 01' 52" – 418.276 SURVEY
281° 01' 52" – 418.273 MGA GRND DIST.

M.G.A.

P.M. 41913 FD.
4°30'01"–369.906 SURVEY
4°30'11"–369.885 MGA GRND DIST.
139° 37' 56" – 589.051 SURVEY
139° 37' 56" – 589.022 MGA GRND DIST.

O'CONNELL ST.

D. P. 850402

DIAGRAM 2

P.M. 41914 FD. 'B'
PM CONC BLK FD. 11°27'50"–2.355 (R34110)-1603
RM NAIL & WING IN V.E. FD. (D.P.864085) 241°42'–3.02 BY ME
RM GIP NOT FD. PM TO CNR 68°20'–0.855 (D.P.843692)
RM NAIL & WING 74°36'35"–38.295 (D.P.843692) FD.
RM GIP FD. 181°13'–0.51 (D.P.522660) BY ME
188°29'45" 20.12
PEG FD.
RM GIP FD. 5°50'45"–0.057 (D.P.843692)
185°38'45"–20.13 (D.P.843692)
RM GIP FD. 185°45'15"–0.51 (D.P.522660) (D.P.843692)
'A' P.M. 20621 FD.
PM TO CNR 269°45'10"–19.73
NAIL IN CONC. RM GIP FD. 187°49'40" (D.P.522660) BY ME –0.56
CNR TO CNR–206.81 D.P.564332 & SURVEY
CONC. PANEL BUILDING

276.7 (132.71) (127.785)
166°56'35" 21.735
27.74
99° 09' 45" 97' 49' 40"
(20.115 WIDE)
O'CONNELL STREET
CHAIN WIRE FENCE ABT 5 Y.O. 268.705
(0.09) 120.965
140.53 SURVEY 140.44 (D.P.564332)
PEG FD. 54°33'20" 10.85
52.285 187°39'30"
(0.1) (0.83) (0.3)
CHAIN WIRE FENCE ABT 5–10 Y.O. 154.525
188° 03' 50"

SEE

D.P. 864087
ABT 5–10 Y.O. FENCE WIRE CHAIN
237.735 (TOTAL WIDTH 20.12) 57' 00" 268.27
ROAD 9'
1721

37
7.769ha

11 12

D. P. 522660

STEEL POST (0.1) NO MKS FD. (0.58)
ON AND OFF B'DY ∅ 188° 02' 20" 70.085 SURVEY (D.P.564332) 70.08
(0.52) POST HOLE FD. AT CNR.
(1.11)

D.P. 564332

101

SEE

DIAGRAM 1

(6.78) 0.09 7°42'40"
CHAIN WIRE FENCE
285.65 (D.P.209925)
285.825 SURVEY
ABT 5–10 Y.O.
279' 20' 20'
PM CB FD. 278°49'50"–0.455 (R34110)-1603
RM NOT FD. ∅
(1.3)

D.P. 864084
38.285
LANE 40"
175.43 (R34110) 175.46 SURVEY
42°22'57" 228.535 Pro.
7'
PUBLIC

31
2
32

D. P. 520322

PM CONC BLK. ON BDY FD. (R34110)-1603
96°39' 0.455 P.O. 0.475 SUR.

D.P. 864084
38.285 57' 00" 268.27
9' (6.78) 37
2
98°49'50" 20.125
PM CONC BLK FD. 278°49'50"–0.455 (R34110)-1603
0.09 7°42'40"
RM GIP 99°20'–1.0
(0.6) (1.3)

DIAGRAM 1
(NOT TO SCALE)

D.P. 864087
P.M. 41914 FD.
68°20'–0.855 (D.P.843692)
RM GIP NOT FD.
166°56'35" 21.735
PM CONC BLK FD. 11°27'50"–2.355 (R34110)-1603
RM NAIL & WING IN V.E. FD. (D.P.864085) 241°42'–3.02 BY ME
(0.32) 99° 09' 45" 268.705
PEG FD. 54°33'20" 10.85
RM DH&W IN KERB 139°11'–6.465
(4.15) (3.08)
(R34110–1603) 57' 00" 268.27
9'
1721
37

DIAGRAM 2
(NOT TO SCALE)

DP1044732

Registered: 27.2.2003

C.A.: —

Title System: OLD SYSTEM

Purpose: PA81071

Ref. Map: U7760-72*

Last Plan: —

PLAN OF LAND IN CONVEYANCE No.468 Bk.3359 BEING PART LOT 37 D.P. 111110

Lengths are in metres. Reduction Ratio 1: 2000

L G A PENRITH

Locality: KINGSWOOD

Parish: CLAREMONT

County: CUMBERLAND

This is sheet 1 of my plan in sheets.
(Delete if inapplicable)

Surveyors (Practice) Regulation 2001

I, COLIN J. FOULDS

of PO BOX 259 PENRITH 2751

a surveyor registered under the Surveyors Act, 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors Practice Regulation 2001 and was completed on 13/11/2001

The survey relates to LOT 37
(here specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey)

Datum Line: 'A' – 'B'
Zone: ~~Suburban~~ / Country

(Signature) .....
Surveyor registered under the Surveyors Act 1929

Plans used in preparation of survey/compilation.

D.P. 111110	D.P. 520322	D.P. 850402
~~D.P. 205024~~	D.P. 522660	D.P. 864084
D.P. 209925	D.P. 564332	D.P. 864085
~~D.P. 502333~~	D.P. 567411	D.P. 864087
D.P. 515678	D.P. 843692	R34110–1603
~~D.P. 520322~~	D.P.205204	

PANEL FOR USE ONLY for statements of intention to dedicate public roods, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

ADDITIONS & ALTERATIONS MADE IN LPI AT SURVEYOR'S REQUEST

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

PRIMARY APPLICATION	Form: 00PA	L
New South Wales	Licence: 98M111	le
Section 14 Real Property Act 1900	Edition: 0107	T

PA81071R

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

Office of State Revenue use only

(A) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	Reference (optional):
962L	CENTRAL SEARCHING FOR JOHN BROWN & PARTNERS Surveyors	

(B) **APPLICANT**

ORCHARD HILLS ENTERPRISES PTY.LTD. C. PRESTIPINO DIRECTOR & Secretary

applies to have the land described below brought under the provisions of the Real Property Act 1900:

THE COMMON SEAL OF ORCHARD HILLS ENTERPRISES PTY LTD A.C.N. 001 6[illegible]

(C) **LAND**

all that piece of land situated at Orchard Hills in the County of Cumberland

Parish of Claremont. being part of 48 acres within the O'Connell Estate also known as Part 37 DP111110 ✓ ("the land")

(D) **REGISTERED PROPRIETOR**

and requests that the folio of the Register issue in the name of

THE APPLICANT

NEW SOUTH WALES DUTY
27-08-2002 0001090456-001
TRANSFER- TRANSFER
DUTIABLE AMOUNT $ **********800.00
DUTY $ **********10.00

(E) **TENANCY**

SOLE

CAUTION: SEVERE PENALTIES ARE PROVIDED FOR PROCURING A CERTIFICATE OF TITLE THROUGH FRAUD

(F) **STATUTORY DECLARATION** In support of this application I/we ..... CONNIE PRESTIPINO DIRECTOR ..... solemnly and sincerely declare that—

1. The applicant is seised of
   (a) an estate in fee simple in the land.
   ~~(b) possession of the land.~~
   ~~(c) a life estate in the land.~~
2. There is no person in possession or occupation of the land or any part of it adversely to the estate or interest of the applicant.
3. The land is now unoccupied / occupied by the persons specified in Schedule 1.
4. There is no lease or agreement for lease of the land for any term exceeding 1 year, or from year to year, except as set out in Schedule 1.
5. There is no right of way, right of drainage or other easement or any restrictive covenant affecting the land except as set out in Schedule 1.
6. There is no mortgage, lien, writ of execution, order, charge, encumbrance, will, settlement, deed, writing, contract or dealing giving any right, claim or interest in the land or any part of it to any person other than the applicant except as set out in Schedule 1; nor to the best of my knowledge and belief is there any action, proceeding or suit pending which affects or could affect the land or any person other than the applicant who has or claims any estate, right title or interest in the land except as set out in Schedule 1.
7. There is no resumption or instrument whereby minerals or substrata have been excepted or reserved to any person except as set out in Schedule 1.
8. Schedule 2 contains a full and correct list of all settlements, deeds, documents, instruments, maps, plans and papers relating to the land so far as I have any means of ascertaining them; all such documents as are in my possession or under my control are lodged herewith; the whereabouts of all other documents listed, so far as is known to me, is stated in the list.

continued on page 2

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

A set of notes on this form (00PA-2) is available from Land and Property Information NSW.

D.P. 1044732. Now being Lot 37

9. The applicant is not bankrupt nor has the applicant assigned his / her / their estate for the benefit of creditors; if the applicant is a corporation, the corporation has not appointed a liquidator.
10. The information set out in Schedules 1 and 2 is to be taken as part of this declaration.
11. Searches and enquiries for those documents shown as "whereabouts unknown" and numbered [ ] in the List of Documents in Schedule 2 have been made at the premises of the applicant, previous and present lending institutions, solicitors and agents, and have not been lodged with any person as security for a loan or for any purpose whatsoever.

I/we make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900;
I/we certify this application correct for the purposes of the Real Property Act 1900; and
I/we undertake to notify the Registrar General promptly of any further interest in the land created after the making of this declaration and before issue of the certificate of title

Signature of witness .....

Name of witness ...LEONARD MUSUMECI JP...
LEONARD MUSUMECI JP
105 RAMSAY ST HABERFIELD
REGISTRATION Nº 6710026

Address of witness .....

Qualification of witness .....

THE COMMON SEAL OF CROATH PTY. LTD. A.C.N. 001 665 324

Sole Director

27/8/2002

(G) **CONSENT OF MORTGAGEE**

..... being the mortgagee under mortgage Book ..... Number ..... joins in and consents to this application subject to—

i. the entry on the folio of the Register to be created and on the certificate of title to issue of a notification relating to the above mortgage; and
ii. delivery of the certificate of title to me.

Signature of witness:

Name of witness:

Address of witness:

Signature of mortgagee:

(H) **SCHEDULE 1 particulars of subsisting interests**

Full name and address of the occupier, lessee, mortgagee, etc	Nature of the entitlement e.g. occupier, lessee	Particulars of the instrument, if any, by which the entitlement was created

(I) **SCHEDULE 2**

(a) Location of documents referred to in List of Documents

Lodged herewith:	Document numbers	
Whereabouts unknown: (see clause 11 on page 2)	Document numbers	
Permanently lodged:	Document numbers	Receipt numbers
To be lodged:	Document numbers	To be lodged by

(b) List of Documents list each chain of title separately; the schedule should commence from a good root of title

No.	Date	Nature of Document	Parties	General Register	
				Book	No.
1.	26.4.1946	Conveyance	Alexander Furlop to Kingswood Distillery Pty Limited	1986	861
2.	19.9.1962	Mortgage	Kingswood Distillery Pty Limited to Commercial Bank of Australia	2634	515
3.	7.12.1973	Resumption for Road	Plan R34110-1603	GAZ 7.12.73	Fol. 5245
4.	7.2.1979	Discharge of Mtge	Commercial Bank of Australia to Kingswood Distillery Pty Limited	3359	467
5.	6-4-1979	Conveyance	Kingswood Distillery Pty Limited to Orchard Hills Enterprises Pty Limited	3359	468
6.	6-4-1979	Mortgage	Orchard Hills Enterprises Pty Ltd to Wood King Pty Ltd	3359	469
7.	6-4-1982	Discharge of mtge	Wood King Pty Ltd to Orchard Hills Enterprises Pty Ltd	3504	147
8.	6-4-1979	Mortgage	Orchard Hills Enterprises Pty Limited to Commonwealth Trading Bank of Australia	3364	814
9					
⊕					
⊗					
10 ⊗	14-8-2001	D/m	LMGE BK 3364 No 814	4372	283

Search, dated 9/11/2001 by Central Legal Searching Service

List of Documents (continued) list each chain of title separately

No.	Date	Nature of Document	Parties	General Register	
				Book	No.

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
5/2/2021 11:53AM

FOLIO: 37/1044732

First Title(s): OLD SYSTEM
Prior Title(s): BK 3359 NO 468

Recorded	Number	Type of Instrument	C.T. Issue
27/2/2003	DP1044732	DEPOSITED PLAN	FOLIO CREATED EDITION 1
27/2/2003	PA81071	PRIMARY APPLICATION	

*** END OF SEARCH ***

Caddens 89?115 O?Connell Street PRINTED ON 5/2/2021

Received: 05/02/2021 11:52:38

LAND REGISTRY SERVICES

Title Search

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 37/1044732

SEARCH DATE	TIME	EDITION NO	DATE
5/2/2021	11:52 AM	1	27/2/2003

LAND

LOT 37 IN DEPOSITED PLAN 1044732
AT KINGSWOOD
LOCAL GOVERNMENT AREA PENRITH
PARISH OF CLAREMONT COUNTY OF CUMBERLAND
TITLE DIAGRAM DP1044732

FIRST SCHEDULE

ORCHARD HILLS ENTERPRISES PTY LIMITED (PA81071)

SECOND SCHEDULE (1 NOTIFICATION)

---

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Caddens 89?115 O?Connell Street PRINTED ON 5/2/2021

Received: 05/02/2021 11:52:19

Appendix E EPA Records

Search results

Your search for: LGA: PENRITH CITY COUNCIL

Matched 49 notices relating to 8 sites.

Search Again Refine Search

Suburb	Address	Site Name	Notices related to this site
BERKSHIRE PARK	(Northern end of Compartment 5) The Northern ROAD	Castlereagh State Forest	6 former
COLYTON	86-88 Great Western HIGHWAY	Coles Express (former Ampol) Service Station	4 former
JAMISONTOWN	92 Mulgoa ROAD	7-Eleven Service Station	4 current and 2 former
LUDDENHAM	Lot 4 The Northern ROAD	Elura Liquid Waste Disposal Site	1 former
MULGOA	Mulgoa ROAD	Penrith Waste Services	2 former
PENRITH	Castlereagh ROAD	Crane Enfield Metals	12 former
ST MARYS	Vallance STREET	Drum Recycler	5 former
ST MARYS	38 LINKS ROAD	Solveco	3 current and 10 former

1 August 2021

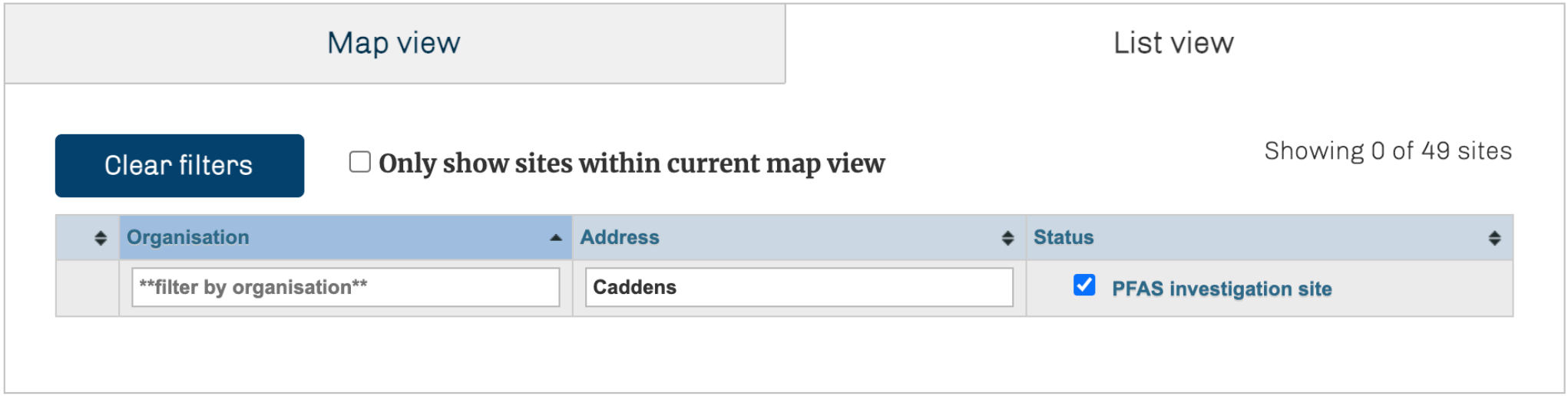
Search results

Your search for: **General Search** with the following criteria

Suburb - Caddens

returned 0 result

Search Again


Map view
List view
Clear filters
Only show sites within current map view
Showing 0 of 49 sites
Organisation
Address
Status
filter by organisation
Caddens
PFAS investigation site

Appendix F Borehole/Test Pit Logs

TEST PIT TP01

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,090
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,721.37
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP01_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - grey to light brown, damp, high plasticity, with red to black claystone gravels (< 5 mm)		TP01_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.6		CL	CLAY - white to light grey, damp, medium plasticity, mottled red to light brown		TP01_0.50-0.60	0.3	No Odours, Staining or ACM Observed
		0.8		CL	CLAY - red, damp, medium plasticity		TP01_0.70-0.80	0.1	No Odours, Staining or ACM Observed
		1					TP01_0.90-1.00	0.2	No Odours, Staining or ACM Observed
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP02

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,228.1
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,698.37
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		RWN	Fill - re-worked natural Silty CLAY, brown, heterogenous, damp, low plasticity, firm, with grass root inclusions		TP02_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - light brown, heterogenous, damp, trace shale gravels		TP02_0.40-0.50	0.4	No Odours, Staining or ACM Observed
		0.6							
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP03

PROJECT NUMBER 58500
PROJECT NAME Caddens DSI
CLIENT Legacy Property
ADDRESS O'Connell Street, Caddens NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 05-Aug-21
DRILL RIG Excavator
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING 290,337.42
NORTHING 6,260,715.65
COORD SYS N/A
COORD SOURCE
LOGGED BY RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		RWN	Fill - re-worked natural Sandy Silty CLAY, dark brown, wet, medium plasticity, soft to firm,		TP03_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4							
		0.6		CL	CLAY - red brown, damp, medium to high plasticity, stiff		TP03_0.60-0.70	0.4	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP04

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,101.5
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,790.42
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP04_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - grey to light brown, damp, high plasticity, with red to black claystone gravels (< 5 mm)		TP04_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.6					TP04_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.8							
		1					TP04_1.00-1.10	0.4	No Odours, Staining or ACM Observed
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP05

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,170.55
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,778.92
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Clayey SILT, no colour given, heterogenous, damp, medium plasticity, loose to soft, with brick, sandstone and terracotta inclusions		TP05_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4					TP05_0.20-0.30	0.4	No Odours, Staining or ACM Observed
		0.6					TP05_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.8							No Odours, Staining or ACM Observed
		1					TP05_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2		CL	CLAY - green to brown, homogenous, damp, high plasticity, soft				No Odours, Staining or ACM Observed
		2.4					TP05_2.40-2.50	0.1	
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP06

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,205.07
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,773.17
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		RWN	Fill - re-worked natural CLAY, dark brown, heteroegnous, damp, medium plasticity, soft, with grass roots inclusions		TP06_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4					TP06_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.6		CL	CLAY - dark brown, homogenous, damp, medium plasticity, firm		TP06_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.8							No Odours, Staining or ACM Observed
		1					TP06_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP07

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,239.59
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21 - 06-Aug-21	**NORTHING** 6,260,767.42
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		RWN	Fill - re-worked natural CLAY, brown, heterogenous, damp, medium plasticity, firm, with trace inclusions of rootlets		TP07_0.00-0.10	0.4	No Odours, Staining or ACM Observed
		0.4		CL-SC	Alluvial sandy CLAY - brown, mottled grey, moist, medium plasticity, firm		TP07_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.6							
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP08

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,308.64
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,755.92
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Sandy silty CLAY, red brown, heteroegnous, dry, low plasticity, soft		TP08_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Sandy CLAY, red brown, heterogenous, damp, low plasticity, firm		TP08_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP08_0.90-1.00	0.1	
		1.2							
		1.4							
		1.6							
		1.8							No Odours, Staining or ACM Observed
		2					TP08_1.90-2.00	0.2	
		2.2							
		2.4							
		2.6		CL-SC	Sandy CLAY - red brown, homogenous, moist, low plasticity, firm				
		2.8							No Odours, Staining or ACM Observed
		3					TP08_2.90-3.00	0.2	
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP09

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,176.29
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,813.44
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, brown, damp, heterogenous, low plasticity, loose, with brick and rock inclusions		TP09_0.00-0.10	0.4	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - red brown, homogenous, with grass root inclusions		TP09_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.6					TP09_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.8							
		1					TP09_0.90-1.00	0.2	No Odours, Staining or ACM Observed
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP10

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,210.82
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,807.69
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Sandy CLAY, white brown, damp, medium plasticity, soft, with brick, sandstone and grass root inclusions		TP10_0.00-0.10	0.1	No Odours, Staining or ACM Observed
				Fill	Fill - Sandy CLAY, light to dark brown, heterogenous, damp, low plasticity, soft, with sandstone inclusions		TP10_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.4					TP10_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.6		CL	CLAY - red brown, homogenous, damp, medium plasticity, firm				
		0.8							No Odours, Staining or ACM Observed
		1					TP10_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP11

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,348.92
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,784.7
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Gravelly silty CLAY, brown with some yellow and red, homogenous, damp, medium plasticity, with an inclusion of a concrete slab (0.5 m2)		TP11_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.4					TP11_0.30-0.40	0.3	No Odours, Staining or ACM Observed
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP11_0.90-1.00	0.1	
		1.2							
		1.4							
		1.6							
		1.8							No Odours, Staining or ACM Observed
		2					TP11_1.90-2.00	0.2	
		2.2							
		2.4							
		2.6							
		2.8							No Odours, Staining or ACM Observed
		3					TP11_2.90-3.00	0.2	
		3.2							
		3.4		CL-ML	Silty CLAY - red/yellow/grey, wet, medium plasticity, soft to firm				No Odours, Staining or ACM Observed
		3.6					TP11_3.50-3.60	0.4	
		3.8							
		4							

TEST PIT TP12

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,182.04
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,847.97
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP12_0.00-0.10	0.3	No Odours, Staining or ACM Observed
							TP12_0.10-0.20	0.4	
		0.4		CL	CLAY - red orange, mottled with light brown and grey, damp, high plasticity				No Odours, Staining or ACM Observed
		0.6					TP12_0.50-0.60	0.3	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP13

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,251.09
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,836.47
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, brown, heterogenous, damp, low plasticity, soft, with grass inclusions		TP13_0.00-0.10	0.1	No Odours, Staining or ACM Observed
				Fill	Fill - Silty CLAY, brown, heterogenous, damp, low to medium plasticity, soft, with grass root inclusions		TP13_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - light brown, homogenous, damp, high plasticity, firm				
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP13_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP14

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,320.14
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,824.97
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Sandy CLAY, brown, heterogenous, damp, low plasticity, soft, with brick, concrete and shale inclusions		TP14_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Sandy CLAY, light brown, heterogenous, damp, low plasticity, with star picket inclusions		TP14_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.6					TP14_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8							No Odours, Staining or ACM Observed
		1					TP14_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6		CL-SC	Sandy CLAY - cream to light brown, heterogenous, damp, medium plasticity				
		1.8							No Odours, Staining or ACM Observed
		2					TP14_1.90-2.00	0.2	
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

Disclaimer This log is intended for environmental not geotechnical purposes.

TEST PIT TP15

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,354.67
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,819.22
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Sandy silty CLAY, brown, heterogenous, damp, low plasticity, soft, with grass root inclusions		TP15_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Sandy silty CLAY, red/yellow/brown, heterogenous, damp, soft, with grass root inclusions		TP15_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.6		CL	CLAY - yellow with some brown/grey, homogenous, damp, medium plasticity, firm		TP15_0.40-0.50	0.3	No Odours, Staining or ACM Observed
		0.8							No Odours, Staining or ACM Observed
		1					TP15_0.90-1.00	0.1	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP16

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,122.17
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Sep-21 - 04-Aug-21	**NORTHING** 6,260,905.66
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** RL, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - silty GRAVEL, grey, heterogenous, dry to damp, loose to medium density, angular, well graded, with grass inclusions		TP16_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL-SC	Sandy CLAY - yellow brown, heterogenous, damp, high plasticity, firm		TP16_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.6					TP16_0.40-0.50	0.3	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP17

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,153.27
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,888.24
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP17_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - light brown, damp, high plasticity, with red to black claystone gravels (< 5 mm)		TP17_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.6					TP17_0.50-0.60	0.2	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP18

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,256.84
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,870.99
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Sandy CLAY, brown, heterogenous, damp, low plasticity, very soft, with grass inclusions		TP18_0.00-0.10	0.4	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Sandy CLAY, yellow to light orange brown, heterogenous, damp, low plasticity, firm, with grass root inclusions		TP18_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.6		Fill	Fill - Clayey SAND, white to light brown, damp, poorly graded, sub-angular, medium density		TP18_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.8							No Odours, Staining or ACM Observed
		1					TP18_0.90-1.00	0.1	
		1.2		CL	CLAY - grey to yellow, homogenous, dry to damp medium plasticity, firm				
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP19

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,191.43
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,907.28
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - silty GRAVEL, grey, heterogenous, dry to damp, well graded, angular, loose to medium density, with grass inclusions		TP19_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4		RWN	Fill - Silty CLAY, yellow to brown, medium plasticity, soft to firm, heterogenous, damp		TP19_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.6		CL	CLAY - yellow to brown, high plasticity, homogenous, firm, damp		TP19_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP20

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,262.59
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,905.52
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - silty GRAVEL, grey, heterogenous, loose density, angular, well graded, dry, with grass inclusions		TP20_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Sandy CLAY, red brown, damp, medium plasticity, firm, mottled, with iron and manganese inclusions		TP20_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.6					TP20_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8		CL	CLAY - yellow to brown, damp, medium plasticity, firm, mottled, with iron inclusions		TP20_0.90-1.00	0.2	No Odours, Staining or ACM Observed
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP21

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,331.64
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,894.02
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Sandy CLAY, brown, heterogenous, damp, low plasticity, with organic matter and gravel rock inclusions		TP21_0.00-0.10	0.2	Organic Odour. No Staining or ACM Observed
		0.4		Fill	Fill - Silty CLAY, red to brown, heterogenous, damp, medium plasticity		TP21_0.20-0.30	0.4	Organic Odour. No Staining or ACM Observed
		0.6		CL	CLAY - grey to yellow brown, heterogenous, damp, medium plasticity, with iron inclusions		TP21_0.30-0.50	0.2	Organic Odour. No Staining or ACM Observed
		0.8					TP21_0.50-1.30	0.1	No Odours, Staining or ACM Observed
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP22

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,164.77
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,957.29
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP22_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - light brown, damp high plasticity, mottled, with red to black claystone gravels (< 5 mm)		TP22_0.30-0.40	0.1	No Odours, Staining or ACM Observed
		0.6					TP22_0.50-0.60	0.2	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP23

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,233.82
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,945.79
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP23_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - red orange, mottled with light brown and grey, damp, high plasticity		TP23_0.20-0.30	0.4	No Odours, Staining or ACM Observed
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP23_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP24

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,302.87
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,934.29
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP24_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - red orange, mottled with light brown and grey, damp, high plasticity		TP24_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.6					TP24_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8		Shale	SHALE - dark grey to black, with a clay seam and a high sand content (approximately 35%), highly weathered, dry, non-plastic				No Odours, Staining or ACM Observed
		1					TP24_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP25

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,337.39
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,928.54
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP25_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - red orange, mottled with light brown and grey, damp, high plasticity, with grass root inclusions		TP25_0.20-0.30	0.4	No Odours, Staining or ACM Observed
		0.6					TP25_0.40-0.50	0.2	No Odours, Staining or ACM Observed
		0.8		Shale	SHALE - dark grey to black, with a clay seam and a high sand content (approximately 35%), highly weathered, dry, non-plastic				No Odours, Staining or ACM Observed
		1					TP25_0.90-1.00	0.1	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

SOIL BOREHOLE TP26

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,364.77
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,916.18
CLIENT Legacy Property	**DRILL RIG** N/A	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15		Fill	Fill - Clayey SAND, brown, heteroegnous, dry, well graded, angular, loose		TP26_0.00-0.10	0.3	No Odours, Staining or ACM Observed
							TP26_0.30-0.40	0.1	No Odours, Staining or ACM Observed
				Fill	Fill - Clayey SAND, brown, heterogenous, damp, loose		TP26_0.60-0.70	0.2	No Odours, Staining or ACM Observed
				Fill	Fill - SAND, brown, homogenous, dry, loose				

Disclaimer This log is intended for environmental not geotechnical purposes.

TEST PIT TP27

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,243.74
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,839.56
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, brown, heterogenous, damp, low plasticity, very soft, with grass root inclusions		TP27_0.00-0.10	0.2	No Odours, Staining or ACM Observed
				Fill					
		0.4		CL	Fill - Silty CLAY, cream to brown, damp, medium plasticity, firm, with grass root inclusions		TP27_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.6			CLAY - brown, homogenous, damp, high plasticity, stiff				
		0.8							No Odours, Staining or ACM Observed
		1					TP27_0.90-1.00	0.1	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP28

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,249.91
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,818.92
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, brown, heterogenous, damp, low plasticity, with concrete, glass, sandstone and grass root inclusions		TP28_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4		Fill					
		0.6		CL	Fill - Silty CLAY, yellow to red, heterogenous, damp, medium plasticity		TP28_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.8			CLAY - grey to red, damp, high plasticity, mottled				No Odours, Staining or ACM Observed
		1					TP28_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP29

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,257.98
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,858.68
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, yellow brown, heterogenous, damp, low plasticity, soft to firm, with concrete, brick, glass, fencing material, steel pipe, burnt cans, tin and ash inclusions		TP29_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Silty CLAY, yellow/grey/brown, heterogenous, wet, medium plasticity, firm		TP29_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.6					TP29_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8							No Odours, Staining or ACM Observed
		1					TP29_0.90-1.00	0.3	
		1.2							
		1.4		CL	CLAY - grey to yellow, homogenous, medium plasticity, firm				
		1.6							
		1.8							No Odours, Staining or ACM Observed
		2					TP29_1.90-2.00	0.1	
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP30

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,259.46
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,847.83
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, brown, heterogenous, damp, low plasticity, soft, with grass root inclusions		TP30_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Silty CLAY, yellow brown, heterogenous, damp, medium plasticity, firm, with iron stone inclusions		TP30_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.6		CL	CLAY - grey, homogenous, dry, medium plasticity, firm		TP30_0.40-0.50	0.4	No Odours, Staining or ACM Observed
		0.8							No Odours, Staining or ACM Observed
		1					TP30_0.90-1.00	0.3	
		1.2							
		1.4							
		1.6							
		1.8							No Odours, Staining or ACM Observed
		2					TP30_1.90-2.00	0.4	
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP31

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,267.72
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,822.52
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - TOPSOIL, brown, heterogenous, damp, low plasticity, soft, with grass root inclusions.		TP31_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL	Silty CLAY - cream to light yellow brown, heteroegnous, damp, medium plasticity, firm		TP31_0.20-0.30	0.1	No Odours, Staining or ACM Observed
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP31_0.90-1.00	0.3	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP32

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,350.39
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,713.76
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		RWN	Fill - TOPSOIL, yellow to red brown, heterogenous, damp, low plasticity, soft, with grass and legume root inclusions		TP32_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		RWN	Fill - Sandy CLAY, red to brown, heterogenous, damp, medium plasticity, firm		TP32_0.30-0.40	0.1	No Odours, Staining or ACM Observed
		0.6							
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP33

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,316.01
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,751.59
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		RWN	Fill - Gravelly sediment CLAY, heterogenous, wet, low plasticity		TP33_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4							
		0.6							
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP34

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,225.97
PROJECT NAME Caddens DSI	**DRILLING DATE** 05-Aug-21	**NORTHING** 6,260,765.69
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		RWN	Fill - CLAY, brown, heterogenous, damp, highly plastic, with rootlet inclusions		TP34_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.4					TP34_0.30-0.40	0.2	No Odours, Staining or ACM Observed
		0.6							No Odours, Staining or ACM Observed
		0.8					TP34_0.70-0.80	0.2	No Odours, Staining or ACM Observed
		1		CL-GC	Gravelly CLAY - red brown, heterogenous, damp, medium plasticity, with weathered shale gravels (cobbles)		TP34_0.90-1.00	0.4	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP35

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,114.68
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,876.06
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, low to medium plasticity, with small angular gravels (< 5 mm) and grass root inclusions		TP35_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - light brown, damp, high plasticity, with red to black claystone gravels (< 5 mm)		TP35_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.6					TP35_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

SOIL BOREHOLE BH36

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,376.96
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,895.93
CLIENT Legacy Property	**DRILL RIG** N/A	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05, 0.1, 0.15, 0.2, 0.25		Concrete	Fill - CONCRETE slab				
		0.25, 0.3, 0.35		Fill	Fill - SAND, brown, homogenous, wet, angular, loose		BH36_0.25-0.35	0.3	No Odours, Staining or ACM Observed
		0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8		CL	CLAY - brown, homogenous, medium plasticity, stiff		BH36_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15							

Disclaimer This log is intended for environmental not geotechnical purposes.

TEST PIT TP37

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,344.68
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,905.98
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty GRAVEL, grey, heterogenous, dry, well-graded, angular, non-plastic		TP37_0.00-0.10	0.2	No Odours, Staining or ACM Observed
				Fill			TP37_0.10-0.20	0.2	
		0.4		Shale	Fill - Silty CLAY, black, dry, non-plastic, with trace angular sedimentary gravels and grass root inclusions				No Odours, Staining or ACM Observed
		0.6			SHALE - light brown, weathered shale (80%), silty clay matrix (20%), dry, low plasticity		TP37_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP38

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,329.87
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,878.81
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD, PG

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2 0.4 0.6 0.8		Fill	Fill - Sandy CLAY, yellow to red brown, angular, heterogenous, dry to damp, medium density, with brick, glass, tiles, coal and rootlet inclusions		TP38_0.00-0.10 TP38_0.40-0.50	0.3 0.2	No Odours, Staining or ACM Observed No Odours, Staining or ACM Observed
		1 1.2 1.4 1.6 1.8 2 2.2 2.4 2.6 2.8 3 3.2 3.4 3.6 3.8 4							

SOIL BOREHOLE BH39

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,343.38
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,868.84
CLIENT Legacy Property	**DRILL RIG** N/A	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05		Concrete	Fill - CONCRETE slab				
		0.1		Fill	Fill - Gravelly Sandy CLAY, brown, heteroegnous, damp, medium plasticity, firm to stiff		BH39_0.10-0.30	0.1	No Odours, Staining or ACM Observed
		0.15							
		0.2							
		0.25							
		0.3							
		0.35							
		0.4					BH39_0.40-0.60	0.3	No Odours, Staining or ACM Observed
		0.45							No Odours, Staining or ACM Observed
		0.5							
		0.55							
		0.6					BH39_0.80-0.10	0.1	
		0.65							
		0.7							
		0.75							
		0.8							
		0.85							
		0.9							
		0.95							
		1							
		1.05							
		1.1							
		1.15							

TEST PIT TP40

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,328.7
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,863.94
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Clayey Silty SAND, black, multiple mixes of clay chunks, with angular gravels (igneous road base and shale fragments) and concrete, brick and asphalt inclusions		TP40_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4							No Odours, Staining or ACM Observed
							TP40_0.40-0.50	0.2	
		0.6							
		0.8							
		1							
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP41

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,297.95
PROJECT NAME Caddens DSI	**DRILLING DATE** 04-Aug-21	**NORTHING** 6,260,849.41
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** CD

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY, black, damp, medium plasticity, soft, with rootlet inclusions		TP41_0.00-0.10	0.4	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Silty CLAY, orange to dark brown, damp, high plasticity, soft to firm, with mottled red, white and brown shale/claystone gravels (approximately 5-10 mm) and brick trace inclusions		TP41_0.30-0.40	0.2	No Odours, Staining or ACM Observed
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP41_0.90-1.00	0.1	
		1.2		CL	CLAY - light brown, damp, high plasticity, firm				No Odours, Staining or ACM Observed
		1.4					TP41_1.40-1.50	0.3	
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP43

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,330.67
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,831.08
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY topsoil, light brown, heterogenous, damp, low plasticity, soft		TP43_0.00-0.10	0.3	No Odours, Staining or ACM Observed
		0.4		Fill	Fill - Silty CLAY, dark brown, heterogenous, damp, medium plasticity, soft		TP43_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.6					TP43_0.40-0.50	0.1	No Odours, Staining or ACM Observed
		0.8		CL-SC	Sandy CLAY - light orange, heterogenous, damp, medium plasticity				No Odours, Staining or ACM Observed
		1					TP43_0.90-1.00	0.3	
		1.2							
		1.4							
		1.6							
		1.8							No Odours, Staining or ACM Observed
		2					TP43_1.90-2.00	0.1	
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

SOIL BOREHOLE BH44

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,350.27
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,846.54
CLIENT Legacy Property	**DRILL RIG** Hand Auger	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1		Concrete	Fill - CONCRETE slab				
		0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5 0.55		Fill	Fill - bedding SAND, dark brown, damp, loose, angular, with a singular ironstone cobble positioned directly beneath the concrete slab		BH44_0.15-0.30 BH44_0.30-0.60	0.2 0.1	No Odours, Staining or ACM Observed No Odours, Staining or ACM Observed
		0.6		Fill	Fill - CLAY, grey, dry (friable), medium plasticity, stiff to very stiff				
		0.65 0.7 0.75 0.8 0.85 0.9 0.95 1 1.05 1.1 1.15							

Disclaimer This log is intended for environmental not geotechnical purposes.

SOIL BOREHOLE BH45

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,369.45
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,836.37
CLIENT Legacy Property	**DRILL RIG** N/A	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05, 0.1, 0.15		Concrete	Fill - CONCRETE slab				
		0.2, 0.25, 0.3, 0.35, 0.4, 0.45		Fill	Fill - SAND, brown, damp, loose, angular, with claystone gravels		BH45_0.20-0.40	0.2	No Odours, Staining or ACM Observed
		0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15							

TEST PIT TP46

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,361.31
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,827.67
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0		Fill	Fill - Silty CLAY, light brown, heterogenous, damp, low plasticity, loose		TP46_0.00-0.10	0.1	No Odours, Staining or ACM Observed
		0.2		Shale	Weathered SHALE - light brown, heterogenous, damp, medium plasticity, stiff, with clay inclusions		TP46_0.20-0.30	0.3	No Odours, Staining or ACM Observed
		0.4							
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP46_0.90-1.00	0.1	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

TEST PIT TP47

PROJECT NUMBER 58500	**DRILLING COMPANY** Ken Coles	**EASTING** 290,346.48
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,829.21
CLIENT Legacy Property	**DRILL RIG** Excavator	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE**
	DIMENSIONS x m	**LOGGED BY** ML

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.2		Fill	Fill - Silty CLAY topsoil, dark brown, heteroegnous, damp, medium plasticity, soft		TP47_0.00-0.10	0.2	No Odours, Staining or ACM Observed
		0.4		CL	CLAY - cream to light yellow, heterogenous, damp, medium plasticity		TP47_0.20-0.30	0.2	No Odours, Staining or ACM Observed
		0.6							
		0.8							No Odours, Staining or ACM Observed
		1					TP47_0.90-1.00	0.2	
		1.2							
		1.4							
		1.6							
		1.8							
		2							
		2.2							
		2.4							
		2.6							
		2.8							
		3							
		3.2							
		3.4							
		3.6							
		3.8							
		4							

SOIL BOREHOLE BH48

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,354.57
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,868.06
CLIENT Legacy Property	**DRILL RIG** Hand Auger	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05		Concrete	Fill - CONCRETE slab				
		0.1							
		0.15							
		0.2		Fill	Fill - bedding SAND, brown with black grains, damp, angular, loose		BH48_0.20-0.35	0.1	No Odours, Staining or ACM Observed
		0.25							
		0.3							
		0.35		Fill	Fill - Gravelly CLAY, brown, damp, medium plasticity, firm				
		0.4					BH48_0.40-0.60	0.3	
		0.45							No Odours, Staining or ACM Observed
		0.5							
		0.55							
		0.6							
		0.65							
		0.7							
		0.75							
		0.8							
		0.85							
		0.9							
		0.95							
		1							
		1.05							
		1.1							
		1.15							

SOIL BOREHOLE BH49

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,354.57
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,868.06
CLIENT Legacy Property	**DRILL RIG** Hand Auger	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05		Concrete	Fill - CONCRETE slab				
		0.1							
		0.15							
		0.2		Fill	Fill - bedding SAND, brown with black grains, damp, angular, loose		BH49_0.20-0.35	0.1	No Odours, Staining or ACM Observed
		0.25							
		0.3							
		0.35		Fill	Fill - Gravelly CLAY, brown, damp, medium plasticity, firm				
		0.4					BH49_0.40-0.60	0.3	
		0.45							No Odours, Staining or ACM Observed
		0.5							
		0.55							
		0.6							
		0.65							
		0.7							
		0.75							
		0.8							
		0.85							
		0.9							
		0.95							
		1							
		1.05							
		1.1							
		1.15							

SOIL BOREHOLE BH50

PROJECT NUMBER 58500	**DRILLING COMPANY** JBS&G	**EASTING** 290,376.7
PROJECT NAME Caddens DSI	**DRILLING DATE** 03-Aug-21	**NORTHING** 6,260,879.65
CLIENT Legacy Property	**DRILL RIG** Hand Auger	**COORD SYS** N/A
ADDRESS O'Connell Street, Caddens NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RL

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05, 0.1, 0.15, 0.2, 0.25		Concrete	Fill - CONCRETE slab				
		0.3, 0.35, 0.4, 0.45		Fill	Fill - bedding SAND, brown with black grains, damp, angular, loose		BH50_0.30-0.60	0.1	No Odours, Staining or ACM Observed
		0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8		Fill	Fill - Gravelly CLAY - brown, damp, medium plasticity, firm		BH50_0.60-0.80	0.2	No Odours, Staining or ACM Observed
		0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15							

Disclaimer This log is intended for environmental not geotechnical purposes.

Appendix G Decontamination and Calibration Form

Field Equipment Calibration and Decontamination

PROJECT NAME: Caddens	**PROJECT NO:** 58600
FIELDWORK DATES: 4/8/21	**SAMPLERS:** CD PG
TYPE OF INVESTIGATION: Test pitting (RSI)	**PROJECT MANAGER:** RL

CALIBRATION SUMMARY

EQUIPMENT: excavator & grab samples
CALIBRATION STANDARD:

DATE	TIME	READING (ppm)	COMMENTS

DECONTAMINATION SUMMARY

EQUIPMENT:				
1	Was the equipment decontaminated appropriately prior to sampling at each location?	(Y)	N	NA
2	Was excess soil removed by scraping, brushing or wiping with disposable towels?	(Y)	N	NA
3	Was the equipment contaminated with grease, tar or similar material?	Y	(N)	NA
	If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y	N	(NA)
4	Was phosphate-free detergent used to wash the equipment?	(Y)	N	NA
5	Was the equipment rinsed with clean water?	(Y)	N	NA
6	Was the equipment then rinsed with deionised water?	(Y)	N	NA
7	Were all sample containers cleaned and acid or solvent washed prior to sample collection?	(Y)	N	NA

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS

Single use nitrile gloves used for each sample.
Samples collected from centre of excavator bucket.

Appendix H Laboratory Reports

Chain of Custody

JBS&G

PROJECT NO.: 58500
PROJECT NAME: Caddens
DATE NEEDED BY: STAT
LABORATORY BATCH NO.: 81505
SAMPLERS: Ryan Lill
QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rlill@jbsg.com.au; (3) pgordon@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH	BTEX	PAHs	Asbestos	OCPs	PCBs	VOCs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH48_0.2-0.4	Soil	3-8-21		J+B		x	x	x	x	x			x			
BH49_0.2-0.35						x				x						
↓ 0.4-0.6																
BH50_0.3-0.5										x						
↓ 0.6-0.8						x	x	x	x	x			x			
BH45_0.2-0.4						x				x						
BH44_0.15-0.3						x	x	x	x	x			x			
↓ 0.3-0.6																
BH42_0.12-0.2										x						
↓ 0.3-0.5						x	x	x	x	x			x			
↓ 0.6-0.8																
↓ 0.8-1.0																
BH39_0.1-0.3				↓												
↓ 0.4-0.6				J												
↓ 0.8-1.0				J+B		x				x						
BH36_0.25-0.35				J+B		x				x						
↓ 0.4-0.5	↓	↓		J												
TS/TB	Water			2xV, 2xV				x								
RINSE0821	↓	↓		2xV, 1xA, 1xM		x		x	x							

RELINQUISHED BY:
NAME: Ryan DATE: 3-8-21
OF: JBS&G

NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.

CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: GT
DATE: 03/08/21 4:45pm
OF:

NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
COOLER TEMP ..... deg C

COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Chain of Custody

JBS&G

PROJECT NO.: 58500	LABORATORY BATCH NO.: 814505
PROJECT NAME: Caddens	SAMPLERS: ML
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rlill@jbsg.com.au; (3) pgordon@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH/BTEX	PAHs	Asbestos	OCP/PCB	OP, CCC, Nap, PR	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP18 - 0-0.1	Soil	3/8	—	G+J		x	x							
0.2-0.3				G+J										
0.4-0.5				G+J										
0.9-1				J										
TP34 - 0-0.1				G+J					x					
0.2-0.3				"		x	x							
0.9-1				J										
TP14 - 0-0.1				G+J		x	x							
0.2-0.3				"										
0.4-0.5				"										
0.9-1				"							x			
1.9-2.				J										
TP43 0-0.1				J+B		x	x		x					
0.2-0.3				J+B										
0.4-0.5				J+B										
0.9-1				J										
1.9-2				J										
QC20210803-02				J+B		x	x							
QC20210803-03				J+B										

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M.Line DATE: 3/8/21	CONSIGNMENT NOTE NO.	NAME: Gotr	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 3/8/21 4:45pm OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Chain of Custody

JBS&G

PROJECT NO.: 58500	LABORATORY BATCH NO.: 814505
PROJECT NAME: Caddens	SAMPLERS: Ryan Lill
DATE NEEDED BY: ~~STD~~	QC LEVEL: NEPM (2013)

PHONE: ~~Sydney 02 8245 0300~~ | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rlill@jbsg.com.au; (3) pgordon@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	PAHs	Asbestos	OCPs/PCBs	Fe (EC, pH)	Clay	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP09 - 0-0.1	Soil	3/8/21	~	B+J											
0.2-0.3				B+J		x	x	x							
0.4-0.5				J											
0.9-1				J							x	x			
TP05 - 0-0.1				J+B		x	x	x	x	x					
~~0.2-0.3~~ 0.2-0.3				"											
0.4-0.5				"											
0.9-1				"		~~x~~	~~x~~		~~x~~						
1.9-2				"											
2.4-2.5				J											
TP06 - 0-0.1				J+B		x	x		x	x					
0.2-0.3				"											
0.4-0.5				"											
0.9-1				J											
TP10 - 0-0.1				J+B											
0.2-0.3				"		x	x			x					
0.4-0.5				"											
0.9-1				J											
QC20210803-01				J+B		x	x	x	x	x					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Ryan Lill DATE: 3-8-21	CONSIGNMENT NOTE NO.	NAME: CAW	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 7/8/21 4:45pm	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Chain of Custody

JBS&G

PROJECT NO.: 58500	LABORATORY BATCH NO.: 81505
PROJECT NAME: Caddens	SAMPLERS:
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rlill@jbsg.com.au; (3) pgordon@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH/BTEX	PAH/OCP	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP13 - 0-0.1	Soil	3/8	AM	B + J		x	x				
0.2-0.3				B + J							
0.9-1				J							
TP27 - 0-0.1				B + J				x			
0.2-0.3				"		x	x				
0.9-1				J							
TP28 - 0-0.1				B + J		x	x	x			
0.2-0.3				"							
0.9-1				J							
TP30 - 0-0.1				B + J		x	x	x			
0.2-0.3				"							
0.4-0.5				"							
0.9-1				J							
1.9-2				J							
TP29 - 0-0.1				B + J + ~~[illegible]~~		x	x	x			
0.2-0.3				B + J							
0.4-0.5				"							
0.9-1				J							
1.9-2				"							

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M.Lim DATE: 3/8/21 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: [illegible] DATE: 3/8/21 4:43pm OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd **Vial; VS** = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Controlled Copy (June 2015)

Chain of Custody

JBS&G

PROJECT NO.: 58500	LABORATORY BATCH NO.: 81505
PROJECT NAME: Caddens	SAMPLERS: MC, PG
DATE NEEDED BY: STAT	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rlill@jbsg.com.au; (3) pgordon@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Hold	Heavy metals	TRH/BTEX	Asbestos	PAHs	OCP/PCB	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QC20210803-04	Soil	3/8/21	–	B+J		X								
TP46 – 0-0.1							X	X	X	X				
0.2-0.3														
TP47-0-0.1							X	X	X		X			
" 0.2-0.3														
" 0.9-1				#J										
TP46-0.9-1		↓	–	J										

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Ryan DATE: 3-8-21	CONSIGNMENT NOTE NO.	NAME: GR	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 3/8/21 Gibson	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Ryan Lill
Project name:	CADDENS
Project ID:	58500
Turnaround time:	5 Day
Date/Time received	Aug 3, 2021 4:45 PM
Eurofins reference	814505

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 : 12.3 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.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Sample ID TP05-1.4-1.5 received jar + bag extra, logged on hold.

Contact

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

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Ryan Lill - rlill@jbsg.com.au.

Global Leader - Results you can trust

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**														
1	BH48_0.2-0.4	Aug 03, 2021		Soil	S21-Au04990		X							X	X		X		
2	BH49_0.2-0.35	Aug 03, 2021		Soil	S21-Au04991		X				X				X				
3	BH50_0.6-0.8	Aug 03, 2021		Soil	S21-Au04992		X							X	X		X		
4	BH45_0.2-0.4	Aug 03, 2021		Soil	S21-Au04993		X				X				X				
5	BH44_0.15-0.3	Aug 03, 2021		Soil	S21-Au04994		X							X	X		X		
6	BH42_0.3-0.5	Aug 03, 2021		Soil	S21-Au04995		X							X	X		X		
7	BH39_0.8-1	Aug 03, 2021		Soil	S21-Au04996		X				X				X				
8	BH36_0.25-0.35	Aug 03, 2021		Soil	S21-Au04997		X				X				X				

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Australia

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Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
9	RIN030821	Aug 03, 2021		Water	S21-Au04998													X	
10	TP18_0-0.1	Aug 03, 2021		Soil	S21-Au04999										X			X	
11	TP31_0-0.1	Aug 03, 2021		Soil	S21-Au05000		X												
12	TP31_0.2-0.3	Aug 03, 2021		Soil	S21-Au05001										X			X	
13	TP14_0-0.1	Aug 03, 2021		Soil	S21-Au05002										X			X	
14	TP14_0.9-1	Aug 03, 2021		Soil	S21-Au05003	X			X	X					X	X			
15	TP43_0-0.1	Aug 03, 2021		Soil	S21-Au05004		X								X			X	
16	QC20210803-02	Aug 03, 2021		Soil	S21-Au05005										X			X	
17	TP09_0.2-0.3	Aug 03, 2021		Soil	S21-Au05006										X		X		
18	TP09_0.9-1	Aug 03, 2021		Soil	S21-Au05007	X			X	X					X	X			

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Australia

Melbourne
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NATA # 1261 Site # 25079

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

Christchurch
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IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
19	TP05_0-0.1	Aug 03, 2021		Soil	S21-Au05008		X						X		X		X		
20	TP06_0-0.1	Aug 03, 2021		Soil	S21-Au05009		X						X		X			X	
21	TP10_0.2-0.3	Aug 03, 2021		Soil	S21-Au05010		X						X		X			X	
22	QC20210803-01	Aug 03, 2021		Soil	S21-Au05011		X						X		X		X		
23	TP13_0-0.1	Aug 03, 2021		Soil	S21-Au05012										X			X	
24	TP27_0-0.1	Aug 03, 2021		Soil	S21-Au05013		X												
25	TP27_0.2-0.3	Aug 03, 2021		Soil	S21-Au05014										X			X	
26	TP28_0-0.1	Aug 03, 2021		Soil	S21-Au05015		X								X			X	
27	TP30_0-0.1	Aug 03, 2021		Soil	S21-Au05016		X								X			X	
28	TP29_0-0.1	Aug 03, 2021		Soil	S21-Au05017		X								X			X	

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
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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
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IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
29	TP46_0.2-0.3	Aug 03, 2021		Soil	S21-Au05018		X								X		X		
30	TP47_0.2-0.36	Aug 03, 2021		Soil	S21-Au05019		X						X		X			X	
31	BH49_0.4-0.6	Aug 03, 2021		Soil	S21-Au05020			X											
32	BH50_0.3-0.5	Aug 03, 2021		Soil	S21-Au05021			X											
33	BH44_0.3-0.6	Aug 03, 2021		Soil	S21-Au05022			X											
34	BH42_0.12-0.2	Aug 03, 2021		Soil	S21-Au05023			X											
35	BH42_0.6-0.8	Aug 03, 2021		Soil	S21-Au05024			X											
36	BH42_0.8-1	Aug 03, 2021		Soil	S21-Au05025			X											
37	BH39_0.1-0.3	Aug 03, 2021		Soil	S21-Au05026			X											
38	BH39_0.4-0.6	Aug 03, 2021		Soil	S21-Au05027			X											
39	BH36_0.4-0.5	Aug 03, 2021		Soil	S21-Au05028			X											

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Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
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NATA # 1261
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Sydney
Unit F3, Building F
16 Mars Road
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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
40	TRIP SPIKE	Aug 03, 2021		Water	S21-Au05029														X
41	TRIP BLANK	Aug 03, 2021		Water	S21-Au05030							X							
42	TP18_0.2-0.3	Aug 03, 2021		Soil	S21-Au05031			X											
43	TP18_0.4-0.5	Aug 03, 2021		Soil	S21-Au05032			X											
44	TP18_0.9-1	Aug 03, 2021		Soil	S21-Au05033			X											
45	TP31_0.9-1	Aug 03, 2021		Soil	S21-Au05034			X											
46	TP14_0.2-0.3	Aug 03, 2021		Soil	S21-Au05035			X											
47	TP14_0.4-0.5	Aug 03, 2021		Soil	S21-Au05036			X											
48	TP14_1.9-2	Aug 03, 2021		Soil	S21-Au05037			X											
49	TP43_0.2-0.3	Aug 03, 2021		Soil	S21-Au05038			X											
50	TP43_0.4-0.5	Aug 03, 2021		Soil	S21-Au05039			X											

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Australia

Melbourne
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Welshpool WA 6106
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
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NATA # 1261 Site # 25079

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Auckland
35 O'Rorke Road
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
51	TP43_0.9-1	Aug 03, 2021		Soil	S21-Au05040			X											
52	TP43_1.9-2	Aug 03, 2021		Soil	S21-Au05041			X											
53	QC20210803-03	Aug 03, 2021		Soil	S21-Au05042			X											
54	TP09_0-0.1	Aug 03, 2021		Soil	S21-Au05043			X											
55	TP09_0.4-0.5	Aug 03, 2021		Soil	S21-Au05044			X											
56	TP05_0.2-0.3	Aug 03, 2021		Soil	S21-Au05045			X											
57	TP05_0.4-0.5	Aug 03, 2021		Soil	S21-Au05046			X											
58	TP05_0.9-1	Aug 03, 2021		Soil	S21-Au05047			X											
59	TP05_1.9-2	Aug 03, 2021		Soil	S21-Au05048			X											
60	TP05_2.4-2.5	Aug 03, 2021		Soil	S21-Au05049			X											

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Australia

Melbourne
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Dandenong South VIC 3175
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Sydney
Unit F3, Building F
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
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External Laboratory																			
61	TP06_0.2-0.3	Aug 03, 2021		Soil	S21-Au05050			X											
62	TP06_0.4-0.5	Aug 03, 2021		Soil	S21-Au05051			X											
63	TP6_0.9-1	Aug 03, 2021		Soil	S21-Au05052			X											
64	TP10_0-0.1	Aug 03, 2021		Soil	S21-Au05053			X											
65	TP10_0.4-0.5	Aug 03, 2021		Soil	S21-Au05054			X											
66	TP10_0.9-1	Aug 03, 2021		Soil	S21-Au05055			X											
67	TP13_0.2-0.3	Aug 03, 2021		Soil	S21-Au05056			X											
68	TP13_0.9-1	Aug 03, 2021		Soil	S21-Au05057			X											
69	TP27_0.9-1	Aug 03, 2021		Soil	S21-Au05058			X											
70	TP28_0.2-0.3	Aug 03, 2021		Soil	S21-Au05059			X											
71	TP28_0.9-1	Aug 03, 2021		Soil	S21-Au05060			X											

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Melbourne
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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
72	TP30_0.2-0.3	Aug 03, 2021		Soil	S21-Au05061			X											
73	TP30_0.4-0.5	Aug 03, 2021		Soil	S21-Au05062			X											
74	TP30_0.9-1	Aug 03, 2021		Soil	S21-Au05063			X											
75	TP30_1.9-2	Aug 03, 2021		Soil	S21-Au05064			X											
76	TP29_0.2-0.3	Aug 03, 2021		Soil	S21-Au05065			X											
77	TP29_0.4-0.5	Aug 03, 2021		Soil	S21-Au05066			X											
78	TP29_0.9-1	Aug 03, 2021		Soil	S21-Au05067			X											
79	TP29_1.9-2	Aug 03, 2021		Soil	S21-Au05068			X											
80	QC20210803-047	Aug 03, 2021		Soil	S21-Au05069			X											
81	TP46_0-0.1	Aug 03, 2021		Soil	S21-Au05070			X											

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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
82	TP47_0-0.1	Aug 03, 2021		Soil	S21-Au05071			X											
83	TP47_0.9-1	Aug 03, 2021		Soil	S21-Au05072			X											
84	TP46_0.9-1	Aug 03, 2021		Soil	S21-Au05073			X											
85	TP05-1.4-1.5	Aug 03, 2021		Soil	S21-Au05520			X											
Test Counts						2	20	53	2	2	4	1	5	4	27	2	8	14	1

Certificate of Analysis

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NATA Accredited
Accreditation Number 1261
Site Number 18217

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

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Ryan Lill
Report	814505-AID
Project Name	CADDENS
Project ID	58500
Received Date	Aug 03, 2021
Date Reported	Aug 11, 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.*

Document Set ID: 9819404
Version: 1, Version Date: 24/11/2021

Project Name CADDENS
Project ID 58500
Date Sampled Aug 03, 2021
Report 814505-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH48_0.2-0.4	21-Au04990	Aug 03, 2021	Approximate Sample 885g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH49_0.2-0.35	21-Au04991	Aug 03, 2021	Approximate Sample 612g Sample consisted of: Brown coarse-grained clayey sandy-soil, sandstone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH50_0.6-0.8	21-Au04992	Aug 03, 2021	Approximate Sample 578g Sample consisted of: Brown coarse-grained clayey sandy-soil, sandstone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH45_0.2-0.4	21-Au04993	Aug 03, 2021	Approximate Sample 948g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH44_0.15-0.3	21-Au04994	Aug 03, 2021	Approximate Sample 712g Sample consisted of: Brown coarse-grained sandy soil, sandstone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH42_0.3-0.5	21-Au04995	Aug 03, 2021	Approximate Sample 622g Sample consisted of: Brown coarse-grained clayey sandy-soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH39_0.8-1	21-Au04996	Aug 03, 2021	Approximate Sample 577g Sample consisted of: Brown coarse-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH36_0.25-0.35	21-Au04997	Aug 03, 2021	Approximate Sample 435g Sample consisted of: Brown coarse-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP31_0-0.1	21-Au05000	Aug 03, 2021	Approximate Sample 343g Sample consisted of: Brown coarse-grained clayey soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP43_0-0.1	21-Au05004	Aug 03, 2021	Approximate Sample 444g Sample consisted of: Brown coarse-grained clayey soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP05_0-0.1	21-Au05008	Aug 03, 2021	Approximate Sample 577g Sample consisted of: Brown coarse-grained clayey sandy-soil, sandstone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP06_0-0.1	21-Au05009	Aug 03, 2021	Approximate Sample 510g Sample consisted of: Brown coarse-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP10_0.2-0.3	21-Au05010	Aug 03, 2021	Approximate Sample 505g Sample consisted of: Brown coarse-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
QC20210803-01	21-Au05011	Aug 03, 2021	Approximate Sample 589g Sample consisted of: Brown coarse-grained clayey sandy-soil, sandstone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP27_0-0.1	21-Au05013	Aug 03, 2021	Approximate Sample 512g Sample consisted of: Brown coarse-grained clayey sandy-soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP28_0-0.1	21-Au05015	Aug 03, 2021	Approximate Sample 565g Sample consisted of: Brown coarse-grained clayey sandy-soil, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP30_0-0.1	21-Au05016	Aug 03, 2021	Approximate Sample 335g Sample consisted of: Brown coarse-grained clayey soil, bitumen, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP29_0-0.1	21-Au05017	Aug 03, 2021	Approximate Sample 412g Sample consisted of: Brown coarse-grained clayey sandy-soil, cement, glass fragments, corroded metal, tile, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP46_0.2-0.3	21-Au05018	Aug 03, 2021	Approximate Sample 541g Sample consisted of: Brown coarse-grained clayey soil, sandstone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP47_0.2-0.36	21-Au05019	Aug 03, 2021	Approximate Sample 386g Sample consisted of: Brown coarse-grained clayey sandy-soil and rocks	No asbestos detected at the reporting limit of 0.001% 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	Sydney	Aug 04, 2021	Indefinite

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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
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Welshpool WA 6106
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35 O'Rorke Road
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Phone: 02 8245 0300
Fax:

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Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**														
1	BH48_0.2-0.4	Aug 03, 2021		Soil	S21-Au04990		X							X	X		X		
2	BH49_0.2-0.35	Aug 03, 2021		Soil	S21-Au04991		X				X				X				
3	BH50_0.6-0.8	Aug 03, 2021		Soil	S21-Au04992		X							X	X		X		
4	BH45_0.2-0.4	Aug 03, 2021		Soil	S21-Au04993		X				X				X				
5	BH44_0.15-0.3	Aug 03, 2021		Soil	S21-Au04994		X							X	X		X		
6	BH42_0.3-0.5	Aug 03, 2021		Soil	S21-Au04995		X							X	X		X		
7	BH39_0.8-1	Aug 03, 2021		Soil	S21-Au04996		X				X				X				
8	BH36_0.25-0.35	Aug 03, 2021		Soil	S21-Au04997		X				X				X				

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Welshpool WA 6106
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Newcastle
4/52 Industrial Drive
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
9	RIN030821	Aug 03, 2021		Water	S21-Au04998													X	
10	TP18_0-0.1	Aug 03, 2021		Soil	S21-Au04999										X			X	
11	TP31_0-0.1	Aug 03, 2021		Soil	S21-Au05000		X												
12	TP31_0.2-0.3	Aug 03, 2021		Soil	S21-Au05001										X			X	
13	TP14_0-0.1	Aug 03, 2021		Soil	S21-Au05002										X			X	
14	TP14_0.9-1	Aug 03, 2021		Soil	S21-Au05003	X			X	X					X	X			
15	TP43_0-0.1	Aug 03, 2021		Soil	S21-Au05004		X								X			X	
16	QC20210803-02	Aug 03, 2021		Soil	S21-Au05005										X			X	
17	TP09_0.2-0.3	Aug 03, 2021		Soil	S21-Au05006										X		X		
18	TP09_0.9-1	Aug 03, 2021		Soil	S21-Au05007	X			X	X					X	X			

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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
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NATA # 1261 Site # 25079

New Zealand

Auckland
35 O'Rorke Road
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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
19	TP05_0-0.1	Aug 03, 2021		Soil	S21-Au05008		X						X		X		X		
20	TP06_0-0.1	Aug 03, 2021		Soil	S21-Au05009		X						X		X			X	
21	TP10_0.2-0.3	Aug 03, 2021		Soil	S21-Au05010		X						X		X			X	
22	QC20210803-01	Aug 03, 2021		Soil	S21-Au05011		X						X		X		X		
23	TP13_0-0.1	Aug 03, 2021		Soil	S21-Au05012										X			X	
24	TP27_0-0.1	Aug 03, 2021		Soil	S21-Au05013		X												
25	TP27_0.2-0.3	Aug 03, 2021		Soil	S21-Au05014										X			X	
26	TP28_0-0.1	Aug 03, 2021		Soil	S21-Au05015		X								X			X	
27	TP30_0-0.1	Aug 03, 2021		Soil	S21-Au05016		X								X			X	
28	TP29_0-0.1	Aug 03, 2021		Soil	S21-Au05017		X								X			X	

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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
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NATA # 1261 Site # 25079

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Auckland
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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
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External Laboratory																			
29	TP46_0.2-0.3	Aug 03, 2021		Soil	S21-Au05018		X								X		X		
30	TP47_0.2-0.36	Aug 03, 2021		Soil	S21-Au05019		X						X		X			X	
31	BH49_0.4-0.6	Aug 03, 2021		Soil	S21-Au05020			X											
32	BH50_0.3-0.5	Aug 03, 2021		Soil	S21-Au05021			X											
33	BH44_0.3-0.6	Aug 03, 2021		Soil	S21-Au05022			X											
34	BH42_0.12-0.2	Aug 03, 2021		Soil	S21-Au05023			X											
35	BH42_0.6-0.8	Aug 03, 2021		Soil	S21-Au05024			X											
36	BH42_0.8-1	Aug 03, 2021		Soil	S21-Au05025			X											
37	BH39_0.1-0.3	Aug 03, 2021		Soil	S21-Au05026			X											
38	BH39_0.4-0.6	Aug 03, 2021		Soil	S21-Au05027			X											
39	BH36_0.4-0.5	Aug 03, 2021		Soil	S21-Au05028			X											

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Australia

Melbourne
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Perth
46-48 Banksia Road
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
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NATA # 1261 Site # 25079

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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
40	TRIP SPIKE	Aug 03, 2021		Water	S21-Au05029														X
41	TRIP BLANK	Aug 03, 2021		Water	S21-Au05030							X							
42	TP18_0.2-0.3	Aug 03, 2021		Soil	S21-Au05031			X											
43	TP18_0.4-0.5	Aug 03, 2021		Soil	S21-Au05032			X											
44	TP18_0.9-1	Aug 03, 2021		Soil	S21-Au05033			X											
45	TP31_0.9-1	Aug 03, 2021		Soil	S21-Au05034			X											
46	TP14_0.2-0.3	Aug 03, 2021		Soil	S21-Au05035			X											
47	TP14_0.4-0.5	Aug 03, 2021		Soil	S21-Au05036			X											
48	TP14_1.9-2	Aug 03, 2021		Soil	S21-Au05037			X											
49	TP43_0.2-0.3	Aug 03, 2021		Soil	S21-Au05038			X											
50	TP43_0.4-0.5	Aug 03, 2021		Soil	S21-Au05039			X											

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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
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External Laboratory																			
51	TP43_0.9-1	Aug 03, 2021		Soil	S21-Au05040			X											
52	TP43_1.9-2	Aug 03, 2021		Soil	S21-Au05041			X											
53	QC20210803-03	Aug 03, 2021		Soil	S21-Au05042			X											
54	TP09_0-0.1	Aug 03, 2021		Soil	S21-Au05043			X											
55	TP09_0.4-0.5	Aug 03, 2021		Soil	S21-Au05044			X											
56	TP05_0.2-0.3	Aug 03, 2021		Soil	S21-Au05045			X											
57	TP05_0.4-0.5	Aug 03, 2021		Soil	S21-Au05046			X											
58	TP05_0.9-1	Aug 03, 2021		Soil	S21-Au05047			X											
59	TP05_1.9-2	Aug 03, 2021		Soil	S21-Au05048			X											
60	TP05_2.4-2.5	Aug 03, 2021		Soil	S21-Au05049			X											

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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
61	TP06_0.2-0.3	Aug 03, 2021		Soil	S21-Au05050			X											
62	TP06_0.4-0.5	Aug 03, 2021		Soil	S21-Au05051			X											
63	TP6_0.9-1	Aug 03, 2021		Soil	S21-Au05052			X											
64	TP10_0-0.1	Aug 03, 2021		Soil	S21-Au05053			X											
65	TP10_0.4-0.5	Aug 03, 2021		Soil	S21-Au05054			X											
66	TP10_0.9-1	Aug 03, 2021		Soil	S21-Au05055			X											
67	TP13_0.2-0.3	Aug 03, 2021		Soil	S21-Au05056			X											
68	TP13_0.9-1	Aug 03, 2021		Soil	S21-Au05057			X											
69	TP27_0.9-1	Aug 03, 2021		Soil	S21-Au05058			X											
70	TP28_0.2-0.3	Aug 03, 2021		Soil	S21-Au05059			X											
71	TP28_0.9-1	Aug 03, 2021		Soil	S21-Au05060			X											

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Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
72	TP30_0.2-0.3	Aug 03, 2021		Soil	S21-Au05061			X											
73	TP30_0.4-0.5	Aug 03, 2021		Soil	S21-Au05062			X											
74	TP30_0.9-1	Aug 03, 2021		Soil	S21-Au05063			X											
75	TP30_1.9-2	Aug 03, 2021		Soil	S21-Au05064			X											
76	TP29_0.2-0.3	Aug 03, 2021		Soil	S21-Au05065			X											
77	TP29_0.4-0.5	Aug 03, 2021		Soil	S21-Au05066			X											
78	TP29_0.9-1	Aug 03, 2021		Soil	S21-Au05067			X											
79	TP29_1.9-2	Aug 03, 2021		Soil	S21-Au05068			X											
80	QC20210803-047	Aug 03, 2021		Soil	S21-Au05069			X											
81	TP46_0-0.1	Aug 03, 2021		Soil	S21-Au05070			X											

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
82	TP47_0-0.1	Aug 03, 2021		Soil	S21-Au05071			X											
83	TP47_0.9-1	Aug 03, 2021		Soil	S21-Au05072			X											
84	TP46_0.9-1	Aug 03, 2021		Soil	S21-Au05073			X											
85	TP05-1.4-1.5	Aug 03, 2021		Soil	S21-Au05520			X											
Test Counts						2	20	53	2	2	4	1	5	4	27	2	8	14	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 blue colour, indicates data provided by customer, that may have an impact on the results.
5. 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 Sample Receipt Advice.

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: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
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.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Au04997, Au05000, Au05004, Au05016, Au05017, Au05019: Sample received was less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

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
N/A	Not applicable

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Authorised by:

Laxman Dias	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.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Ryan Lill**

Report **814505-S**
Project name CADDENS
Project ID 58500
Received Date Aug 03, 2021

Client Sample ID			**BH48_0.2-0.4**	**BH49_0.2-0.35**	**BH50_0.6-0.8**	**BH45_0.2-0.4**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S21-Au04990**	**S21-Au04991**	**S21-Au04992**	**S21-Au04993**
Date Sampled			**Aug 03, 2021**	**Aug 03, 2021**	**Aug 03, 2021**	**Aug 03, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	< 20	-
TRH C15-C28	50	mg/kg	< 50	-	< 50	-
TRH C29-C36	50	mg/kg	< 50	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	84	-	80	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID			BH48_0.2-0.4	BH49_0.2-0.35	BH50_0.6-0.8	BH45_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04990	S21-Au04991	S21-Au04992	S21-Au04993
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	< 0.5	-
Allyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Bromobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromoform	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroform	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Iodomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Styrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	-
Total MAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	< 0.5	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	< 0.5	-
4-Bromofluorobenzene (surr.)	1	%	84	-	80	-
Toluene-d8 (surr.)	1	%	105	-	98	-

Client Sample ID			BH48_0.2-0.4	BH49_0.2-0.35	BH50_0.6-0.8	BH45_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04990	S21-Au04991	S21-Au04992	S21-Au04993
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
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	-
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	94	-	95	-
p-Terphenyl-d14 (surr.)	1	%	99	-	99	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	3.0	7.7	2.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.9	18	20	11
Copper	5	mg/kg	< 5	8.1	35	11
Lead	5	mg/kg	< 5	7.9	28	5.4
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	8.4	26	7.4
Zinc	5	mg/kg	19	38	100	27
% Moisture	1	%	3.2	4.8	16	8.4

Client Sample ID			BH44_0.15-0.3	BH42_0.3-0.5	BH39_0.8-1	BH36_0.25-0.35
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04994	S21-Au04995	S21-Au04996	S21-Au04997
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	53	-	-
TRH C29-C36	50	mg/kg	< 50	53	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	106	-	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-

Client Sample ID			BH44_0.15-0.3	BH42_0.3-0.5	BH39_0.8-1	BH36_0.25-0.35
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04994	S21-Au04995	S21-Au04996	S21-Au04997
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	100	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	85	83	-	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-	-
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			BH44_0.15-0.3	BH42_0.3-0.5	BH39_0.8-1	BH36_0.25-0.35
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04994	S21-Au04995	S21-Au04996	S21-Au04997
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Styrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	-	-
4-Bromofluorobenzene (surr.)	1	%	85	83	-	-
Toluene-d8 (surr.)	1	%	107	103	-	-
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	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	97	95	-	-
p-Terphenyl-d14 (surr.)	1	%	89	107	-	-

Client Sample ID			BH44_0.15-0.3	BH42_0.3-0.5	BH39_0.8-1	BH36_0.25-0.35
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04994	S21-Au04995	S21-Au04996	S21-Au04997
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	2.0	7.1	12	9.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.3	25	31	29
Copper	5	mg/kg	8.8	58	47	84
Lead	5	mg/kg	< 5	18	14	18
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.8	39	43	43
Zinc	5	mg/kg	24	120	100	110
% Moisture	1	%	11	16	19	20

Client Sample ID			TP18_0-0.1	TP31_0.2-0.3	TP14_0-0.1	TP14_0.9-1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04999	S21-Au05001	S21-Au05002	S21-Au05003
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	89	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	89	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	120	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	120	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	88	126	101	-
Heavy Metals						
Arsenic	2	mg/kg	11	14	5.7	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	21	32	31	-
Copper	5	mg/kg	45	32	41	-
Iron	20	mg/kg	-	-	-	22000
Lead	5	mg/kg	29	16	16	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	21	18	32	-
Zinc	5	mg/kg	99	57	99	-

Client Sample ID			TP18_0-0.1	TP31_0.2-0.3	TP14_0-0.1	TP14_0.9-1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04999	S21-Au05001	S21-Au05002	S21-Au05003
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	18	17	36	19
% Clay	1	%	-	-	-	19
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	-	-	-	140
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	-	-	-	7.4
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	-	-	33

Client Sample ID			TP43_0-0.1	QC20210803-02	TP09_0.2-0.3	TP09_0.9-1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au05004	S21-Au05005	S21-Au05006	S21-Au05007
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	60	< 50	-
TRH C29-C36	50	mg/kg	< 50	52	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	112	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	73	95	93	-
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	-

Client Sample ID			TP43_0-0.1	QC20210803-02	TP09_0.2-0.3	TP09_0.9-1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au05004	S21-Au05005	S21-Au05006	S21-Au05007
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	-	-	95	-
p-Terphenyl-d14 (surr.)	1	%	-	-	117	-
Heavy Metals						
Arsenic	2	mg/kg	8.1	14	14	-
Cadmium	0.4	mg/kg	< 0.4	1.6	< 0.4	-
Chromium	5	mg/kg	21	390	26	-
Copper	5	mg/kg	84	340	41	-
Iron	20	mg/kg	-	-	-	29000
Lead	5	mg/kg	23	350	24	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	25	240	20	-
Zinc	5	mg/kg	140	570	80	-
% Moisture	1	%	20	34	20	21
% Clay	1	%	-	-	-	26
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	-	-	-	81
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	-	-	-	7.6
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	-	-	27

Client Sample ID			TP05_0-0.1	TP06_0-0.1	TP10_0.2-0.3	QC20210803-01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au05008	S21-Au05009	S21-Au05010	S21-Au05011
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			TP05_0-0.1	TP06_0-0.1	TP10_0.2-0.3	QC20210803-01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au05008	S21-Au05009	S21-Au05010	S21-Au05011
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	100	100	89	80
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
Pyrene	0.5	mg/kg	< 0.5	-	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	107	-	-	108
p-Terphenyl-d14 (surr.)	1	%	109	-	-	111
Heavy Metals						
Arsenic	2	mg/kg	< 2	8.3	8.1	2.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	5.6	17	27	6.5
Copper	5	mg/kg	5.1	18	19	5.5
Lead	5	mg/kg	20	18	19	31
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	21	13	< 5
Zinc	5	mg/kg	16	44	37	26
% Moisture	1	%	10	15	20	12
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

Client Sample ID			TP05_0-0.1	TP06_0-0.1	TP10_0.2-0.3	QC20210803-01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au05008	S21-Au05009	S21-Au05010	S21-Au05011
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
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
Dibutylchlorendate (surr.)	1	%	121	123	110	115
Tetrachloro-m-xylene (surr.)	1	%	112	110	96	106
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	121	123	110	115
Tetrachloro-m-xylene (surr.)	1	%	112	110	96	106

Client Sample ID			TP13_0-0.1	TP27_0.2-0.3	TP28_0-0.1	TP30_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au05012	S21-Au05014	S21-Au05015	S21-Au05016
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			TP13_0-0.1	TP27_0.2-0.3	TP28_0-0.1	TP30_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au05012	S21-Au05014	S21-Au05015	S21-Au05016
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	101	101	88	90
Heavy Metals						
Arsenic	2	mg/kg	12	7.8	9.6	14
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	27	21	22	22
Copper	5	mg/kg	33	20	36	23
Lead	5	mg/kg	66	13	39	6.6
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	17	15	15	11
Zinc	5	mg/kg	220	40	100	33
% Moisture	1	%	15	18	17	18

Client Sample ID			TP29_0-0.1	TP46_0.2-0.3	TP47_0.2-0.36
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S21-Au05017	S21-Au05018	S21-Au05019
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100

Client Sample ID			TP29_0-0.1	TP46_0.2-0.3	TP47_0.2-0.36
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S21-Au05017	S21-Au05018	S21-Au05019
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit			
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	88	97	100
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	%	-	141	-
p-Terphenyl-d14 (surr.)	1	%	-	143	-
Heavy Metals					
Arsenic	2	mg/kg	8.9	9.9	19
Cadmium	0.4	mg/kg	0.4	< 0.4	< 0.4
Chromium	5	mg/kg	50	23	30
Copper	5	mg/kg	89	27	77
Lead	5	mg/kg	40	7.3	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	35	21	20
Zinc	5	mg/kg	230	65	89
% Moisture	1	%	30	13	17
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

Client Sample ID			TP29_0-0.1	TP46_0.2-0.3	TP47_0.2-0.36
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S21-Au05017	S21-Au05018	S21-Au05019
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
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	0.1	mg/kg	-	-	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	138
Tetrachloro-m-xylene (surr.)	1	%	-	-	126
Polychlorinated Biphenyls					
Aroclor-1016	0.5	mg/kg	-	-	< 0.5
Aroclor-1221	0.1	mg/kg	-	-	< 0.1
Aroclor-1232	0.5	mg/kg	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	< 0.5
Total PCB*	0.5	mg/kg	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	-	-	138
Tetrachloro-m-xylene (surr.)	1	%	-	-	126

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
Eurofins Suite B6			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8	Sydney	Aug 04, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Volatile Organics	Sydney	Aug 04, 2021	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Heavy Metals	Sydney	Aug 04, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Clay	Brisbane	Aug 09, 2021	14 Days
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract at 25°C as rec.)	Sydney	Aug 04, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Sydney	Aug 04, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Conductivity (1:5 aqueous extract at 25°C as rec.)	Sydney	Aug 04, 2021	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Aug 09, 2021	180 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
Organochlorine Pesticides	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Aug 04, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**														
1	BH48_0.2-0.4	Aug 03, 2021		Soil	S21-Au04990		X							X	X		X		
2	BH49_0.2-0.35	Aug 03, 2021		Soil	S21-Au04991		X				X				X				
3	BH50_0.6-0.8	Aug 03, 2021		Soil	S21-Au04992		X							X	X		X		
4	BH45_0.2-0.4	Aug 03, 2021		Soil	S21-Au04993		X				X				X				
5	BH44_0.15-0.3	Aug 03, 2021		Soil	S21-Au04994		X							X	X		X		
6	BH42_0.3-0.5	Aug 03, 2021		Soil	S21-Au04995		X							X	X		X		
7	BH39_0.8-1	Aug 03, 2021		Soil	S21-Au04996		X				X				X				
8	BH36_0.25-0.35	Aug 03, 2021		Soil	S21-Au04997		X				X				X				

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
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46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
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Newcastle
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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
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IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
9	RIN030821	Aug 03, 2021		Water	S21-Au04998													X	
10	TP18_0-0.1	Aug 03, 2021		Soil	S21-Au04999										X			X	
11	TP31_0-0.1	Aug 03, 2021		Soil	S21-Au05000		X												
12	TP31_0.2-0.3	Aug 03, 2021		Soil	S21-Au05001										X			X	
13	TP14_0-0.1	Aug 03, 2021		Soil	S21-Au05002										X			X	
14	TP14_0.9-1	Aug 03, 2021		Soil	S21-Au05003	X			X	X					X	X			
15	TP43_0-0.1	Aug 03, 2021		Soil	S21-Au05004		X								X			X	
16	QC20210803-02	Aug 03, 2021		Soil	S21-Au05005										X			X	
17	TP09_0.2-0.3	Aug 03, 2021		Soil	S21-Au05006										X		X		
18	TP09_0.9-1	Aug 03, 2021		Soil	S21-Au05007	X			X	X					X	X			

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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1/21 Smallwood Place
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Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
19	TP05_0-0.1	Aug 03, 2021		Soil	S21-Au05008		X						X		X		X		
20	TP06_0-0.1	Aug 03, 2021		Soil	S21-Au05009		X						X		X			X	
21	TP10_0.2-0.3	Aug 03, 2021		Soil	S21-Au05010		X						X		X			X	
22	QC20210803-01	Aug 03, 2021		Soil	S21-Au05011		X						X		X		X		
23	TP13_0-0.1	Aug 03, 2021		Soil	S21-Au05012										X			X	
24	TP27_0-0.1	Aug 03, 2021		Soil	S21-Au05013		X												
25	TP27_0.2-0.3	Aug 03, 2021		Soil	S21-Au05014										X			X	
26	TP28_0-0.1	Aug 03, 2021		Soil	S21-Au05015		X								X			X	
27	TP30_0-0.1	Aug 03, 2021		Soil	S21-Au05016		X								X			X	
28	TP29_0-0.1	Aug 03, 2021		Soil	S21-Au05017		X								X			X	

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
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Lane Cove West NSW 2066
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NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

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Welshpool WA 6106
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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
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Phone : +64 9 526 45 51
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Rolleston, Christchurch 7675
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Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

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Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
29	TP46_0.2-0.3	Aug 03, 2021		Soil	S21-Au05018		X								X		X		
30	TP47_0.2-0.36	Aug 03, 2021		Soil	S21-Au05019		X						X		X			X	
31	BH49_0.4-0.6	Aug 03, 2021		Soil	S21-Au05020			X											
32	BH50_0.3-0.5	Aug 03, 2021		Soil	S21-Au05021			X											
33	BH44_0.3-0.6	Aug 03, 2021		Soil	S21-Au05022			X											
34	BH42_0.12-0.2	Aug 03, 2021		Soil	S21-Au05023			X											
35	BH42_0.6-0.8	Aug 03, 2021		Soil	S21-Au05024			X											
36	BH42_0.8-1	Aug 03, 2021		Soil	S21-Au05025			X											
37	BH39_0.1-0.3	Aug 03, 2021		Soil	S21-Au05026			X											
38	BH39_0.4-0.6	Aug 03, 2021		Soil	S21-Au05027			X											
39	BH36_0.4-0.5	Aug 03, 2021		Soil	S21-Au05028			X											

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
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NATA # 1261
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Sydney
Unit F3, Building F
16 Mars Road
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
40	TRIP SPIKE	Aug 03, 2021		Water	S21-Au05029														X
41	TRIP BLANK	Aug 03, 2021		Water	S21-Au05030							X							
42	TP18_0.2-0.3	Aug 03, 2021		Soil	S21-Au05031			X											
43	TP18_0.4-0.5	Aug 03, 2021		Soil	S21-Au05032			X											
44	TP18_0.9-1	Aug 03, 2021		Soil	S21-Au05033			X											
45	TP31_0.9-1	Aug 03, 2021		Soil	S21-Au05034			X											
46	TP14_0.2-0.3	Aug 03, 2021		Soil	S21-Au05035			X											
47	TP14_0.4-0.5	Aug 03, 2021		Soil	S21-Au05036			X											
48	TP14_1.9-2	Aug 03, 2021		Soil	S21-Au05037			X											
49	TP43_0.2-0.3	Aug 03, 2021		Soil	S21-Au05038			X											
50	TP43_0.4-0.5	Aug 03, 2021		Soil	S21-Au05039			X											

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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
51	TP43_0.9-1	Aug 03, 2021		Soil	S21-Au05040			X											
52	TP43_1.9-2	Aug 03, 2021		Soil	S21-Au05041			X											
53	QC20210803-03	Aug 03, 2021		Soil	S21-Au05042			X											
54	TP09_0-0.1	Aug 03, 2021		Soil	S21-Au05043			X											
55	TP09_0.4-0.5	Aug 03, 2021		Soil	S21-Au05044			X											
56	TP05_0.2-0.3	Aug 03, 2021		Soil	S21-Au05045			X											
57	TP05_0.4-0.5	Aug 03, 2021		Soil	S21-Au05046			X											
58	TP05_0.9-1	Aug 03, 2021		Soil	S21-Au05047			X											
59	TP05_1.9-2	Aug 03, 2021		Soil	S21-Au05048			X											
60	TP05_2.4-2.5	Aug 03, 2021		Soil	S21-Au05049			X											

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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
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External Laboratory																			
61	TP06_0.2-0.3	Aug 03, 2021		Soil	S21-Au05050			X											
62	TP06_0.4-0.5	Aug 03, 2021		Soil	S21-Au05051			X											
63	TP6_0.9-1	Aug 03, 2021		Soil	S21-Au05052			X											
64	TP10_0-0.1	Aug 03, 2021		Soil	S21-Au05053			X											
65	TP10_0.4-0.5	Aug 03, 2021		Soil	S21-Au05054			X											
66	TP10_0.9-1	Aug 03, 2021		Soil	S21-Au05055			X											
67	TP13_0.2-0.3	Aug 03, 2021		Soil	S21-Au05056			X											
68	TP13_0.9-1	Aug 03, 2021		Soil	S21-Au05057			X											
69	TP27_0.9-1	Aug 03, 2021		Soil	S21-Au05058			X											
70	TP28_0.2-0.3	Aug 03, 2021		Soil	S21-Au05059			X											
71	TP28_0.9-1	Aug 03, 2021		Soil	S21-Au05060			X											

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Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
72	TP30_0.2-0.3	Aug 03, 2021		Soil	S21-Au05061			X											
73	TP30_0.4-0.5	Aug 03, 2021		Soil	S21-Au05062			X											
74	TP30_0.9-1	Aug 03, 2021		Soil	S21-Au05063			X											
75	TP30_1.9-2	Aug 03, 2021		Soil	S21-Au05064			X											
76	TP29_0.2-0.3	Aug 03, 2021		Soil	S21-Au05065			X											
77	TP29_0.4-0.5	Aug 03, 2021		Soil	S21-Au05066			X											
78	TP29_0.9-1	Aug 03, 2021		Soil	S21-Au05067			X											
79	TP29_1.9-2	Aug 03, 2021		Soil	S21-Au05068			X											
80	QC20210803-047	Aug 03, 2021		Soil	S21-Au05069			X											
81	TP46_0-0.1	Aug 03, 2021		Soil	S21-Au05070			X											

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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
82	TP47_0-0.1	Aug 03, 2021		Soil	S21-Au05071			X											
83	TP47_0.9-1	Aug 03, 2021		Soil	S21-Au05072			X											
84	TP46_0.9-1	Aug 03, 2021		Soil	S21-Au05073			X											
85	TP05-1.4-1.5	Aug 03, 2021		Soil	S21-Au05520			X											
Test Counts						2	20	53	2	2	4	1	5	4	27	2	8	14	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	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							
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	
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							
Conductivity (1:5 aqueous extract at 25°C as rec.)	uS/cm	< 10			10	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	86			70-130	Pass	
TRH C10-C14	%	95			70-130	Pass	
Naphthalene	%	113			70-130	Pass	
TRH C6-C10	%	83			70-130	Pass	
TRH >C10-C16	%	94			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	85			70-130	Pass	
Toluene	%	94			70-130	Pass	
Ethylbenzene	%	90			70-130	Pass	
m&p-Xylenes	%	93			70-130	Pass	
o-Xylene	%	89			70-130	Pass	
Xylenes - Total*	%	92			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	121			70-130	Pass	
1.1.1-Trichloroethane	%	115			70-130	Pass	
1.2-Dichlorobenzene	%	122			70-130	Pass	
1.2-Dichloroethane	%	119			70-130	Pass	
Benzene	%	128			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	%	122			70-130	Pass	
m&p-Xylenes	%	129			70-130	Pass	
o-Xylene	%	119			70-130	Pass	
Toluene	%	124			70-130	Pass	
Trichloroethene	%	128			70-130	Pass	
Xylenes - Total*	%	126			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	128			70-130	Pass	
Acenaphthylene	%	124			70-130	Pass	
Anthracene	%	130			70-130	Pass	
Benz(a)anthracene	%	115			70-130	Pass	
Benzo(a)pyrene	%	130			70-130	Pass	
Benzo(b&j)fluoranthene	%	127			70-130	Pass	
Benzo(g.h.i)perylene	%	129			70-130	Pass	
Benzo(k)fluoranthene	%	129			70-130	Pass	
Chrysene	%	120			70-130	Pass	
Dibenz(a.h)anthracene	%	125			70-130	Pass	
Fluoranthene	%	106			70-130	Pass	
Fluorene	%	114			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	127			70-130	Pass	
Naphthalene	%	129			70-130	Pass	
Phenanthrene	%	108			70-130	Pass	
Pyrene	%	129			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	100			80-120	Pass	
Cadmium	%	100			80-120	Pass	
Chromium	%	110			80-120	Pass	
Copper	%	115			80-120	Pass	
Iron	%	112			80-120	Pass	
Lead	%	107			80-120	Pass	
Mercury	%	111			80-120	Pass	
Nickel	%	115			80-120	Pass	
Zinc	%	110			80-120	Pass	
LCS - % Recovery							
Conductivity (1:5 aqueous extract at 25°C as rec.)	%	96			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	94			70-130	Pass	
4.4'-DDD	%	94			70-130	Pass	
4.4'-DDE	%	92			70-130	Pass	
4.4'-DDT	%	79			70-130	Pass	
a-HCH	%	104			70-130	Pass	
Aldrin	%	95			70-130	Pass	
b-HCH	%	103			70-130	Pass	
d-HCH	%	93			70-130	Pass	
Dieldrin	%	82			70-130	Pass	
Endosulfan I	%	77			70-130	Pass	
Endosulfan II	%	94			70-130	Pass	
Endosulfan sulphate	%	75			70-130	Pass	
Endrin	%	74			70-130	Pass	
Endrin aldehyde	%	94			70-130	Pass	
Endrin ketone	%	80			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
g-HCH (Lindane)			%	108			70-130	Pass	
Heptachlor			%	113			70-130	Pass	
Heptachlor epoxide			%	101			70-130	Pass	
Hexachlorobenzene			%	86			70-130	Pass	
Methoxychlor			%	111			70-130	Pass	
LCS - % Recovery									
Polychlorinated Biphenyls									
Aroclor-1016			%	74			70-130	Pass	
Aroclor-1260			%	94			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	S21-Au03423	NCP	%	88			70-130	Pass	
1.1.1-Trichloroethane	S21-Au03423	NCP	%	96			70-130	Pass	
1.2-Dichlorobenzene	S21-Au03423	NCP	%	112			70-130	Pass	
1.2-Dichloroethane	S21-Au03423	NCP	%	105			70-130	Pass	
Trichloroethene	S21-Au03423	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S21-Au04994	CP	%	96			70-130	Pass	
Acenaphthylene	S21-Au04994	CP	%	100			70-130	Pass	
Anthracene	S21-Au04994	CP	%	86			70-130	Pass	
Benz(a)anthracene	S21-Au04994	CP	%	93			70-130	Pass	
Benzo(a)pyrene	S21-Au04994	CP	%	96			70-130	Pass	
Benzo(b&j)fluoranthene	S21-Au04994	CP	%	103			70-130	Pass	
Benzo(g.h.i)perylene	S21-Au04994	CP	%	75			70-130	Pass	
Benzo(k)fluoranthene	S21-Au04994	CP	%	100			70-130	Pass	
Chrysene	S21-Au04994	CP	%	101			70-130	Pass	
Dibenz(a.h)anthracene	S21-Au04994	CP	%	70			70-130	Pass	
Fluoranthene	S21-Au04994	CP	%	88			70-130	Pass	
Fluorene	S21-Au04994	CP	%	110			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au04994	CP	%	76			70-130	Pass	
Naphthalene	S21-Au04994	CP	%	101			70-130	Pass	
Phenanthrene	S21-Au04994	CP	%	92			70-130	Pass	
Pyrene	S21-Au04994	CP	%	87			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Au04994	CP	%	91			75-125	Pass	
Cadmium	S21-Au04994	CP	%	92			75-125	Pass	
Chromium	S21-Au04994	CP	%	99			75-125	Pass	
Copper	S21-Au04994	CP	%	99			75-125	Pass	
Lead	S21-Au04994	CP	%	94			75-125	Pass	
Mercury	S21-Au04994	CP	%	101			75-125	Pass	
Nickel	S21-Au04994	CP	%	102			75-125	Pass	
Zinc	S21-Au04994	CP	%	93			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S21-Au05004	CP	%	87			70-130	Pass	
TRH >C10-C16	S21-Au05004	CP	%	85			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-Au08984	NCP	%	107			70-130	Pass	
4.4'-DDD	S21-Au08984	NCP	%	80			70-130	Pass	
4.4'-DDE	S21-Au08984	NCP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
a-HCH	S21-Au08984	NCP	%	109			70-130	Pass	
Aldrin	S21-Au08984	NCP	%	103			70-130	Pass	
b-HCH	S21-Au08984	NCP	%	99			70-130	Pass	
d-HCH	S21-Au08984	NCP	%	104			70-130	Pass	
Dieldrin	S21-Au08984	NCP	%	96			70-130	Pass	
Endosulfan I	S21-Au08984	NCP	%	90			70-130	Pass	
Endosulfan II	S21-Au08984	NCP	%	98			70-130	Pass	
g-HCH (Lindane)	S21-Au08984	NCP	%	118			70-130	Pass	
Heptachlor epoxide	S21-Au08984	NCP	%	128			70-130	Pass	
Hexachlorobenzene	S21-Au08984	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S21-Au08984	NCP	%	94			70-130	Pass	
Aroclor-1260	S21-Au08984	NCP	%	118			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Au05016	CP	%	74			70-130	Pass	
TRH C10-C14	S21-Au05016	CP	%	86			70-130	Pass	
Naphthalene	S21-Au05016	CP	%	110			70-130	Pass	
TRH C6-C10	S21-Au05016	CP	%	74			70-130	Pass	
TRH >C10-C16	S21-Au05016	CP	%	88			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Au05016	CP	%	71			70-130	Pass	
Toluene	S21-Au05016	CP	%	88			70-130	Pass	
Ethylbenzene	S21-Au05016	CP	%	92			70-130	Pass	
m&p-Xylenes	S21-Au05016	CP	%	95			70-130	Pass	
o-Xylene	S21-Au05016	CP	%	95			70-130	Pass	
Xylenes - Total*	S21-Au05016	CP	%	95			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDT	S21-Au02985	NCP	%	78			70-130	Pass	
Endosulfan sulphate	S21-Au02985	NCP	%	77			70-130	Pass	
Endrin	S21-Au02033	NCP	%	104			70-130	Pass	
Endrin aldehyde	S21-Au02985	NCP	%	73			70-130	Pass	
Endrin ketone	S21-Au02985	NCP	%	77			70-130	Pass	
Heptachlor	S21-Au02033	NCP	%	129			70-130	Pass	
Methoxychlor	S21-Au02033	NCP	%	96			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Naphthalene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	B21-Au00838	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au04993	CP	mg/kg	2.8	2.4	16	30%	Pass	
Cadmium	S21-Au04993	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au04993	CP	mg/kg	11	11	7.0	30%	Pass	
Copper	S21-Au04993	CP	mg/kg	11	6.0	57	30%	Fail	Q15
Lead	S21-Au04993	CP	mg/kg	5.4	6.5	17	30%	Pass	
Mercury	S21-Au04993	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au04993	CP	mg/kg	7.4	6.4	14	30%	Pass	
Zinc	S21-Au04993	CP	mg/kg	27	27	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au04996	CP	%	19	20	4.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au05004	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-Au05004	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au05004	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-Au05004	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-Au05004	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-Au05004	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-Au05004	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-Au05004	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Bromobenzene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S21-Au05004	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au05005	CP	mg/kg	14	13	9.0	30%	Pass	
Cadmium	S21-Au05005	CP	mg/kg	1.6	0.8	66	30%	Fail	Q15
Chromium	S21-Au05005	CP	mg/kg	390	410	4.0	30%	Pass	
Copper	S21-Au05005	CP	mg/kg	340	210	45	30%	Fail	Q15
Mercury	S21-Au05005	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au05005	CP	mg/kg	240	300	24	30%	Pass	
Zinc	S21-Au05005	CP	mg/kg	570	370	43	30%	Fail	Q15
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	S21-Au05007	CP	uS/cm	81	90	11	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	S21-Au05007	CP	pH Units	7.6	7.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au05008	CP	%	10	8.8	16	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endosulfan I	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S21-Au09034	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toxaphene	S21-Au09034	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1221	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1232	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1242	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1248	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1254	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1260	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Total PCB*	S21-Au09034	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au05015	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S21-Au05015	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-Au05015	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-Au05015	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S21-Au05015	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-Au05015	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S21-Au05015	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-Au05015	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S21-Au05015	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au05015	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-Au05015	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-Au05015	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-Au05015	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-Au05015	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-Au05015	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au05016	CP	mg/kg	14	12	16	30%	Pass	
Cadmium	S21-Au05016	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au05016	CP	mg/kg	22	19	15	30%	Pass	
Copper	S21-Au05016	CP	mg/kg	23	20	17	30%	Pass	
Lead	S21-Au05016	CP	mg/kg	6.6	5.7	14	30%	Pass	
Mercury	S21-Au05016	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au05016	CP	mg/kg	11	10	10	30%	Pass	
Zinc	S21-Au05016	CP	mg/kg	33	25	25	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au05019	CP	%	17	16	7.0	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
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Charl Du Preez	Senior Analyst-Inorganic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
John Nguyen	Senior Analyst-Metal (NSW)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Roopesh Rangarajan	Senior Analyst-Volatile (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.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Ryan Lill**

Report **814505-W**
Project name CADDENS
Project ID 58500
Received Date Aug 03, 2021

Client Sample ID			**RIN030821**	**TRIP SPIKE**	**TRIP BLANK**
Sample Matrix			**Water**	**Water**	**Water**
Eurofins Sample No.			**S21-Au04998**	**S21-Au05029**	**S21-Au05030**
Date Sampled			**Aug 03, 2021**	**Aug 03, 2021**	**Aug 03, 2021**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	0.02	mg/L	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	-	-
Naphthalene[N02]	0.01	mg/L	< 0.01	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	-	-
BTEX					
Benzene	0.001	mg/L	< 0.001	-	< 0.001
Toluene	0.001	mg/L	< 0.001	-	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	78	-	76
Heavy Metals					
Arsenic	0.001	mg/L	< 0.001	-	-
Cadmium	0.0002	mg/L	< 0.0002	-	-
Chromium	0.001	mg/L	< 0.001	-	-
Copper	0.001	mg/L	< 0.001	-	-
Lead	0.001	mg/L	< 0.001	-	-
Mercury	0.0001	mg/L	< 0.0001	-	-
Nickel	0.001	mg/L	< 0.001	-	-
Zinc	0.005	mg/L	< 0.005	-	-
BTEX					
Benzene	1	%	-	97	-
Ethylbenzene	1	%	-	100	-
m&p-Xylenes	1	%	-	96	-
o-Xylene	1	%	-	96	-

Client Sample ID			RIN030821	TRIP SPIKE	TRIP BLANK
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S21-Au04998	S21-Au05029	S21-Au05030
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit			
BTEX					
Toluene	1	%	-	110	-
Xylenes - Total	1	%	-	96	-
4-Bromofluorobenzene (surr.)	1	%	-	74	-

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
Eurofins Suite B6			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 04, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 04, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 04, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8	Sydney	Aug 04, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**														
1	BH48_0.2-0.4	Aug 03, 2021		Soil	S21-Au04990		X							X	X		X		
2	BH49_0.2-0.35	Aug 03, 2021		Soil	S21-Au04991		X				X				X				
3	BH50_0.6-0.8	Aug 03, 2021		Soil	S21-Au04992		X							X	X		X		
4	BH45_0.2-0.4	Aug 03, 2021		Soil	S21-Au04993		X				X				X				
5	BH44_0.15-0.3	Aug 03, 2021		Soil	S21-Au04994		X							X	X		X		
6	BH42_0.3-0.5	Aug 03, 2021		Soil	S21-Au04995		X							X	X		X		
7	BH39_0.8-1	Aug 03, 2021		Soil	S21-Au04996		X				X				X				
8	BH36_0.25-0.35	Aug 03, 2021		Soil	S21-Au04997		X				X				X				

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 814505
Phone: 02 8245 0300
Fax:

Received: Aug 3, 2021 4:45 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B6	BTEX
Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
9	RIN030821	Aug 03, 2021		Water	S21-Au04998													X	
10	TP18_0-0.1	Aug 03, 2021		Soil	S21-Au04999										X			X	
11	TP31_0-0.1	Aug 03, 2021		Soil	S21-Au05000		X												
12	TP31_0.2-0.3	Aug 03, 2021		Soil	S21-Au05001										X			X	
13	TP14_0-0.1	Aug 03, 2021		Soil	S21-Au05002										X			X	
14	TP14_0.9-1	Aug 03, 2021		Soil	S21-Au05003	X			X	X					X	X			
15	TP43_0-0.1	Aug 03, 2021		Soil	S21-Au05004		X								X			X	
16	QC20210803-02	Aug 03, 2021		Soil	S21-Au05005										X			X	
17	TP09_0.2-0.3	Aug 03, 2021		Soil	S21-Au05006										X		X		
18	TP09_0.9-1	Aug 03, 2021		Soil	S21-Au05007	X			X	X					X	X			

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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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
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
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Auckland
35 O'Rorke Road
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Project ID: 58500

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Priority: 5 Day
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Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
19	TP05_0-0.1	Aug 03, 2021		Soil	S21-Au05008		X						X		X		X		
20	TP06_0-0.1	Aug 03, 2021		Soil	S21-Au05009		X						X		X			X	
21	TP10_0.2-0.3	Aug 03, 2021		Soil	S21-Au05010		X						X		X			X	
22	QC20210803-01	Aug 03, 2021		Soil	S21-Au05011		X						X		X		X		
23	TP13_0-0.1	Aug 03, 2021		Soil	S21-Au05012										X			X	
24	TP27_0-0.1	Aug 03, 2021		Soil	S21-Au05013		X												
25	TP27_0.2-0.3	Aug 03, 2021		Soil	S21-Au05014										X			X	
26	TP28_0-0.1	Aug 03, 2021		Soil	S21-Au05015		X								X			X	
27	TP30_0-0.1	Aug 03, 2021		Soil	S21-Au05016		X								X			X	
28	TP29_0-0.1	Aug 03, 2021		Soil	S21-Au05017		X								X			X	

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Australia

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Perth
46-48 Banksia Road
Welshpool WA 6106
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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
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
29	TP46_0.2-0.3	Aug 03, 2021		Soil	S21-Au05018		X								X		X		
30	TP47_0.2-0.36	Aug 03, 2021		Soil	S21-Au05019		X						X		X			X	
31	BH49_0.4-0.6	Aug 03, 2021		Soil	S21-Au05020			X											
32	BH50_0.3-0.5	Aug 03, 2021		Soil	S21-Au05021			X											
33	BH44_0.3-0.6	Aug 03, 2021		Soil	S21-Au05022			X											
34	BH42_0.12-0.2	Aug 03, 2021		Soil	S21-Au05023			X											
35	BH42_0.6-0.8	Aug 03, 2021		Soil	S21-Au05024			X											
36	BH42_0.8-1	Aug 03, 2021		Soil	S21-Au05025			X											
37	BH39_0.1-0.3	Aug 03, 2021		Soil	S21-Au05026			X											
38	BH39_0.4-0.6	Aug 03, 2021		Soil	S21-Au05027			X											
39	BH36_0.4-0.5	Aug 03, 2021		Soil	S21-Au05028			X											

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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
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
40	TRIP SPIKE	Aug 03, 2021		Water	S21-Au05029														X
41	TRIP BLANK	Aug 03, 2021		Water	S21-Au05030							X							
42	TP18_0.2-0.3	Aug 03, 2021		Soil	S21-Au05031			X											
43	TP18_0.4-0.5	Aug 03, 2021		Soil	S21-Au05032			X											
44	TP18_0.9-1	Aug 03, 2021		Soil	S21-Au05033			X											
45	TP31_0.9-1	Aug 03, 2021		Soil	S21-Au05034			X											
46	TP14_0.2-0.3	Aug 03, 2021		Soil	S21-Au05035			X											
47	TP14_0.4-0.5	Aug 03, 2021		Soil	S21-Au05036			X											
48	TP14_1.9-2	Aug 03, 2021		Soil	S21-Au05037			X											
49	TP43_0.2-0.3	Aug 03, 2021		Soil	S21-Au05038			X											
50	TP43_0.4-0.5	Aug 03, 2021		Soil	S21-Au05039			X											

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Australia

Melbourne
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Phone : +61 3 8564 5000
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Site # 1254

Sydney
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16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
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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
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
51	TP43_0.9-1	Aug 03, 2021		Soil	S21-Au05040			X											
52	TP43_1.9-2	Aug 03, 2021		Soil	S21-Au05041			X											
53	QC20210803-03	Aug 03, 2021		Soil	S21-Au05042			X											
54	TP09_0-0.1	Aug 03, 2021		Soil	S21-Au05043			X											
55	TP09_0.4-0.5	Aug 03, 2021		Soil	S21-Au05044			X											
56	TP05_0.2-0.3	Aug 03, 2021		Soil	S21-Au05045			X											
57	TP05_0.4-0.5	Aug 03, 2021		Soil	S21-Au05046			X											
58	TP05_0.9-1	Aug 03, 2021		Soil	S21-Au05047			X											
59	TP05_1.9-2	Aug 03, 2021		Soil	S21-Au05048			X											
60	TP05_2.4-2.5	Aug 03, 2021		Soil	S21-Au05049			X											

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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
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
61	TP06_0.2-0.3	Aug 03, 2021		Soil	S21-Au05050			X											
62	TP06_0.4-0.5	Aug 03, 2021		Soil	S21-Au05051			X											
63	TP6_0.9-1	Aug 03, 2021		Soil	S21-Au05052			X											
64	TP10_0-0.1	Aug 03, 2021		Soil	S21-Au05053			X											
65	TP10_0.4-0.5	Aug 03, 2021		Soil	S21-Au05054			X											
66	TP10_0.9-1	Aug 03, 2021		Soil	S21-Au05055			X											
67	TP13_0.2-0.3	Aug 03, 2021		Soil	S21-Au05056			X											
68	TP13_0.9-1	Aug 03, 2021		Soil	S21-Au05057			X											
69	TP27_0.9-1	Aug 03, 2021		Soil	S21-Au05058			X											
70	TP28_0.2-0.3	Aug 03, 2021		Soil	S21-Au05059			X											
71	TP28_0.9-1	Aug 03, 2021		Soil	S21-Au05060			X											

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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
72	TP30_0.2-0.3	Aug 03, 2021		Soil	S21-Au05061			X											
73	TP30_0.4-0.5	Aug 03, 2021		Soil	S21-Au05062			X											
74	TP30_0.9-1	Aug 03, 2021		Soil	S21-Au05063			X											
75	TP30_1.9-2	Aug 03, 2021		Soil	S21-Au05064			X											
76	TP29_0.2-0.3	Aug 03, 2021		Soil	S21-Au05065			X											
77	TP29_0.4-0.5	Aug 03, 2021		Soil	S21-Au05066			X											
78	TP29_0.9-1	Aug 03, 2021		Soil	S21-Au05067			X											
79	TP29_1.9-2	Aug 03, 2021		Soil	S21-Au05068			X											
80	QC20210803-047	Aug 03, 2021		Soil	S21-Au05069			X											
81	TP46_0-0.1	Aug 03, 2021		Soil	S21-Au05070			X											

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Sydney
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Melbourne Laboratory - NATA Site # 1254																X			
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
82	TP47_0-0.1	Aug 03, 2021		Soil	S21-Au05071			X											
83	TP47_0.9-1	Aug 03, 2021		Soil	S21-Au05072			X											
84	TP46_0.9-1	Aug 03, 2021		Soil	S21-Au05073			X											
85	TP05-1.4-1.5	Aug 03, 2021		Soil	S21-Au05520			X											
Test Counts						2	20	53	2	2	4	1	5	4	27	2	8	14	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	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	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	94			70-130	Pass	
TRH C10-C14	%	94			70-130	Pass	
Naphthalene	%	85			70-130	Pass	
TRH C6-C10	%	92			70-130	Pass	
TRH >C10-C16	%	96			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	84			70-130	Pass	
Toluene	%	96			70-130	Pass	
Ethylbenzene	%	90			70-130	Pass	
m&p-Xylenes	%	87			70-130	Pass	
o-Xylene	%	85			70-130	Pass	
Xylenes - Total*	%	87			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	107			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	109			80-120	Pass	
Copper	%	106			80-120	Pass	
Lead	%	107			80-120	Pass	
Mercury	%	111			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel			%	108			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									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Au05400	NCP	%	87			70-130	Pass	
TRH C10-C14	N21-Au00265	NCP	%	83			70-130	Pass	
Naphthalene	S21-Au05400	NCP	%	93			70-130	Pass	
TRH C6-C10	S21-Au05400	NCP	%	83			70-130	Pass	
TRH >C10-C16	N21-Au00265	NCP	%	81			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Au05400	NCP	%	95			70-130	Pass	
Toluene	S21-Au05400	NCP	%	103			70-130	Pass	
Ethylbenzene	S21-Au05400	NCP	%	97			70-130	Pass	
m&p-Xylenes	S21-Au05400	NCP	%	94			70-130	Pass	
o-Xylene	S21-Au05400	NCP	%	92			70-130	Pass	
Xylenes - Total*	S21-Au05400	NCP	%	93			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Au07344	NCP	%	111			75-125	Pass	
Cadmium	S21-Au07344	NCP	%	108			75-125	Pass	
Chromium	S21-Au07344	NCP	%	115			75-125	Pass	
Copper	S21-Au07344	NCP	%	111			75-125	Pass	
Lead	S21-Au07344	NCP	%	112			75-125	Pass	
Mercury	S21-Au07344	NCP	%	116			75-125	Pass	
Nickel	S21-Au07344	NCP	%	113			75-125	Pass	
Zinc	S21-Au07344	NCP	%	109			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au05402	NCP	mg/L	0.81	0.83	2.0	30%	Pass	
TRH C10-C14	N21-Au00268	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	N21-Au00268	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	N21-Au00268	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Naphthalene	S21-Au05402	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S21-Au05402	NCP	mg/L	0.85	0.87	3.0	30%	Pass	
TRH >C10-C16	N21-Au00268	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	N21-Au00268	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	N21-Au00268	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au05402	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S21-Au05402	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S21-Au05402	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S21-Au05402	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S21-Au05402	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S21-Au05402	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au08074	NCP	mg/L	0.012	0.012	2.0	30%	Pass	
Cadmium	S21-Au08074	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S21-Au08074	NCP	mg/L	0.004	0.004	9.0	30%	Pass	
Copper	S21-Au08074	NCP	mg/L	0.007	0.007	6.0	30%	Pass	
Lead	S21-Au08074	NCP	mg/L	0.002	0.002	<1	30%	Pass	
Mercury	S21-Au08074	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S21-Au08074	NCP	mg/L	0.005	0.005	1.0	30%	Pass	
Zinc	S21-Au08074	NCP	mg/L	0.16	0.16	3.0	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
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (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.

Chain of Custody

JBS&G

PROJECT NO.: 58500
PROJECT NAME: Caddens
DATE NEEDED BY: 5 DAY T
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rlill@jbsg.com.au; (3) pgordon@jbsg.com.au

LABORATORY BATCH NO.: 81547
SAMPLERS: Ryan Lill / Pete Gordon
QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Scheduling to come from Ryan Lill

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	As Hexavalent	OCPs	TRH/BTEX	PFAS (ADCs)	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP15 - 0 - 0.1	Soil	5/8		B + J		x	x	x	x				
0.2 - 0.3				"									
0.4 - 0.5				"									
0.9 - 1.0				J									
TP11 - 0.0 - 0.1				B + J									
0.3 - 0.4				"		x	x	x	x				
0.9 - 1.1				"									
1.9 - 2.0				"									
2.9 - 3.0				"									
3.5 - 3.6				J									
TP32 - 0.0 - 0.1				B + J		x	x		x	x			
0.3 - 0.4				"									
TP03 - 0.0 - 0.1				J + B			x						
0.6 - 0.7				J									
TP33 - 0.0 - 0.1				J		x	x		x	x			
TP08 - 0.0 - 0.1				B + J				x					
0.2 - 0.3				"									
0.9 - 1				"									
1.9 - 2				"									

RELINQUISHED BY:	METHOD OF SHIPMENT:		FOR RECEIVING LAB USE ONLY:
NAME: Ryan Lill DATE: 5-8-21 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Controlled Copy (June 2015)

Chain of Custody

JBS&G

PROJECT NO.: 58500
PROJECT NAME: Caddens
DATE NEEDED BY: STD
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rill@jbsg.com.au; (3) pgordon@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.:
SAMPLERS: KL / PG
QC LEVEL: NEPM (2013)

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP18 2.9-3	Soil	5/8		J				
TP07 0.0-0.1				J+B				
↓ 0.4-0.5				J				
TP2-0.0-0.1				J+B				
↓ 0.4-0.5				J				
TP26-0.0-0.1				J+B				
↓ 0.3-0.4				J+B				
↓ 0.6-0.7				J+B				
RINSate0821	Water			2x V, 1x A, 1x M				
TS				2x V				
TB				2x V				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Ryan Hill DATE: 5-8-21	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	NAME:	COOLER TEMP ..... deg C
		OF:	

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Controlled Copy (June 2015)

Re: ATTENTION:Eurofins Sample Receipt Advice - Report 815477 : Site CADDENS (58500)

Ryan Lill <rlill@jbsg.com.au>

Sat 8/7/2021 7:02 AM

To: #AU04_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>

EXTERNAL EMAIL*

Hi,

Could I please have TP34_0.0-0.1 run for HM, PAH/TRH/BTEX/VOCs and asbestos - on 5 day TAT

Thank you,

Ryan

Get Outlook for iOS

Subject: ATTENTION:Eurofins Sample Receipt Advice - Report 815477 : Site CADDENS (58500)

[EXTERNAL EMAIL]** Stop and think before opening attachments, clicking or responding.

Dear Valued Client,

Samples received extra: TP34-0-0.1 (jar, bag), TP34-0.3-0.9 (jar, bag), TP34-0.7-0.8 (jar) and TP34-0.9-1.0 - logged on hold.

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins | Environment Testing Analytical Services Manager as soon as possible to make certain that they get changed.

Regards

Suzanne Ford
Sample Receipt

Eurofins | Environment Testing
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066
AUSTRALIA
Phone: +61 02 9900 8421
Email: EnviroSampleNSW@eurofins.com
Website:[http:///]environment.eurofins.com.au

EnviroNote 1079 - PFAS Fingerprinting
EnviroNote 1080 - Total Organofluorine Analysis & PFAS Investigations

EnviroNote 1114 - Eurofins Mould Testing Laboratory is now NATA accredited
EnviroNote 1115 - Eurofins SYDNEY Laboratory is now NATA accredited for PFAS

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Ryan Lill
Project name:	CADDENS
Project ID:	58500
Turnaround time:	5 Day
Date/Time received	Aug 6, 2021 10:42 AM
Eurofins reference	815477

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 : 5.7 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.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Samples received extra: TP34-0.3-0.9 (jar, bag), TP34-0.7-0.8 (jar) and TP34-0.9-1.0 - logged on hold.

Contact

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

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Ryan Lill - rlill@jbsg.com.au.

Global Leader - Results you can trust

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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Dandenong South VIC 3175
Phone : +61 3 8564 5000
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Sydney
Unit F3, Building F
16 Mars Road
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PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815477
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Volatile Organics	Moisture Set	Eurofins Suite B7
Melbourne Laboratory - NATA Site # 1254												
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	TP15-0-0.1	Aug 05, 2021		Soil	S21-Au13290		X				X	X
2	TP11-0.3-0.4	Aug 05, 2021		Soil	S21-Au13291		X				X	X
3	TP32-0.0-0.1	Aug 05, 2021		Soil	S21-Au13292		X			X	X	X
4	TP03-0.0-0.1	Aug 05, 2021		Soil	S21-Au13293		X					
5	TP33-0.0-0.1	Aug 05, 2021		Soil	S21-Au13294	X					X	X
6	TP08-0.0-0.1	Aug 05, 2021		Soil	S21-Au13295				X		X	
7	TP15-0.2-0.3	Aug 05, 2021		Soil	S21-Au13296			X				
8	TP15-0.4-0.5	Aug 05, 2021		Soil	S21-Au13297			X				
9	TP15-0.9-1.0	Aug 05, 2021		Soil	S21-Au13298			X				

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815477
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Volatile Organics	Moisture Set	Eurofins Suite B7
Melbourne Laboratory - NATA Site # 1254												
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
10	TP11-0.0-0.1	Aug 05, 2021		Soil	S21-Au13299			X				
11	TP11-0.9-1.0	Aug 05, 2021		Soil	S21-Au13300			X				
12	TP11-1.9-2.0	Aug 05, 2021		Soil	S21-Au13301			X				
13	TP11-2.9-3.0	Aug 05, 2021		Soil	S21-Au13302			X				
14	TP11-3.5-3.6	Aug 05, 2021		Soil	S21-Au13303			X				
15	TP32-0.3-0.4	Aug 05, 2021		Soil	S21-Au13304			X				
16	TP03-0.6-0.7	Aug 05, 2021		Soil	S21-Au13305			X				
17	TP08-0.2-0.3	Aug 05, 2021		Soil	S21-Au13306			X				
18	TP08-0.9-1	Aug 05, 2021		Soil	S21-Au13307			X				
19	TP08-1.9-2	Aug 05, 2021		Soil	S21-Au13308			X				
20	TP08-2.9-3	Aug 05, 2021		Soil	S21-Au13309			X				

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
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Dandenong South VIC 3175
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NATA # 1261 Site # 1254

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Unit F3, Building F
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Lane Cove West NSW 2066
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Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
21	TP07-0.0-0.1	Aug 05, 2021		Soil	S21-Au13310			X				
22	TP07-0.4-0.5	Aug 05, 2021		Soil	S21-Au13311			X				
23	TP02-0.0-0.1	Aug 05, 2021		Soil	S21-Au13312			X				
24	TP02-0.4-0.5	Aug 05, 2021		Soil	S21-Au13313			X				
25	TP26-0.0-0.1	Aug 05, 2021		Soil	S21-Au13314			X				
26	TP26-0.3-0.4	Aug 05, 2021		Soil	S21-Au13315			X				
27	TP26-0.6-0.7	Aug 05, 2021		Soil	S21-Au13316			X				
28	RIN050821	Aug 05, 2021		Water	S21-Au13317			X				
29	TS	Aug 05, 2021		Water	S21-Au13318			X				
30	TB	Aug 05, 2021		Water	S21-Au13319			X				
31	TP34-0-0.1	Aug 05, 2021		Soil	S21-Au13320		X			X	X	X

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Australia

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Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
32	TP34-0.3-0.4	Aug 05, 2021		Soil	S21-Au13321			X				
33	TP34-0.7-0.8	Aug 05, 2021		Soil	S21-Au13322			X				
34	TP34-0.9-1.0	Aug 05, 2021		Soil	S21-Au13323			X				
Test Counts						1	5	27	1	2	6	5

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
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Attention:	Ryan Lill
Report	815477-AID
Project Name	CADDENS
Project ID	58500
Received Date	Aug 06, 2021
Date Reported	Aug 13, 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 CADDENS
Project ID 58500
Date Sampled Aug 05, 2021
Report 815477-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP15-0-0.1	21-Au13290	Aug 05, 2021	Approximate Sample 238g 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.
TP11-0.3-0.4	21-Au13291	Aug 05, 2021	Approximate Sample 368g Sample consisted of: Brown coarse-grained clayey-sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP32-0.0-0.1	21-Au13292	Aug 05, 2021	Approximate Sample 557g Sample consisted of: Brown coarse-grained clayey-sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP03-0.0-0.1	21-Au13293	Aug 05, 2021	Approximate Sample 281g Sample consisted of: Brown coarse-grained clayey-sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP33-0.0-0.1	21-Au13294	Aug 05, 2021	Approximate Sample 49g Sample consisted of: Brown coarse-grained clayey soil	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP34-0-0.1	21-Au13320	Aug 05, 2021	Approximate Sample 439g Sample consisted of: Brown coarse-grained clayey-sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% 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	Sydney	Aug 13, 2021	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Aug 13, 2021	Indefinite

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
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Sydney
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Welshpool WA 6106
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PO Box 60 Wickham 2293
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NATA # 1261 Site # 25079

New Zealand

Auckland
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Melbourne Laboratory - NATA Site # 1254												
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	TP15-0-0.1	Aug 05, 2021		Soil	S21-Au13290	X					X	X
2	TP11-0.3-0.4	Aug 05, 2021		Soil	S21-Au13291		X				X	X
3	TP32-0.0-0.1	Aug 05, 2021		Soil	S21-Au13292		X			X	X	X
4	TP03-0.0-0.1	Aug 05, 2021		Soil	S21-Au13293		X					
5	TP33-0.0-0.1	Aug 05, 2021		Soil	S21-Au13294	X					X	X
6	TP08-0.0-0.1	Aug 05, 2021		Soil	S21-Au13295				X		X	
7	TP15-0.2-0.3	Aug 05, 2021		Soil	S21-Au13296			X				
8	TP15-0.4-0.5	Aug 05, 2021		Soil	S21-Au13297			X				
9	TP15-0.9-1.0	Aug 05, 2021		Soil	S21-Au13298			X				

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Australia

Melbourne
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Welshpool WA 6106
Phone : +61 8 9251 9600
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Newcastle
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Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

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IANZ # 1327

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External Laboratory												
10	TP11-0.0-0.1	Aug 05, 2021		Soil	S21-Au13299			X				
11	TP11-0.9-1.0	Aug 05, 2021		Soil	S21-Au13300			X				
12	TP11-1.9-2.0	Aug 05, 2021		Soil	S21-Au13301			X				
13	TP11-2.9-3.0	Aug 05, 2021		Soil	S21-Au13302			X				
14	TP11-3.5-3.6	Aug 05, 2021		Soil	S21-Au13303			X				
15	TP32-0.3-0.4	Aug 05, 2021		Soil	S21-Au13304			X				
16	TP03-0.6-0.7	Aug 05, 2021		Soil	S21-Au13305			X				
17	TP08-0.2-0.3	Aug 05, 2021		Soil	S21-Au13306			X				
18	TP08-0.9-1	Aug 05, 2021		Soil	S21-Au13307			X				
19	TP08-1.9-2	Aug 05, 2021		Soil	S21-Au13308			X				
20	TP08-2.9-3	Aug 05, 2021		Soil	S21-Au13309			X				

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External Laboratory												
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22	TP07-0.4-0.5	Aug 05, 2021		Soil	S21-Au13311			X				
23	TP02-0.0-0.1	Aug 05, 2021		Soil	S21-Au13312			X				
24	TP02-0.4-0.5	Aug 05, 2021		Soil	S21-Au13313			X				
25	TP26-0.0-0.1	Aug 05, 2021		Soil	S21-Au13314			X				
26	TP26-0.3-0.4	Aug 05, 2021		Soil	S21-Au13315			X				
27	TP26-0.6-0.7	Aug 05, 2021		Soil	S21-Au13316			X				
28	RIN050821	Aug 05, 2021		Water	S21-Au13317			X				
29	TS	Aug 05, 2021		Water	S21-Au13318			X				
30	TB	Aug 05, 2021		Water	S21-Au13319			X				
31	TP34-0-0.1	Aug 05, 2021		Soil	S21-Au13320		X			X	X	X

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34	TP34-0.9-1.0	Aug 05, 2021		Soil	S21-Au13323			X				
Test Counts						2	4	27	1	2	6	5

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 blue colour, indicates data provided by customer, that may have an impact on the results.
5. 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 Sample Receipt Advice.

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: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
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.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Au13291, Au13293, and Au13320: Samples received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Au13294: The sample received was not collected in an approved asbestos bag and was therefore sub-sampled from the 250mL glass jar. Valid sub-sampling procedures were applied so as to ensure that the sub-sample to be analysed accurately represented the sample received.

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
N/A	Not applicable

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Authorised by:

Laxman Dias	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.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Ryan Lill**

Report **815477-S**
Project name CADDENS
Project ID 58500
Received Date Aug 06, 2021

Client Sample ID			**TP15-0-0.1**	**TP11-0.3-0.4**	**TP32-0.0-0.1**	**TP33-0.0-0.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S21-Au13290**	**S21-Au13291**	**S21-Au13292**	**S21-Au13294**
Date Sampled			**Aug 05, 2021**	**Aug 05, 2021**	**Aug 05, 2021**	**Aug 05, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	88	119	105	108
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP15-0-0.1	TP11-0.3-0.4	TP32-0.0-0.1	TP33-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au13290	S21-Au13291	S21-Au13292	S21-Au13294
Date Sampled			Aug 05, 2021	Aug 05, 2021	Aug 05, 2021	Aug 05, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	89	118	121	128
p-Terphenyl-d14 (surr.)	1	%	74	120	121	128
Heavy Metals						
Arsenic	2	mg/kg	13	17	12	13
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	22	22	26
Copper	5	mg/kg	33	78	38	28
Lead	5	mg/kg	49	20	21	14
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	23	25	20	16
Zinc	5	mg/kg	100	82	61	36
% Moisture	1	%	15	9.8	20	16
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	-	-	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	-
Allyl chloride	0.5	mg/kg	-	-	< 0.5	-
Benzene	0.1	mg/kg	-	-	< 0.1	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			TP15-0-0.1	TP11-0.3-0.4	TP32-0.0-0.1	TP33-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au13290	S21-Au13291	S21-Au13292	S21-Au13294
Date Sampled			Aug 05, 2021	Aug 05, 2021	Aug 05, 2021	Aug 05, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Dibromomethane	0.5	mg/kg	-	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	-
Iodomethane	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.1	mg/kg	-	-	< 0.1	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.1	mg/kg	-	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3	-
Total MAH*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
4-Bromofluorobenzene (surr.)	1	%	-	-	105	-
Toluene-d8 (surr.)	1	%	-	-	115	-

Client Sample ID			TP08-0.0-0.1	TP34-0-0.1
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-Au13295	S21-Au13320
Date Sampled			Aug 05, 2021	Aug 05, 2021
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	-	< 20
TRH C10-C14	20	mg/kg	-	< 20
TRH C15-C28	50	mg/kg	-	< 50
TRH C29-C36	50	mg/kg	-	< 50
TRH C10-C36 (Total)	50	mg/kg	-	< 50
Naphthalene[N02]	0.5	mg/kg	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100

Client Sample ID			TP08-0.0-0.1	TP34-0-0.1
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-Au13295	S21-Au13320
Date Sampled			Aug 05, 2021	Aug 05, 2021
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH >C34-C40	100	mg/kg	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100
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	%	-	100
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
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	131	114
p-Terphenyl-d14 (surr.)	1	%	128	120
Heavy Metals				
Arsenic	2	mg/kg	-	11
Cadmium	0.4	mg/kg	-	< 0.4
Chromium	5	mg/kg	-	21
Copper	5	mg/kg	-	100
Lead	5	mg/kg	-	29
Mercury	0.1	mg/kg	-	< 0.1
Nickel	5	mg/kg	-	14
Zinc	5	mg/kg	-	130
% Moisture	1	%	14	29
Volatile Organics				
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5

Client Sample ID			TP08-0.0-0.1	TP34-0-0.1
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-Au13295	S21-Au13320
Date Sampled			Aug 05, 2021	Aug 05, 2021
Test/Reference	LOR	Unit		
Volatile Organics				
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5
Allyl chloride	0.5	mg/kg	-	< 0.5
Benzene	0.1	mg/kg	-	< 0.1
Bromobenzene	0.5	mg/kg	-	< 0.5
Bromochloromethane	0.5	mg/kg	-	< 0.5
Bromodichloromethane	0.5	mg/kg	-	< 0.5
Bromoform	0.5	mg/kg	-	< 0.5
Bromomethane	0.5	mg/kg	-	< 0.5
Carbon disulfide	0.5	mg/kg	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5
Chlorobenzene	0.5	mg/kg	-	< 0.5
Chloroethane	0.5	mg/kg	-	< 0.5
Chloroform	0.5	mg/kg	-	< 0.5
Chloromethane	0.5	mg/kg	-	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5
Dibromochloromethane	0.5	mg/kg	-	< 0.5
Dibromomethane	0.5	mg/kg	-	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5
Ethylbenzene	0.1	mg/kg	-	< 0.1
Iodomethane	0.5	mg/kg	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5
m&p-Xylenes	0.2	mg/kg	-	< 0.2
Methylene Chloride	0.5	mg/kg	-	< 0.5
o-Xylene	0.1	mg/kg	-	< 0.1
Styrene	0.5	mg/kg	-	< 0.5
Tetrachloroethene	0.5	mg/kg	-	< 0.5
Toluene	0.1	mg/kg	-	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5
Trichloroethene	0.5	mg/kg	-	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5
Vinyl chloride	0.5	mg/kg	-	< 0.5
Xylenes - Total*	0.3	mg/kg	-	< 0.3

Client Sample ID			TP08-0.0-0.1	TP34-0-0.1
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-Au13295	S21-Au13320
Date Sampled			Aug 05, 2021	Aug 05, 2021
Test/Reference	LOR	Unit		
Volatile Organics				
Total MAH*	0.5	mg/kg	-	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	< 0.5
4-Bromofluorobenzene (surr.)	1	%	-	100
Toluene-d8 (surr.)	1	%	-	106

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Aug 10, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Aug 09, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Volatile Organics	Sydney	Aug 10, 2021	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			

eurofins | Environment Testing

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

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815477
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Volatile Organics	Moisture Set	Eurofins Suite B7
Melbourne Laboratory - NATA Site # 1254												
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	TP15-0-0.1	Aug 05, 2021		Soil	S21-Au13290		X				X	X
2	TP11-0.3-0.4	Aug 05, 2021		Soil	S21-Au13291		X				X	X
3	TP32-0.0-0.1	Aug 05, 2021		Soil	S21-Au13292		X			X	X	X
4	TP03-0.0-0.1	Aug 05, 2021		Soil	S21-Au13293		X					
5	TP33-0.0-0.1	Aug 05, 2021		Soil	S21-Au13294	X					X	X
6	TP08-0.0-0.1	Aug 05, 2021		Soil	S21-Au13295				X		X	
7	TP15-0.2-0.3	Aug 05, 2021		Soil	S21-Au13296			X				
8	TP15-0.4-0.5	Aug 05, 2021		Soil	S21-Au13297			X				
9	TP15-0.9-1.0	Aug 05, 2021		Soil	S21-Au13298			X				

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815477
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254												
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
10	TP11-0.0-0.1	Aug 05, 2021		Soil	S21-Au13299			X				
11	TP11-0.9-1.0	Aug 05, 2021		Soil	S21-Au13300			X				
12	TP11-1.9-2.0	Aug 05, 2021		Soil	S21-Au13301			X				
13	TP11-2.9-3.0	Aug 05, 2021		Soil	S21-Au13302			X				
14	TP11-3.5-3.6	Aug 05, 2021		Soil	S21-Au13303			X				
15	TP32-0.3-0.4	Aug 05, 2021		Soil	S21-Au13304			X				
16	TP03-0.6-0.7	Aug 05, 2021		Soil	S21-Au13305			X				
17	TP08-0.2-0.3	Aug 05, 2021		Soil	S21-Au13306			X				
18	TP08-0.9-1	Aug 05, 2021		Soil	S21-Au13307			X				
19	TP08-1.9-2	Aug 05, 2021		Soil	S21-Au13308			X				
20	TP08-2.9-3	Aug 05, 2021		Soil	S21-Au13309			X				

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Melbourne Laboratory - NATA Site # 1254												
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
21	TP07-0.0-0.1	Aug 05, 2021		Soil	S21-Au13310			X				
22	TP07-0.4-0.5	Aug 05, 2021		Soil	S21-Au13311			X				
23	TP02-0.0-0.1	Aug 05, 2021		Soil	S21-Au13312			X				
24	TP02-0.4-0.5	Aug 05, 2021		Soil	S21-Au13313			X				
25	TP26-0.0-0.1	Aug 05, 2021		Soil	S21-Au13314			X				
26	TP26-0.3-0.4	Aug 05, 2021		Soil	S21-Au13315			X				
27	TP26-0.6-0.7	Aug 05, 2021		Soil	S21-Au13316			X				
28	RIN050821	Aug 05, 2021		Water	S21-Au13317			X				
29	TS	Aug 05, 2021		Water	S21-Au13318			X				
30	TB	Aug 05, 2021		Water	S21-Au13319			X				
31	TP34-0-0.1	Aug 05, 2021		Soil	S21-Au13320		X			X	X	X

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Melbourne Laboratory - NATA Site # 1254												
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
Perth Laboratory - NATA Site # 23736												
Mayfield Laboratory - NATA Site # 25079												
External Laboratory												
32	TP34-0.3-0.4	Aug 05, 2021		Soil	S21-Au13321			X				
33	TP34-0.7-0.8	Aug 05, 2021		Soil	S21-Au13322			X				
34	TP34-0.9-1.0	Aug 05, 2021		Soil	S21-Au13323			X				
Test Counts						1	5	27	1	2	6	5

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
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							
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							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	97			70-130	Pass	
TRH C10-C14	%	91			70-130	Pass	
Naphthalene	%	86			70-130	Pass	
TRH C6-C10	%	96			70-130	Pass	
TRH >C10-C16	%	89			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	91			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Toluene	%	90			70-130	Pass	
Ethylbenzene	%	90			70-130	Pass	
m&p-Xylenes	%	91			70-130	Pass	
o-Xylene	%	91			70-130	Pass	
Xylenes - Total*	%	91			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	114			70-130	Pass	
Acenaphthylene	%	109			70-130	Pass	
Anthracene	%	101			70-130	Pass	
Benz(a)anthracene	%	101			70-130	Pass	
Benzo(a)pyrene	%	125			70-130	Pass	
Benzo(b&j)fluoranthene	%	109			70-130	Pass	
Benzo(g.h.i)perylene	%	113			70-130	Pass	
Benzo(k)fluoranthene	%	130			70-130	Pass	
Chrysene	%	109			70-130	Pass	
Dibenz(a.h)anthracene	%	107			70-130	Pass	
Fluoranthene	%	113			70-130	Pass	
Fluorene	%	106			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	113			70-130	Pass	
Naphthalene	%	113			70-130	Pass	
Phenanthrene	%	104			70-130	Pass	
Pyrene	%	114			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	120			80-120	Pass	
Cadmium	%	112			80-120	Pass	
Chromium	%	97			80-120	Pass	
Copper	%	92			80-120	Pass	
Lead	%	90			80-120	Pass	
Mercury	%	86			80-120	Pass	
Nickel	%	92			80-120	Pass	
Zinc	%	100			80-120	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	125			70-130	Pass	
1.1.1-Trichloroethane	%	126			70-130	Pass	
1.2-Dichlorobenzene	%	103			70-130	Pass	
1.2-Dichloroethane	%	113			70-130	Pass	
Trichloroethene	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Au11497	NCP	%	101			70-130	Pass	
Naphthalene	S21-Au11497	NCP	%	82			70-130	Pass	
TRH C6-C10	S21-Au11497	NCP	%	101			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Au11497	NCP	%	92			70-130	Pass	
Toluene	S21-Au11497	NCP	%	91			70-130	Pass	
Ethylbenzene	S21-Au11497	NCP	%	91			70-130	Pass	
m&p-Xylenes	S21-Au11497	NCP	%	93			70-130	Pass	
o-Xylene	S21-Au11497	NCP	%	93			70-130	Pass	
Xylenes - Total*	S21-Au11497	NCP	%	93			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S21-Au11131	NCP	%	105			70-130	Pass	
Acenaphthylene	S21-Au11131	NCP	%	106			70-130	Pass	
Anthracene	S21-Au11131	NCP	%	92			70-130	Pass	
Benz(a)anthracene	S21-Au11131	NCP	%	92			70-130	Pass	
Benzo(a)pyrene	S21-Au11131	NCP	%	93			70-130	Pass	
Benzo(b&j)fluoranthene	S21-Au11131	NCP	%	89			70-130	Pass	
Benzo(g.h.i)perylene	S21-Au11131	NCP	%	87			70-130	Pass	
Benzo(k)fluoranthene	S21-Au11131	NCP	%	91			70-130	Pass	
Chrysene	S21-Au11131	NCP	%	97			70-130	Pass	
Dibenz(a.h)anthracene	S21-Au11131	NCP	%	83			70-130	Pass	
Fluoranthene	S21-Au11131	NCP	%	105			70-130	Pass	
Fluorene	S21-Au11131	NCP	%	100			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au11131	NCP	%	87			70-130	Pass	
Naphthalene	S21-Au11131	NCP	%	107			70-130	Pass	
Phenanthrene	S21-Au11131	NCP	%	96			70-130	Pass	
Pyrene	S21-Au11131	NCP	%	105			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Au14334	NCP	%	113			75-125	Pass	
Cadmium	W21-Au11152	NCP	%	109			75-125	Pass	
Chromium	W21-Au11152	NCP	%	97			75-125	Pass	
Copper	W21-Au11152	NCP	%	106			75-125	Pass	
Lead	W21-Au11152	NCP	%	95			75-125	Pass	
Mercury	S21-Au14334	NCP	%	106			75-125	Pass	
Nickel	W21-Au11152	NCP	%	102			75-125	Pass	
Zinc	W21-Au11152	NCP	%	104			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S21-Au13294	CP	%	114			70-130	Pass	
TRH >C10-C16	S21-Au13294	CP	%	108			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au11496	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S21-Au11496	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-Au11496	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au11496	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-Au11496	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-Au11496	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-Au11496	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-Au11496	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-Au11496	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(g.h.i)perylene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-Au11498	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au14353	NCP	mg/kg	2.5	4.0	45	30%	Fail	Q15
Cadmium	S21-Au14353	NCP	mg/kg	1.0	1.3	23	30%	Pass	
Chromium	S21-Au14353	NCP	mg/kg	12	13	11	30%	Pass	
Copper	S21-Au14353	NCP	mg/kg	50	60	18	30%	Pass	
Lead	S21-Au14353	NCP	mg/kg	100	130	26	30%	Pass	
Mercury	S21-Au14353	NCP	mg/kg	0.1	0.1	1.0	30%	Pass	
Nickel	S21-Au14353	NCP	mg/kg	13	18	29	30%	Pass	
Zinc	S21-Au14353	NCP	mg/kg	190	250	30	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au13291	CP	%	9.8	13	28	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S21-Au13292	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-Au13292	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-Au13292	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S21-Au13292	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-Au13292	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S21-Au13292	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Bromobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<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
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (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.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Ryan Lill
Report	815526-AID
Project Name	CADDENS
Project ID	58500
Received Date	Aug 06, 2021
Date Reported	Aug 13, 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 CADDENS
Project ID 58500
Date Sampled Aug 04, 2021
Report 815526-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP40_0.0-0.1	21-Au14065	Aug 04, 2021	Approximate Sample 517g Sample consisted of: Brown fine-grained clayey soil, cement, brick and rocks	Chrysotile and crocidolite asbestos detected in fibre cement fragment and in the form of loose fibre bundles. Approximate raw weight of asbestos containing material = 0.053g* Total estimated asbestos content in the sample = 0.0080g* Total estimated asbestos concentration = 0.0015% w/w* No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP41_0.0-0.1	21-Au14066	Aug 04, 2021	Approximate Sample 398g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP38_0.0-0.1	21-Au14067	Aug 04, 2021	Approximate Sample 371g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP37_0.0-0.1	21-Au14068	Aug 04, 2021	Approximate Sample 634g Sample consisted of: Brown coarse-grained soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP35_0.0-0.1	21-Au14069	Aug 04, 2021	Approximate Sample 476g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP25_0.0-0.1	21-Au14070	Aug 04, 2021	Approximate Sample 573g Sample consisted of: Brown fine-grained clayey soil 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
TP24_0.2-0.3	21-Au14073	Aug 04, 2021	Approximate Sample 464g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP20_0.0-0.1	21-Au14077	Aug 04, 2021	Approximate Sample 402g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP17_0.0-0.1	21-Au14079	Aug 04, 2021	Approximate Sample 540g Sample consisted of: Brown fine-grained clayey 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	Sydney	Aug 09, 2021	Indefinite

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815526
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	HOLD	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Eurofins Suite B1	BTEX
Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	TP40_0.0-0.1	Aug 04, 2021		Soil	S21-Au14065	X			X				X		
2	TP41_0.0-0.1	Aug 04, 2021		Soil	S21-Au14066	X			X				X		
3	TP38_0.0-0.1	Aug 04, 2021		Soil	S21-Au14067	X		X	X			X	X	X	
4	TP37_0.0-0.1	Aug 04, 2021		Soil	S21-Au14068	X			X				X		
5	TP35_0.0-0.1	Aug 04, 2021		Soil	S21-Au14069	X		X	X			X	X	X	
6	TP25_0.0-0.1	Aug 04, 2021		Soil	S21-Au14070	X									
7	TP25_0.2-0.3	Aug 04, 2021		Soil	S21-Au14071				X		X		X	X	
8	TP24_0.0-0.1	Aug 04, 2021		Soil	S21-Au14072				X		X		X	X	
9	TP24_0.2-0.3	Aug 04, 2021		Soil	S21-Au14073	X			X				X		

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
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NATA # 1261 Site # 25079

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815526
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	HOLD	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Eurofins Suite B1	BTEX
Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
10	TP23_0.0-0.1	Aug 04, 2021		Soil	S21-Au14074			X	X			X	X		
11	TP22_0.3-0.4	Aug 04, 2021		Soil	S21-Au14075			X	X			X	X		
12	TP21_0.0-0.1	Aug 04, 2021		Soil	S21-Au14076			X	X			X	X		
13	TP20_0.0-0.1	Aug 04, 2021		Soil	S21-Au14077	X		X	X		X	X	X		
14	TP19_0.0-0.1	Aug 04, 2021		Soil	S21-Au14078			X	X			X	X		
15	TP17_0.0-0.1	Aug 04, 2021		Soil	S21-Au14079	X			X		X		X	X	
16	TP16_0.0-0.1	Aug 04, 2021		Soil	S21-Au14080				X				X	X	
17	TP12_0.0-0.1	Aug 04, 2021		Soil	S21-Au14081				X				X	X	
18	TP04_0.4-0.5	Aug 04, 2021		Soil	S21-Au14082				X				X	X	
19	TP01_0.0-0.1	Aug 04, 2021		Soil	S21-Au14083				X				X	X	
20	TRIP SPIKE	Aug 04, 2021		Water	S21-Au14084										X

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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

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Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
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NATA # 1261 Site # 25079

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35 O'Rorke Road
Penrose, Auckland 1061
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Christchurch
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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
21	TRIP BLANK	Aug 04, 2021		Water	S21-Au14085					X					
22	TP40_0.4-0.5	Aug 04, 2021		Soil	S21-Au14086		X								
23	TP41_0.3-0.4	Aug 04, 2021		Soil	S21-Au14087		X								
24	TP41_0.8-1.0	Aug 04, 2021		Soil	S21-Au14088		X								
25	TP41_1.4-1.5	Aug 04, 2021		Soil	S21-Au14089		X								
26	TP38_0.4-0.5	Aug 04, 2021		Soil	S21-Au14090		X								
27	TP37_0.2-0.3	Aug 04, 2021		Soil	S21-Au14091		X								
28	TP37_0.4-0.5	Aug 04, 2021		Soil	S21-Au14092		X								
29	TP35_0.2-0.3	Aug 04, 2021		Soil	S21-Au14093		X								
30	TP35_0.4-0.5	Aug 04, 2021		Soil	S21-Au14094		X								
31	TP25_0.4-0.5	Aug 04, 2021		Soil	S21-Au14095		X								

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Melbourne
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46-48 Banksia Road
Welshpool WA 6106
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Newcastle
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Mayfield East NSW 2304
PO Box 60 Wickham 2293
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NATA # 1261 Site # 25079

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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
32	TP25_0.9-1.0	Aug 04, 2021		Soil	S21-Au14096		X								
33	TP24_0.4-0.5	Aug 04, 2021		Soil	S21-Au14097		X								
34	TP24_0.9-1.0	Aug 04, 2021		Soil	S21-Au14098		X								
35	TP23_0.2-0.3	Aug 04, 2021		Soil	S21-Au14099		X								
36	TP23_0.9-1.0	Aug 04, 2021		Soil	S21-Au14100		X								
37	TP22_0.0-0.1	Aug 04, 2021		Soil	S21-Au14101		X								
38	TP22_0.5-0.6	Aug 04, 2021		Soil	S21-Au14102		X								
39	TP21_0.2-0.3	Aug 04, 2021		Soil	S21-Au14103		X								
40	TP21_0.4-0.5	Aug 04, 2021		Soil	S21-Au14104		X								
41	TP21_0.9-1.0	Aug 04, 2021		Soil	S21-Au14105		X								
42	TP20_0.2-0.3	Aug 04, 2021		Soil	S21-Au14106		X								

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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
43	TP20_0.4-0.5	Aug 04, 2021		Soil	S21-Au14107		X								
44	TP20_0.9-1.0	Aug 04, 2021		Soil	S21-Au14108		X								
45	TP19_0.2-0.3	Aug 04, 2021		Soil	S21-Au14109		X								
46	TP19_0.4-0.5	Aug 04, 2021		Soil	S21-Au14110		X								
47	TP17_0.2-0.3	Aug 04, 2021		Soil	S21-Au14111		X								
48	TP17_0.5-0.6	Aug 04, 2021		Soil	S21-Au14112		X								
49	TP16_0.2-0.3	Aug 04, 2021		Soil	S21-Au14113		X								
50	TP16_0.4-0.5	Aug 04, 2021		Soil	S21-Au14114		X								
51	TP12_0.2-0.3	Aug 04, 2021		Soil	S21-Au14115		X								
52	TP12_0.5-0.6	Aug 04, 2021		Soil	S21-Au14116		X								
53	TP04_0.0-0.1	Aug 04, 2021		Soil	S21-Au14117		X								

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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
54	TP04_0.2-0.3	Aug 04, 2021		Soil	S21-Au14118		X								
55	TP04_1.0-1.1	Aug 04, 2021		Soil	S21-Au14119		X								
56	TP01_0.2-0.3	Aug 04, 2021		Soil	S21-Au14120		X								
57	TP01_0.5-0.6	Aug 04, 2021		Soil	S21-Au14121		X								
58	TP01_0.7-0.9	Aug 04, 2021		Soil	S21-Au14122		X								
59	TP01_0.9-1.0	Aug 04, 2021		Soil	S21-Au14123		X								
60	RIN040821	Aug 04, 2021		Water	S21-Au14124		X								
Test Counts						9	39	7	18	1	4	7	18	9	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 blue colour, indicates data provided by customer, that may have an impact on the results.
5. 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 Sample Receipt Advice.

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: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
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.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

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
N/A	Not applicable

Asbestos Counter/Identifier:

Chamath JHM Annakkage	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	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.

JBS & G Australia (NSW) P/L
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NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Ryan Lill**

Report **815526-S**
Project name CADDENS
Project ID 58500
Received Date Aug 06, 2021

Client Sample ID			**TP40_0.0-0.1**	**TP41_0.0-0.1**	**TP38_0.0-0.1**	**TP37_0.0-0.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S21-Au14065**	**S21-Au14066**	**S21-Au14067**	**S21-Au14068**
Date Sampled			**Aug 04, 2021**	**Aug 04, 2021**	**Aug 04, 2021**	**Aug 04, 2021**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	8.4	4.7	3.6	2.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.5	< 0.4
Chromium	5	mg/kg	35	19	21	15
Copper	5	mg/kg	38	60	170	11
Lead	5	mg/kg	16	14	32	8.4
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	37	20	14	< 5
Zinc	5	mg/kg	91	110	270	39
% Moisture	1	%	9.0	29	17	2.6
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	< 20	-
TRH C10-C14	20	mg/kg	-	-	< 20	-
TRH C15-C28	50	mg/kg	-	-	< 50	-
TRH C29-C36	50	mg/kg	-	-	130	-
TRH C10-C36 (Total)	50	mg/kg	-	-	130	-
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	140	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	-	140	-
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	%	-	-	92	-

Client Sample ID			TP40_0.0-0.1	TP41_0.0-0.1	TP38_0.0-0.1	TP37_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14065	S21-Au14066	S21-Au14067	S21-Au14068
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	-	-	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	-
Allyl chloride	0.5	mg/kg	-	-	< 0.5	-
Benzene	0.1	mg/kg	-	-	< 0.1	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Dibromomethane	0.5	mg/kg	-	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	-
Iodomethane	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.1	mg/kg	-	-	< 0.1	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.1	mg/kg	-	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			TP40_0.0-0.1	TP41_0.0-0.1	TP38_0.0-0.1	TP37_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14065	S21-Au14066	S21-Au14067	S21-Au14068
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3	-
Total MAH*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
4-Bromofluorobenzene (surr.)	1	%	-	-	92	-
Toluene-d8 (surr.)	1	%	-	-	96	-
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	%	-	-	103	-
p-Terphenyl-d14 (surr.)	1	%	-	-	90	-

Client Sample ID			TP35_0.0-0.1	TP25_0.2-0.3	TP24_0.0-0.1	TP24_0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14069	S21-Au14071	S21-Au14072	S21-Au14073
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	11	9.7	16	15
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	24	26	22	25
Copper	5	mg/kg	20	44	46	40
Lead	5	mg/kg	22	44	32	27
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	15	24	19	22
Zinc	5	mg/kg	38	210	74	73
% Moisture	1	%	16	13	16	16

Client Sample ID			TP35_0.0-0.1	TP25_0.2-0.3	TP24_0.0-0.1	TP24_0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14069	S21-Au14071	S21-Au14072	S21-Au14073
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	125	81	111	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.5	mg/kg	< 0.5	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			TP35_0.0-0.1	TP25_0.2-0.3	TP24_0.0-0.1	TP24_0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14069	S21-Au14071	S21-Au14072	S21-Au14073
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
Total MAH*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
4-Bromofluorobenzene (surr.)	1	%	125	-	-	-
Toluene-d8 (surr.)	1	%	79	-	-	-
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	-	-	-

Client Sample ID			TP35_0.0-0.1	TP25_0.2-0.3	TP24_0.0-0.1	TP24_0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14069	S21-Au14071	S21-Au14072	S21-Au14073
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	93	-	-	-
p-Terphenyl-d14 (surr.)	1	%	99	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
d-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Toxaphene	0.1	mg/kg	-	< 0.1	< 0.1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	90	96	-
Tetrachloro-m-xylene (surr.)	1	%	-	84	96	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	-
Total PCB*	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibutylchlorendate (surr.)	1	%	-	90	96	-
Tetrachloro-m-xylene (surr.)	1	%	-	84	96	-

Client Sample ID			TP23_0.0-0.1	TP22_0.3-0.4	TP21_0.0-0.1	TP20_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14074	S21-Au14075	S21-Au14076	S21-Au14077
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	13	9.0	7.9	9.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	26	23	21	20
Copper	5	mg/kg	26	29	35	26
Lead	5	mg/kg	16	18	39	32
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	26	16	18	11
Zinc	5	mg/kg	54	50	150	100
% Moisture	1	%	16	16	21	6.2
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP23_0.0-0.1	TP22_0.3-0.4	TP21_0.0-0.1	TP20_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14074	S21-Au14075	S21-Au14076	S21-Au14077
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	101	148	75	136
Toluene-d8 (surr.)	1	%	103	137	78	123
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	100	101	107	95
p-Terphenyl-d14 (surr.)	1	%	120	125	133	97
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

Client Sample ID			TP23_0.0-0.1	TP22_0.3-0.4	TP21_0.0-0.1	TP20_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14074	S21-Au14075	S21-Au14076	S21-Au14077
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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	0.1	mg/kg	-	-	-	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	77
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	95
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1221	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1232	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB*	0.5	mg/kg	-	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	-	-	-	77
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	95

Client Sample ID			TP19_0.0-0.1	TP17_0.0-0.1	TP16_0.0-0.1	TP12_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14078	S21-Au14079	S21-Au14080	S21-Au14081
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.4	12	4.3	8.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.9	23	7.0	22
Copper	5	mg/kg	15	20	48	19
Lead	5	mg/kg	9.3	18	47	13
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	14	< 5	13
Zinc	5	mg/kg	37	31	93	32

Client Sample ID			TP19_0.0-0.1	TP17_0.0-0.1	TP16_0.0-0.1	TP12_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14078	S21-Au14079	S21-Au14080	S21-Au14081
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	3.3	15	2.6	19
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	< 50	71
TRH C29-C36	50	mg/kg	-	< 50	< 50	130
TRH C10-C36 (Total)	50	mg/kg	-	< 50	< 50	201
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	< 100	160
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	< 100	160
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	83	94	111
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.5	mg/kg	< 0.5	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			TP19_0.0-0.1	TP17_0.0-0.1	TP16_0.0-0.1	TP12_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14078	S21-Au14079	S21-Au14080	S21-Au14081
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
Total MAH*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
4-Bromofluorobenzene (surr.)	1	%	85	-	-	-
Toluene-d8 (surr.)	1	%	85	-	-	-
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	-	-	-

Client Sample ID			TP19_0.0-0.1	TP17_0.0-0.1	TP16_0.0-0.1	TP12_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au14078	S21-Au14079	S21-Au14080	S21-Au14081
Date Sampled			Aug 04, 2021	Aug 04, 2021	Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	110	-	-	-
p-Terphenyl-d14 (surr.)	1	%	133	-	-	-
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	0.1	mg/kg	-	< 0.1	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	93	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	105	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	-
Total PCB*	0.5	mg/kg	-	< 0.5	-	-
Dibutylchlorendate (surr.)	1	%	-	93	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	105	-	-

Client Sample ID			TP04_0.4-0.5	TP01_0.0-0.1
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-Au14082	S21-Au14083
Date Sampled			Aug 04, 2021	Aug 04, 2021
Test/Reference	LOR	Unit		
Heavy Metals				
Arsenic	2	mg/kg	5.9	7.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	18	22
Copper	5	mg/kg	22	25
Lead	5	mg/kg	12	24
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	5.3	11
Zinc	5	mg/kg	18	36
% Moisture	1	%	18	18
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	86	86

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
Metals M8	Sydney	Aug 10, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Volatile Organics	Sydney	Aug 10, 2021	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Sydney	Aug 09, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Eurofins Suite B1			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Organochlorine Pesticides	Sydney	Aug 10, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Aug 10, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			

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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
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Welshpool WA 6106
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NATA # 1261 Site # 23736

Newcastle
4/52 Industrial Drive
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PO Box 60 Wickham 2293
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Auckland
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43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815526
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	HOLD	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Eurofins Suite B1	BTEX
Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	TP40_0.0-0.1	Aug 04, 2021		Soil	S21-Au14065	X			X				X		
2	TP41_0.0-0.1	Aug 04, 2021		Soil	S21-Au14066	X			X				X		
3	TP38_0.0-0.1	Aug 04, 2021		Soil	S21-Au14067	X		X	X			X	X	X	
4	TP37_0.0-0.1	Aug 04, 2021		Soil	S21-Au14068	X			X				X		
5	TP35_0.0-0.1	Aug 04, 2021		Soil	S21-Au14069	X		X	X			X	X	X	
6	TP25_0.0-0.1	Aug 04, 2021		Soil	S21-Au14070	X									
7	TP25_0.2-0.3	Aug 04, 2021		Soil	S21-Au14071				X		X		X	X	
8	TP24_0.0-0.1	Aug 04, 2021		Soil	S21-Au14072				X		X		X	X	
9	TP24_0.2-0.3	Aug 04, 2021		Soil	S21-Au14073	X			X				X		

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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
10	TP23_0.0-0.1	Aug 04, 2021		Soil	S21-Au14074			X	X			X	X		
11	TP22_0.3-0.4	Aug 04, 2021		Soil	S21-Au14075			X	X			X	X		
12	TP21_0.0-0.1	Aug 04, 2021		Soil	S21-Au14076			X	X			X	X		
13	TP20_0.0-0.1	Aug 04, 2021		Soil	S21-Au14077	X		X	X		X	X	X		
14	TP19_0.0-0.1	Aug 04, 2021		Soil	S21-Au14078			X	X			X	X		
15	TP17_0.0-0.1	Aug 04, 2021		Soil	S21-Au14079	X			X		X		X	X	
16	TP16_0.0-0.1	Aug 04, 2021		Soil	S21-Au14080				X				X	X	
17	TP12_0.0-0.1	Aug 04, 2021		Soil	S21-Au14081				X				X	X	
18	TP04_0.4-0.5	Aug 04, 2021		Soil	S21-Au14082				X				X	X	
19	TP01_0.0-0.1	Aug 04, 2021		Soil	S21-Au14083				X				X	X	
20	TRIP SPIKE	Aug 04, 2021		Water	S21-Au14084										X

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Newcastle
4/52 Industrial Drive
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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
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External Laboratory															
21	TRIP BLANK	Aug 04, 2021		Water	S21-Au14085					X					
22	TP40_0.4-0.5	Aug 04, 2021		Soil	S21-Au14086		X								
23	TP41_0.3-0.4	Aug 04, 2021		Soil	S21-Au14087		X								
24	TP41_0.8-1.0	Aug 04, 2021		Soil	S21-Au14088		X								
25	TP41_1.4-1.5	Aug 04, 2021		Soil	S21-Au14089		X								
26	TP38_0.4-0.5	Aug 04, 2021		Soil	S21-Au14090		X								
27	TP37_0.2-0.3	Aug 04, 2021		Soil	S21-Au14091		X								
28	TP37_0.4-0.5	Aug 04, 2021		Soil	S21-Au14092		X								
29	TP35_0.2-0.3	Aug 04, 2021		Soil	S21-Au14093		X								
30	TP35_0.4-0.5	Aug 04, 2021		Soil	S21-Au14094		X								
31	TP25_0.4-0.5	Aug 04, 2021		Soil	S21-Au14095		X								

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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
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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
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External Laboratory															
32	TP25_0.9-1.0	Aug 04, 2021		Soil	S21-Au14096		X								
33	TP24_0.4-0.5	Aug 04, 2021		Soil	S21-Au14097		X								
34	TP24_0.9-1.0	Aug 04, 2021		Soil	S21-Au14098		X								
35	TP23_0.2-0.3	Aug 04, 2021		Soil	S21-Au14099		X								
36	TP23_0.9-1.0	Aug 04, 2021		Soil	S21-Au14100		X								
37	TP22_0.0-0.1	Aug 04, 2021		Soil	S21-Au14101		X								
38	TP22_0.5-0.6	Aug 04, 2021		Soil	S21-Au14102		X								
39	TP21_0.2-0.3	Aug 04, 2021		Soil	S21-Au14103		X								
40	TP21_0.4-0.5	Aug 04, 2021		Soil	S21-Au14104		X								
41	TP21_0.9-1.0	Aug 04, 2021		Soil	S21-Au14105		X								
42	TP20_0.2-0.3	Aug 04, 2021		Soil	S21-Au14106		X								

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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
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External Laboratory															
43	TP20_0.4-0.5	Aug 04, 2021		Soil	S21-Au14107		X								
44	TP20_0.9-1.0	Aug 04, 2021		Soil	S21-Au14108		X								
45	TP19_0.2-0.3	Aug 04, 2021		Soil	S21-Au14109		X								
46	TP19_0.4-0.5	Aug 04, 2021		Soil	S21-Au14110		X								
47	TP17_0.2-0.3	Aug 04, 2021		Soil	S21-Au14111		X								
48	TP17_0.5-0.6	Aug 04, 2021		Soil	S21-Au14112		X								
49	TP16_0.2-0.3	Aug 04, 2021		Soil	S21-Au14113		X								
50	TP16_0.4-0.5	Aug 04, 2021		Soil	S21-Au14114		X								
51	TP12_0.2-0.3	Aug 04, 2021		Soil	S21-Au14115		X								
52	TP12_0.5-0.6	Aug 04, 2021		Soil	S21-Au14116		X								
53	TP04_0.0-0.1	Aug 04, 2021		Soil	S21-Au14117		X								

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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
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Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
54	TP04_0.2-0.3	Aug 04, 2021		Soil	S21-Au14118		X								
55	TP04_1.0-1.1	Aug 04, 2021		Soil	S21-Au14119		X								
56	TP01_0.2-0.3	Aug 04, 2021		Soil	S21-Au14120		X								
57	TP01_0.5-0.6	Aug 04, 2021		Soil	S21-Au14121		X								
58	TP01_0.7-0.9	Aug 04, 2021		Soil	S21-Au14122		X								
59	TP01_0.9-1.0	Aug 04, 2021		Soil	S21-Au14123		X								
60	RIN040821	Aug 04, 2021		Water	S21-Au14124		X								
Test Counts						9	39	7	18	1	4	7	18	9	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
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							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			80-120	Pass	
Cadmium	%	101			80-120	Pass	
Chromium	%	108			80-120	Pass	
Copper	%	108			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	101			80-120	Pass	
Nickel	%	109			80-120	Pass	
Zinc	%	106			80-120	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	75			70-130	Pass	
TRH C10-C14	%	83			70-130	Pass	
Naphthalene	%	118			70-130	Pass	
TRH C6-C10	%	73			70-130	Pass	
TRH >C10-C16	%	83			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	106			70-130	Pass	
Toluene	%	102			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	110			70-130	Pass	
o-Xylene	%	110			70-130	Pass	
Xylenes - Total*	%	110			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	125			70-130	Pass	
1.1.1-Trichloroethane	%	126			70-130	Pass	
1.2-Dichlorobenzene	%	103			70-130	Pass	
1.2-Dichloroethane	%	113			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Trichloroethene	%	103			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	103			70-130	Pass	
Acenaphthylene	%	102			70-130	Pass	
Anthracene	%	100			70-130	Pass	
Benz(a)anthracene	%	94			70-130	Pass	
Benzo(a)pyrene	%	100			70-130	Pass	
Benzo(b&j)fluoranthene	%	97			70-130	Pass	
Benzo(g.h.i)perylene	%	115			70-130	Pass	
Benzo(k)fluoranthene	%	97			70-130	Pass	
Chrysene	%	100			70-130	Pass	
Dibenz(a.h)anthracene	%	125			70-130	Pass	
Fluoranthene	%	95			70-130	Pass	
Fluorene	%	105			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	112			70-130	Pass	
Naphthalene	%	100			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	97			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	107			70-130	Pass	
4.4'-DDD	%	115			70-130	Pass	
4.4'-DDE	%	111			70-130	Pass	
4.4'-DDT	%	91			70-130	Pass	
a-HCH	%	102			70-130	Pass	
Aldrin	%	107			70-130	Pass	
b-HCH	%	97			70-130	Pass	
d-HCH	%	102			70-130	Pass	
Dieldrin	%	102			70-130	Pass	
Endosulfan I	%	102			70-130	Pass	
Endosulfan II	%	103			70-130	Pass	
Endosulfan sulphate	%	89			70-130	Pass	
Endrin	%	93			70-130	Pass	
Endrin aldehyde	%	82			70-130	Pass	
Endrin ketone	%	91			70-130	Pass	
g-HCH (Lindane)	%	105			70-130	Pass	
Heptachlor	%	118			70-130	Pass	
Heptachlor epoxide	%	107			70-130	Pass	
Hexachlorobenzene	%	110			70-130	Pass	
Methoxychlor	%	116			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	106			70-130	Pass	
Aroclor-1260	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Au18378	NCP	%	73			70-130	Pass	
TRH C10-C14	S21-Au13214	NCP	%	85			70-130	Pass	
Naphthalene	S21-Au18378	NCP	%	101			70-130	Pass	
TRH C6-C10	S21-Au18378	NCP	%	73			70-130	Pass	
TRH >C10-C16	S21-Au13214	NCP	%	79			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
BTEX				Result 1					
Benzene	S21-Au18378	NCP	%	83			70-130	Pass	
Toluene	S21-Au18378	NCP	%	79			70-130	Pass	
Ethylbenzene	S21-Au18378	NCP	%	77			70-130	Pass	
m&p-Xylenes	S21-Au18378	NCP	%	79			70-130	Pass	
o-Xylene	S21-Au18378	NCP	%	78			70-130	Pass	
Xylenes - Total*	S21-Au18378	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Endrin aldehyde	B21-Au19260	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Au14075	CP	%	110			75-125	Pass	
Cadmium	S21-Au14075	CP	%	102			75-125	Pass	
Chromium	S21-Au14075	CP	%	104			75-125	Pass	
Copper	S21-Au14075	CP	%	90			75-125	Pass	
Lead	S21-Au14075	CP	%	100			75-125	Pass	
Mercury	S21-Au14075	CP	%	95			75-125	Pass	
Nickel	S21-Au14075	CP	%	94			75-125	Pass	
Zinc	S21-Au14075	CP	%	84			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S21-Au14077	CP	%	104			70-130	Pass	
Acenaphthylene	S21-Au14077	CP	%	106			70-130	Pass	
Anthracene	S21-Au14077	CP	%	101			70-130	Pass	
Benz(a)anthracene	S21-Au14077	CP	%	96			70-130	Pass	
Benzo(a)pyrene	S21-Au14077	CP	%	101			70-130	Pass	
Benzo(b&j)fluoranthene	S21-Au14077	CP	%	98			70-130	Pass	
Benzo(g.h.i)perylene	S21-Au14077	CP	%	116			70-130	Pass	
Benzo(k)fluoranthene	S21-Au14077	CP	%	104			70-130	Pass	
Chrysene	S21-Au14077	CP	%	104			70-130	Pass	
Dibenz(a.h)anthracene	S21-Au14077	CP	%	125			70-130	Pass	
Fluoranthene	S21-Au14077	CP	%	99			70-130	Pass	
Fluorene	S21-Au14077	CP	%	108			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au14077	CP	%	113			70-130	Pass	
Naphthalene	S21-Au14077	CP	%	107			70-130	Pass	
Phenanthrene	S21-Au14077	CP	%	100			70-130	Pass	
Pyrene	S21-Au14077	CP	%	100			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-Au14077	CP	%	93			70-130	Pass	
4.4'-DDD	S21-Au14077	CP	%	88			70-130	Pass	
4.4'-DDE	S21-Au14077	CP	%	101			70-130	Pass	
4.4'-DDT	S21-Au14077	CP	%	79			70-130	Pass	
a-HCH	S21-Au14077	CP	%	93			70-130	Pass	
Aldrin	S21-Au14077	CP	%	97			70-130	Pass	
b-HCH	S21-Au14077	CP	%	98			70-130	Pass	
d-HCH	S21-Au14077	CP	%	100			70-130	Pass	
Dieldrin	S21-Au14077	CP	%	91			70-130	Pass	
Endosulfan I	S21-Au14077	CP	%	93			70-130	Pass	
Endosulfan II	S21-Au14077	CP	%	89			70-130	Pass	
Endosulfan sulphate	S21-Au14077	CP	%	89			70-130	Pass	
Endrin	S21-Au14077	CP	%	95			70-130	Pass	
Endrin ketone	S21-Au14077	CP	%	80			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
g-HCH (Lindane)	S21-Au14077	CP	%	102			70-130	Pass	
Heptachlor	S21-Au14077	CP	%	91			70-130	Pass	
Heptachlor epoxide	S21-Au14077	CP	%	89			70-130	Pass	
Hexachlorobenzene	S21-Au14077	CP	%	97			70-130	Pass	
Methoxychlor	S21-Au14077	CP	%	81			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S21-Au14077	CP	%	102			70-130	Pass	
Aroclor-1260	S21-Au14077	CP	%	105			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au14065	CP	%	9.0	9.4	4.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au23148	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S21-Au13213	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-Au13213	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-Au13213	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-Au23148	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S21-Au13213	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-Au13213	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S21-Au13213	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au23148	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-Au23148	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-Au23148	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-Au23148	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-Au23148	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-Au23148	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Allyl chloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S21-Au23148	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Au18377	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-Au18377	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S21-Au19811	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-Au18377	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-Au18377	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-Au18377	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-Au18377	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-Au18377	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-Au18377	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-Au18377	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-Au18377	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au14074	CP	mg/kg	13	12	5.0	30%	Pass	
Cadmium	S21-Au14074	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au14074	CP	mg/kg	26	25	4.0	30%	Pass	
Copper	S21-Au14074	CP	mg/kg	26	26	<1	30%	Pass	
Lead	S21-Au14074	CP	mg/kg	16	14	17	30%	Pass	
Mercury	S21-Au14074	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au14074	CP	mg/kg	26	25	7.0	30%	Pass	
Zinc	S21-Au14074	CP	mg/kg	54	51	6.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au14076	CP	%	21	21	3.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-Au14076	CP	mg/kg	< 0.5	< 0.5	<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
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

[redacted]
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.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Ryan Lill**

Report **815526-W**
Project name CADDENS
Project ID 58500
Received Date Aug 06, 2021

Client Sample ID			**TRIP SPIKE**	**TRIP BLANK**
Sample Matrix			**Water**	**Water**
Eurofins Sample No.			**S21-Au14084**	**S21-Au14085**
Date Sampled			**Aug 04, 2021**	**Aug 04, 2021**
Test/Reference	LOR	Unit		
BTEX				
Benzene	1	%	95	-
Ethylbenzene	1	%	110	-
m&p-Xylenes	1	%	110	-
o-Xylene	1	%	100	-
Toluene	1	%	120	-
Xylenes - Total	1	%	100	-
4-Bromofluorobenzene (surr.)	1	%	87	-
BTEX				
Benzene	0.001	mg/L	-	< 0.001
Toluene	0.001	mg/L	-	< 0.001
Ethylbenzene	0.001	mg/L	-	< 0.001
m&p-Xylenes	0.002	mg/L	-	< 0.002
o-Xylene	0.001	mg/L	-	< 0.001
Xylenes - Total*	0.003	mg/L	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	76

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
Eurofins Suite B1			
BTEX	Sydney	Aug 09, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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Murarrie QLD 4172
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Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815526
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	HOLD	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Eurofins Suite B1	BTEX
Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	TP40_0.0-0.1	Aug 04, 2021		Soil	S21-Au14065	X			X				X		
2	TP41_0.0-0.1	Aug 04, 2021		Soil	S21-Au14066	X			X				X		
3	TP38_0.0-0.1	Aug 04, 2021		Soil	S21-Au14067	X		X	X			X	X	X	
4	TP37_0.0-0.1	Aug 04, 2021		Soil	S21-Au14068	X			X				X		
5	TP35_0.0-0.1	Aug 04, 2021		Soil	S21-Au14069	X		X	X			X	X	X	
6	TP25_0.0-0.1	Aug 04, 2021		Soil	S21-Au14070	X									
7	TP25_0.2-0.3	Aug 04, 2021		Soil	S21-Au14071				X		X		X	X	
8	TP24_0.0-0.1	Aug 04, 2021		Soil	S21-Au14072				X		X		X	X	
9	TP24_0.2-0.3	Aug 04, 2021		Soil	S21-Au14073	X			X				X		

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
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New Zealand

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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: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815526
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	HOLD	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Eurofins Suite B1	BTEX
Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
10	TP23_0.0-0.1	Aug 04, 2021		Soil	S21-Au14074			X	X			X	X		
11	TP22_0.3-0.4	Aug 04, 2021		Soil	S21-Au14075			X	X			X	X		
12	TP21_0.0-0.1	Aug 04, 2021		Soil	S21-Au14076			X	X			X	X		
13	TP20_0.0-0.1	Aug 04, 2021		Soil	S21-Au14077	X		X	X		X	X	X		
14	TP19_0.0-0.1	Aug 04, 2021		Soil	S21-Au14078			X	X			X	X		
15	TP17_0.0-0.1	Aug 04, 2021		Soil	S21-Au14079	X			X		X		X	X	
16	TP16_0.0-0.1	Aug 04, 2021		Soil	S21-Au14080				X				X	X	
17	TP12_0.0-0.1	Aug 04, 2021		Soil	S21-Au14081				X				X	X	
18	TP04_0.4-0.5	Aug 04, 2021		Soil	S21-Au14082				X				X	X	
19	TP01_0.0-0.1	Aug 04, 2021		Soil	S21-Au14083				X				X	X	
20	TRIP SPIKE	Aug 04, 2021		Water	S21-Au14084										X

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Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
21	TRIP BLANK	Aug 04, 2021		Water	S21-Au14085					X					
22	TP40_0.4-0.5	Aug 04, 2021		Soil	S21-Au14086		X								
23	TP41_0.3-0.4	Aug 04, 2021		Soil	S21-Au14087		X								
24	TP41_0.8-1.0	Aug 04, 2021		Soil	S21-Au14088		X								
25	TP41_1.4-1.5	Aug 04, 2021		Soil	S21-Au14089		X								
26	TP38_0.4-0.5	Aug 04, 2021		Soil	S21-Au14090		X								
27	TP37_0.2-0.3	Aug 04, 2021		Soil	S21-Au14091		X								
28	TP37_0.4-0.5	Aug 04, 2021		Soil	S21-Au14092		X								
29	TP35_0.2-0.3	Aug 04, 2021		Soil	S21-Au14093		X								
30	TP35_0.4-0.5	Aug 04, 2021		Soil	S21-Au14094		X								
31	TP25_0.4-0.5	Aug 04, 2021		Soil	S21-Au14095		X								

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

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NSW 2000

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Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
32	TP25_0.9-1.0	Aug 04, 2021		Soil	S21-Au14096		X								
33	TP24_0.4-0.5	Aug 04, 2021		Soil	S21-Au14097		X								
34	TP24_0.9-1.0	Aug 04, 2021		Soil	S21-Au14098		X								
35	TP23_0.2-0.3	Aug 04, 2021		Soil	S21-Au14099		X								
36	TP23_0.9-1.0	Aug 04, 2021		Soil	S21-Au14100		X								
37	TP22_0.0-0.1	Aug 04, 2021		Soil	S21-Au14101		X								
38	TP22_0.5-0.6	Aug 04, 2021		Soil	S21-Au14102		X								
39	TP21_0.2-0.3	Aug 04, 2021		Soil	S21-Au14103		X								
40	TP21_0.4-0.5	Aug 04, 2021		Soil	S21-Au14104		X								
41	TP21_0.9-1.0	Aug 04, 2021		Soil	S21-Au14105		X								
42	TP20_0.2-0.3	Aug 04, 2021		Soil	S21-Au14106		X								

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815526
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	HOLD	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Eurofins Suite B1	BTEX
Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
43	TP20_0.4-0.5	Aug 04, 2021		Soil	S21-Au14107		X								
44	TP20_0.9-1.0	Aug 04, 2021		Soil	S21-Au14108		X								
45	TP19_0.2-0.3	Aug 04, 2021		Soil	S21-Au14109		X								
46	TP19_0.4-0.5	Aug 04, 2021		Soil	S21-Au14110		X								
47	TP17_0.2-0.3	Aug 04, 2021		Soil	S21-Au14111		X								
48	TP17_0.5-0.6	Aug 04, 2021		Soil	S21-Au14112		X								
49	TP16_0.2-0.3	Aug 04, 2021		Soil	S21-Au14113		X								
50	TP16_0.4-0.5	Aug 04, 2021		Soil	S21-Au14114		X								
51	TP12_0.2-0.3	Aug 04, 2021		Soil	S21-Au14115		X								
52	TP12_0.5-0.6	Aug 04, 2021		Soil	S21-Au14116		X								
53	TP04_0.0-0.1	Aug 04, 2021		Soil	S21-Au14117		X								

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
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Project Name: CADDENS
Project ID: 58500

Order No.:
Report #: 815526
Phone: 02 8245 0300
Fax:

Received: Aug 6, 2021 10:42 AM
Due: Aug 13, 2021
Priority: 5 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	HOLD	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Eurofins Suite B1	BTEX
Melbourne Laboratory - NATA Site # 1254															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
54	TP04_0.2-0.3	Aug 04, 2021		Soil	S21-Au14118		X								
55	TP04_1.0-1.1	Aug 04, 2021		Soil	S21-Au14119		X								
56	TP01_0.2-0.3	Aug 04, 2021		Soil	S21-Au14120		X								
57	TP01_0.5-0.6	Aug 04, 2021		Soil	S21-Au14121		X								
58	TP01_0.7-0.9	Aug 04, 2021		Soil	S21-Au14122		X								
59	TP01_0.9-1.0	Aug 04, 2021		Soil	S21-Au14123		X								
60	RIN040821	Aug 04, 2021		Water	S21-Au14124		X								
Test Counts						9	39	7	18	1	4	7	18	9	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	90			70-130	Pass	
Toluene	%	105			70-130	Pass	
Ethylbenzene	%	100			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	71			70-130	Pass	
Xylenes - Total*	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Au14961	NCP	%	77			70-130	Pass	
Toluene	S21-Au14961	NCP	%	94			70-130	Pass	
Ethylbenzene	S21-Au14961	NCP	%	90			70-130	Pass	
m&p-Xylenes	S21-Au14961	NCP	%	86			70-130	Pass	
o-Xylene	S21-Au14961	NCP	%	85			70-130	Pass	
Xylenes - Total*	S21-Au14961	NCP	%	86			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au11389	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S21-Au11389	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S21-Au11389	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S21-Au11389	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S21-Au11389	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S21-Au11389	NCP	mg/L	< 0.003	< 0.003	<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

Authorised by:

Ursula Long	Analytical Services Manager
Roopesh Rangarajan	Senior Analyst-Volatile (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.

FW: Eurofins Test Results - Report 814505 : Site CADDENS (58500)

Thu 8/12/2021 9:23 AM

To: #AU04_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>

3 day TAT additional please

Kind regards,

Ursula Long
Analytical Services Manager

Eurofins | Environment Testing
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066
AUSTRALIA

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

For sample receipt enquiries (eg. SRAs, changes to analysis) please contact EnvirosampleNSW@eurofins.com or 02 9900 8421 (7am – 12am).
For despatch enquiries (eg. courier bookings, bottle orders) please contact AU04_Despatch_SYD@eurofins.com or 0488 400 929 (8am – 4pm).

EXTERNAL EMAIL*

Hi Ursula,

Could I please have the following additional samples on three day TAT.

BH42_0.6-0.8	S21-Au05024	TRH
TP14_0.2-0.3	S21-Au05035	TRH
TP29_0.2-0.3	S21-Au05065	Heavy Metals

Thank you

Ryan

Ryan Lill | Project Manager | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane | Canberra | Darwin | Wollongong | Bunbury
Level 1. 50 Margaret Street Sydney NSW 2000

Contaminated Land | Groundwater Remediation | Approvals and Assessments | Auditing and Compliance | Hygiene and Hazardous Materials | Due Diligence and Liability | Fire Management Planning | Stakeholder and Risk Management

From: UrsulaLong@eurofins.com <UrsulaLong@eurofins.com>
Sent: Wednesday, 11 August 2021 6:34 PM
To: Ryan Lill <rlill@jbsg.com.au>
Cc: Prue Gordon <pgordon@jbsg.com.au>
Subject: Eurofins Test Results - Report 814505 : Site CADDENS (58500)

Please find attached final results for your project in the subject header.

Regards

Ursula Long

Eurofins
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066
AUSTRALIA
Phone: +61 428 845 495
Email: UrsulaLong@eurofins.com
Website:[http://]environment.eurofins.com.au
EnviroNote 1114 - Eurofins Mould Testing Laboratory is now NATA accredited
EnviroNote 1115 - Eurofins SYDNEY Laboratory is now NATA accredited for PFAS

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Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Ryan Lill
Project name:	ADDITIONAL - CADDENS
Project ID:	58500
Turnaround time:	3 Day
Date/Time received	Aug 12, 2021 8:38 AM
Eurofins reference	816538

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 : 12.3 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.
X	Split sample sent to requested external lab.
X	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:

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Ryan Lill - rlill@jbsg.com.au.

Global Leader - Results you can trust

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
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NSW 2000

Project Name: ADDITIONAL - CADDENS
Project ID: 58500

Order No.:
Report #: 816538
Phone: 02 8245 0300
Fax:

Received: Aug 12, 2021 8:38 AM
Due: Aug 17, 2021
Priority: 3 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Metals M8	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
Mayfield Laboratory - NATA Site # 25079								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH42_0.6-0.8	Aug 03, 2021		Soil	S21-Au21894		X	X
2	TP14_0.2-0.3	Aug 03, 2021		Soil	S21-Au21895		X	X
3	TP29_0.2-0.3	Aug 03, 2021		Soil	S21-Au21896	X	X	
Test Counts						1	3	2

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Ryan Lill**

Report **816538-S**
Project name ADDITIONAL - CADDENS
Project ID 58500
Received Date Aug 12, 2021

Client Sample ID			**BH42_0.6-0.8**	**TP14_0.2-0.3**	**TP29_0.2-0.3**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S21-Au21894**	**S21-Au21895**	**S21-Au21896**
Date Sampled			**Aug 03, 2021**	**Aug 03, 2021**	**Aug 03, 2021**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	-
TRH C15-C28	50	mg/kg	54	< 50	-
TRH C29-C36	50	mg/kg	57	< 50	-
TRH C10-C36 (Total)	50	mg/kg	111	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-
% Moisture	1	%	16	13	17
Heavy Metals					
Arsenic	2	mg/kg	-	-	7.7
Cadmium	0.4	mg/kg	-	-	< 0.4
Chromium	5	mg/kg	-	-	20
Copper	5	mg/kg	-	-	32
Lead	5	mg/kg	-	-	21
Mercury	0.1	mg/kg	-	-	< 0.1
Nickel	5	mg/kg	-	-	16
Zinc	5	mg/kg	-	-	75

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 12, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 12, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 12, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
% Moisture	Sydney	Aug 12, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Metals M8	Sydney	Aug 12, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

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IANZ # 1327

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL - CADDENS
Project ID: 58500

Order No.:
Report #: 816538
Phone: 02 8245 0300
Fax:

Received: Aug 12, 2021 8:38 AM
Due: Aug 17, 2021
Priority: 3 Day
Contact Name: Ryan Lill

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Metals M8	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
Mayfield Laboratory - NATA Site # 25079								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH42_0.6-0.8	Aug 03, 2021		Soil	S21-Au21894		X	X
2	TP14_0.2-0.3	Aug 03, 2021		Soil	S21-Au21895		X	X
3	TP29_0.2-0.3	Aug 03, 2021		Soil	S21-Au21896	X	X	
Test Counts						1	3	2

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	71			70-130	Pass	
TRH C10-C14	%	92			70-130	Pass	
Naphthalene	%	90			70-130	Pass	
TRH C6-C10	%	71			70-130	Pass	
TRH >C10-C16	%	85			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	98			80-120	Pass	
Cadmium	%	98			80-120	Pass	
Chromium	%	95			80-120	Pass	
Copper	%	92			80-120	Pass	
Lead	%	94			80-120	Pass	
Mercury	%	95			80-120	Pass	
Nickel	%	94			80-120	Pass	
Zinc	%	90			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Au21895	CP	%	87			70-130	Pass	
TRH C10-C14	S21-Au21895	CP	%	99			70-130	Pass	
Naphthalene	S21-Au21895	CP	%	95			70-130	Pass	
TRH C6-C10	S21-Au21895	CP	%	86			70-130	Pass	
TRH >C10-C16	S21-Au21895	CP	%	92			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Au18702	NCP	%	94			75-125	Pass	
Cadmium	S21-Au18702	NCP	%	99			75-125	Pass	
Chromium	S21-Au18702	NCP	%	86			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Copper	S21-Au18702	NCP	%	88			75-125	Pass	
Lead	S21-Au18702	NCP	%	82			75-125	Pass	
Mercury	S21-Au20897	NCP	%	110			75-125	Pass	
Nickel	S21-Au18702	NCP	%	89			75-125	Pass	
Zinc	S21-Au18702	NCP	%	87			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au21894	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S21-Au21894	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-Au21894	CP	mg/kg	54	52	4.0	30%	Pass	
TRH C29-C36	S21-Au21894	CP	mg/kg	57	66	15	30%	Pass	
Naphthalene	S21-Au21894	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-Au21894	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S21-Au21894	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-Au21894	CP	mg/kg	< 100	100	7.0	30%	Pass	
TRH >C34-C40	S21-Au21894	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au21879	NCP	%	2.9	2.8	6.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au21896	CP	mg/kg	7.7	6.9	11	30%	Pass	
Cadmium	S21-Au21896	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au21896	CP	mg/kg	20	21	3.0	30%	Pass	
Copper	S21-Au21896	CP	mg/kg	32	30	9.0	30%	Pass	
Lead	S21-Au21896	CP	mg/kg	21	17	20	30%	Pass	
Mercury	S21-Au21896	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au21896	CP	mg/kg	16	16	3.0	30%	Pass	
Zinc	S21-Au21896	CP	mg/kg	75	60	22	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
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (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.

Chain of Custody

JBS&G

PROJECT NO.: 58500	LABORATORY BATCH NO.:
PROJECT NAME: Caddens	SAMPLERS: ML
DATE NEEDED BY: STAT	QC LEVEL: NEPM (2013)

PHONE: Sydney ~~02 8245 0300~~ | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & ~~INVOICE TO:~~ (1) adminnsw@jbsg.com.au; (2) rlill@jbsg.com.au; (3) pgordon@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	PAHs	Asbestos	OCP/PCB													TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
1)	QAZ0210803-01	Soil	3-8-21	–	Jar + Bag + Ice		X	X	X	X	X															
2)	" 02	↓	↓	–	↓		X	X																		
3)	" 03			–																						
4)	" 04			–																						

Environmental Science & Engineering Chatswood NSW 2067 Ph: (02) 9910 6200

Job No: 275275

Date Received: 4/8/2021

Time Received: 17:20

Received By: VV

Temp: Cool/Ambient

Cooling: Ice/Icepack 11°C

Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M. Linz DATE: 3-8-21	CONSIGNMENT NOTE NO.	NAME: V. VEGA	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 4/8/2021 1720	
		OF: ECS-SYD	COOLER TEMP ..11.. deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 275275

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	P Gordon, R Lill
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**58500**
Number of Samples	4 Soil
Date samples received	04/08/2021
Date completed instructions received	04/08/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	11/08/2021
Date of Issue	11/08/2021

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Identifier: Nyovan Moonean
Authorised by Asbestos Approved Signatory: Matt Mansfield

Results Approved By
Dragana Tomas, Senior Chemist
Hannah Nguyen, Senior Chemist
Jeremy Faircloth, Operations Manager, Sydney
Matt Mansfield, QHSE manager

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		275275-1	275275-2
Your Reference	UNITS	QA20210803-01	QA20210803-02
Date Analysed		03/08/2021	03/08/2021
Type of sample		Soil	Soil
Date extracted	-	06/08/2021	06/08/2021
Date analysed	-	06/08/2021	06/08/2021
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<3	<3
Surrogate aaa-Trifluorotoluene	%	93	89

svTRH (C10-C40) in Soil			
Our Reference		275275-1	275275-2
Your Reference	UNITS	QA20210803-01	QA20210803-02
Date Analysed		03/08/2021	03/08/2021
Type of sample		Soil	Soil
Date extracted	-	6/08/2021	6/08/2021
Date analysed	-	07/08/2021	07/08/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	95	108

PAHs in Soil		
Our Reference		275275-1
Your Reference	UNITS	QA20210803-01
Date Analysed		03/08/2021
Type of sample		Soil
Date extracted	-	06/08/2021
Date analysed	-	06/08/2021
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	0.06
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	0.06
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	108

Organochlorine Pesticides in soil		
Our Reference		275275-1
Your Reference	UNITS	QA20210803-01
Date Analysed		03/08/2021
Type of sample		Soil
Date extracted	-	06/08/2021
Date analysed	-	06/08/2021
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	108

PCBs in Soil		
Our Reference		275275-1
Your Reference	UNITS	QA20210803-01
Date Analysed		03/08/2021
Type of sample		Soil
Date extracted	-	06/08/2021
Date analysed	-	06/08/2021
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	108

Acid Extractable metals in soil			
Our Reference		275275-1	275275-2
Your Reference	UNITS	QA20210803-01	QA20210803-02
Date Analysed		03/08/2021	03/08/2021
Type of sample		Soil	Soil
Date prepared	-	06/08/2021	06/08/2021
Date analysed	-	06/08/2021	06/08/2021
Arsenic	mg/kg	<4	9
Cadmium	mg/kg	<0.4	0.5
Chromium	mg/kg	6	200
Copper	mg/kg	6	99
Lead	mg/kg	21	35
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	1	120
Zinc	mg/kg	28	140

Moisture			
Our Reference		275275-1	275275-2
Your Reference	UNITS	QA20210803-01	QA20210803-02
Date Analysed		03/08/2021	03/08/2021
Type of sample		Soil	Soil
Date prepared	-	06/08/2021	06/08/2021
Date analysed	-	09/08/2021	09/08/2021
Moisture	%	13	22

Asbestos ID - soils NEPM - ASB-001		
Our Reference		275275-1
Your Reference	UNITS	QA20210803-01
Date Analysed		03/08/2021
Type of sample		Soil
Date analysed	-	11/08/2021
Sample mass tested	g	812.01
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected
ACM >7mm Estimation*	g	–
FA and AF Estimation*	g	–
ACM >7mm Estimation*	%(w/w)	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.

Method ID	Methodology Summary
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Date analysed	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	111	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	111	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	107	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	112	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	113	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	92	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Date analysed	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	80	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	80	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
Surrogate o-Terphenyl	%		Org-020	76	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Date analysed	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	129	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	105	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	110	[NT]	[NT]	[NT]	[NT]	115	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Date analysed	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	113	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	121	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	106	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Date analysed	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	106	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Date analysed	-			06/08/2021	[NT]	[NT]	[NT]	[NT]	06/08/2021	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	111	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	111	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Appendix I Quality Assurance/Quality Control

The QA/QC results for soil samples collected at the site are summarised in **Table I.1** and discussed following. Laboratory certificates of analysis are included in **Appendix H**.

Table I.1: Data Quality Indicator Assessment

Data Quality Objectives	Frequency	Result	DQO met?
Precision			
Blind duplicates (intra laboratory)	Soil – 1/20	<LOR-159 % RPD	Partial[1]
Blind duplicates (inter laboratory)	Soil – 1/20	<LOR-189 % RPD	Partial[1]
Laboratory duplicates	Soil – 27/219 samples	<LOR-66 % RPD	Partial[1]
Accuracy			
Surrogate spikes	All organic samples	30-150 % soil	Partial[1]
Laboratory control samples	1 per lab batch	<LOR % soil	Yes
Matrix spikes[1]	1 per lab batch	<LOR % soil	Yes
Representativeness			
Sampling appropriate for media and analytes	All Samples	Yes	Yes
Samples extracted and analysed within holding times.	All Samples	Yes	Yes
Trip spike[1]	1 per sampling event	97-120 %	Yes
Storage blank[1]	1 per sampling event	<LOR	Yes
Rinsate blank[1]	1 per sampling data where reusable equipment is used	<LOR	Yes
Laboratory blanks	1 per lab batch	<LOR	Yes
Comparability			
Standard operating procedures for sample collection & handling	All Samples	All samples[2]	Yes
Standard analytical methods used for all analyses	All Samples	All samples[2]	Yes
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples[2]	Yes
Limits of reporting appropriate and consistent	All Samples	All samples[2]	Yes
Completeness			
Sample description and COCs completed and appropriate	All Samples	All samples[2]	Yes
Appropriate documentation	All Samples	All samples[2]	Yes
Satisfactory frequency and result for QC samples	All QA/QC samples	-	Yes
Data from critical samples is considered valid	-	Critical samples valid[2]	Yes
Sensitivity			
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All Samples	All samples	Yes

[1] If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment was made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

[2] A qualitative assessment of compliance with standard procedures and appropriate sample collection methods was completed during the DQI compliance assessment.

Section I1: Precision

A summary of all RPD calculations is provided following the QA/QC evaluation.

Soil

Inter and intra laboratory

Soil field blind (intra-laboratory) duplicates (1 per 20 primary samples) for soil were collected, meeting the 1/20 DQI frequency (for blind duplicates). High RPDs in the duplicate samples can be expected when materials are heterogeneous and/or when analyte concentrations are close to LOR. The elevated RPDs presented for both intra-laboratory and inter-laboratory duplicates are considered to be acceptable on the basis that the reported concentrations are typically within 10 times the LOR. As a conservative measure the highest values have been considered in the interpretation of data.

The elevated RPDs presented for laboratory duplicates are considered acceptable as reported concentrations are <10 times the LOR and therefore the RPD limit is generally not applicable (as stated by the laboratory QC acceptance criteria).

Laboratory Duplicates

Soil laboratory duplicates RPDs were within the JBS&G acceptable limit (0-50%) with the exception of the copper (58 %) and chromium (66 %).

The elevated RPDs presented are considered to be acceptable on the basis that the reported concentrations are typically with 10 times the LOR.

Section I2: Accuracy

Surrogate Spikes

Soil surrogate spikes were conducted on all samples submitted for organic constituent analysis and generally all recoveries were reported within the JBS&G acceptable range (70-130 %). A number of surrogates were reported outside the JBS&G acceptable range but were within the laboratories acceptable limits (typically between 50 and 150 % recovery) under their NATA accreditation. A summary of surrogate spike recoveries reported outside the JBS&G acceptable range are summarised in the surrogate spike table appended following.

Matrix Spikes

The reported matrix spike recoveries were generally within the JBS&G acceptable range (70-130 %) and therefore matrix interference is not considered to affect the accuracy of the dataset.

Laboratory Control Samples

All laboratory control sample results were reported within JBS&Gs 70 – 130 % acceptable range.

Section I3: Representativeness

Sampling appropriate for media and analytes

All soil sampling works completed during the investigation were conducted in accordance with JBS&G standard operating procedures. Due to the nature of the site – mix of open pastoral, market gardens and light industrial (distillery operation), a combination of boreholes and testpits were used, considered appropriate for the potential site contaminants.

Laboratory Blanks

There were no reported concentrations of contaminant compounds above the laboratory LOR in the laboratory method blanks for soil analysis.

Holding Times

The extraction and analysis of selected soil samples were all completed within the recommended holding times for all analytes.

Trip Spike

A trip spike was submitted with each batch of soil and groundwater samples. All trip spike recoveries were within the acceptable limit of 70-130%, indicating that the adopted assessment sample preservation methods were appropriate to result in a low risk of contaminant concentration loss during transport of the sampling.

Storage Blank

A storage blank sample was carried during each characterisation soil sampling event and was submitted with each lab batch, meeting the nominated frequency thresholds.

There were no reported concentrations of BTEX compounds above the laboratory LOR, therefore nominated DQIs were achieved.

Rinsate

Rinsate samples were prepared during each sampling event where reusable equipment was used and subsequently submitted with each sample lab batch for analysis for key COPC. During soil sampling the rinsate samples were collected from the hand auger used to advance bore holes. All of the subsequent contaminant concentrations were below the laboratory LOR, achieving the DQIs.

Section I4: Comparability

Documentation

All documentation is complete and correct. Field records are provided as **Appendix G**.

Frequency for QC Samples

Frequency of analysis for the QC samples collected has met or exceeded the required minimum frequency for each analyte and media analysed.

Section I5: Completeness

Samples were transported under full chain of custody (COC) documentation. The COC documentation was completed and the selected analyses were correctly conducted.

All field documentation was completed appropriately including borehole logs, COCs and daily field logs.

Section I6: Sensitivity

Laboratory analysis methods for all contaminants adopted during the investigation applied limits of reporting less than the site assessment criteria.

Section I7: QA/QC Assessment

The field sampling and handling procedures produced QA/QC results which indicate that the soil data is of an acceptable quality and suitable for use in site characterisation.

The NATA certified laboratory results sheets indicate that the project laboratory was generally achieving levels of performance within their recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program the soil data is of an acceptable quality in order to achieve the objectives of the assessment.

ESDAT QA Checker
Project:58500
Site:LegacyProperty_CaddensDSI
Filter: ALL
The following exported Lab Reports are not Accepted: ENVIROLAB|275275, MGT|814505, MGT|815477, MGT|815526, MGT|816538

Overview Summary
- Count of Samples
- Count of Results

Holding Times
- Holding Time Errors (0)

Blanks
- Field Blanks
- Detects in Lab Blanks (0)
- SDG's without Storage Blanks (0)
- SDG's without Method Blanks (0)

Duplicates
- Field and Interlab Duplicates
- Lab Duplicates with high RPDs (37)
- Duplicate Samples with incorrect or missing Parent Samples (0)
- Samples at the same Location/Depth/Time not specified as duplicates (0)

Surrogates
- Surrogate Variation > 30% or outside lab LCL or UCL (9)

Lab Control Samples
- SDG's without a Laboratory Control Sample (0)
- Laboratory Control Samples, Error > 30% (0)

Certified and Standard Reference Materials
- Certified Reference Materials - Error > 10% (0)

Matrix Spikes
- SDG's without a Matrix Spike (0)
- Trip Spikes with invalid Control Sample (0)
- Less than 1 matrix spike in 20 samples (0)
- Matrix Spike Recoveries less than 70% or greater than 130% or outside lab LCL or UCL (0)
- Trip Spike Recoveries (70% - 130% is acceptable) (12)

Inorganic
- Na + CL > TDS (0)
- BOD > COD (0)
- BOD > COD (0)

Other
- Unit Conversion Problems (0)
- OriginalChemNames Requiring Validation (0)
- Samples with no Results (0)
- Aborted Analysis (0)

Field Duplicates

Project Number: 58500

Project Name: Caddens DSI

Field Duplicates (soil)

Filter: ALL

SDG	814505	814505		814505	814505		814505	ENVIROLAB 2021-08-05T00:00:00		814505	ENVIROLAB 2021-08-05T00:00:00	
Field ID	TP29_0-0.1	QC20210803-02	**RPD**	TP05_0-0.1	QC20210803-01	**RPD**	TP29_0-0.1	QA20210803-01	**RPD**	TP05_0-0.1	QA20210803-02	**RPD**
Sampled Date/Time	3/08/2021	3/08/2021		3/08/2021	3/08/2021		3/08/2021	3/08/2021		3/08/2021	3/08/2021	
Chem_Grou	**ChemName**	**Units**	**EQL**									
Metals & M	Arsenic	mg/kg	2 : 4 (Interlab)	**8.9**	**14**	**45**	<2	2.1	5	**8.9**	**<4**	**76**	**<2**	**9**	**127**
	Cadmium	mg/kg	0.4	**0.4**	**1.6**	**120**	<0.4	<0.4	0	0.4	<0.4	0	<0.4	0.5	22
	Chromium (	mg/kg	5 : 1 (Interlab)	**50**	**390**	**155**	5.6	6.5	15	**50**	**6**	**157**	**5.6**	**200**	**189**
	Copper	mg/kg	5 : 1 (Interlab)	**89**	**340**	**117**	5.1	5.5	8	**89**	**6**	**175**	**5.1**	**99**	**180**
	Lead	mg/kg	5 : 1 (Interlab)	**40**	**350**	**159**	**20**	**31**	**43**	**40**	**21**	**62**	**20**	**35**	**55**
	Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Nickel	mg/kg	5 : 1 (Interlab)	**35**	**240**	**149**	<5	<5	0	**35**	**1**	**189**	**<5**	**120**	**184**
	Zinc	mg/kg	5 : 1 (Interlab)	**230**	**570**	**85**	**16**	**26**	**48**	**230**	**28**	**157**	**16**	**140**	**159**
etalloids															
TPHs (NEPC	C6-C9 Fracti	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0	<20	<25	0	<20	<25	0
	C10-C14 Fra	mg/kg	20 : 50 (Interlab)	<20	<20	0	<20	<20	0	<20	<50	0	<20	<50	0
	C15-C28 Fra	mg/kg	50 : 100 (Interlab)	<50	60	18	<50	<50	0	<50	<100	0	<50	<100	0
	C29-C36 Fra	mg/kg	50 : 100 (Interlab)	<50	52	4	<50	<50	0	<50	<100	0	<50	<100	0
	C10-C36 Fra	mg/kg	50	**<50**	**112**	**77**	<50	<50	0	<50	<50	0	<50	<50	0
1999)															
TRHs (NEPC	C6-C10	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0	<20	<25	0	<20	<25	0
	C10-C16	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
	C16-C34	mg/kg	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0
	C34-C40	mg/kg	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0
	C10-C40 (Su	mg/kg	100 : 50 (Interlab)	<100	<100	0	<100	<100	0	<100	<50	0	<100	<50	0
	F1 (C6-C10 r	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0	<20	<25	0	<20	<25	0
	F2 (C10-C16	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
2013)															
BTEXN	Benzene	mg/kg	0.1 : 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.2	0	<0.1	<0.2	0
	Toluene	mg/kg	0.1 : 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.5	0
	Ethylbenzer	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<1	0	<0.1	<1	0
	Xylene (o)	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<1	0	<0.1	<1	0
	Xylene (m &	mg/kg	0.2 : 2 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<2	0	<0.2	<2	0
	Xylene Tota	mg/kg	0.3 : 3 (Interlab)	<0.3	<0.3	0	<0.3	<0.3	0	<0.3	<3	0	<0.3	<3	0
	Naphthalen	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
PAH	Acenaphthe	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Acenaphthy	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Anthracene	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Benz(a)anth	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Benzo(a)pyr	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Benzo(a)pyr	mg/kg	0.5				1.2	1.2	0				1.2		
	Benzo(a)pyr	mg/kg	0.5				0.6	0.6	0				0.6		
	Benzo(a)pyr	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Benzo(b+j)fl	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Benzo(g,h,i)	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Benzo(k)fluo	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Chrysene	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Dibenz(a,h)a	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Fluoranther	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Fluorene	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Indeno(1,2,3	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Naphthalen	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Phenanthre	mg/kg	0.5				<0.5	<0.5	0				<0.5		

Document Set ID: 9819404
Version: 1, Version Date: 24/11/2021

Field Duplicates
Project Number: 58500
Project Name: Caddens DSI
Field Duplicates (soil)
Filter: ALL

SDG				814505	814505		814505	814505		814505	ENVIROLAB 2021-08-05T00:00:00		814505	ENVIROLAB 2021-08-05T00:00:00		
Field ID				TP29_0-0.1	QC20210803-02	**RPD**	TP05_0-0.1	QC20210803-01	**RPD**	TP29_0-0.1	QA20210803-01	**RPD**	TP05_0-0.1	QA20210803-02	**RPD**	
Sampled Date/Time				3/08/2021	3/08/2021		3/08/2021	3/08/2021		3/08/2021	3/08/2021		3/08/2021	3/08/2021		
	Pyrene	mg/kg	0.5				<0.5	<0.5	0				<0.5			
	PAHs (Sum c	mg/kg	0.5				<0.5	<0.5	0				<0.5			
Organochlo	4,4-DDE	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	a-BHC	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	b-BHC	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	d-BHC	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	g-BHC (Lind	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Aldrin	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Dieldrin	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Aldrin + Die	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Chlordane	mg/kg	0.1				<0.1	<0.1	0				<0.1			
	DDT	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	DDD	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	DDT+DDE+D	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Endosulfan	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Endosulfan	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Endosulfan	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Endrin	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Endrin aldel	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Endrin keto	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Heptachlor	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Heptachlor	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Methoxychl	mg/kg	0.05				<0.05	<0.05	0				<0.05			
	Toxaphene	mg/kg	0.1				<0.1	<0.1	0				<0.1			
·ine Pesticides																
Polychlorina	Arochlor 10	mg/kg	0.5				<0.5	<0.5	0				<0.5			
	Arochlor 12	mg/kg	0.1				<0.1	<0.1	0				<0.1			
	Arochlor 12	mg/kg	0.5				<0.5	<0.5	0				<0.5			
	Arochlor 12	mg/kg	0.5				<0.5	<0.5	0				<0.5			
	Arochlor 12	mg/kg	0.5				<0.5	<0.5	0				<0.5			
	Arochlor 12	mg/kg	0.5				<0.5	<0.5	0				<0.5			
	Arochlor 12	mg/kg	0.5				<0.5	<0.5	0				<0.5			
	PCBs (Sum c	mg/kg	0.5				<0.5	<0.5	0				<0.5			
ıted Biphenyls																
Chlorinated	Hexachlorol	mg/kg	0.05				<0.05	<0.05	0				<0.05			
Benzenes																
EPA VIC - IW	Organochlo	mg/kg	0.1				<0.1	<0.1	0				<0.1			
	Other Orgar	mg/kg	0.1				<0.1	<0.1	0				<0.1			
'RG621																
Asbestos - E	Approximat	g					577	589	2				577			
	Mass ACM	g					0.0E0	0.0E0	0				0.0E0			
	Mass Asbes	g					0.0E0	0.0E0	0				0.0E0			
	Asbestos fro	% (w/w)					0.0E0	0.0E0	0				0.0E0			
	Mass FA	g					0.0E0	0.0E0	0				0.0E0			
	Mass Asbes	g					0.0E0	0.0E0	0				0.0E0			
	Mass AF	g					0.0E0	0.0E0	0				0.0E0			
	Mass asbest	g					0.0E0	0.0E0	0				0.0E0			
	Asbestos fro	% (w/w)					0.0E0	0.0E0	0				0.0E0			
	Mass Asbes	g					0.0E0	0.0E0	0				0.0E0			

Field Duplicates

Project Number: 58500

Project Name: Caddens DSI

Field Duplicates (soil)

Filter: ALL

SDG			814505	814505		814505	814505		814505	ENVIROLAB 2021-08-05T00:00:00		814505	ENVIROLAB 2021-08-05T00:00:00	
Field ID			TP29_0-0.1	QC20210803-02	**RPD**	TP05_0-0.1	QC20210803-01	**RPD**	TP29_0-0.1	QA20210803-01	**RPD**	TP05_0-0.1	QA20210803-02	**RPD**
Sampled Date/Time			3/08/2021	3/08/2021		3/08/2021	3/08/2021		3/08/2021	3/08/2021		3/08/2021	3/08/2021	
	ACM - Comr	Comment					1	1	0				1			
	FA- Comme	Comment					1	1	0				1			
	AF - Comme	Comment					1	1	0				1			
	Organic Fibr	Comment					1	1	0				1			
	Respirable F	Comment					1	1	0				1			
	Synthetic Fi	Comment					1	1	0				1			
	Asbestos Re	Comment					1	1	0				1			
urofins																
Other	Moisture Co	%	1	30	34	13	10	12	18	30			10			

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-10 x EQL); 30 (10-30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Contents

Lab Duplicates with high RPDs

SDG	Lab_Report_Number	Matrix_Type	Lab_Duplicate	Field_ID	Depth	Sampled_Date_Time	Method_Name	Compound	Parent_Result	Dupe_Result	Result_Unit	EQL	RPD
816538	816538	soil	S21-Au21894-DUP	BH42_0.6-0.8	0.600 - 0.800	3/08/2021	LTM-ORG-2010 TRH C6-C40	TRH C29-C36	57	66	MG/KG	50 mg/kg	14
816538	816538	soil	S21-Au21894-DUP	BH42_0.6-0.8	0.600 - 0.800	3/08/2021	LTM-ORG-2010 TRH C6-C40	TRH C15-C28	54	52	MG/KG	50 mg/kg	3
814505	814505	soil	S21-Au05016-DUP	TP30_0-0.1	0.000 - 0.100	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Zinc	33	25	MG/KG	5 mg/kg	27
814505	814505	soil	S21-Au05016-DUP	TP30_0-0.1	0.000 - 0.100	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Copper	23	20	MG/KG	5 mg/kg	13
814505	814505	soil	S21-Au05016-DUP	TP30_0-0.1	0.000 - 0.100	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Chromium	22	19	MG/KG	5 mg/kg	14
814505	814505	soil	S21-Au05016-DUP	TP30_0-0.1	0.000 - 0.100	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Arsenic	14	12	MG/KG	2 mg/kg	15
814505	814505	soil	S21-Au05016-DUP	TP30_0-0.1	0.000 - 0.100	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Nickel	11	10	MG/KG	5 mg/kg	9
814505	814505	soil	S21-Au05016-DUP	TP30_0-0.1	0.000 - 0.100	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Lead	6.6	5.7	MG/KG	5 mg/kg	14
814505	814505	soil	S21-Au04993-DUP	BH45_0.2-0.4	0.200 - 0.400	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Copper	11	6	MG/KG	5 mg/kg	58
814505	814505	soil	S21-Au04993-DUP	BH45_0.2-0.4	0.200 - 0.400	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Arsenic	2.8	2.4	MG/KG	2 mg/kg	15
814505	814505	soil	S21-Au04993-DUP	BH45_0.2-0.4	0.200 - 0.400	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Nickel	7.4	6.4	MG/KG	5 mg/kg	14
814505	814505	soil	S21-Au04993-DUP	BH45_0.2-0.4	0.200 - 0.400	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Lead	5.4	6.5	MG/KG	5 mg/kg	18
815477	815477	soil	NCP_Au14353_815477-DUP			5/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Copper	50	60	MG/KG	5 mg/kg	18
815477	815477	soil	NCP_Au14353_815477-DUP			5/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Chromium	12	13	MG/KG	5 mg/kg	8
815477	815477	soil	NCP_Au14353_815477-DUP			5/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Cadmium	1	1.3	MG/KG	0.4 mg/kg	26
815477	815477	soil	NCP_Au14353_815477-DUP			5/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Arsenic	2.5	4	MG/KG	2 mg/kg	46
815477	815477	soil	NCP_Au14353_815477-DUP			5/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Nickel	13	18	MG/KG	5 mg/kg	32
815477	815477	soil	NCP_Au14353_815477-DUP			5/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Lead	100	130	MG/KG	5 mg/kg	26
814505	814505	soil	S21-Au05007-DUP	TP09_0.9-1	0.900 - 1.000	3/08/2021	LTM-INO-4030 Conductivity	Conductivity (1:	81	90	US/CM	10 uS/cm	10
814505	814505	soil	S21-Au04996-DUP	BH39_0.8-1	0.800 - 1.000	3/08/2021	LTM-GEN-7080 Moisture	% Moisture	19	20	%	1 %	5
814505	814505	soil	S21-Au05005-DUP	QC20210803-	2.000	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Arsenic	14	13	MG/KG	2 mg/kg	7
814505	814505	soil	S21-Au05005-DUP	QC20210803-	2.000	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Cadmium	1.6	0.8	MG/KG	0.4 mg/kg	66
814505	814505	soil	S21-Au05008-DUP	TP05_0-0.1	0.000 - 0.100	3/08/2021	LTM-GEN-7080 Moisture	% Moisture	10	8.8	%	1 %	12
814505	814505	soil	S21-Au05019-DUP	TP47_0.2-0.36	0.200 - 0.360	3/08/2021	LTM-GEN-7080 Moisture	% Moisture	17	16	%	1 %	6
815526	815526	soil	S21-Au14074-DUP	TP23_0.0-0.1		4/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Zinc	54	51	MG/KG	5 mg/kg	5
815526	815526	soil	S21-Au14074-DUP	TP23_0.0-0.1		4/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Chromium	26	25	MG/KG	5 mg/kg	3
815526	815526	soil	S21-Au14074-DUP	TP23_0.0-0.1		4/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Arsenic	13	12	MG/KG	2 mg/kg	8
815526	815526	soil	S21-Au14074-DUP	TP23_0.0-0.1		4/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Nickel	26	25	MG/KG	5 mg/kg	3
815526	815526	soil	S21-Au14074-DUP	TP23_0.0-0.1		4/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Lead	16	14	MG/KG	5 mg/kg	13
816538	816538	soil	NCP_Au21879_816538-DUP			12/08/2021	LTM-GEN-7080 Moisture	% Moisture	2.9	2.8	%	1 %	3
816538	816538	soil	S21-Au21896-DUP	TP29_0.2-0.3	0.200 - 0.300	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Lead	21	17	MG/KG	5 mg/kg	21
816538	816538	soil	S21-Au21896-DUP	TP29_0.2-0.3	0.200 - 0.300	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Arsenic	7.7	6.9	MG/KG	2 mg/kg	10
816538	816538	soil	S21-Au21896-DUP	TP29_0.2-0.3	0.200 - 0.300	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Chromium	20	21	MG/KG	5 mg/kg	4
816538	816538	soil	S21-Au21896-DUP	TP29_0.2-0.3	0.200 - 0.300	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Copper	32	30	MG/KG	5 mg/kg	6
816538	816538	soil	S21-Au21896-DUP	TP29_0.2-0.3	0.200 - 0.300	3/08/2021	LTM-MET-3040 Metals in Waters	Soils & Sediments by ICP-MS Zinc	75	60	MG/KG	5 mg/kg	22
815477	815477	soil	S21-Au13291-DUP	TP11-0.3-0.4	0.300 - 0.400	5/08/2021	LTM-GEN-7080 Moisture	% Moisture	9.8	13	%	1 %	28
815526	815526	soil	S21-Au14065-DUP	TP40_0.0-0.1		4/08/2021	LTM-GEN-7080 Moisture	% Moisture	9	9.4	%	1 %	4

Contents

Surrogate Variation > 30% or outside lab LCL or UCL

SDG	Lab_Report_Number	Lab_Report_Number	Sample_Type	Matrix_Type	SampleCode	Field_ID	Depth	Sampled_Date_Time	Compound	Recovery %	Unit	LCL	UCL	Lab_Qualifier	Lab_Comments
814505	814505	814505	Normal	soil	S21-Au05018	TP46_0.2-0.3	0.200 - 0.300	3/08/2021	p-Terphenyl-d14 (surr.)	143	%	30	130		
814505	814505	814505	Normal	soil	S21-Au05018	TP46_0.2-0.3	0.200 - 0.300	3/08/2021	2-Fluorobiphenyl (surr.)	141	%	30	130		
814505	814505	814505	Normal	soil	S21-Au05019	TP47_0.2-0.36	0.200 - 0.360	3/08/2021	Dibutylchlorendate (surr.)	138	%	70	130		
815477	815477	815477	Normal	soil	S21-Au13295	TP08-0.0-0.1	0.000 - 0.100	5/08/2021	2-Fluorobiphenyl (surr.)	131	%	30	130		
815526	815526	815526	Normal	soil	S21-Au14075	TP22_0.3-0.4		4/08/2021	Toluene-d8 (surr.)	137	%	70	130		
815526	815526	815526	Normal	soil	S21-Au14075	TP22_0.3-0.4		4/08/2021	4-Bromofluorobenzene (su	148	%	50	150		
815526	815526	815526	Normal	soil	S21-Au14076	TP21_0.0-0.1		4/08/2021	p-Terphenyl-d14 (surr.)	133	%	30	130		
815526	815526	815526	Normal	soil	S21-Au14077	TP20_0.0-0.1		4/08/2021	4-Bromofluorobenzene (su	136	%	50	150		
815526	815526	815526	Normal	soil	S21-Au14078	TP19_0.0-0.1		4/08/2021	p-Terphenyl-d14 (surr.)	133	%	30	130		

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Ryan Lill
Report	820743-AID
Project Name	CADDENS DSI
Project ID	58500
Received Date	Aug 31, 2021
Date Reported	Sep 01, 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 CADDENS DSI
Project ID 58500
Date Sampled Aug 30, 2021
Report 820743-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
FRAG01	21-Au56595	Aug 30, 2021	Approximate Sample 16g / 50x40x4mm Sample consisted of: Grey fibre cement material	Chrysotile, amosite and crocidolite asbestos detected.

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 58500	LABORATORY BATCH NO.:
PROJECT NAME: Caddens DSI	SAMPLERS: Ryan Lill
DATE NEEDED BY: 24 hour TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....rlill@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Asbestos	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
FRAG01	FRAG	30-8-21		FRAG		X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Ryan Lill DATE: 30-8-21 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO FormsO13 – Chain of Custody - Generic

G.L, syd, 31/8 12PM #820743

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ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

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

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Ryan Lill
Project name:	CADDENS DSI
Project ID:	58500
Turnaround time:	1 Day
Date/Time received	Aug 31, 2021 12:00 PM
Eurofins reference	820743

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.
N/A	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.
X	Split sample sent to requested external lab.
X	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:

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Ryan Lill - rlill@jbsg.com.au.

Global Leader - Results you can trust

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	Sydney	Aug 31, 2021	Indefinite

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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

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**	**Received:** Aug 31, 2021 12:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** 820743 **Phone:** 02 8245 0300 **Fax:**	**Due:** Sep 1, 2021 **Priority:** 1 Day **Contact Name:** Ryan Lill
Project Name:	CADDENS DSI		
Project ID:	58500		

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos Absence /Presence
Melbourne Laboratory - NATA Site # 1254						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
Mayfield Laboratory - NATA Site # 25079						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	FRAG01	Aug 30, 2021		Building Materials	S21-Au56595	X
Test Counts						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 blue colour, indicates data provided by customer, that may have an impact on the results.
5. 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 Sample Receipt Advice.

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: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
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.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Sample Integrity

Custody Seals Intact (If used)	N/A
Attempt to Chill was evident	N/A
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
N/A	Not applicable

Asbestos Counter/Identifier:

Md Mominul Haque	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	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.

Appendix I Quality Assurance/Quality Control

The QA/QC results for soil samples collected at the site are summarised in **Table I.1** and discussed following. Laboratory certificates of analysis are included in **Appendix H**.

Table I.1: Data Quality Indicator Assessment

Data Quality Objectives	Frequency	Result	DQO met?
Precision			
Blind duplicates (intra laboratory)	Soil – 1/20	<LOR-159 % RPD	Partial[1]
Blind duplicates (inter laboratory)	Soil – 1/20	<LOR-189 % RPD	Partial[1]
Laboratory duplicates	Soil – 27/219 samples	<LOR-66 % RPD	Partial[1]
Accuracy			
Surrogate spikes	All organic samples	30-150 % soil	Partial[1]
Laboratory control samples	1 per lab batch	<LOR % soil	Yes
Matrix spikes[1]	1 per lab batch	<LOR % soil	Yes
Representativeness			
Sampling appropriate for media and analytes	All Samples	Yes	Yes
Samples extracted and analysed within holding times.	All Samples	Yes	Yes
Trip spike[1]	1 per sampling event	97-120 %	Yes
Storage blank[1]	1 per sampling event	<LOR	Yes
Rinsate blank[1]	1 per sampling data where reusable equipment is used	<LOR	Yes
Laboratory blanks	1 per lab batch	<LOR	Yes
Comparability			
Standard operating procedures for sample collection & handling	All Samples	All samples[2]	Yes
Standard analytical methods used for all analyses	All Samples	All samples[2]	Yes
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples[2]	Yes
Limits of reporting appropriate and consistent	All Samples	All samples[2]	Yes
Completeness			
Sample description and COCs completed and appropriate	All Samples	All samples[2]	Yes
Appropriate documentation	All Samples	All samples[2]	Yes
Satisfactory frequency and result for QC samples	All QA/QC samples	-	Yes
Data from critical samples is considered valid	-	Critical samples valid[2]	Yes
Sensitivity			
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All Samples	All samples	Yes

[1] If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment was made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

[2] A qualitative assessment of compliance with standard procedures and appropriate sample collection methods was completed during the DQI compliance assessment.

Section I1: Precision

A summary of all RPD calculations is provided following the QA/QC evaluation.

Soil

Inter and intra laboratory

Soil field blind (intra-laboratory) duplicates (1 per 20 primary samples) for soil were collected, meeting the 1/20 DQI frequency (for blind duplicates). High RPDs in the duplicate samples can be expected when materials are heterogeneous and/or when analyte concentrations are close to LOR. The elevated RPDs presented for both intra-laboratory and inter-laboratory duplicates are considered to be acceptable on the basis that the reported concentrations are typically within 10 times the LOR. As a conservative measure the highest values have been considered in the interpretation of data.

The elevated RPDs presented for laboratory duplicates are considered acceptable as reported concentrations are <10 times the LOR and therefore the RPD limit is generally not applicable (as stated by the laboratory QC acceptance criteria).

Laboratory Duplicates

Soil laboratory duplicates RPDs were within the JBS&G acceptable limit (0-50%) with the exception of the copper (58 %) and chromium (66 %).

The elevated RPDs presented are considered to be acceptable on the basis that the reported concentrations are typically with 10 times the LOR.

Section I2: Accuracy

Surrogate Spikes

Soil surrogate spikes were conducted on all samples submitted for organic constituent analysis and generally all recoveries were reported within the JBS&G acceptable range (70-130 %). A number of surrogates were reported outside the JBS&G acceptable range but were within the laboratories acceptable limits (typically between 50 and 150 % recovery) under their NATA accreditation. A summary of surrogate spike recoveries reported outside the JBS&G acceptable range are summarised in the surrogate spike table appended following.

Matrix Spikes

The reported matrix spike recoveries were generally within the JBS&G acceptable range (70-130 %) and therefore matrix interference is not considered to affect the accuracy of the dataset.

Laboratory Control Samples

All laboratory control sample results were reported within JBS&Gs 70 – 130 % acceptable range.

Section I3: Representativeness

Sampling appropriate for media and analytes

All soil sampling works completed during the investigation were conducted in accordance with JBS&G standard operating procedures. Due to the nature of the site – mix of open pastoral, market gardens and light industrial (distillery operation), a combination of boreholes and testpits were used, considered appropriate for the potential site contaminants.

Laboratory Blanks

There were no reported concentrations of contaminant compounds above the laboratory LOR in the laboratory method blanks for soil analysis.

Holding Times

The extraction and analysis of selected soil samples were all completed within the recommended holding times for all analytes.

Trip Spike

A trip spike was submitted with each batch of soil and groundwater samples. All trip spike recoveries were within the acceptable limit of 70-130%, indicating that the adopted assessment sample preservation methods were appropriate to result in a low risk of contaminant concentration loss during transport of the sampling.

Storage Blank

A storage blank sample was carried during each characterisation soil sampling event and was submitted with each lab batch, meeting the nominated frequency thresholds.

There were no reported concentrations of BTEX compounds above the laboratory LOR, therefore nominated DQIs were achieved.

Rinsate

Rinsate samples were prepared during each sampling event where reusable equipment was used and subsequently submitted with each sample lab batch for analysis for key COPC. During soil sampling the rinsate samples were collected from the hand auger used to advance bore holes. All of the subsequent contaminant concentrations were below the laboratory LOR, achieving the DQIs.

Section I4: Comparability

Documentation

All documentation is complete and correct. Field records are provided as **Appendix G**.

Frequency for QC Samples

Frequency of analysis for the QC samples collected has met or exceeded the required minimum frequency for each analyte and media analysed.

Section I5: Completeness

Samples were transported under full chain of custody (COC) documentation. The COC documentation was completed and the selected analyses were correctly conducted.

All field documentation was completed appropriately including borehole logs, COCs and daily field logs.

Section I6: Sensitivity

Laboratory analysis methods for all contaminants adopted during the investigation applied limits of reporting less than the site assessment criteria.

Section I7: QA/QC Assessment

The field sampling and handling procedures produced QA/QC results which indicate that the soil data is of an acceptable quality and suitable for use in site characterisation.

The NATA certified laboratory results sheets indicate that the project laboratory was generally achieving levels of performance within their recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program the soil data is of an acceptable quality in order to achieve the objectives of the assessment.

Document Distribution

Rev No.	Copies	Recipient	Date
A	1 x Electronic	Thomas Kent – Legacy Property	19/08/2021
0	1 x Electronic	Thomas Kent – Legacy Property	13/10/2021

Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
A	Ryan Lill	Seth Molinari	DRAFT for client review		19/08/2021
0	Katie Linz	Seth Molinari			13/10/2021

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